Document Title	SWS_DiagnosticCommunicationManager: Complete Change Documentation 4.3.0 - 4.3.1
Document Owner	AUTOSAR
Document Responsibility	AUTOSAR
Document Identification No	695

Document Status	Final
Part of AUTOSAR Standard	Classic Platform
Part of Standard Release	4.3.1

Table of Contents

1 SWS_DiagnosticCommunicationManager

1.1 Specification Item ECUC_Dcm_001038

Trace References:

none

Content:

Name	DcmSwcSRDataElementValueRefDcmModeCondition.DcmSwcSRDataElementValueRef		
Parent Container	DcmModeCondition		
Description	Reference to a constant specification defining the compare value for environmental condition.		
Multiplicity	0..1		
Type	Foreign reference to [CONSTANT-SPECIFICATION]		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: local dependency: DcmSwcSRDataElementRef != NULL		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.2 Specification Item ECUC_Dcm_00629

Trace References:

none

Content:

Name	DcmDspPidDataReadFncDcmDspPidService01.DcmDspPidDataReadFnc		
Parent Container	DcmDspPidService01		
Description	Function name for reading PID data value. This is only relevant if DcmDspPidDataUsePort==USE_DATA_SYNCH_FNC. This parameter is related to the interface Xxx_ReadData.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspPidDataUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.3 Specification Item ECUC_Dcm_00664

Trace References:

none

Content:

Name	DcmDspStartRoutineFncDcmDspStartRoutine.DcmDspStartRoutineFnc		
Parent Container	DcmDspStartRoutine		
Description	Function name for request to application to start a routine. (Routine_Start-function) This parameter is related to the interface Xxx_Start.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspRoutineUsePort, DcmDspEnableObdMirror		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.4 Specification Item ECUC_Dcm_00669

Trace References:

none

Content:

Name	DcmDspDataReadFncDcmDspData.DcmDspDataReadFnc		
Parent Container	DcmDspData		
Description	Function name to request from application the data value of a DID. (ReadData-function). Only relevant if • DcmDspDataUsePort=="USE_DATA_SYNCH_FNC" or • DcmDspDataUsePort=="USE_DATA_ASYNCH_FNC" or • DcmDspDataUsePort=="USE_DATA_ASYNCH_FNC_ERROR". This parameter is related to the interface Xxx_ReadData.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: local dependency: DcmDspDataUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.5 Specification Item ECUC_Dcm_00670

Trace References:

none

Content:

Name	DcmDspDataWriteFncDcmDspData.DcmDspDataWriteFnc		
Parent Container	DcmDspData		
Description	Function name to request application to write the data value of a DID. (WriteData-function). Only relevant if • DcmDspDataUsePort=="USE_DATA_SYNCH_FNC or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC" or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC_ERROR". This parameter is related to the interface Xxx_WriteData.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.6 Specification Item ECUC_Dcm_00671

Trace References:

none

Content:

Name	DcmDspDataReadDataLengthFncDcmDspData.DcmDspDataReadDataLengthFnc		
Parent Container	DcmDspData		
Description	Function name to request from application the data length of a DID. (ReadDataLength-function). Only relevant if • DcmDspDataUsePort=="USE_DATA_SYNCH_FNC or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC" or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC_ERROR". This parameter is related to the interface Xxx_ReadDataLength.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataType, DcmDspDataUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-
  see file under svn.:
  https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.7 Specification Item ECUC_Dcm_00672

Trace References:

none

Content:

Name	DcmDspDataReturnControlToEcuFncDcmDspData.DcmDspDataReturnControlToEcuFnc
Parent Container	DcmDspData
Description	Function name to request to application to return control to ECU of an IOControl. (ReturnControl ToECU-function). Only relevant if • DcmDspDataUsePort=="USE_DATA_SYNCH_FNC or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC" or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC_ERROR". This parameter is related to the interface Xxx_ReturnControlToECU.
Multiplicity	0..1
Type	EcucFunctionNameDef
Default value	–
maxLength	–
minLength	–
regularExpression	–
Post-Build Variant Multiplicity	false
Post-Build Variant Value	false

Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at

least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.8 Specification Item ECUC_Dcm_00673

Trace References:

none

Content:

Name	DcmDspDataResetToDefaultFncDcmDspData.DcmDspDataResetToDefaultFnc
Parent Container	DcmDspData
Description	Function name to request to application to reset an IOControl to default value. (ResetTo Default-function). Only relevant if • DcmDspDataUsePort=="USE_DATA_SYNCH_FNC or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC" or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC_ERROR". This parameter is related to the interface Xxx_ResetToDefault.

Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDidResetToDefault, DcmDspDataUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.9 Specification Item ECUC_Dcm_00674

Trace References:

none

Content:

Name	DcmDspDataFreezeCurrentStateFncDcmDspData.DcmDspDataFreezeCurrentStateFnc
Parent Container	DcmDspData

Description	Function name to request to application to freeze the current state of an IOControl. (Freeze CurrentState-function). Only relevant if • DcmDspDataUsePort=="USE_DATA_SYNCH_FNC or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC" or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC_ERROR". This parameter is related to the interface Xxx_FreezeCurrentState.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDidFreezeCurrentState, DcmDspDataUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.10 Specification Item ECUC_Dcm_00675

Trace References:

none

Content:

Name	DcmDspDataShortTermAdjustmentFncDcmDspData.DcmDspDataShortTermAdjustmentFnc		
Parent Container	DcmDspData		
Description	Function name to request to application to adjust the IO signal. (ShortTermAdjustment-function). Only relevant if • DcmDspDataUsePort=="USE_DATA_SYNCH_FNC or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC" or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC_ERROR". This parameter is related to the interface Xxx_ShortTermAdjustment.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDidShortTermAdjustment, DcmDspDataUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.11 Specification Item ECUC_Dcm_00676

Trace References:

none

Content:

Name	DcmDspDataGetScalingInfoFncDcmDspData.DcmDspDataGetScalingInfoFnc		
Parent Container	DcmDspData		
Description	Function name to request to application the scaling information of the DID. (GetScaling Information-function). Only relevant if • DcmDspDataUsePort=="USE_DATA_SYNCH_FNC or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC" or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC_ERROR". This parameter is related to the interface Xxxx_GetScalingInformation.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataScalingInfoSize, DcmDspDataUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.12 Specification Item ECUC_Dcm_00677

Trace References:

none

Content:

Name	DcmDspDataConditionCheckReadFncDcmDspData.DcmDspDataConditionCheckReadFnc		
Parent Container	DcmDspData		
Description	Function name to demand application if the conditions (e.g. System state) to read the DID are correct. (ConditionCheckRead-function). Multiplicity shall be equal to parameter DcmDspDataReadFnc. Only relevant if • DcmDspDataConditionCheckReadFncUsed is set to 'TRUE' and • DcmDspDataUsePort=="USE_DATA_SYNCH_FNC or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC" or • DcmDspDataUsePort==USE_DATA_ASYNCH_FNC_ERROR". This parameter is related to the interface Xxx_ConditionCheckRead.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	

Scope / Dependency	scope: ECU dependency: DcmDspDataReadFnc, DcmDspDataUsePort, DcmDspDataConditionCheckReadFncUsed

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-

see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.13 Specification Item ECUC_Dcm_00681

Trace References:

none

Content:

Container Name	DcmDsdServiceRequestManufacturerNotificationDcmDsdServiceRequestManufacturer Notification
Description	The name of this container is used to define the name of the R-Port through which the DCM accesses the interface ServiceRequestNotification. The R-Port is named ServiceRequestManufacturerNotification_{Name} where {Name} is the name of the container DcmDsdServiceRequestManufacturerNotification. The lowerMultiplicity is 0: If container DcmDsdServiceRequestManufacturerNotification Enabled = false does not exist the Indication API is not available.
Configuration Parameters	

Included parameters:

No Included Parameters

Included containers:

No Included Containers

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76412: Remove ECUC boolean parameters to switch service request indications on/off

  Problem description:

  The config parameters DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783] and DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868] seems to be useless as they only control the indications on/off. But the indications are anyhow controlled by the existance of DcmDsdServiceRequest<Manufacturer|Supplier>Notification containers.

  Agreed solution:

  set to obsolete:
  DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783].
  DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868]

  Change variation of port ServiceRequestManufacturerNotification_Name (SWS_Dcm_01039) to:
  Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestManufacturerNotification.SH
  NAME)

  Change variation of port ServiceRequestSupplierNotification_Name (SWS_Dcm_01042) to:
  Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestSupplierNotification.SHORT-
  NAME)

  In ECUC_Dcm_00681, SWS_Dcm_00218 and SWS_Dcm_00694, replace if DcmDsdRequestManufacturerNotificationEnabled=True by "if container DcmDsdServiceRequestManufacturerNotification exist" and replace if DcmDsdRequestManufacturerNotificationEnabled=False by "if container DcmDsdServiceRequestManufacturerNotification does not exist"

  In SWS_Dcm_00516, SWS_Dcm_00694 and ECUC_Dcm_00816, replace if DcmDsdRequestSupplierNotificationEnabled = True by "if container DcmDsdRequestSupplierNotification exist" and replace DcmDsdRequestSupplierNotificationEnabled = False by "if container DcmDsdRequestSupplierNotification does not exist"
  –Last change on issue 76412 comment 15–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.14 Specification Item ECUC_Dcm_00687

Trace References:

none

Content:

Name	DcmDslProtocolRxPduIdDcmDslProtocolRx.DcmDslProtocolRxPduId		
Parent Container	DcmDslProtocolRx		
Description	Identifier of the PDU that is used for this reception channel.		
Multiplicity	1		
Type	EcucIntegerParamDef (Symbolic Name generated for this parameter)		
Range	0 .. 65535		
Default value	–		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocolRxPduId		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be re-

moved from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.15 Specification Item ECUC_Dcm_00688

Trace References:

none

Content:

Container Name	DcmDsdDcmDsd
Description	These parameters configure the Diagnostic Service Dispatcher submodule.
Configuration Parameters	

Included parameters:

Included Parameters	
Parameter Name	SWS Item ID
DcmDsdRequestManufacturerNotificationEnabled	ECUC_Dcm_00783
DcmDsdRequestSupplierNotificationEnabled	ECUC_Dcm_00868

Included containers:

Included Containers		
Container Name	Multiplicity	Scope / Dependency
DcmDsdServiceRequestManufacturer Notification	0..*	The name of this container is used to define the name of the R-Port through which the DCM accesses the interface ServiceRequestNotification. The R-Port is named ServiceRequest ManufacturerNotification_{Name} where {Name} is the name of the container DcmDsdServiceRequestManufacturer Notification. The lowerMultiplicity is 0: If container DcmDsdServiceRequestManufacturer Notification Enabled = false does not exist the Indication API is not available.
DcmDsdServiceRequestSupplier Notification	0..*	The name of this container is used to define the name of the R-Port through which the DCM accesses the interface ServiceRequestNotification. The R-Port is named ServiceRequest SupplierNotification_<SWC> where <SWC> is the name of the container DcmDsdServiceRequest SupplierNotification. The lowerMultiplicity is 0: If the container DcmDsdRequestSupplierNotification = false does not exist the Indication API is not available.

Included Containers		
Container Name	Multiplicity	Scope / Dependency
DcmDsdServiceTable	1..256	This container contains the configuration (DSD parameters) for a Service Identifier Table. Note: It is allowed to add OBD services to a DcmDsdServiceTable related to a UDS Protocol. But it is not allowed to add UDS services to a DcmDsdService Table related to an OBD Protocol.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76412: Remove ECUC boolean parameters to switch service request indications on/off

  Problem description:

  The config parameters DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783] and DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868] seems to be useless as they only control the indications on/off. But the indications are anyhow controlled by the existance of DcmDsdServiceRequest<Manufacturer|Supplier>Notification containers.

  Agreed solution:

  set to obsolete:
  DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783].
  DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868]

  Change variation of port ServiceRequestManufacturerNotification_Name (SWS_Dcm_01039) to:
  Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestManufacturerNotification.SH
  NAME)

  Change variation of port ServiceRequestSupplierNotification_Name (SWS_Dcm_01042) to:
  Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestSupplierNotification.SHORT-
  NAME)

  In ECUC_Dcm_00681, SWS_Dcm_00218 and SWS_Dcm_00694, replace if DcmDsdRequestManufacturerNotificationEnabled=True by "if container DcmDsdServiceRequestManufacturerNotification exist" and replace if DcmDsdRequestManufacturerNotificationEnabled=False by "if container DcmDsdServiceRequestManufacturerNotification does not exist"

In SWS_Dcm_00516, SWS_Dcm_00694 and ECUC_Dcm_00816, replace if DcmDsdRequestSupplierNotificationEnabled = True by "if container DcmDsdRequestSupplierNotification exist" and replace DcmDsdRequestSupplierNotificationEnabled = False by "if container DcmDsdRequestSupplierNotification does not exist"
–Last change on issue 76412 comment 15–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.16 Specification Item ECUC_Dcm_00689

Trace References:

none

Content:

Container Name	DcmDsdService
Description	This container contains the configuration (DSD parameters) for a Service.
Configuration Parameters	

Included parameters:

Included Parameters	
Parameter Name	SWS Item ID
DcmDsdServiceUsed	ECUC_Dcm_01044
DcmDsdSidTabFnc	ECUC_Dcm_00777
DcmDsdSidTabServiceId	ECUC_Dcm_00735
DcmDsdSidTabSubfuncAvail	ECUC_Dcm_00737
DcmDsdSidTabModeRuleRef	ECUC_Dcm_00918
DcmDsdSidTabSecurityLevelRef	ECUC_Dcm_00733
DcmDsdSidTabSessionLevelRef	ECUC_Dcm_00734

Included containers:

Included Containers		
Container Name	Multiplicity	Scope / Dependency

Included Containers		
Container Name	Multiplicity	Scope / Dependency
DcmDsdSubService	0..*	This container contains the configuration (DSD parameters) for a subservice of a service. Only those services may have subservices, which have the DcmDsdSid TabSubfuncAvail configured as TRUEand have no DcmDsdSidTabFnc configured.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76413: Cleanup DcmDslProtocolTransType

  Problem description:

  Dependencies of DcmDslProtocolTransType shall get reworked.
  –Last change on issue 76413 comment 3–

  Agreed solution:

  In DcmDslPeriodicTxConfirmationPduId [ECUC_Dcm_00862], DcmDslPeriodicTxPduRef [ECUC_Dcm_00742] and DcmDspRoeDidRef [ECUC_Dcm_00979], the dependency DcmDslProtocolTransType should be removed.
  In DcmDslRoeTxConfirmationPduId [ECUC_Dcm_00863] the dependency DcmDslProtocolTransType should be added.
  –Last change on issue 76413 comment 3–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.17 Specification Item ECUC_Dcm_00695

Trace References:

none

Content:

Container Name	DcmDslProtocolRowDcmDslProtocolRow
Description	This container contains the configuration of one particular diagnostic protocol used in Dcm.
Configuration Parameters	

Included parameters:

Included Parameters	
Parameter Name	SWS Item ID
DcmDslProtocolID	ECUC_Dcm_00696
DcmDslProtocolMaximumResponseSize	ECUC_Dcm_01020
DcmDslProtocolPreemptTimeout	ECUC_Dcm_00698
DcmDslProtocolPriority	ECUC_Dcm_00699
DcmDslProtocolRowUsed	ECUC_Dcm_01043
DcmDslProtocolTransType	ECUC_Dcm_00700
DcmDslProtocolType	ECUC_Dcm_01110
DcmDspProtocolEcuAddr	ECUC_Dcm_01081
DcmSendRespPendOnRestart	ECUC_Dcm_01114
DcmSendRespPendOnTransToBoot	ECUC_Dcm_00910
DcmTimStrP2ServerAdjust	ECUC_Dcm_00729
DcmTimStrP2StarServerAdjust	ECUC_Dcm_00728
DcmDemClientRef	ECUC_Dcm_01083
DcmDslProtocolRxBufferRef	ECUC_Dcm_00701
DcmDslProtocolSIDTable	ECUC_Dcm_00702
DcmDslProtocolTxBufferRef	ECUC_Dcm_00704

Included containers:

Included Containers		
Container Name	Multiplicity	Scope / Dependency
DcmDslConnection	1..*	This container contains the configuration of a communication channel for one particular protocol. Note that it is allowed to communicate with multiple testers, therefore multiple connections may be configured for a protocol.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)

DcmDslProtocolID

Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

b)
interface to application

There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

c)
DcmDslProtocolRxConnectionId

"Unique identifier of the tester which uses this connection for diagnostic communication."

Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

In the DEXT, I found this is mapped to:
SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDsl-ProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value

as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #77811: Clarify response after reset

Problem description:

I)
The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

1) 10 02
2) 11 01
3) 11 02
4) 11 03
5) 11 xx ?

For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

There are OEM use cases having a different response behaviour on different 0x11 SFs.

II)
Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

Agreed solution:

I)

Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuReset
Description This container contains the configuration for DcmDspEcuReset service.

Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuResetRow

Description This container contains the configuration for each DcmDspEcuReset subservice.

Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)
Make OBSOLETE DcmSendRespPendOnTransToBoot
Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.

Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOn-Restart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.18 Specification Item ECUC_Dcm_00696

Trace References:

none

Content:

Name	DcmDslProtocolIDDcmDslProtocolRow.DcmDslProtocolID
Parent Container	DcmDslProtocolRow
Description	The diagnostic protocol type for the DCM DSL protocol that is being configured. Implementation Type: Dcm_ProtocolType Tags: atp.Status=obsolete
Multiplicity	1
Type	EcucEnumerationParamDef (Symbolic Name generated for this parameter)

Range	DCM_OBD_ON_CANDcmDslProtocolRow.DcmDslProtocolID.DCM_OBD_ON_CAN	OBD on CAN (ISO15765-4; ISO15031-5)
	DCM_OBD_ON_FLEXRAYDcmDslProtocolRow.DcmDslProtocolID.DCM_OBD_ON_FLEXRAY	–
	DCM_OBD_ON_IPDcmDslProtocolRow.DcmDslProtocolID.DCM_OBD_ON_IP	–
	DCM_PERIODICTRANS_ON_CANDcmDslProtocolRow.DcmDslProtocolID.DCM_PERIODICTRANS_ON_CAN	
	DCM_PERIODICTRANS_ON_FLEXRAYDcmDslProtocolRow.DcmDslProtocolID.DCM_PERIODICTRANS_ON_FLEXRAY	
	DCM_PERIODICTRANS_ON_IPDcmDslProtocolRow.DcmDslProtocolID.DCM_PERIODICTRANS_ON_IP	
	DCM_ROE_ON_CANDcmDslProtocolRow.DcmDslProtocolID.DCM_ROE_ON_CAN	–
	DCM_ROE_ON_FLEXRAYDcmDslProtocolRow.DcmDslProtocolID.DCM_ROE_ON_FLEXRAY	–
	DCM_ROE_ON_IPDcmDslProtocolRow.DcmDslProtocolID.DCM_ROE_ON_IP	–
	DCM_SUPPLIER_1DcmDslProtocolRow.DcmDslProtocolID.DCM_SUPPLIER_1	Reserved for SW supplier specific
	DCM_SUPPLIER_10DcmDslProtocolRow.DcmDslProtocolID.DCM_SUPPLIER_10	Reserved for SW supplier specific
	DCM_SUPPLIER_11DcmDslProtocolRow.DcmDslProtocolID.DCM_SUPPLIER_11	Reserved for SW supplier specific
	DCM_SUPPLIER_12DcmDslProtocolRow.DcmDslProtocolID.DCM_SUPPLIER_12	Reserved for SW supplier specific
	DCM_SUPPLIER_13DcmDslProtocolRow.DcmDslProtocolID.DCM_SUPPLIER_13	Reserved for SW supplier specific
	DCM_SUPPLIER_14DcmDslProtocolRow.DcmDslProtocolID.DCM_SUPPLIER_14	Reserved for SW supplier specific
	DCM_SUPPLIER_15DcmDslProtocolRow.DcmDslProtocolID.DCM_SUPPLIER_15	Reserved for SW supplier specific
	DCM_SUPPLIER_2DcmDslProtocolRow.DcmDslProtocolID.DCM_SUPPLIER_2	Reserved for SW supplier specific
	DCM_SUPPLIER_3DcmDslProtocolRow.DcmDslProtocolID.DCM_SUPPLIER_3	Reserved for SW supplier specific

Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocolRxAddrType		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

  Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

  b)
  interface to application

There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

c)
DcmDslProtocolRxConnectionId

"Unique identifier of the tester which uses this connection for diagnostic communication."

Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

In the DEXT, I found this is mapped to:
SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDslProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===

SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.19 Specification Item ECUC_Dcm_00698

Trace References:

none

Content:

Name	DcmDslProtocolPreemptTimeoutDcmDslProtocolRow.DcmDslProtocolPreemptTimeout		
Parent Container	DcmDslProtocolRow		
Description	This parameter is the timeout value used in protocol preemption if this protocol preempts another diagnostic protocol. The protocol shall be started maximum DcmDslProtocolPreempt Timeout time after the first request in the new protocol. Tags: atp.Status=obsolete atp.StatusRevisionBegin=4.3.1		
Multiplicity	1		
Type	EcucFloatParamDef		
Range	[0 .. 1]		
Default value	–		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocolID		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM

—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #76948: [Dcm] Clarification about DcmDslProtocolPreemptTimeout

Problem description:

1)
Our interpretation for DcmDslProtocolPreemptTimeout is:
- Timer starts at reception of 1st OBD request during processing of normal diagnostic request (e.g enhanced diagnostic protocol, customer diagnostic protocol)
- Timer stops at
a. DcmDslProtocolPreemptTimeout elapsed, or
b. completion of both conditions below
* The Application is informed of the protocol stop (done with Xxx_StopProtocol()) and resets to a stable state (e.g. switch of digital Ios,..), and
* Lower Layer is requested to cancel ongoing transmission on the same N-PDU (done with PduR_DcmCancelTransmitRequest()).
- During timer is running, Dcm returns NRC 0x21 for OBD requests
(If timer stopped, Dcm accepts OBD requests)

Am I right? (I believe yes, but just to make doubly sure – to continue further discussions below.)

2)
I suppose that Figure 9.6 in sec. 9.2.6 describes the case with NRC 0x21 (= the Dcm is NOT ABLE to switch fast enough from non OBD to OBD protocol).
But the double-headed arrow (corresponding to start to timeout of DcmDslProtocolPreemptTimeout) in the figure starts from return to Dsl from PduR_DcmTransmit().

However, in case of "the Dcm is ABLE to switch fast enough from non OBD to OBD protocol" (note: Dcm can be fast enough like DcmDslProtocolPreemptTimeout=0, not slow in this case!), NRC 0x21 will not be sent. It means there's no PduR_DcmTransmit().

Could you please advise where it comes from?
I assume this was valid at R2.1/R3.0 and R3.1. They tells that "The DSL submodule responses with a negative response BusyRepeatRequest (NRC 0x21) to OBD tester."
But from R3.2, precondition "If the DCM is not able to switch fast enough from to OBD protocol" was added. As the result, NRC 0x21 is not mandatory. But the figure was not updated accordingly.

IMHO, there's no need to indicate start of DcmDslProtocolPreemptTimeout timer so precisely (with API). Current texts ("The following is processed on reception of 1st OBD request: [...] Timeout tracking of the Application finishes is started (timeout value configured in parameter DcmDslProtocolPreemptTimeout of the preempting protocol (here OBD protocol)).") is sufficient. So I would like to propose removing (or updating) the figure 9.6.

Do you agree?

3)
There's no unit defined for DcmDslProtocolPreemptTimeout.
But according to RfC # 56254, it's in second.

[Proposal]
Change Description of ECUC_Dcm_00698
from
<This parameter is the timeout value used in protocol preemption if this protocol preempts another diagnostic protocol. The protocol shall be started maximum DcmDslProtocolPreemptTimeout time after the first request in the new protocol.
to
>This parameter is the timeout value (in seconds) used in protocol preemption if this protocol preempts another diagnostic protocol. The protocol shall be started maximum DcmDslProtocolPreemptTimeout time after the first request in the new protocol.

4)
In Figure 9.6 in sec. 9.2.6:
"DCM PROTOCOL PREEMPT TIMEOUT" should be "DCM DSL PROTOCOL PREEMPT TIMEOUT". (Editorial)

5)
Maybe current Dcm doesn't require DcmDslProtocolPreemptTimeout.
Because Stop_Protocol_functionality() will do below, but seems there's no need to wait.
* invoke Xxx_StopProtocol() [SWS_Dcm_00459]
* invoke PduR_DcmCancelTransmit() [SWS_Dcm_00079] and doesn't wait E_OK [SWS_Dcm_00460]
* invoke <Module>_<DiagnosticService>()/<Module>_<DiagnosticService>_<SubService>() API with OpStatus=DCM_CANCEL [SWS_Dcm_01046] and doesn't wait E_OK (Note after [SWS_Dcm_00530]: "Note: The return values of interfaces called with an OpStatus of DCM_CANCEL shall be ignored.")

Do you agree? If yes, could you consider removal of DcmDslProtocolPreemptTimeout and relevant descriptions, please?

Agreed solution:

1-1. Set DcmDslProtocolPreemptTimeout ECUC_Dcm_00698 to obsolete.
1-2. Remove "Timeout trackination finishes is started (timeout value configured in parameter DcmDslProtocolPreemptTimeout of the preempting protocol (here OBD protocol))." in sec. 9.2.6.

MOD_BSWUMLModel:
1-3. Remove "DCM PROTOCOL PREEMPT TIMEOUT"from Figure 9.6 in sec. 9.2.6
–Last change on issue 76948 comment 12–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.20 Specification Item ECUC_Dcm_00699

Trace References:

none

Content:

Name	DcmDslProtocolPriorityDcmDslProtocolRow.DcmDslProtocolPriority		
Parent Container	DcmDslProtocolRow		
Description	Protocol priority used during protocol preemption. A higher priority protocol may preempt a lower priority protocol. Lower numeric values represent higher protocol priority: 0 - Highest protocol priority 255 - Lowest protocol priority		
Multiplicity	1		
Type	EcucIntegerParamDef		
Range	0 .. 255		
Default value	–		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocolID		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

Problem description:

AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-

A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.21 Specification Item ECUC_Dcm_00700

Trace References:

none

Content:

Name	DcmDslProtocolTransTypeDcmDslProtocolRow.DcmDslProtocolTransType		
Parent Container	DcmDslProtocolRow		
Description	This parameter is used only if the protocol is of type DCM_ROE_ON_xxx. It selects the transmission type of the protocol.		
Multiplicity	0..1		
Type	EcucEnumerationParamDef		
Range	TYPE1DcmDslProtocolRow.DcmDslProtocolTransType.TYPE1	Messages on the DcmTxPduId already used for normal diagnostic responses. The outgoing messages must be synchronized with 'normal outgoing messages', which have a higher priority.	
	TYPE2DcmDslProtocolRow.DcmDslProtocolTransType.TYPE2	Messages on a separate DcmTxPduId.	
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocolRxPduId, DcmDslProtocol.DcmDslProtocolRow.DcmDslProtocolID		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-
  see file under svn.:
  https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

  DCM
  —-

See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.22 Specification Item ECUC_Dcm_00701

Trace References:

none

Content:

Name	DcmDslProtocolRxBufferRefDcmDslProtocolRow.DcmDslProtocolRxBufferRef		
Parent Container	DcmDslProtocolRow		
Description	Reference to a configured diagnostic buffer that is used for diagnostic request reception for the protocol.		
Multiplicity	1		
Type	Reference to [DcmDslBuffer]		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocolRxPduRef, DcmDslBuffer		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other

hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-

RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true. –Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.23 Specification Item ECUC_Dcm_00702

Trace References:

none

Content:

Name	DcmDslProtocolSIDTableDcmDslProtocolRow.DcmDslProtocolSIDTable		
Parent Container	DcmDslProtocolRow		
Description	Reference to a service table that is used for diagnostic request processing for this protocol.		
Multiplicity	1		
Type	Reference to [DcmDsdServiceTable]		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocolID, DcmDsdServiceIdTable.DcmDsdSidTabId		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.24 Specification Item ECUC_Dcm_00704

Trace References:

none

Content:

Name	DcmDslProtocolTxBufferRefDcmDslProtocolRow.DcmDslProtocolTxBufferRef		
Parent Container	DcmDslProtocolRow		
Description	Reference to a configured diagnostic buffer that is used for diagnostic response transmission for the protocol.		
Multiplicity	1		
Type	Reference to [DcmDslBuffer]		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocolTxPduRef, DcmDslBuffer		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or

FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.25 Specification Item ECUC_Dcm_00705

Trace References:

none

Content:

Choice container Name	DcmDslConnectionDcmDslConnection
Description	This container contains the configuration of a communication channel for one particular protocol. Note that it is allowed to communicate with multiple testers, therefore multiple connections may be configured for a protocol.

Included parameters:

No Included Parameters

Included containers:

Container Choices		
Container Name	Multiplicity	Scope / Dependency
DcmDslMainConnection	0..1	This container contains the configuration for a main connection of a diagnostic protocol. Additionally it may contain references to ROE and Periodic connections if the protocol type or protocol transmission type needs them.
DcmDslPeriodicTransmission	0..1	This container contains the configuration of a periodic transmission connection.
DcmDslResponseOnEvent	0..1	This container contains the configuration of a ResponseOnEvent connection. The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76713: [Dcm] some address issues

  Problem description:

  as discussed in the telco with WP-A2 today, we can copy the PS for Dcm from RfC # 67638 (which will go for AR4.4) and move them into a new RfC for the correction already in AR4.3.1.

  SWS DCM
  =======
  No changes required. But the discrepancy between SWS_Dcm_01347/SWS_Dcm_01348 and ECUC_Dcm_00709/ECUC_Dcm_00711/ECUC_Dcm_ regarding the usage of the local address should be mended.

Change SOURCE_ADDRESS_16 to TARGET_ADDRESS_16:
[SWS_Dcm_00849] d The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit(). c()

Agreed solution:

SWS DCM
=======
Change [SWS_Dcm_00849] :
The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit().
By

TITLE : Target address for generic connection transmission.
If the Dcm is about to send a response, response on event, or periodic message for a generic connection request, the Dcm shall set TARGET_ADDRESS_16 to the value of the stored source address in the MetaDataPtr in the PduR_DcmTransmit() (SRS_Diag_04153)

Extend the [ECUC_Dcm_00709] DcmDslProtocolRx from :
"The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16." to
"The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16 and TARGET_ADDRESS_16."

Extend the [ECUC_Dcm_00711]DcmDslProtocolTx and [ECUC_Dcm_00897]DcmDslPeriodicConnection and [ECUC_Dcm_00744] DcmDslResponseOnEvent from :
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16." to
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16."
–Last change on issue 76713 comment 8–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.26 Specification Item ECUC_Dcm_00706

Trace References:

none

Content:

Container Name	DcmDslMainConnectionDcmDslMainConnection
Description	This container contains the configuration for a main connection of a diagnostic protocol. Additionally it may contain references to ROE and Periodic connections if the protocol type or protocol transmission type needs them.
Configuration Parameters	

Included parameters:

Included Parameters	
Parameter Name	SWS Item ID
DcmDslProtocolRxConnectionId	ECUC_Dcm_00826
DcmDslProtocolRxTesterSourceAddr	ECUC_Dcm_01115
DcmDslPeriodicTransmissionConRef	ECUC_Dcm_00707
DcmDslProtocolComMChannelRef	ECUC_Dcm_00952
DcmDslROEConnectionRef	ECUC_Dcm_00708

Included containers:

Included Containers		
Container Name	Multiplicity	Scope / Dependency
DcmDslProtocolRx	1..*	This container contains the configuration parameters of a reception channel in a diagnostic connection. The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16 and TARGET_ADDRESS_16. Note that the combination of a DcmDsp ProtocolRxPduId and a DcmDsp ProtocolRxAddrType shall be unique for each configured reception channel. Also note that only one channel with DcmDspProtocolRxAddrType == DCM_PHYSICAL_TYPE is allowed for a connection.

Included Containers		
Container Name	Multiplicity	Scope / Dependency
DcmDslProtocolTx	0..1	This container contains the configuration parameters of a transmission channel in a diagnostic connection. The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at

least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

Problem description:

The following issues are observed with the protocol configuration / interface to application.
This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

a)
DcmDslProtocolID

Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

b)
interface to application

There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

c)
DcmDslProtocolRxConnectionId

"Unique identifier of the tester which uses this connection for diagnostic communication."

Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

In the DEXT, I found this is mapped to:
SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDslProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation

Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #76713: [Dcm] some address issues

  Problem description:

  as discussed in the telco with WP-A2 today, we can copy the PS for Dcm from RfC # 67638 (which will go for AR4.4) and move them into a new RfC for the correction already in AR4.3.1.

  SWS DCM
  =======
  No changes required. But the discrepancy between SWS_Dcm_01347/SWS_Dcm_01348 and ECUC_Dcm_00709/ECUC_Dcm_00711/ECUC_Dcm_ regarding the usage of the local address should be mended.

  Change SOURCE_ADDRESS_16 to TARGET_ADDRESS_16:
  [SWS_Dcm_00849] d The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
  It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit(). c()

  Agreed solution:

  SWS DCM
  =======
  Change [SWS_Dcm_00849] :
  The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
  It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit().
  By

  TITLE : Target address for generic connection transmission.
  If the Dcm is about to send a response, response on event, or periodic message for a generic connection request, the Dcm shall set TARGET_ADDRESS_16 to the value of the stored source address in the MetaDataPtr in the PduR_DcmTransmit() (SRS_Diag_04153)

  Extend the [ECUC_Dcm_00709] DcmDslProtocolRx from :
  "The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16." to
  "The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16 and TARGET_ADDRESS_16."

Extend the [ECUC_Dcm_00711]DcmDslProtocolTx and [ECUC_Dcm_00897]DcmDslPeriodicConnection and [ECUC_Dcm_00744] DcmDslResponseOnEvent from :
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16." to
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16."
–Last change on issue 76713 comment 8–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.27 Specification Item ECUC_Dcm_00709

Trace References:

none

Content:

Container Name	DcmDslProtocolRxDcmDslProtocolRx
Description	This container contains the configuration parameters of a reception channel in a diagnostic connection. The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16 and TARGET_ADDRESS_16. Note that the combination of a DcmDspProtocolRxPduId and a DcmDspProtocolRxAddrType shall be unique for each configured reception channel. Also note that only one channel with DcmDspProtocolRxAddrType == DCM_PHYSICAL_TYPE is allowed for a connection.
Configuration Parameters	

Included parameters:

Included Parameters	
Parameter Name	SWS Item ID
DcmDslProtocolRxAddrType	ECUC_Dcm_00710
DcmDslProtocolRxPduId	ECUC_Dcm_00687
DcmDslProtocolRxPduRef	ECUC_Dcm_00770

Included containers:

No Included Containers

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-
  see file under svn.:
  https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #76713: [Dcm] some address issues

Problem description:

as discussed in the telco with WP-A2 today, we can copy the PS for Dcm from RfC # 67638 (which will go for AR4.4) and move them into a new RfC for the correction already in AR4.3.1.

SWS DCM
=======
No changes required. But the discrepancy between SWS_Dcm_01347/SWS_Dcm_01348 and ECUC_Dcm_00709/ECUC_Dcm_00711/ECUC_Dcm_ regarding the usage of the local address should be mended.

Change SOURCE_ADDRESS_16 to TARGET_ADDRESS_16:
[SWS_Dcm_00849] d The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit(). c()

Agreed solution:

SWS DCM
=======
Change [SWS_Dcm_00849] :
The stored source address shall be used as target address of responses, response

on event, and periodic messages transmitted via a generic connection.
It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit().
By

TITLE : Target address for generic connection transmission.
If the Dcm is about to send a response, response on event, or periodic message for a generic connection request, the Dcm shall set TARGET_ADDRESS_16 to the value of the stored source address in the MetaDataPtr in the PduR_DcmTransmit() (SRS_Diag_04153)

Extend the [ECUC_Dcm_00709] DcmDslProtocolRx from :
"The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16." to
"The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16 and TARGET_ADDRESS_16."

Extend the [ECUC_Dcm_00711]DcmDslProtocolTx and [ECUC_Dcm_00897]DcmDslPeriodicConnection and [ECUC_Dcm_00744] DcmDslResponseOnEvent from :
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16." to
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16."
–Last change on issue 76713 comment 8–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.28 Specification Item ECUC_Dcm_00710

Trace References:

none

Content:

Name	DcmDslProtocolRxAddrTypeDcmDslProtocolRx.DcmDslProtocolRxAddrType
Parent Container	DcmDslProtocolRx
Description	Selects the addressing type of the reception channel. Physical addressing is used for 1:1 communication, functional addressing is used for 1:N communication. For details refer to ISO 14229-1.

Multiplicity	1		
Type	EcucEnumerationParamDef		
Range	DCM_FUNCTIONAL_TYPEDcmDslProtocolRx.DcmDslProtocolRxAddrType.DCM_FUNCTIONAL_TYPE	FUNCTIONAL = 1 to n communication	
	DCM_PHYSICAL_TYPEDcmDslProtocolRx.DcmDslProtocolRxAddrType.DCM_PHYSICAL_TYPE	PHYSICAL = 1 to 1 communications using physical addressing	
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocolRxPduId, DcmDslProtocol.DcmDslProtocolRow.DcmDslProtocolID		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.29 Specification Item ECUC_Dcm_00711

Trace References:

none

Content:

Container Name	DcmDslProtocolTxDcmDslProtocolTx

Description	This container contains the configuration parameters of a transmission channel in a diagnostic connection. The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16.
Configuration Parameters	

Included parameters:

Included Parameters	
Parameter Name	SWS Item ID
DcmDslTxConfirmationPduId	ECUC_Dcm_00864
DcmDslProtocolTxPduRef	ECUC_Dcm_00772

Included containers:

No Included Containers

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76713: [Dcm] some address issues

  Problem description:

  as discussed in the telco with WP-A2 today, we can copy the PS for Dcm from RfC # 67638 (which will go for AR4.4) and move them into a new RfC for the correction already in AR4.3.1.

  SWS DCM
  =======
  No changes required. But the discrepancy between SWS_Dcm_01347/SWS_Dcm_01348 and ECUC_Dcm_00709/ECUC_Dcm_00711/ECUC_Dcm_ regarding the usage of the local address should be mended.

  Change SOURCE_ADDRESS_16 to TARGET_ADDRESS_16:
  [SWS_Dcm_00849] d The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
  It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit(). c()

  Agreed solution:

SWS DCM
=======
Change [SWS_Dcm_00849] :
The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit().
By

TITLE : Target address for generic connection transmission.
If the Dcm is about to send a response, response on event, or periodic message for a generic connection request, the Dcm shall set TARGET_ADDRESS_16 to the value of the stored source address in the MetaDataPtr in the PduR_DcmTransmit() (SRS_Diag_04153)

Extend the [ECUC_Dcm_00709] DcmDslProtocolRx from :
"The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16." to
"The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16 and TARGET_ADDRESS_16."

Extend the [ECUC_Dcm_00711]DcmDslProtocolTx and [ECUC_Dcm_00897]DcmDslPeriodicConnection and [ECUC_Dcm_00744] DcmDslResponseOnEvent from :
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16." to
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16."
–Last change on issue 76713 comment 8–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.30 Specification Item ECUC_Dcm_00712

Trace References:

none

Content:

Container Name	DcmDspDcmDsp

Description	These parameters apply to Diagnostic Service Processing. There will always be one set of these parameters per Dcm. Please note: Although the multiplicity is set to 0..1. It can be expected that this container exists in any valid DCM configuration.
Configuration Parameters	

Included parameters:

Included Parameters	
Parameter Name	SWS Item ID
DcmDspDataDefaultEndianness	ECUC_Dcm_00987
DcmDspDDDIDcheckPerSourceDID	ECUC_Dcm_00966
DcmDspEnableObdMirror	ECUC_Dcm_01061
DcmDspMaxDidToRead	ECUC_Dcm_00638
DcmDspMaxPeriodicDidToRead	ECUC_Dcm_00956
DcmDspPowerDownTime	ECUC_Dcm_00818
DcmResponseToEcuReset	ECUC_Dcm_01039

Included containers:

Included Containers		
Container Name	Multiplicity	Scope / Dependency
DcmDspClearDTC	0..1	This container contains the configuration for the Clear DTC service.
DcmDspComControl	0..1	Provides the configuration of the CommunicationControl mechanism.
DcmDspCommonAuthorization	0..*	This container contains the configuration (parameters) for the common Authorization being equal for several services / sub-services.
DcmDspControlDTCSetting	0..1	Provide the configuration of the Control DTCSetting mechanism.
DcmDspData	0..*	This container contains the configuration (parameters) of a Data belonging to a DID
DcmDspDataInfo	0..*	This container contains the configuration (parameters) of one Data.
DcmDspDid	0..*	This container contains the configuration (parameters) of the DID.
DcmDspDidInfo	0..*	This container contains the configuration (parameters) of the DID's Info
DcmDspDidRange	0..*	This container defines the DID Range
DcmDspEcuReset	0..1	This container contains the configuration for DcmDspEcuReset service
DcmDspMemory	0..1	This container contains the configuration of the memory access.

Included Containers		
Container Name	Multiplicity	Scope / Dependency
DcmDspPeriodicTransmission	0..1	This container contains the configuration (parameters) for Periodic Transmission Scheduler.
DcmDspPid	0..*	This container defines the availability of a PID to the DCM.
DcmDspRequestControl	0..*	This container contains the configuration (parameters) of the "Request control of on-board system, test or component" service (Service $08). The DCM will request the control using an R-Port requiring a PortInteface RequestControlServices_{Tid}. The R-Port is named RequestControl Services_{Tid} where {Tid} is the name of the container DcmDspRequestControl.
DcmDspRequestFileTransfer	0..1	This container contains the configuration for RequestFileTransfer. This container only exists if RequestFile Transfer is configured.
DcmDspRoe	0..1	Provide the configuration of the ResponseOnEvent mechanism.
DcmDspRoutine	0..*	This container contains the configuration (parameters) for Routines
DcmDspSecurity	1	This container contains the configuration (DSP parameter) for security level configuration (per security level) Description This container contains Rows of Dcm DspSecurityRow
DcmDspSession	1	Parent container holding single rows to configure particular sessions
DcmDspVehInfo	0..*	This container contains the configuration (parameters) for one single VehicleInfo Type of service $09

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77811: Clarify response after reset

  Problem description:

  I)
  The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

  1) 10 02
  2) 11 01
  3) 11 02
  4) 11 03

5) 11 xx ?

For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

There are OEM use cases having a different response behaviour on different 0x11 SFs.

II)
Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

Agreed solution:

I)

Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuReset
Description This container contains the configuration for DcmDspEcuReset service.

Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuResetRow
Description This container contains the configuration for each DcmDspEcuReset subservice.

Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One

container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)
Make OBSOLETE DcmSendRespPendOnTransToBoot
Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.
Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOnRestart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.31 Specification Item ECUC_Dcm_00724

Trace References:

none

Content:

Name	DcmDspRoutineUsePortDcmDspRoutine.DcmDspRoutineUsePort		
Parent Container	DcmDspRoutine		
Description	If this parameter is set to true, the DCM uses a port requiring a PortInterface Routine Services_{RoutineName}. The R-Port is named RoutineServices_{RoutineName} where {RoutineName} is the name of the container DcmDspRoutine In that case, the configuration must not provide function names in DcmDspStartRoutineFnc, DcmDspStopRoutineFnc or DcmDspRequestResultsRoutineFnc. If this is false, the DCM expects to find the names of the functions to be used in DcmDspStart RoutineFnc, DcmDspStopRoutineFnc or DcmDspRequestResultsRoutineFnc.		
Multiplicity	0..1		
Type	EcucBooleanParamDef		
Default value	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspRountineTidRef		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.32 Specification Item ECUC_Dcm_00737

Trace References:

none

Content:

Name	DcmDsdSidTabSubfuncAvailDcmDsdService.DcmDsdSidTabSubfuncAvail		
Parent Container	DcmDsdService		
Description	Information about whether the service has subfunctions or not. This parameter is used for the handling of the "suppressPosRspMsgIndicationBit" as defined in ISO 14229-1, which can be used as a reference for the configuration. true - service has subfunctions, suppressPosRspMsgIndicationBit is available false - service has no subfunctions, suppressPosRspMsgIndicationBit is not available		
Multiplicity	1		
Type	EcucBooleanParamDef		
Default value	–		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDsdSidTabServiceId		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM

—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.33 Specification Item ECUC_Dcm_00741

Trace References:

none

Content:

Container Name	DcmDslPeriodicTransmissionDcmDslPeriodicTransmission
Description	This container contains the configuration of a periodic transmission connection.
Configuration Parameters	

Included parameters:

No Included Parameters

Included containers:

Included Containers		
Container Name	Multiplicity	Scope / Dependency
DcmDslPeriodicConnection	0..*	This container contains the configuration of a transmission channel for a periodic transmission connection. The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76713: [Dcm] some address issues

  Problem description:

  as discussed in the telco with WP-A2 today, we can copy the PS for Dcm from RfC # 67638 (which will go for AR4.4) and move them into a new RfC for the correction already in AR4.3.1.

  SWS DCM
  =======
  No changes required. But the discrepancy between SWS_Dcm_01347/SWS_Dcm_01348 and ECUC_Dcm_00709/ECUC_Dcm_00711/ECUC_Dcm_ regarding the usage of the local address should be mended.

Change SOURCE_ADDRESS_16 to TARGET_ADDRESS_16:
[SWS_Dcm_00849] d The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit(). c()

Agreed solution:

SWS DCM
=======
Change [SWS_Dcm_00849] :
The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit().
By

TITLE : Target address for generic connection transmission.
If the Dcm is about to send a response, response on event, or periodic message for a generic connection request, the Dcm shall set TARGET_ADDRESS_16 to the value of the stored source address in the MetaDataPtr in the PduR_DcmTransmit() (SRS_Diag_04153)

Extend the [ECUC_Dcm_00709] DcmDslProtocolRx from :
"The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16." to
"The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16 and TARGET_ADDRESS_16."

Extend the [ECUC_Dcm_00711]DcmDslProtocolTx and [ECUC_Dcm_00897]DcmDslPeriodicConnection and [ECUC_Dcm_00744] DcmDslResponseOnEvent from :
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16." to
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16."
–Last change on issue 76713 comment 8–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.34 Specification Item ECUC_Dcm_00742

Trace References:

none

Content:

Name	DcmDslPeriodicTxPduRef		
Description	Reference to a Pdu in EcuC that is used for this periodic transmission channel.		
Multiplicity	1		
Type	Reference to [Pdu]		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocolTransType		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76413: Cleanup DcmDslProtocolTransType

  Problem description:

  Dependencies of DcmDslProtocolTransType shall get reworked.
  –Last change on issue 76413 comment 3–

  Agreed solution:

  In DcmDslPeriodicTxConfirmationPduId [ECUC_Dcm_00862], DcmDslPeriodicTxPduRef [ECUC_Dcm_00742] and DcmDspRoeDidRef [ECUC_Dcm_00979], the dependency DcmDslProtocolTransType should be removed.
  In DcmDslRoeTxConfirmationPduId [ECUC_Dcm_00863] the dependency DcmDslProtocolTransType should be added.
  –Last change on issue 76413 comment 3–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.35 Specification Item ECUC_Dcm_00743

Trace References:

none

Content:

Name	DcmDslRoeTxPduRefDcmDslResponseOnEvent.DcmDslRoeTxPduRef		
Parent Container	DcmDslResponseOnEvent		
Description	Reference to a Pdu in EcuC that is used for this ResponseOnEvent transmission connection.		
Multiplicity	0..1		
Type	Reference to [Pdu]		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocolTransType		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or

FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.36 Specification Item ECUC_Dcm_00744

Trace References:

none

Content:

Container Name	DcmDslResponseOnEventDcmDslResponseOnEvent
Description	This container contains the configuration of a ResponseOnEvent connection. The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16.
Configuration Parameters	

Included parameters:

Included Parameters	
Parameter Name	SWS Item ID
DcmDslRoeTxConfirmationPduId	ECUC_Dcm_00863
DcmDslRoeTxPduRef	ECUC_Dcm_00743

Included containers:

No Included Containers

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76713: [Dcm] some address issues

  Problem description:

  as discussed in the telco with WP-A2 today, we can copy the PS for Dcm from RfC # 67638 (which will go for AR4.4) and move them into a new RfC for the correction already in AR4.3.1.

  SWS DCM
  =======
  No changes required. But the discrepancy between SWS_Dcm_01347/SWS_Dcm_01348 and ECUC_Dcm_00709/ECUC_Dcm_00711/ECUC_Dcm_ regarding the usage of the local address should be mended.

  Change SOURCE_ADDRESS_16 to TARGET_ADDRESS_16:
  [SWS_Dcm_00849] d The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
  It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit(). c()

  Agreed solution:

SWS DCM
=======
Change [SWS_Dcm_00849] :
The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit().
By

TITLE : Target address for generic connection transmission.
If the Dcm is about to send a response, response on event, or periodic message for a generic connection request, the Dcm shall set TARGET_ADDRESS_16 to the value of the stored source address in the MetaDataPtr in the PduR_DcmTransmit() (SRS_Diag_04153)

Extend the [ECUC_Dcm_00709] DcmDslProtocolRx from :
"The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16." to
"The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16 and TARGET_ADDRESS_16."

Extend the [ECUC_Dcm_00711]DcmDslProtocolTx and [ECUC_Dcm_00897]DcmDslPeriodicConnection and [ECUC_Dcm_00744] DcmDslResponseOnEvent from :
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16." to
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16."
–Last change on issue 76713 comment 8–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.37 Specification Item ECUC_Dcm_00752

Trace References:

none

Content:

Name	DcmDspStopRoutineFncDcmDspStopRoutine.DcmDspStopRoutineFnc

Parent Container	DcmDspStopRoutine		
Description	Function name for request to application to stop a routine. (Routine_Stop-function) This parameter is related to the interface Xxx_Stop.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspRoutineUsePort, DcmDspEnableObdMirror		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEven-

tRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.38 Specification Item ECUC_Dcm_00753

Trace References:

none

Content:

Name	DcmDspRequestRoutineResultsFncDcmDspRequestRoutineResults.DcmDspRequestRoutine ResultsFnc		
Parent Container	DcmDspRequestRoutineResults		
Description	Function name for request to application the results of a routine. (Routine_Request Results-function) This parameter is related to the interface Xxx_RequestResults.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspRoutineUsePort, DcmDspEnableObdMirror		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM

—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.39 Specification Item ECUC_Dcm_00762

Trace References:

none

Content:

Name	DcmDspSecurityNumAttDelayDcmDspSecurityRow.DcmDspSecurityNumAttDelay		
Parent Container	DcmDspSecurityRow		
Description	Number of failed security accesses after which the delay time is activated		
Multiplicity	1		
Type	EcucIntegerParamDef		
Range	1 .. 255		
Default value	–		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: local dependency: DcmDspSecurityDelayTime		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the

following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.40 Specification Item ECUC_Dcm_00770

Trace References:

none

Content:

Name	DcmDslProtocolRxPduRefDcmDslProtocolRx.DcmDslProtocolRxPduRef		
Parent Container	DcmDslProtocolRx		
Description	Reference to a Pdu in EcuC that is used for this reception channel.		
Multiplicity	1		
Type	Reference to [Pdu]		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocolRxAddrType, DcmDslProtocolRxPduRef		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.41 Specification Item ECUC_Dcm_00772

Trace References:

none

Content:

Name	DcmDslProtocolTxPduRefDcmDslProtocolTx.DcmDslProtocolTxPduRef
Parent Container	DcmDslProtocolTx
Description	Reference to a Pdu in EcuC that is used for this transmission channel.
Multiplicity	1
Type	Reference to [Pdu]

Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocol.DcmDslProtocolRow.DcmDslProtocolID		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.42 Specification Item ECUC_Dcm_00783

Trace References:

none

Content:

Name	DcmDsdRequestManufacturerNotificationEnabledDcmDsd.DcmDsdRequestManufacturerNotificationEnabled		
Description	Allows to enable or disable the requested notification mechanism for the Manufacturer. Tags: atp.Status=obsolete		
Multiplicity	1		
Type	EcucBooleanParamDef		
Default value	–		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	

Scope / Dependency	scope: ECU

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76412: Remove ECUC boolean parameters to switch service request indications on/off

  Problem description:

  The config parameters DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783] and DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868] seems to be useless as they only control the indications on/off. But the indications are anyhow controlled by the existance of DcmDsdServiceRequest<Manufacturer|Supplier>Notification containers.

  Agreed solution:

  set to obsolete:
  DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783].
  DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868]

  Change variation of port ServiceRequestManufacturerNotification_Name (SWS_Dcm_01039) to:
  Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestManufacturerNotification.SH
  NAME)

  Change variation of port ServiceRequestSupplierNotification_Name (SWS_Dcm_01042) to:
  Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestSupplierNotification.SHORT-
  NAME)

  In ECUC_Dcm_00681, SWS_Dcm_00218 and SWS_Dcm_00694, replace if DcmDsdRequestManufacturerNotificationEnabled=True by "if container DcmDsdServiceRequestManufacturerNotification exist" and replace if DcmDsdRequestManufacturerNotificationEnabled=False by "if container DcmDsdServiceRequestManufacturerNotification does not exist"

  In SWS_Dcm_00516, SWS_Dcm_00694 and ECUC_Dcm_00816, replace if DcmDsdRequestSupplierNotificationEnabled = True by "if container DcmDsdRequestSupplierNotification exist" and replace DcmDsdRequestSupplierNotificationEnabled = False by "if container DcmDsdRequestSupplierNotification does not

exist"
–Last change on issue 76412 comment 15–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.43 Specification Item ECUC_Dcm_00802

Trace References:

none

Content:

Container Name	DcmDsdSubService
Description	This container contains the configuration (DSD parameters) for a subservice of a service. Only those services may have subservices, which have the DcmDsdSidTabSubfuncAvail configured as TRUEand have no DcmDsdSidTabFnc configured.
Configuration Parameters	

Included parameters:

Included Parameters	
Parameter Name	SWS Item ID
DcmDsdSubServiceFnc	ECUC_Dcm_00942
DcmDsdSubServiceId	ECUC_Dcm_00803
DcmDsdSubServiceUsed	ECUC_Dcm_01047
DcmDsdSubServiceModeRuleRef	ECUC_Dcm_00924
DcmDsdSubServiceSecurityLevelRef	ECUC_Dcm_00812
DcmDsdSubServiceSessionLevelRef	ECUC_Dcm_00804

Included containers:

No Included Containers

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76520: Fix inconsistencies in DcmDsdSubService and DcmDsdService parameters descriptions

  Problem description:

Fix inconsistencies in DcmDsdSubService and DcmDsdService parameters descriptions.
–Last change on issue 76520 comment 3–

Agreed solution:

Update descriptions of requirement [ECUC_Dcm_00802] to:
"DcmDsdSubService change the description to : This container contains the configuration (DSD parameters) for a subservice of a service. Only those services may have subservices, which have the DcmDsdSidTabSubfuncAvail configured as TRUE."
–Last change on issue 76520 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.44 Specification Item ECUC_Dcm_00803

Trace References:

none

Content:

Name	DcmDsdSubServiceIdDcmDsdSubService.DcmDsdSubServiceId		
Description	Identifier of the subservice. The possible subservice identifiers are defined in ISO 14229-1 and ISO 15031-5.		
Multiplicity	1		
Type	EcucIntegerParamDef		
Range	0 .. 255 127		
Default value	–		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76640: [Dcm] Clarification for DcmDsdSubServiceId

  Problem description:

DcmDsdSubServiceId is having the range 0..255.
According ISO 14229-1:2013 (table 11) Bit 7 (MSB) is the suppressPosRspMsgIndicationBit.
It is expected to configure for a subfunction the representation of SPRMIB.

When I check with the DEXT, there the SPRMIB is not configured in the available "categories".

Shall we change the range of DcmDsdSubServiceId to 0..127 ?

Agreed solution:

===DCM===
In chapter 7.4.4.4 "Check format and subfunction support" add a new requirement

SWS_Dcm_XXXX :
If DcmDsdSubService is configured for a DcmDsdService, the Dcm shall support the sub-function configured in DcmDsdSubServiceId with SPRMIB set to 0 or 1.

Rephrase SWS_Dcm_00273 to: "General sub-function supported NRC check" The DSD shall send the negative response NRC 0x12 (sub-functionNotSupported), if for the processed service no configured DcmDsdSubService exists with the DcmDsdSubServiceId of the processed service. This NRC check shall not be done for UDS Service 0x31 (RoutineControl). (SRS_Diag_04010)

===ECUC XML===

Update ECUC_Dcm_00803

Name DcmDsdSubServiceId [ECUC_Dcm_00803]
Description Identifier of the subservice.
The possible subservice identifiers are defined in ISO 14229-1 and ISO 15031-5.
Multiplicity 1
Type EcucIntegerParamDef
Range 0 .. 127
Default Value
Post-Build Variant
Value
false
Value Configuration Class
Pre-compile time X
VARIANT-PRE-COMPILE,
VARIANT-POST-BUILD

Link time X
VARIANT-LINK-TIME
Post-build time
Scope / Dependency scope: ECU
–Last change on issue 76640 comment 8–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.45 Specification Item ECUC_Dcm_00809

Trace References:

none

Content:

Name	DcmDspDataBlockIdRefDcmDspData.DcmDspDataBlockIdRef		
Parent Container	DcmDspData		
Description	NRAM blockId to access the data. Only relevant if DcmDspDataUsePort==USE_BLOCK_ID.		
Multiplicity	0..1		
Type	Symbolic name reference to [NvMBlockDescriptor]		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other

hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-

RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true. –Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.46 Specification Item ECUC_Dcm_00816

Trace References:

none

Content:

Container Name	DcmDsdServiceRequestSupplierNotificationDcmDsdServiceRequestSupplierNotification
Description	The name of this container is used to define the name of the R-Port through which the DCM accesses the interface ServiceRequestNotification. The R-Port is named ServiceRequestSupplierNotification_<SWC> where <SWC> is the name of the container DcmDsdServiceRequestSupplierNotification. The lowerMultiplicity is 0: If the container DcmDsdRequestSupplierNotification = false does not exist the Indication API is not available.
Configuration Parameters	

Included parameters:

No Included Parameters

Included containers:

No Included Containers

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76412: Remove ECUC boolean parameters to switch service request indications on/off

  Problem description:

  The config parameters DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783] and DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868] seems to be useless as they only control the indica-

tions on/off. But the indications are anyhow controlled by the existance of DcmDsdServiceRequest<Manufacturer|Supplier>Notification containers.

Agreed solution:

set to obsolete:
DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783].
DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868]

Change variation of port ServiceRequestManufacturerNotification_Name (SWS_Dcm_01039) to:
Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestManufacturerNotification.SHO
NAME)

Change variation of port ServiceRequestSupplierNotification_Name (SWS_Dcm_01042) to:
Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestSupplierNotification.SHORT-
NAME)

In ECUC_Dcm_00681, SWS_Dcm_00218 and SWS_Dcm_00694, replace if DcmDsdRequestManufacturerNotificationEnabled=True by "if container DcmDsd-ServiceRequestManufacturerNotification exist" and replace if DcmDsdRequestManufacturerNotificationEnabled=False by "if container DcmDsdServiceRequestManufacturerNotification does not exist"

In SWS_Dcm_00516, SWS_Dcm_00694 and ECUC_Dcm_00816, replace if DcmDsdRequestSupplierNotificationEnabled = True by "if container DcmDsdRequestSupplierNotification exist" and replace DcmDsdRequestSupplierNotificationEnabled = False by "if container DcmDsdRequestSupplierNotification does not exist"
–Last change on issue 76412 comment 15–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.47 Specification Item ECUC_Dcm_00824

Trace References:

none

Content:

Name	DcmDspDataReadEcuSignalDcmDspData.DcmDspDataReadEcuSignal		
Parent Container	DcmDspData		
Description	Function name for read access to a certain ECU Signal by the DCM. (IoHwAb_Dcm_Read<Ecu SignalName>-function). Only relevant if DcmDspDataUsePort==USE_ECU_SIGNAL.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM

—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.48 Specification Item ECUC_Dcm_00825

Trace References:

none

Content:

Name	DcmDspDataEcuSignalDcmDspData.DcmDspDataEcuSignal		
Parent Container	DcmDspData		
Description	Function name to control the access to a certain ECU Signal by the DCM. (IoHw Ab_Dcm_<symbolic name of ECU signal>-function). Only relevant if DcmDspDataUsePort==USE_ECU_SIGNAL.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.49 Specification Item ECUC_Dcm_00826

Trace References:

none

Content:

Name	DcmDslProtocolRxConnectionIdDcmDslMainConnection.DcmDslProtocolRxConnectionId		
Parent Container	DcmDslMainConnection		
Description	Unique identifier of the tester which uses this connection for diagnostic communication.		
Multiplicity	1		
Type	EcucIntegerParamDef (Symbolic Name generated for this parameter)		
Range	0 .. 65535		
Default value	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

  Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

b)
interface to application

There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

c)
DcmDslProtocolRxConnectionId

"Unique identifier of the tester which uses this connection for diagnostic communication."

Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

In the DEXT, I found this is mapped to:
SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDslProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment

Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.50 Specification Item ECUC_Dcm_00862

Trace References:

none

Content:

Name	DcmDslPeriodicTxConfirmationPduId		
Description	Identifier of the PDU that is used by the lower level module for transmission confirmation of responses on this channel.		
Multiplicity	1		
Type	EcucIntegerParamDef (Symbolic Name generated for this parameter)		
Range	0 .. 65535		
Default value	–		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDslProtocolTransType		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76413: Cleanup DcmDslProtocolTransType

  Problem description:

  Dependencies of DcmDslProtocolTransType shall get reworked.
  –Last change on issue 76413 comment 3–

  Agreed solution:

  In DcmDslPeriodicTxConfirmationPduId [ECUC_Dcm_00862], DcmDslPeriodicTxPduRef [ECUC_Dcm_00742] and DcmDspRoeDidRef [ECUC_Dcm_00979], the dependency DcmDslProtocolTransType should be removed.
  In DcmDslRoeTxConfirmationPduId [ECUC_Dcm_00863] the dependency DcmDslProtocolTransType should be added.
  –Last change on issue 76413 comment 3–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.51 Specification Item ECUC_Dcm_00863

Trace References:

none

Content:

Name	DcmDslRoeTxConfirmationPduIdDcmDslResponseOnEvent.DcmDslRoeTxConfirmationPduId		
Parent Container	DcmDslResponseOnEvent		
Description	Identifier of the PDU that is used by the lower level module for transmission confirmation of responses on this connection.		
Multiplicity	0..1		
Type	EcucIntegerParamDef (Symbolic Name generated for this parameter)		
Range	0 .. 65535		
Default value	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #76413: Cleanup DcmDslProtocolTransType

Problem description:

Dependencies of DcmDslProtocolTransType shall get reworked.
–Last change on issue 76413 comment 3–

Agreed solution:

In DcmDslPeriodicTxConfirmationPduId [ECUC_Dcm_00862], DcmDslPeriodicTxPduRef [ECUC_Dcm_00742] and DcmDspRoeDidRef [ECUC_Dcm_00979], the dependency DcmDslProtocolTransType should be removed.
In DcmDslRoeTxConfirmationPduId [ECUC_Dcm_00863] the dependency DcmDslProtocolTransType should be added.
–Last change on issue 76413 comment 3–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.52 Specification Item ECUC_Dcm_00868

Trace References:

none

Content:

Name	DcmDsdRequestSupplierNotificationEnabledDcmDsd.DcmDsdRequestSupplierNotificationEnabled		
Description	Allows to enable or disable the requested notification mechanism for the Supplier. Tags: atp.Status=obsolete		
Multiplicity	1		
Type	EcucBooleanParamDef		
Default value	–		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76412: Remove ECUC boolean parameters to switch service request indications on/off

  Problem description:

The config parameters DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783] and DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868] seems to be useless as they only control the indications on/off. But the indications are anyhow controlled by the existance of DcmDsdServiceRequest<Manufacturer|Supplier>Notification containers.

Agreed solution:

set to obsolete:
DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783].
DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868]

Change variation of port ServiceRequestManufacturerNotification_Name (SWS_Dcm_01039) to:
Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestManufacturerNotification.SHORT-NAME)

Change variation of port ServiceRequestSupplierNotification_Name (SWS_Dcm_01042) to:
Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestSupplierNotification.SHORT-NAME)

In ECUC_Dcm_00681, SWS_Dcm_00218 and SWS_Dcm_00694, replace if DcmDsdRequestManufacturerNotificationEnabled=True by "if container DcmDsdServiceRequestManufacturerNotification exist" and replace if DcmDsdRequestManufacturerNotificationEnabled=False by "if container DcmDsdServiceRequestManufacturerNotification does not exist"

In SWS_Dcm_00516, SWS_Dcm_00694 and ECUC_Dcm_00816, replace if DcmDsdRequestSupplierNotificationEnabled = True by "if container DcmDsdRequestSupplierNotification exist" and replace DcmDsdRequestSupplierNotificationEnabled = False by "if container DcmDsdRequestSupplierNotification does not exist"
–Last change on issue 76412 comment 15–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.53 Specification Item ECUC_Dcm_00881

Trace References:

none

Content:

Name	DcmDspRoutineSignalTypeDcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType
Parent Container	DcmDspRequestRoutineResultsOutSignal
Description	Provide the type of the signal in the RoutineControl request/response.
Multiplicity	1
Type	EcucEnumerationParamDef

Range	BOOLEANDcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.BOOLEAN	Type of the signal is boolean.
	SINT16DcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.SINT16	Type of the signal is sint16.
	SINT16_NDcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.SINT16_N	Type of the signal is sint16 array.
	SINT32DcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.SINT32	Type of the signal is sint32.
	SINT32_NDcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.SINT32_N	Type of the signal is sint32 array.
	SINT8DcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.SINT8	Type of the signal is sint8.
	SINT8_NDcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.SINT8_N	Type of the signal is sint8 array.
	UINT16DcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.UINT16	Type of the signal is uint16.
	UINT16_NDcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.UINT16_N	Type of the signal is uint16 array.
	UINT32DcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.UINT32	Type of the signal is uint32.
	UINT32_NDcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.UINT32_N	Type of the signal is uint32 array.
	UINT8DcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.UINT8	Type of the signal is uint8.
	UINT8_NDcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.UINT8_N	Type of the signal is uint8 array.
	VARIABLE_LENGTHDcmDspRequestRoutineResultsOutSignal.DcmDspRoutineSignalType.VARIABLE_LENGTH	Type of the signal is uint8[DcmDspRoutineParameterSize]. This is only valid for the last signal and when DcmDspRoutineSignalType is set to VARIABLE_LENGTH.

Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspRoutineParameterSize		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.54 Specification Item ECUC_Dcm_00882

Trace References:

none

Content:

Name	DcmDspRoutineSignalTypeDcmDspStopRoutineInSignal.DcmDspRoutineSignalType
Parent Container	DcmDspStopRoutineInSignal
Description	Provide the type of the signal in the RoutineControl request/response.
Multiplicity	1
Type	EcucEnumerationParamDef

Range	BOOLEANDcmDspStop RoutineInSignal.DcmDsp RoutineSignal Type.BOOLEAN	Type of the signal is boolean.
	SINT16DcmDspStopRoutine InSignal.DcmDspRoutine SignalType.SINT16	Type of the signal is sint16.
	SINT16_NDcmDspStop RoutineInSignal.DcmDsp RoutineSignal Type.SINT16_N	Type of the signal is sint16 array.
	SINT32DcmDspStopRoutine InSignal.DcmDspRoutine SignalType.SINT32	Type of the signal is sint32.
	SINT32_NDcmDspStop RoutineInSignal.DcmDsp RoutineSignal Type.SINT32_N	Type of the signal is sint32 array.
	SINT8DcmDspStopRoutineIn Signal.DcmDspRoutine SignalType.SINT8	Type of the signal is sint8.
	SINT8_NDcmDspStop RoutineInSignal.DcmDsp RoutineSignalType.SINT8_N	Type of the signal is sint8 array.
	UINT16DcmDspStopRoutine InSignal.DcmDspRoutine SignalType.UINT16	Type of the signal is uint16.
	UINT16_NDcmDspStop RoutineInSignal.DcmDsp RoutineSignal Type.UINT16_N	Type of the signal is uint16 array.
	UINT32DcmDspStopRoutine InSignal.DcmDspRoutine SignalType.UINT32	Type of the signal is uint32.
	UINT32_NDcmDspStop RoutineInSignal.DcmDsp RoutineSignal Type.UINT32_N	Type of the signal is uint32 array.
	UINT8DcmDspStopRoutineIn Signal.DcmDspRoutine SignalType.UINT8	Type of the signal is uint8.
	UINT8_NDcmDspStop RoutineInSignal.DcmDsp RoutineSignalType.UINT8_N	Type of the signal is uint8 array.
	VARIABLE_LENGTHDcm DspStopRoutineIn Signal.DcmDspRoutine Signal Type.VARIABLE_LENGTH	Type of the signal is uint8[DcmDspRoutineParameterSize]. This is only valid for the last signal and when DcmDspRoutine SignalType is set to VARIABLE_LENGTH.
Post-Build Variant Value	false	

Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspRoutineParameterSize		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.55 Specification Item ECUC_Dcm_00883

Trace References:

none

Content:

Name	DcmDspRoutineSignalTypeDcmDspStopRoutineOutSignal.DcmDspRoutineSignalType
Parent Container	DcmDspStopRoutineOutSignal
Description	Provide the type of the signal in the RoutineControl request/response.
Multiplicity	1
Type	EcucEnumerationParamDef

Range	BOOLEANDcmDspStop RoutineOutSignal.DcmDsp RoutineSignal Type.BOOLEAN	Type of the signal is boolean.
	SINT16DcmDspStopRoutine OutSignal.DcmDspRoutine SignalType.SINT16	Type of the signal is sint16.
	SINT16_NDcmDspStop RoutineOutSignal.DcmDsp RoutineSignal Type.SINT16_N	Type of the signal is sint16 array.
	SINT32DcmDspStopRoutine OutSignal.DcmDspRoutine SignalType.SINT32	Type of the signal is sint32.
	SINT32_NDcmDspStop RoutineOutSignal.DcmDsp RoutineSignal Type.SINT32_N	Type of the signal is sint32 array.
	SINT8DcmDspStopRoutine OutSignal.DcmDspRoutine SignalType.SINT8	Type of the signal is sint8.
	SINT8_NDcmDspStop RoutineOutSignal.DcmDsp RoutineSignalType.SINT8_N	Type of the signal is sint8 array.
	UINT16DcmDspStopRoutine OutSignal.DcmDspRoutine SignalType.UINT16	Type of the signal is uint16.
	UINT16_NDcmDspStop RoutineOutSignal.DcmDsp RoutineSignal Type.UINT16_N	Type of the signal is uint16 array.
	UINT32DcmDspStopRoutine OutSignal.DcmDspRoutine SignalType.UINT32	Type of the signal is uint32.
	UINT32_NDcmDspStop RoutineOutSignal.DcmDsp RoutineSignal Type.UINT32_N	Type of the signal is uint32 array.
	UINT8DcmDspStopRoutine OutSignal.DcmDspRoutine SignalType.UINT8	Type of the signal is uint8.
	UINT8_NDcmDspStop RoutineOutSignal.DcmDsp RoutineSignalType.UINT8_N	Type of the signal is uint8 array.
	VARIABLE_LENGTHDcm DspStopRoutineOut Signal.DcmDspRoutine Signal Type.VARIABLE_LENGTH	Type of the signal is uint8[DcmDspRoutineParameterSize]. This is only valid for the last signal and when DcmDspRoutine SignalType is set to VARIABLE_LENGTH.
Post-Build Variant Value	false	

Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspRoutineParameterSize		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.56 Specification Item ECUC_Dcm_00884

Trace References:

none

Content:

Name	DcmDspRoutineSignalTypeDcmDspStartRoutineInSignal.DcmDspRoutineSignalType
Parent Container	DcmDspStartRoutineInSignal
Description	Provide the type of the signal in the RoutineControl request/response.
Multiplicity	1
Type	EcucEnumerationParamDef

Range	BOOLEANDcmDspStart RoutineInSignal.DcmDsp RoutineSignal Type.BOOLEAN	Type of the signal is boolean.
	SINT16DcmDspStartRoutine InSignal.DcmDspRoutine SignalType.SINT16	Type of the signal is sint16.
	SINT16_NDcmDspStart RoutineInSignal.DcmDsp RoutineSignal Type.SINT16_N	Type of the signal is sint16 array.
	SINT32DcmDspStartRoutine InSignal.DcmDspRoutine SignalType.SINT32	Type of the signal is sint32.
	SINT32_NDcmDspStart RoutineInSignal.DcmDsp RoutineSignal Type.SINT32_N	Type of the signal is sint32 array.
	SINT8DcmDspStartRoutine InSignal.DcmDspRoutine SignalType.SINT8	Type of the signal is sint8.
	SINT8_NDcmDspStart RoutineInSignal.DcmDsp RoutineSignalType.SINT8_N	Type of the signal is sint8 array.
	UINT16DcmDspStartRoutine InSignal.DcmDspRoutine SignalType.UINT16	Type of the signal is uint16.
	UINT16_NDcmDspStart RoutineInSignal.DcmDsp RoutineSignal Type.UINT16_N	Type of the signal is uint16 array.
	UINT32DcmDspStartRoutine InSignal.DcmDspRoutine SignalType.UINT32	Type of the signal is uint32.
	UINT32_NDcmDspStart RoutineInSignal.DcmDsp RoutineSignal Type.UINT32_N	Type of the signal is uint32 array.
	UINT8DcmDspStartRoutine InSignal.DcmDspRoutine SignalType.UINT8	Type of the signal is uint8.
	UINT8_NDcmDspStart RoutineInSignal.DcmDsp RoutineSignalType.UINT8_N	Type of the signal is uint8 array.
	VARIABLE_LENGTHDcm DspStartRoutineIn Signal.DcmDspRoutine Signal Type.VARIABLE_LENGTH	Type of the signal is uint8[DcmDspRoutineParameterSize]. This is only valid for the last signal and when DcmDspRoutine SignalType is set to VARIABLE_LENGTH.
Post-Build Variant Value	false	

Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspRoutineParameterSize		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.57 Specification Item ECUC_Dcm_00885

Trace References:

none

Content:

Name	DcmDspRoutineSignalTypeDcmDspStartRoutineOutSignal.DcmDspRoutineSignalType
Parent Container	DcmDspStartRoutineOutSignal
Description	Provide the type of the signal in the RoutineControl request/response.
Multiplicity	1
Type	EcucEnumerationParamDef

Range	BOOLEANDcmDspStart RoutineOutSignal.DcmDsp RoutineSignal Type.BOOLEAN	Type of the signal is boolean.
	SINT16DcmDspStartRoutine OutSignal.DcmDspRoutine SignalType.SINT16	Type of the signal is sint16.
	SINT16_NDcmDspStart RoutineOutSignal.DcmDsp RoutineSignal Type.SINT16_N	Type of the signal is sint16 array.
	SINT32DcmDspStartRoutine OutSignal.DcmDspRoutine SignalType.SINT32	Type of the signal is sint32.
	SINT32_NDcmDspStart RoutineOutSignal.DcmDsp RoutineSignal Type.SINT32_N	Type of the signal is sint32 array.
	SINT8DcmDspStartRoutine OutSignal.DcmDspRoutine SignalType.SINT8	Type of the signal is sint8.
	SINT8_NDcmDspStart RoutineOutSignal.DcmDsp RoutineSignalType.SINT8_N	Type of the signal is sint8 array.
	UINT16DcmDspStartRoutine OutSignal.DcmDspRoutine SignalType.UINT16	Type of the signal is uint16.
	UINT16_NDcmDspStart RoutineOutSignal.DcmDsp RoutineSignal Type.UINT16_N	Type of the signal is uint16 array.
	UINT32DcmDspStartRoutine OutSignal.DcmDspRoutine SignalType.UINT32	Type of the signal is uint32.
	UINT32_NDcmDspStart RoutineOutSignal.DcmDsp RoutineSignal Type.UINT32_N	Type of the signal is uint32 array.
	UINT8DcmDspStartRoutine OutSignal.DcmDspRoutine SignalType.UINT8	Type of the signal is uint8.
	UINT8_NDcmDspStart RoutineOutSignal.DcmDsp RoutineSignalType.UINT8_N	Type of the signal is uint8 array.
	VARIABLE_LENGTHDcm DspStartRoutineOut Signal.DcmDspRoutine Signal Type.VARIABLE_LENGTH	Type of the signal is uint8[DcmDspRoutineParameterSize]. This is only valid for the last signal and when DcmDspRoutine SignalType is set to VARIABLE_LENGTH.
Post-Build Variant Value	false	

Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspRoutineParameterSize		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.58 Specification Item ECUC_Dcm_00897

Trace References:

none

Content:

Container Name	DcmDslPeriodicConnectionDcmDslPeriodicConnection
Description	This container contains the configuration of a transmission channel for a periodic transmission connection. The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16.
Configuration Parameters	

Included parameters:

Included Parameters	
Parameter Name	SWS Item ID
DcmDslPeriodicTxConfirmationPduId	ECUC_Dcm_00862
DcmDslPeriodicTxPduRef	ECUC_Dcm_00742

Included containers:

No Included Containers

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76713: [Dcm] some address issues

  Problem description:

  as discussed in the telco with WP-A2 today, we can copy the PS for Dcm from RfC # 67638 (which will go for AR4.4) and move them into a new RfC for the correction already in AR4.3.1.

  SWS DCM
  =======
  No changes required. But the discrepancy between SWS_Dcm_01347/SWS_Dcm_01348 and ECUC_Dcm_00709/ECUC_Dcm_00711/ECUC_Dcm_ regarding the usage of the local address should be mended.

  Change SOURCE_ADDRESS_16 to TARGET_ADDRESS_16:
  [SWS_Dcm_00849] d The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
  It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit(). c()

  Agreed solution:

  SWS DCM
  =======
  Change [SWS_Dcm_00849] :
  The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
  It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit().
  By

  TITLE : Target address for generic connection transmission.
  If the Dcm is about to send a response, response on event, or periodic message for a generic connection request, the Dcm shall set TARGET_ADDRESS_16 to the value of the stored source address in the MetaDataPtr in the PduR_DcmTransmit()

(SRS_Diag_04153)

Extend the [ECUC_Dcm_00709] DcmDslProtocolRx from :
"The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16." to
"The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16 and TARGET_ADDRESS_16."

Extend the [ECUC_Dcm_00711]DcmDslProtocolTx and [ECUC_Dcm_00897]DcmDslPeriodicConnection and [ECUC_Dcm_00744] DcmDslResponseOnEvent from :
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16." to
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16."
–Last change on issue 76713 comment 8–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.59 Specification Item ECUC_Dcm_00910

Trace References:

none

Content:

Name	DcmSendRespPendOnTransToBootDcmDslProtocolRow.DcmSendRespPendOnTransToBoot		
Parent Container	DcmDslProtocolRow		
Description	Parameter specifying if the ECU should send a NRC 0x78 (response pending) before transitioning to the bootloader (parameter set to TRUE) or if the transition shall be initiated without sending NRC 0x78 (parameter set to FALSE). Tags: atp.Status=obsolete		
Multiplicity	1 0..1		
Type	EcucBooleanParamDef		
Default value	true		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: local		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77811: Clarify response after reset

  Problem description:

  I)
  The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

  1) 10 02
  2) 11 01
  3) 11 02
  4) 11 03
  5) 11 xx ?

  For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

  There are OEM use cases having a different response behaviour on different 0x11 SFs.

  II)
  Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

  Agreed solution:

  I)

  Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

  SWS Item [ECUC_Dcm_0xxxx]
  Container Name DcmDspEcuReset
  Description This container contains the configuration for DcmDspEcuReset service.

  Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

  SWS Item [ECUC_Dcm_0xxxx]
  Container Name DcmDspEcuResetRow
  Description This container contains the configuration for each DcmDspEcuReset subservice.

  Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)
Make OBSOLETE DcmSendRespPendOnTransToBoot
Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.
Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOn-

Restart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.60 Specification Item ECUC_Dcm_00913

Trace References:

none

Content:

Name	DcmDspMemoryIdValue		
Description	Value of the memory device identifier used. If this parameter is not configured, the DCM will not use MemoryIdentifier parameter. The Dcm_WriteMemory and Dcm_ReadMemory callouts shall be called without the MemoryIdentifier parameter. If this parameter is configured, the DCM will use MemoryIdentifier parameter to select the memory device to use. The Dcm_WriteMemory and Dcm_ReadMemory callouts shall be called with the MemoryIdentifier parameter. Every values configured in the configuration parameter DcmEach DcmDspMemoryIdValue shall be unique Info should have a unique ID. The MemoryIdValue is retrieved from the request messages (RMBA,WMBA,RD,RU,DDDI) according to ISO-14229-1.		
Multiplicity	0..1		
Type	EcucIntegerParamDef		
Range	0 .. 255		
Default value	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74130: [DCM]Memory identifier supported range 0 to 255

Problem description:

Name: KPIT
Phone:
Role:

Description:
DcmDspMemoryIdInfo is an optional parameter. In case if this parameter is not configured,
Dcm_ReadMemory() callout function Inparameter Memoryidentifier should be passed with value Zero.
Refer requirement SWS_Dcm_00539 version 422 of SWS_DCM.

Refer to Table 152 Request message data-parameter definition of ISO 14229-1, 2013
Memory Address: The most significant byte(s) of the address can be used as a memory identifier.
An example of the use of a memory identifier would be a dual processor server with 16 bit addressing and memoryaddress overlap (when a given address is valid for either processor but yields a different physical memory device orinternal and external flash is used). In this case, an otherwise unused byte within the memoryAddress parameter can bespecified as a memory identifier used to select the desired memory device. Usage of this functionality shall be as defined
by vehicle manufacturer / system supplier.

Was there already a decision?No

Agreed solution:

Remove in the description of DcmDspMemoryIdValue [ECUC_Dcm_00913] the sentences :

If this parameter is not configured, the DCM does not use MemoryIdentifier parameter. The Dcm_WriteMemory and Dcm_ReadMemory callouts are called without the MemoryIdentifier parameter.

If this parameter is configured, the DCM does use MemoryIdentifier parameter to select the memory device to use. The Dcm_WriteMemory and Dcm_ReadMemory

callouts are called with the MemoryIdentifier parameter.

Change in the description the sentence : "Every values configured in the configuration parameter DcmDspMemoryIdValue shall be unique." to
"Each DcmDspMemoryIdInfo should have a unique ID."
–Last change on issue 74130 comment 12–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.61 Specification Item ECUC_Dcm_00935

Trace References:

none

Content:

Container Name	DcmDspControlDTCSettingDcmDspControlDTCSetting
Description	Provide the configuration of the ControlDTCSetting mechanism.
Configuration Parameters	

Included parameters:

Included Parameters	
Parameter Name	SWS Item ID
DcmSupportDTCSettingControlOptionRecord	ECUC_Dcm_00965
DcmDspControlDTCSettingReEnableModeRuleRef	ECUC_Dcm_00936

Included containers:

No Included Containers

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76395: Restore DEXT DiagnosticControlDTCSettings.controlOptionRecordPresent

  Problem description:

Within RfC # 71838 the DiagnosticControlDTCSettings.controlOptionRecordPresent was removed (obosoleted) from DEXT, see comment 28, 55 and 56.
In the Dcm ECUC_Dcm_00965 DcmSupportDTCSettingControlOptionRecord was also removed.

This is wrong, as the Dcm still supports this parameter (see SWS_Dcm_01399). The restriction of # 71838 is that DTCSettingControlOptionRecord only allows values of 0xFFFFFF.

The 4.2.2 Dcm had after SWS_Dcm_01063 and SWS_Dcm_00406 the following sentence: "This requirement is only valid if DcmSupportDTCSettingControlOption-Record is set to true (see [SWS_Dcm_00829] and [SWS_Dcm_00852])".
We or have to restore this information or better structure and change the chapter for 0x85 in a way that it is clear, that after the length check, no further processing is done and the requirements for processing do not apply.
–Last change on issue 76395 comment 14–

Agreed solution:

DEXT:
Remove tagged value atp.Status=removed from DiagnosticControlDTCSet-tings.controlOptionRecordPresent.

Dcm:
1) Restore Dcm ECUC_Dcm_00965 from 4.2.2
2) Move editorial text between SWS_Dcm_01399 and SWS_Dcm_00304 to top of chapter "7.5.2.23 Service 0x85 - ControlDTCSetting"
3) Restore SWS_Dcm_00829 ans SWS_Dcm_00852 from 4.2.2:
[SWS_Dcm_00829] If the configuration parameter DcmSupportDTCSettingCon-trolOptionRecord is set to true and the length of DTCSettingControlOptionRecord in the request is different from 3 bytes, the Dcm shall return NRC 0x13 (Incorrect message length or invalid format).
[SWS_Dcm_00852] If the configuration parameter DcmSupportDTCSettingCon-trolOptionRecord is set to false and the request contains any data after the subfunction, the DCM shall return NRC 0x13 (Incorrect message length or invalid format).
4)Update the following requirements:

Change SWS_Dcm_01063 to :
On reception of UDS Service 0x85 with subfunction 0x01 (DTCSettingType "ON"), the Dcm shall call Dem_EnableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

Change SWS_Dcm_00406 to :
On reception of UDS Service 0x85 with subfunction 0x02 (DTCSettingType "OFF"), the Dcm shall call Dem_DisableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

5) New changes needed and detected during implementation (agreed with cm):
Remove the following requirements:
SWS_Dcm_00304
SWS_Dcm_01064
SWS_Dcm_00830
–Last change on issue 76395 comment 23–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.62 Specification Item ECUC_Dcm_00955

Trace References:

none

Content:

Name	DcmDspDataConditionCheckReadFncUsedDcmDspData.DcmDspDataConditionCheckReadFncUsed
Parent Container	DcmDspData
Description	This parameter determines if a condition check function is available or not. If the parameter is set to 'TRUE' and DcmDspDataUsePort is set to • 'USE_DATA_ASYNCH_CLIENT_SERVER' or • 'USE_DATA_ASYNCH_CLIENT_SERVER_ERROR' or • 'USE_DATA_SYNCH_CLIENT_SERVER', the DCM shall generate the according function call. If the parameter is set to 'TRUE' and DcmDspDataUsePort is set to • 'USE_DATA_SYNCH_FNC' or • 'USE_DATA_ASYNCH_FNC_ERROR' • 'USE_DATA_ASYNCH_FNC', the parameter 'DcmDspDataConditionCheckReadFnc' shall contain a valid C-function.
Multiplicity	0..1
Type	EcucBooleanParamDef
Default value	–
Post-Build Variant Multiplicity	false
Post-Build Variant Value	false

Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: local dependency: DcmDspDataConditionCheckReadFnc, DcmDspDataUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at

least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.63 Specification Item ECUC_Dcm_00965

Trace References:

none

Content:

Name	DcmSupportDTCSettingControlOptionRecordDcmDspControlDTCSetting.DcmSupportDTCSettingControlOptionRecord
Description	This configuration switch defines if the DTCSettingControlOptionRecord is in general supported in the request message or not.
Multiplicity	0..1
Type	EcucBooleanParamDef
Default value	false

Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76395: Restore DEXT DiagnosticControlDTCSettings.controlOptionRecordPresent

  Problem description:

  Within RfC # 71838 the DiagnosticControlDTCSettings.controlOptionRecordPresent was removed (obosoleted) from DEXT, see comment 28, 55 and 56.
  In the Dcm ECUC_Dcm_00965 DcmSupportDTCSettingControlOptionRecord was also removed.

  This is wrong, as the Dcm still supports this parameter (see SWS_Dcm_01399). The restriction of # 71838 is that DTCSettingControlOptionRecord only allows values of 0xFFFFFF.

  The 4.2.2 Dcm had after SWS_Dcm_01063 and SWS_Dcm_00406 the following sentence: "This requirement is only valid if DcmSupportDTCSettingControlOptionRecord is set to true (see [SWS_Dcm_00829] and [SWS_Dcm_00852])".
  We or have to restore this information or better structure and change the chapter for 0x85 in a way that it is clear, that after the length check, no further processing is done and the requirements for processing do not apply.
  –Last change on issue 76395 comment 14–

  Agreed solution:

  DEXT:
  Remove tagged value atp.Status=removed from DiagnosticControlDTCSettings.controlOptionRecordPresent.

  Dcm:

1) Restore Dcm ECUC_Dcm_00965 from 4.2.2
2) Move editorial text between SWS_Dcm_01399 and SWS_Dcm_00304 to top of chapter "7.5.2.23 Service 0x85 - ControlDTCSetting"
3) Restore SWS_Dcm_00829 ans SWS_Dcm_00852 from 4.2.2:
[SWS_Dcm_00829] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to true and the length of DTCSettingControlOptionRecord in the request is different from 3 bytes, the Dcm shall return NRC 0x13 (Incorrect message length or invalid format).
[SWS_Dcm_00852] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to false and the request contains any data after the subfunction, the DCM shall return NRC 0x13 (Incorrect message length or invalid format).
4)Update the following requirements:

Change SWS_Dcm_01063 to :
On reception of UDS Service 0x85 with subfunction 0x01 (DTCSettingType "ON"), the Dcm shall call Dem_EnableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

Change SWS_Dcm_00406 to :
On reception of UDS Service 0x85 with subfunction 0x02 (DTCSettingType "OFF"), the Dcm shall call Dem_DisableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

5) New changes needed and detected during implementation (agreed with cm):
Remove the following requirements:
SWS_Dcm_00304
SWS_Dcm_01064
SWS_Dcm_00830
–Last change on issue 76395 comment 23–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.64 Specification Item ECUC_Dcm_00968

Trace References:

none

Content:

Name	DcmDspSecurityGetSeedFncDcmDspSecurityRow.DcmDspSecurityGetSeedFnc		
Parent Container	DcmDspSecurityRow		
Description	Callout function name used to request a seed. Parameter is only relevant if DcmDspSecurityUsePort=="USE_ASYNCH_FNC". This parameter is related to the interface Xxx_GetSeed.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: local dependency: DcmDspSecurityUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.65 Specification Item ECUC_Dcm_00969

Trace References:

none

Content:

Name	DcmDspSecurityCompareKeyFncDcmDspSecurityRow.DcmDspSecurityCompareKeyFnc		
Parent Container	DcmDspSecurityRow		
Description	Function name to request the result of a key comparison. Parameter is only relevant if DcmDspSecurityUsePort=="USE_ ASYNCH_FNC". This parameter is related to the interface Xxx_CompareKey.		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: local dependency: DcmDspSecurityUsePort		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.66 Specification Item ECUC_Dcm_00974

Trace References:

none

Content:

Container Name	DcmDspRoeOnDTCStatusChangeDcmDspRoeOnDTCStatusChange
Description	This container contains configuration of a the eventTypeRecord supported for onDTCStatus Change accepted by this ECU. eventType. Please note that currently are no additional parameters for DcmDspRoeOnDTCStatusChange are defined. Therefore the existence of the container denotes the choice.
Configuration Parameters	

Included parameters:

No Included Parameters	
Parameter Name	SWS Item ID
DcmDspRoeDTCStatusMask	ECUC_Dcm_01109

Included containers:

No Included Containers

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76721: [Dcm] Clarifications for ROE

  Problem description:

  Some clarification for ROE transmission is required:

  1) DcmDspRoeStorageState
  For this parameter the following description is given:
  If this parameter is set to TRUE the StorageStateBit will be evaluated if this EventWindowTime is requested

  What exactly is the use of this parameter?

What e.g in case this parameter is set to FALSE for the EventWindowTime Current-Cycle, will then the SWS_Dcm_01076 not done?

[SWS_Dcm_01076] d If the Roe request has a storageState equal to storeEvent and contains an EventWindowTime that is not infinite, the Dcm shall reject the request with a negative response with the NRC 0x31 (RequestOutOfRange). c()

2) Pre-configured setup for DcmDspRoeOnDTCStatusChange

DcmDspRoeInitialEventStatus allows to bring the status directly to the state DCM_ROE_STOPPED.
So the ROE event will be init by configuration instead by ROE setup request.
But it looks like, that for DcmDspRoeOnDTCStatusChange the pre-configuration of dtcStatusMask (in container DcmDspRoeOnDTCStatusChange)is missing.

As ISO 14229-1:2013 gives for DcmDspRoeOnDTCStatusChange:
This eventType requires the specification of the DTCStatusMask in the request message (eventTypeParameter# 1).

Agreed solution:

to 1)
set the parameter DcmDspRoeStorageState as obsolete and remove the table : DcmDspRoeStorageState [ECUC_Dcm_00983]

to 2)

2.1) Dcm SWS
2.1.1) Remove in the description of container DcmDspRoeOnDTCStatusChange, ECUC_Dcm_00974
Please note that currently are no additional parameters for DcmDspRoeOnDTCStatusChange are defined. Therefore the existence of the container denotes the choice.

2.1.2) Add a new parameter in the container DcmDspRoeOnDTCStatusChange, ECUC_Dcm_00974

Name: DcmDspRoeDTCStatusMask
Description: value of the relevant DTCStatusMask
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 255
Post-Build Variant Value: false
Value Configuration Class: Pre-compile time: All Variants

Scope / Dependency: scope: local

2.1.3) Add a new constraint in chapter 7.3.4.8.5.1 ROE event-trigger onDTC-StatusChange (0x01)

[SWS_Dcm_CONSTR_xxxx] Existence of DTCStatusMask
DcmDspRoeDTCStatusMask shall be present if DcmDspRoeInitialEventStatus is set to DCM_ROE_STOPPED

2.1.4) update requirement SWS_Dcm_00954 as follow:

[SWS_Dcm_00954] Pre-configuraton of ROE events [If DcmDspRoeInitialEventStatus is set to DCM_ROE_STOPPED, the Dcm shall behave according RoeEvent set-up :
* StorageState set to StoreEvent
* EventWindowTime set to 'infinity' and
* DTCStatusMask set to value configured in DcmDspRoeDTCStatusMask in case of onDTCStatusChange
* DID set to the vale given with DcmDspRoeDidRef in case of onChangeOf-DataIdentifier
[SRS_Diag_04010]

2.2) DEXT TPS

Add new attribute DiagnosticDtcChangeTrigger.dtcStatusMask, type: PositivieInteger, description: "this attribute represents the ability to define a status mask for the triggering of an ROE response on the change of a DTC.", multiplicity: 0..1
Add upstream mapping DcmDspRoeDTCStatusMask –> DiagnosticDtcChangeTrigger.dtcStatusMask (full, 1:1, TPS_DEXT)
–Last change on issue 76721 comment 24–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #77613: Clarify RoE chapters on wording of eventTypeRecords and eventType

  Problem description:

  It seems that the entire Dcm mixes eventTypeRecords and eventType in all chapters. eventType defines the subfunction and eventTypeRecords define additional

data depending on the subfunction. DcmDspRoeEventProperties seems to define the allowed subfunctions and not the data on the subfunctions.

Agreed solution:

1) ECUC_Dcm_00978:
Replace
"This container contains configuration of a eventTypeRecord onChangeOfDataIdentifier accepted by this ECU."
by
"This container contains the eventTypeRecord supported for onChangeOfDataIdentifier eventType"

AND

"This container contains configuration of a eventTypeRecord onDTCStatusChange accepted by this ECU."
by
"This container contains the eventTypeRecord supported for onDTCStatusChange eventType"

2) ECUC_Dcm_00975:
Replace
"This container contains configuration of a eventTypeRecord onChangeOfDataIdentifier accepted by this ECU."
by
"This container contains the eventTypeRecord supported for onChangeOfDataIdentifier eventType"

3) ECUC_Dcm_00974:
"This container contains configuration of a eventTypeRecord onDTCStatusChange accepted by this ECU."
by
"This container contains the eventTypeRecord supported for onDTCStatusChange eventType"
–Last change on issue 77613 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.67 Specification Item ECUC_Dcm_00975

Trace References:

none

Content:

Container Name	DcmDspRoeOnChangeOfDataIdentifierDcmDspRoeOnChangeOfDataIdentifier
Description	This container contains configuration of a the eventTypeRecord supported for onChangeOfData Identifier accepted by this ECUeventType.
Configuration Parameters	

Included parameters:

Included Parameters	
Parameter Name	SWS Item ID
DcmDspRoeDidRef	ECUC_Dcm_00979

Included containers:

No Included Containers

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77613: Clarify RoE chapters on wording of eventTypeRecords and eventType

  Problem description:

  It seems that the entire Dcm mixes eventTypeRecords and eventType in all chapters. eventType defines the subfunction and eventTypeRecords define additional data depending on the subfunction. DcmDspRoeEventProperties seems to define the allowed subfunctions and not the data on the subfunctions.

  Agreed solution:

  1) ECUC_Dcm_00978:
  Replace
  "This container contains configuration of a eventTypeRecord onChangeOfDataIdentifier accepted by this ECU."
  by
  "This container contains the eventTypeRecord supported for onChangeOfDataIdentifier eventType"

  AND

"This container contains configuration of a eventTypeRecord onDTCStatusChange accepted by this ECU."
by
"This container contains the eventTypeRecord supported for onDTCStatusChange eventType"

2) ECUC_Dcm_00975:
Replace
"This container contains configuration of a eventTypeRecord onChangeOfDataIdentifier accepted by this ECU."
by
"This container contains the eventTypeRecord supported for onChangeOfDataIdentifier eventType"

3) ECUC_Dcm_00974:
"This container contains configuration of a eventTypeRecord onDTCStatusChange accepted by this ECU."
by
"This container contains the eventTypeRecord supported for onDTCStatusChange eventType"
–Last change on issue 77613 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.68 Specification Item ECUC_Dcm_00978

Trace References:

none

Content:

Choice container Name	DcmDspRoeEventPropertiesDcmDspRoeEventProperties
Description	This container contains the properties of Roe eventTypeRecords. In one DcmDspRoeEventProperties container one DcmDspRoeOnDTCStatusChange or Dcm DspRoeOnChangeOfDataIdentifier container shall be defined.

Included parameters:

No Included Parameters

Included containers:

Container Choices		
Container Name	Multiplicity	Scope / Dependency
DcmDspRoeOnChangeOfDataIdentifier	0..1	This container contains configuration of a the eventTypeRecord supported for on ChangeOfDataIdentifier accepted by this ECUeventType.
DcmDspRoeOnDTCStatusChange	0..1	This container contains configuration of a the eventTypeRecord supported for on DTCStatusChange accepted by this ECU. Please note that currently are no additional parameters for DcmDspRoe OnDTCStatusChange are defined. Therefore the existence of the container denotes the choiceeventType.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76721: [Dcm] Clarifications for ROE

  Problem description:

  Some clarification for ROE transmission is required:

  1) DcmDspRoeStorageState
  For this parameter the following description is given:
  If this parameter is set to TRUE the StorageStateBit will be evaluated if this EventWindowTime is requested

  What exactly is the use of this parameter?
  What e.g in case this parameter is set to FALSE for the EventWindowTime Current-Cycle, will then the SWS_Dcm_01076 not done?

  [SWS_Dcm_01076] d If the Roe request has a storageState equal to storeEvent and contains an EventWindowTime that is not infinite, the Dcm shall reject the request with a negative response with the NRC 0x31 (RequestOutOfRange). c()

  2) Pre-configured setup for DcmDspRoeOnDTCStatusChange

  DcmDspRoeInitialEventStatus allows to bring the status directly to the state DCM_ROE_STOPPED.
  So the ROE event will be init by configuration instead by ROE setup request.

But it looks like, that for DcmDspRoeOnDTCStatusChange the pre-configuration of dtcStatusMask (in container DcmDspRoeOnDTCStatusChange)is missing.

As ISO 14229-1:2013 gives for DcmDspRoeOnDTCStatusChange:
This eventType requires the specification of the DTCStatusMask in the request message (eventTypeParameter# 1).

Agreed solution:

to 1)
set the parameter DcmDspRoeStorageState as obsolete and remove the table : DcmDspRoeStorageState [ECUC_Dcm_00983]

to 2)

2.1) Dcm SWS
2.1.1) Remove in the description of container DcmDspRoeOnDTCStatusChange, ECUC_Dcm_00974
Please note that currently are no additional parameters for DcmDspRoeOnDTCStatusChange are defined. Therefore the existence of the container denotes the choice.

2.1.2) Add a new parameter in the container DcmDspRoeOnDTCStatusChange, ECUC_Dcm_00974

Name: DcmDspRoeDTCStatusMask
Description: value of the relevant DTCStatusMask
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 255
Post-Build Variant Value: false
Value Configuration Class: Pre-compile time: All Variants
Scope / Dependency: scope: local

2.1.3) Add a new constraint in chapter 7.3.4.8.5.1 ROE event-trigger onDTCStatusChange (0x01)

[SWS_Dcm_CONSTR_xxxx] Existence of DTCStatusMask
DcmDspRoeDTCStatusMask shall be present if DcmDspRoeInitialEventStatus is set to DCM_ROE_STOPPED

2.1.4) update requirement SWS_Dcm_00954 as follow:

[SWS_Dcm_00954] Pre-configuraton of ROE events [If DcmDspRoeInitialEventStatus is set to DCM_ROE_STOPPED, the Dcm shall behave according RoeEvent set-up :
* StorageState set to StoreEvent
* EventWindowTime set to 'infinity' and
* DTCStatusMask set to value configured in DcmDspRoeDTCStatusMask in case of onDTCStatusChange
* DID set to the vale given with DcmDspRoeDidRef in case of onChangeOfDataIdentifier
[SRS_Diag_04010]

2.2) DEXT TPS

Add new attribute DiagnosticDtcChangeTrigger.dtcStatusMask, type: PositivieInteger, description: "this attribute represents the ability to define a status mask for the triggering of an ROE response on the change of a DTC.", multiplicity: 0..1
Add upstream mapping DcmDspRoeDTCStatusMask –> DiagnosticDtcChangeTrigger.dtcStatusMask (full, 1:1, TPS_DEXT)
–Last change on issue 76721 comment 24–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #77613: Clarify RoE chapters on wording of eventTypeRecords and eventType

Problem description:

It seems that the entire Dcm mixes eventTypeRecords and eventType in all chapters. eventType defines the subfunction and eventTypeRecords define additional data depending on the subfunction. DcmDspRoeEventProperties seems to define the allowed subfunctions and not the data on the subfunctions.

Agreed solution:

1) ECUC_Dcm_00978:
Replace
"This container contains configuration of a eventTypeRecord onChangeOfDataIdentifier accepted by this ECU."
by
"This container contains the eventTypeRecord supported for onChangeOfDataIdentifier eventType"

AND

"This container contains configuration of a eventTypeRecord onDTCStatusChange accepted by this ECU."
by
"This container contains the eventTypeRecord supported for onDTCStatusChange eventType"

2) ECUC_Dcm_00975:
Replace
"This container contains configuration of a eventTypeRecord onChangeOfDataIdentifier accepted by this ECU."
by
"This container contains the eventTypeRecord supported for onChangeOfDataIdentifier eventType"

3) ECUC_Dcm_00974:
"This container contains configuration of a eventTypeRecord onDTCStatusChange accepted by this ECU."
by
"This container contains the eventTypeRecord supported for onDTCStatusChange eventType"
–Last change on issue 77613 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.69 Specification Item ECUC_Dcm_00979

Trace References:

none

Content:

Name	DcmDspRoeDidRef
Description	Reference to a Did which is watched.
Multiplicity	1
Type	Reference to [DcmDspDid]
Post-Build Variant Value	false

Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: local dependency: DcmDslProtocolTransType		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76413: Cleanup DcmDslProtocolTransType

  Problem description:

  Dependencies of DcmDslProtocolTransType shall get reworked.
  –Last change on issue 76413 comment 3–

  Agreed solution:

  In DcmDslPeriodicTxConfirmationPduId [ECUC_Dcm_00862], DcmDslPeriodicTxPduRef [ECUC_Dcm_00742] and DcmDspRoeDidRef [ECUC_Dcm_00979], the dependency DcmDslProtocolTransType should be removed.
  In DcmDslRoeTxConfirmationPduId [ECUC_Dcm_00863] the dependency DcmDslProtocolTransType should be added.
  –Last change on issue 76413 comment 3–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.70 Specification Item ECUC_Dcm_00983

Trace References:

none

Content:

Name	DcmDspRoeStorageStateDcmDspRoeEventWindowTime.DcmDspRoeStorageState
Parent Container	DcmDspRoeEventWindowTime
Description	If this parameter is set to TRUE the StorageStateBit will be evaluated if this EventWindowTime is requested. Tags: atp.Status=obsolete atp.StatusRevisionBegin=4.3.1
Multiplicity	1
Type	EcucBooleanParamDef
Default value	–

Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: local		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76721: [Dcm] Clarifications for ROE

  Problem description:

  Some clarification for ROE transmission is required:

  1) DcmDspRoeStorageState
  For this parameter the following description is given:
  If this parameter is set to TRUE the StorageStateBit will be evaluated if this EventWindowTime is requested

  What exactly is the use of this parameter?
  What e.g in case this parameter is set to FALSE for the EventWindowTime Current-Cycle, will then the SWS_Dcm_01076 not done?

  [SWS_Dcm_01076] d If the Roe request has a storageState equal to storeEvent and contains an EventWindowTime that is not infinite, the Dcm shall reject the request with a negative response with the NRC 0x31 (RequestOutOfRange). c()

  2) Pre-configured setup for DcmDspRoeOnDTCStatusChange

  DcmDspRoeInitialEventStatus allows to bring the status directly to the state DCM_ROE_STOPPED.
  So the ROE event will be init by configuration instead by ROE setup request.
  But it looks like, that for DcmDspRoeOnDTCStatusChange the pre-configuration of dtcStatusMask (in container DcmDspRoeOnDTCStatusChange)is missing.

  As ISO 14229-1:2013 gives for DcmDspRoeOnDTCStatusChange:
  This eventType requires the specification of the DTCStatusMask in the request message (eventTypeParameter# 1).

  Agreed solution:

  to 1)
  set the parameter DcmDspRoeStorageState as obsolete and remove the table :

DcmDspRoeStorageState [ECUC_Dcm_00983]

to 2)

2.1) Dcm SWS
2.1.1) Remove in the description of container DcmDspRoeOnDTCStatusChange, ECUC_Dcm_00974
Please note that currently are no additional parameters for DcmDspRoeOnDTCStatusChange are defined. Therefore the existence of the container denotes the choice.

2.1.2) Add a new parameter in the container DcmDspRoeOnDTCStatusChange, ECUC_Dcm_00974

Name: DcmDspRoeDTCStatusMask
Description: value of the relevant DTCStatusMask
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 255
Post-Build Variant Value: false
Value Configuration Class: Pre-compile time: All Variants
Scope / Dependency: scope: local

2.1.3) Add a new constraint in chapter 7.3.4.8.5.1 ROE event-trigger onDTCStatusChange (0x01)

[SWS_Dcm_CONSTR_xxxx] Existence of DTCStatusMask
DcmDspRoeDTCStatusMask shall be present if DcmDspRoeInitialEventStatus is set to DCM_ROE_STOPPED

2.1.4) update requirement SWS_Dcm_00954 as follow:

[SWS_Dcm_00954] Pre-configuraton of ROE events [If DcmDspRoeInitialEventStatus is set to DCM_ROE_STOPPED, the Dcm shall behave according RoeEvent set-up :
* StorageState set to StoreEvent
* EventWindowTime set to 'infinity' and
* DTCStatusMask set to value configured in DcmDspRoeDTCStatusMask in case of onDTCStatusChange
* DID set to the vale given with DcmDspRoeDidRef in case of onChangeOfDataIdentifier
[SRS_Diag_04010]

2.2) DEXT TPS

Add new attribute DiagnosticDtcChangeTrigger.dtcStatusMask, type: PositivieInteger, description: "this attribute represents the ability to define a status mask for the triggering of an ROE response on the change of a DTC.", multiplicity: 0..1
Add upstream mapping DcmDspRoeDTCStatusMask –> DiagnosticDtcChangeTrigger.dtcStatusMask (full, 1:1, TPS_DEXT)
–Last change on issue 76721 comment 24–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.71 Specification Item ECUC_Dcm_00984

Trace References:

none

Content:

Name	DcmVinRefDcmGeneral.DcmVinRef		
Parent Container	DcmGeneral		
Description	Reference to the Did containing the VIN Information. This parameter is needed for function Dcm_GetVin		
Multiplicity	0..1		
Type	Reference to [DcmDspDid]		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: local dependency: Dcm_GetVin		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

Problem description:

AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-

A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.72 Specification Item ECUC_Dcm_00985

Trace References:

none

Content:

Name	DcmDspDataTypeDcmDspData.DcmDspDataType
Parent Container	DcmDspData
Description	Provide the implementation data type of data belonging to a DID.
Multiplicity	1
Type	EcucEnumerationParamDef

Range	BOOLEANDcmDsp Data.DcmDspData Type.BOOLEAN	Type of the data is boolean.	
	SINT16DcmDspData.Dcm DspDataType.SINT16	Type of the data is sint16.	
	SINT16_NDcmDspData.Dcm DspDataType.SINT16_N	Type of the data is sint16 array.	
	SINT32DcmDspData.Dcm DspDataType.SINT32	Type of the data is sint32.	
	SINT32_NDcmDspData.Dcm DspDataType.SINT32_N	Type of the data is sint32 array.	
	SINT8DcmDspData.DcmDsp DataType.SINT8	Type of the data is sint8.	
	SINT8_NDcmDspData.Dcm DspDataType.SINT8_N	Type of the data is sint8 array.	
	UINT16DcmDspData.Dcm DspDataType.UINT16	Type of the data is uint16.	
	UINT16_NDcmDspData.Dcm DspDataType.UINT16_N	Type of the data is uint16 array.	
	UINT32DcmDspData.Dcm DspDataType.UINT32	Type of the data is uint32.	
	UINT32_NDcmDspData.Dcm DspDataType.UINT32_N	Type of the data is uint32 array.	
	UINT8DcmDspData.DcmDsp DataType.UINT8	Type of the data is uint8.	
	UINT8_DYNDcmDsp Data.DcmDspData Type.UINT8_DYN	Type of the data is uint8 array with dynamic length.	
	UINT8_NDcmDspData.Dcm DspDataType.UINT8_N	Type of the data is uint8 array.	
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataByteSize		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same names-

pace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevEr-

rorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.73 Specification Item ECUC_Dcm_00986

Trace References:

none

Content:

Name	DcmDspDataEndiannessDcmDspData.DcmDspDataEndianness		
Parent Container	DcmDspData		
Description	Defines the endianness of the data belonging to a DID in a diagnostic request or response message. If no DcmDspDataEndiness is defined the value of DcmDspDataDefaultEndianness is applicable.		
Multiplicity	0..1		
Type	EcucEnumerationParamDef		
Range	BIG_ENDIANDcmDsp Data.DcmDspData Endianness.BIG_ENDIAN	Most significant byte shall be stored at the lowest address.	
	LITTLE_ENDIANDcmDsp Data.DcmDspDataEndian-ness.LITTLE_ENDIAN	Most significant byte shall be stored at the highest address.	
	OPAQUEDcmDspData.Dcm DspData Endianness.OPAQUE	Opaque data endianness	
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: local dependency: DcmDspDataDefaultEndianness		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-
  see file under svn.:
  https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

  DCM
  —-

See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.74 Specification Item ECUC_Dcm_00991

Trace References:

none

Content:

Name	DcmDataElementInstanceRefDcmDataElementInstance.DcmDataElementInstanceRef		
Parent Container	DcmDataElementInstance		
Description	Instance Reference to the primitive or array data which shall be read or written. Supported are VariableDataPrototypes in SenderReceiverInterfaces and NvDataInterfaces and ParameterDataPrototypes in ParameterInterfaces (read only). This reference is applicable if the AutosarDataPrototype is typed with a ApplicationPrimitiveData Type of category VALUE or BOOLEAN or ApplicationArrayDataType or if the AutosarData Prototype is typed with a ImplementationDataType of category VALUE category VALUE, ARRAY or TYPE_REFERENCE that in turn boils down to VALUE or ARRAY		
Multiplicity	1		
Type	Instance reference to [AUTOSAR-DATA-PROTOTYPE context: ROOT-SW-COMPOSITION-PROTOTYPE SW-COMPONENT-PROTOTYPE PORT-PROTOTYPE]		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency			

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76917: [Dcm] DcmDataElementInstanceRef: support for arrays is missed

  Problem description:

A DataElement can be configured in DcmDspDataType for array type.
According support of reference to array is currently missing in the instance refs within DcmDspExternalSRElementClass.

It is supposed, that only the description of DcmDataElementInstanceRef needs to be updated for this.

Old:
Instance Reference to the primitive data which shall be read or written.
Supported are VariableDataPrototypes in SenderReceiverInterfaces and NvDataInterfaces and ParameterDataPrototypes in ParameterInterfaces (read only).
This reference is applicable if the AutosarDataPrototype is typed with a ApplicationPrimitiveDataType of category VALUE or BOOLEAN or if the AutosarDataPrototype is typed with a ImplementationDataType of category VALUE or TYPE_REFERENCE that in turn boils down to VALUE

New:
Instance Reference to the primitive or array data which shall be read or written.
Supported are VariableDataPrototypes in SenderReceiverInterfaces and NvDataInterfaces and ParameterDataPrototypes in ParameterInterfaces (read only).
This reference is applicable if the AutosarDataPrototype is typed with a ApplicationPrimitiveDataType of category VALUE or BOOLEAN or ApplicationArrayDataType or if the AutosarDataPrototype is typed with a ImplementationDataType of category VALUE, ARRAY or TYPE_REFERENCE that in turn boils down to VALUE

Agreed solution:

change the descripton of DcmDataElementInstanceRef [ECUC_Dcm_00991]

from:
Instance Reference to the primitive data which shall be read or written.
Supported are VariableDataPrototypes in SenderReceiverInterfaces and NvDataInterfaces and ParameterDataPrototypes in ParameterInterfaces (read only).
This reference is applicable if the AutosarDataPrototype is typed with a ApplicationPrimitiveDataType of category VALUE or BOOLEAN or if the AutosarDataPrototype is typed with a ImplementationDataType of category VALUE or TYPE_REFERENCE that in turn boils down to VALUE

to:
Instance Reference to the primitive or array data which shall be read or written.
Supported are VariableDataPrototypes in SenderReceiverInterfaces and NvDataInterfaces and ParameterDataPrototypes in ParameterInterfaces (read only).

This reference is applicable if the AutosarDataPrototype is typed with a ApplicationPrimitiveDataType of category VALUE or BOOLEAN or ApplicationArrayDataType or if the AutosarDataPrototype is typed with a ImplementationDataType of category VALUE, ARRAY or TYPE_REFERENCE that in turn boils down to VALUE or ARRAY
–Last change on issue 76917 comment 6–

BW-C-Level:

Application	Specification	Bus
1	2	1

1.75 Specification Item ECUC_Dcm_01012

Trace References:

none

Content:

Name	DcmDspPidDataEndiannessDcmDspPidService01.DcmDspPidDataEndianness		
Parent Container	DcmDspPidService01		
Description	Defines the endianness of the data belonging to a PID in a diagnostic response message. If no DcmDspPidDataEndianness is defined the value of DcmDspDataDefaultEndianness is applicable.		
Multiplicity	0..1		
Type	EcucEnumerationParamDef		
Range	BIG_ENDIANDcmDspPid Service01.DcmDspPidData Endianness.BIG_ENDIAN	Most significant byte shall be stored at the lowest address.	
	LITTLE_ENDIANDcmDspPid Service01.DcmDspPidData Endian-ness.LITTLE_ENDIAN	Most significant byte shall be stored at the highest address	
	OPAQUEDcmDspPid Service01.DcmDspPidData Endianness.OPAQUE	Opaque data endianness	
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataDefaultEndianness		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-
  see file under svn.:
  https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.76 Specification Item ECUC_Dcm_01013

Trace References:

none

Content:

Name	DcmDspRoutineSignalEndiannessDcmDspRequestRoutineResultsOutSignal.DcmDspRoutine SignalEndianness	
Parent Container	DcmDspRequestRoutineResultsOutSignal	
Description	Defines the endianness of the data belonging to a Routine Out Signal for RequestResult subfunction. If no DcmDspRoutineSignalEndianness is defined the value of DcmDspDataDefaultEndianness is applicable.	
Multiplicity	0..1	
Type	EcucEnumerationParamDef	
Range	BIG_ENDIANDcmDsp RequestRoutineResultsOut Signal.DcmDspRoutine Signal Endianness.BIG_ENDIAN	Most significant byte shall be stored at the lowest address.
	LITTLE_ENDIANDcmDsp RequestRoutineResultsOut Signal.DcmDspRoutine SignalEndian-ness.LITTLE_ENDIAN	Most significant byte shall be stored at the highest address
	OPAQUEDcmDspRequest RoutineResultsOut Signal.DcmDspRoutine SignalEndianness.OPAQUE	Opaque data endianness

Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataDefaultEndianness		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.77 Specification Item ECUC_Dcm_01014

Trace References:

none

Content:

Name	DcmDspRoutineSignalEndiannessDcmDspStopRoutineInSignal.DcmDspRoutineSignal Endianness
Parent Container	DcmDspStopRoutineInSignal
Description	Defines the endianness of the data belonging to a Routine In Signal for Stop subfunction. If no DcmDspRoutineSignalEndianness is defined the value of DcmDspDataDefaultEndianness is applicable.

Multiplicity	0..1		
Type	EcucEnumerationParamDef		
Range	BIG_ENDIANDcmDspStop RoutineInSignal.DcmDsp RoutineSignal Endianness.BIG_ENDIAN	Most significant byte shall be stored at the lowest address.	
	LITTLE_ENDIANDcmDsp StopRoutineInSignal.Dcm DspRoutineSignalEndian-ness.LITTLE_ENDIAN	Most significant byte shall be stored at the highest address	
	OPAQUEDcmDspStop RoutineInSignal.DcmDsp RoutineSignal Endianness.OPAQUE	Opaque data endianness	
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataDefaultEndianness		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM

—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.78 Specification Item ECUC_Dcm_01015

Trace References:

none

Content:

Name	DcmDspRoutineSignalEndiannessDcmDspStopRoutineOutSignal.DcmDspRoutineSignal Endianness		
Parent Container	DcmDspStopRoutineOutSignal		
Description	Defines the endianness of the data belonging to a Routine Out Signal for Stop subfunction. If no DcmDspRoutineSignalEndianness is defined the value of DcmDspDataDefaultEndianness is applicable.		
Multiplicity	0..1		
Type	EcucEnumerationParamDef		
Range	BIG_ENDIANDcmDspStop RoutineOutSignal.DcmDsp RoutineSignal Endianness.BIG_ENDIAN	Most significant byte shall be stored at the lowest address.	
	LITTLE_ENDIANDcmDsp StopRoutineOutSignal.Dcm DspRoutineSignalEndian-ness.LITTLE_ENDIAN	Most significant byte shall be stored at the highest address	
	OPAQUEDcmDspStop RoutineOutSignal.DcmDsp RoutineSignal Endianness.OPAQUE	Opaque data endianness	
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataDefaultEndianness		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other

hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-

RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true. –Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.79 Specification Item ECUC_Dcm_01016

Trace References:

none

Content:

Name	DcmDspRoutineSignalEndiannessDcmDspStartRoutineInSignal.DcmDspRoutineSignal Endianness		
Parent Container	DcmDspStartRoutineInSignal		
Description	Defines the endianness of the data belonging to a Routine In Signal for Start subfunction. If no DcmDspRoutineSignalEndianness is defined the value of DcmDspDataDefaultEndianness is applicable.		
Multiplicity	0..1		
Type	EcucEnumerationParamDef		
Range	BIG_ENDIANDcmDspStart RoutineInSignal.DcmDsp RoutineSignal Endianness.BIG_ENDIAN	Most significant byte shall be stored at the lowest address.	
	LITTLE_ENDIANDcmDsp StartRoutineInSignal.Dcm DspRoutineSignalEndian-ness.LITTLE_ENDIAN	Most significant byte shall be stored at the highest address	
	OPAQUEDcmDspStart RoutineInSignal.DcmDsp RoutineSignal Endianness.OPAQUE	Opaque data endianness	
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataDefaultEndianness		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-
  see file under svn.:
  https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.80 Specification Item ECUC_Dcm_01017

Trace References:

none

Content:

Name	DcmDspRoutineSignalEndiannessDcmDspStartRoutineOutSignal.DcmDspRoutineSignal Endianness	
Parent Container	DcmDspStartRoutineOutSignal	
Description	Defines the endianness of the data belonging to a Routine Out Signal for Start subfunction. If no DcmDspRoutineSignalEndianness is defined the value of DcmDspDataDefaultEndianness is applicable.	
Multiplicity	0..1	
Type	EcucEnumerationParamDef	
Range	BIG_ENDIANDcmDspStart RoutineOutSignal.DcmDsp RoutineSignal Endianness.BIG_ENDIAN	Most significant byte shall be stored at the lowest address.
	LITTLE_ENDIANDcmDsp StartRoutineOutSignal.Dcm DspRoutineSignalEndian-ness.LITTLE_ENDIAN	Most significant byte shall be stored at the highest address
	OPAQUEDcmDspStart RoutineOutSignal.DcmDsp RoutineSignal Endianness.OPAQUE	Opaque data endianness
Post-Build Variant Multiplicity	false	
Post-Build Variant Value	false	

Multiplicity Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspDataDefaultEndianness		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :

SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.81 Specification Item ECUC_Dcm_01018

Trace References:

none

Content:

Name	DcmDspPidDataTypeDcmDspPidService01.DcmDspPidDataType
Parent Container	DcmDspPidService01
Description	Provide the implementation data type of data belonging to a PID.
Multiplicity	0..1 1
Type	EcucEnumerationParamDef

Range	BOOLEANDcmDspPid Service01.DcmDspPidData Type.BOOLEAN	Type of the data is boolean.	
	SINT16DcmDspPid Service01.DcmDspPidData Type.SINT16	Type of the data is sint16.	
	SINT16_NDcmDspPid Service01.DcmDspPidData Type.SINT16_N	Type of the data is sint16 array.	
	SINT32DcmDspPid Service01.DcmDspPidData Type.SINT32	Type of the data is sint32.	
	SINT32_NDcmDspPid Service01.DcmDspPidData Type.SINT32_N	Type of the data is sint32 array.	
	SINT8DcmDspPid Service01.DcmDspPidData Type.SINT8	Type of the data is sint8.	
	SINT8_NDcmDspPid Service01.DcmDspPidData Type.SINT8_N	Type of the data is sint8 array.	
	UINT16DcmDspPid Service01.DcmDspPidData Type.UINT16	Type of the data is uint16.	
	UINT16_NDcmDspPid Service01.DcmDspPidData Type.UINT16_N	Type of the data is uint16 array.	
	UINT32DcmDspPid Service01.DcmDspPidData Type.UINT32	Type of the data is uint32.	
	UINT32_NDcmDspPid Service01.DcmDspPidData Type.UINT32_N	Type of the data is uint32 array.	
	UINT8DcmDspPid Service01.DcmDspPidData Type.UINT8	Type of the data is uint8.	
	UINT8_DYNDcmDspPid Service01.DcmDspPidData Type.UINT8_DYN	Type of the data is uint8 array with dynamic length. Tags: atp.Status=obsolete atp.StatusRevisionBegin=4.3.1	
	UINT8_NDcmDspPid Service01.DcmDspPidData Type.UINT8_N	Type of the data is uint8 array.	
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	

Scope / Dependency	scope: ECU dependency: DcmDspPidDataByteSize

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74423: [DCM]: Correction of multiplicity for DcmDspPidDataType.

  Problem description:

  Name:KPIT
  Phone:
  Role:

  Description/Motivation:

  Requirement ECUC_Dcm_01018 of Autosar_SWS_DCM version 4.2.1, provides the multiplicity of DcmDspPidDataType as 0..1

  Since DcmDspPidDataType is optional, how will DCM know what kind of data is received and whether Endianness conversion is required or not.

  Was there already a decision?

  No

  Agreed solution:

  Change in DcmDspPidDataType [ECUC_Dcm_01018] multiplicity to 1..1.
  –Last change on issue 74423 comment 9–

  BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #74438: [DCM]: Clarification on DcmDspPIDDataType configured as UINT8_DYN.

  Problem description:

  If DcmDspPIDDataType is configured as UINT8_DYN, DCM SWS 4.2.1 does not specify any API (Xxx_ReadDataLength) to fetch the length before reading the data.

Agreed solution:

Set UINT8_DYN in the DcmDspPidDataType ECUC_Dcm_01018 to obsolete.

Remove the overall variation part in :
SWS_Dcm_01121 : variation part =>) "||(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspPid/DcmDsp
== UINT8_DYN"

Remove "or UINT8_DYN." in SWS_Dcm_CONSTR_6042, in SWS_Dcm_CONSTR_6012 and in SWS_Dcm_CONSTR_6043.
–Last change on issue 74438 comment 11–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

Problem description:

AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.82 Specification Item ECUC_Dcm_01020

Trace References:

none

Content:

Name	DcmDslProtocolMaximumResponseSizeDcmDslProtocolRow.DcmDslProtocolMaximumResponseSize
Parent Container	DcmDslProtocolRow
Description	This parameter is mandatory and defines the maximum length of the response message in case DcmPagedBufferEnabled == TRUE

Multiplicity	0..1		
Type	EcucIntegerParamDef		
Range	1 .. 65535		
Default value	4095		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmPagedBufferEnabled == TRUE		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]

FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.83 Specification Item ECUC_Dcm_01039

Trace References:

none

Content:

Name	DcmResponseToEcuResetDcmDspEcuResetRow.DcmResponseToEcuReset
Parent Container	DcmDspEcuResetRow
Description	Defines the answer to EcuReset service should come: Before or after the reset.
Multiplicity	1

Type	EcucEnumerationParamDef		
Range	AFTER_RESETDcmDspEcuResetRow.DcmResponseToEcuReset.AFTER_RESET	Answer to EcuReset service should come after the reset.	
	BEFORE_RESETDcmDspEcuResetRow.DcmResponseToEcuReset.BEFORE_RESET	Answer to EcuReset service should come before the reset.	
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: local ECU		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77811: Clarify response after reset

  Problem description:

  I)
  The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

  1) 10 02
  2) 11 01
  3) 11 02
  4) 11 03
  5) 11 xx ?

  For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

  There are OEM use cases having a different response behaviour on different 0x11 SFs.

  II)
  Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

  Agreed solution:

  I)

  Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuReset
Description This container contains the configuration for DcmDspEcuReset service.

Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuResetRow
Description This container contains the configuration for each DcmDspEcuReset subservice.

Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)
Make OBSOLETE DcmSendRespPendOnTransToBoot
Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.
Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOnRestart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.84 Specification Item ECUC_Dcm_01048

Trace References:

none

Content:

Name	DcmDspSecurityGetAttemptCounterFncDcmDspSecurityRow.DcmDspSecurityGetAttemptCounterFnc
Parent Container	DcmDspSecurityRow
Description	Function name to request the value of an attempt counter. Parameter is only relevant if DcmDspSecurityUsePort=="USE_ASYNCH_FNC". This parameter is related to the interface Xxx_ GetSecurityAttemptCounter.
Multiplicity	0..1
Type	EcucFunctionNameDef
Default value	–
maxLength	–
minLength	–
regularExpression	–
Post-Build Variant Multiplicity	false

Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: local dependency: DcmDspSecurityUsePort, DcmDspSecurityAttemptCounterEnabled		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints

Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.85 Specification Item ECUC_Dcm_01049

Trace References:

none

Content:

Name	DcmDspSecuritySetAttemptCounterFncDcmDspSecurityRow.DcmDspSecuritySetAttemptCounterFnc
Parent Container	DcmDspSecurityRow
Description	Function name to set the value of an attempt counter. Parameter is only relevant if DcmDspSecurityUsePort=="USE_ASYNCH_FNC". This parameter is related to the interface Xxx_ SetSecurityAttemptCounter.
Multiplicity	0..1

Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: local dependency: DcmDspSecurityUsePort, DcmDspSecurityAttemptCounterEnabled		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.86 Specification Item ECUC_Dcm_01058

Trace References:

none

Content:

Name	DcmDspDidControlMaskBitPositionDcmDspDidControlEnableMask.DcmDspDidControlMaskBitPosition

Parent Container	DcmDspDidControlEnableMask		
Description	Defines the position of the bit in the controlMask starting from most significant bit (MSB first) to least significant bit. This Bit endianness is identical to the controlMask in UDS. The DcmDspDidControlMaskSize should be considered for most significant bit.		
Multiplicity	1		
Type	EcucIntegerParamDef		
Range	0 .. 31		
Default value	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: value < (DcmDspDidControlMaskSize * 8)		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]

FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.87 Specification Item ECUC_Dcm_01060

Trace References:

none

Content:

Name	DcmDspDidControlMaskSizeDcmDspDidControl.DcmDspDidControlMaskSize
Description	The value defines the size of the controlEnableMaskRecord in bytes.
Multiplicity	0..1

Type	EcucIntegerParamDef		
Range	0 1 .. 4		
Default value	–		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75088: [DCM]IOControl service, configuraiton parameter DcmDspDidControlMaskSize

  Problem description:

  _____

  Name: KPIT
  Phone:
  Role:

  _____

  Description:
  Range of DcmDspDidControlMaskSize should be 1 to 4 and not 0 to 4.Refer requirement ECUC_Dcm_01060 of SWS DCM Version 422. If not, what is the use case of range"0"?

  _____

  Was there already a decision?No

  _____

  Agreed solution:

  Change in DcmDspDidControlMaskSize [ECUC_Dcm_01060]:
  range of parameter DcmDspDidControlMaskSize : 1 - 4

  Add a constraint SWS_Dcm_CONSTR_011 : The configuration parameter DcmDspDidControlMaskSize [ECUC_Dcm_01060] shall be only present if DcmDspDidControlMask is equal to
  DCM_CONTROLMASK_EXTERNAL or DCM_CONTROLMASK_INTERNAL.
  –Last change on issue 75088 comment 8–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.88 Specification Item ECUC_Dcm_01094

Trace References:

none

Content:

Name	DcmDspStartRoutineConfirmationFncDcmDspStartRoutine.DcmDspStartRoutineConfirmationFnc		
Parent Container	DcmDspStartRoutine		
Description	C-function to call if a transmission confirmation is needed by the issuer (BSW module)		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspRoutineUsePort, DcmDspEnableObdMirror		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.89 Specification Item ECUC_Dcm_01096

Trace References:

none

Content:

Name	DcmDspStopRoutineConfirmationFncDcmDspStopRoutine.DcmDspStopRoutineConfirmationFnc		
Parent Container	DcmDspStopRoutine		
Description	C-function to call if a transmission confirmation is needed by the issuer (BSW module)		
Multiplicity	0..1		
Type	EcucFunctionNameDef		
Default value	–		
maxLength	–		
minLength	–		
regularExpression	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU dependency: DcmDspRoutineUsePort, DcmDspEnableObdMirror		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.90 Specification Item ECUC_Dcm_01101

Trace References:

none

Content:

Name	DcmDspSecurityMaxAttemptCounterReadoutTimeDcmDspSecurity.DcmDspSecurityMax AttemptCounterReadoutTime		
Parent Container	DcmDspSecurity		
Description	Delay, in seconds, from startup (measured from the first call of the Dcm_MainFunction()), allowed for all AttemptCounter values to be obtained from the Application. Must be a multiple of the DcmTaskTime. min: A value equal to the DcmTaskTime		
Multiplicity	1		
Type	EcucFloatParamDef		
Range	]0 .. 65535[		
Default value	–		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: local dependency: DcmTaskTime		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.91 Specification Item ECUC_Dcm_01109

Trace References:

none

Content:

Name	DcmDspRoeDTCStatusMaskDcmDspRoeOnDTCStatusChange.DcmDspRoeDTCStatusMask		
Parent Container	DcmDspRoeOnDTCStatusChange		
Description	Value of the relevant DTCStatusMask		
Multiplicity	0..1		
Type	EcucIntegerParamDef		
Range	0 .. 255		
Default value	–		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: local		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76721: [Dcm] Clarifications for ROE

  Problem description:

  Some clarification for ROE transmission is required:

  1) DcmDspRoeStorageState
  For this parameter the following description is given:
  If this parameter is set to TRUE the StorageStateBit will be evaluated if this EventWindowTime is requested

  What exactly is the use of this parameter?
  What e.g in case this parameter is set to FALSE for the EventWindowTime Current-

Cycle, will then the SWS_Dcm_01076 not done?

[SWS_Dcm_01076] d If the Roe request has a storageState equal to storeEvent and contains an EventWindowTime that is not infinite, the Dcm shall reject the request with a negative response with the NRC 0x31 (RequestOutOfRange). c()

2) Pre-configured setup for DcmDspRoeOnDTCStatusChange

DcmDspRoeInitialEventStatus allows to bring the status directly to the state DCM_ROE_STOPPED.
So the ROE event will be init by configuration instead by ROE setup request.
But it looks like, that for DcmDspRoeOnDTCStatusChange the pre-configuration of dtcStatusMask (in container DcmDspRoeOnDTCStatusChange)is missing.

As ISO 14229-1:2013 gives for DcmDspRoeOnDTCStatusChange:
This eventType requires the specification of the DTCStatusMask in the request message (eventTypeParameter# 1).

Agreed solution:

to 1)
set the parameter DcmDspRoeStorageState as obsolete and remove the table : DcmDspRoeStorageState [ECUC_Dcm_00983]

to 2)

2.1) Dcm SWS
2.1.1) Remove in the description of container DcmDspRoeOnDTCStatusChange, ECUC_Dcm_00974
Please note that currently are no additional parameters for DcmDspRoeOnDTCStatusChange are defined. Therefore the existence of the container denotes the choice.

2.1.2) Add a new parameter in the container DcmDspRoeOnDTCStatusChange, ECUC_Dcm_00974

Name: DcmDspRoeDTCStatusMask
Description: value of the relevant DTCStatusMask
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 255
Post-Build Variant Value: false
Value Configuration Class: Pre-compile time: All Variants
Scope / Dependency: scope: local

2.1.3) Add a new constraint in chapter 7.3.4.8.5.1 ROE event-trigger onDTC-StatusChange (0x01)

[SWS_Dcm_CONSTR_xxxx] Existence of DTCStatusMask
DcmDspRoeDTCStatusMask shall be present if DcmDspRoeInitialEventStatus is set to DCM_ROE_STOPPED

2.1.4) update requirement SWS_Dcm_00954 as follow:

[SWS_Dcm_00954] Pre-configuraton of ROE events [If DcmDspRoeInitialEventStatus is set to DCM_ROE_STOPPED, the Dcm shall behave according RoeEvent set-up :
* StorageState set to StoreEvent
* EventWindowTime set to 'infinity' and
* DTCStatusMask set to value configured in DcmDspRoeDTCStatusMask in case of onDTCStatusChange
* DID set to the vale given with DcmDspRoeDidRef in case of onChangeOf-DataIdentifier
[SRS_Diag_04010]

2.2) DEXT TPS

Add new attribute DiagnosticDtcChangeTrigger.dtcStatusMask, type: PositivieInteger, description: "this attribute represents the ability to define a status mask for the triggering of an ROE response on the change of a DTC.", multiplicity: 0..1
Add upstream mapping DcmDspRoeDTCStatusMask –> DiagnosticDtcChangeTrigger.dtcStatusMask (full, 1:1, TPS_DEXT)
–Last change on issue 76721 comment 24–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.92 Specification Item ECUC_Dcm_01110

Trace References:

none

Content:

Name	DcmDslProtocolTypeDcmDslProtocolRow.DcmDslProtocolType
Parent Container	DcmDslProtocolRow
Description	The diagnostic protocol type for the DCM DSL protocol that is being configured. Implementation Type: Dcm_ProtocolType
Multiplicity	1
Type	EcucEnumerationParamDef (Symbolic Name generated for this parameter)

Range	DCM_OBD_ON_CANDcmDslProtocolRow.DcmDslProtocolType.DCM_OBD_ON_CAN	OBD on CAN (ISO15765-4; ISO15031-5)
	DCM_OBD_ON_FLEXRAYDcmDslProtocolRow.DcmDslProtocolType.DCM_OBD_ON_FLEXRAY	–
	DCM_OBD_ON_IPDcmDslProtocolRow.DcmDslProtocolType.DCM_OBD_ON_IP	–
	DCM_PERIODICTRANS_ON_CANDcmDslProtocolRow.DcmDslProtocolType.DCM_PERIODICTRANS_ON_CAN	–
	DCM_PERIODICTRANS_ON_FLEXRAYDcmDslProtocolRow.DcmDslProtocolType.DCM_PERIODICTRANS_ON_FLEXRAY	–
	DCM_PERIODICTRANS_ON_IPDcmDslProtocolRow.DcmDslProtocolType.DCM_PERIODICTRANS_ON_IP	–
	DCM_ROE_ON_CANDcmDslProtocolRow.DcmDslProtocolType.DCM_ROE_ON_CAN	–
	DCM_ROE_ON_FLEXRAYDcmDslProtocolRow.DcmDslProtocolType.DCM_ROE_ON_FLEXRAY	–
	DCM_ROE_ON_IPDcmDslProtocolRow.DcmDslProtocolType.DCM_ROE_ON_IP	–
	DCM_SUPPLIER_1DcmDslProtocolRow.DcmDslProtocolType.DCM_SUPPLIER_1	Reserved for SW supplier specific
	DCM_SUPPLIER_10DcmDslProtocolRow.DcmDslProtocolType.DCM_SUPPLIER_10	Reserved for SW supplier specific
	DCM_SUPPLIER_11DcmDslProtocolRow.DcmDslProtocolType.DCM_SUPPLIER_11	Reserved for SW supplier specific
	DCM_SUPPLIER_12DcmDslProtocolRow.DcmDslProtocolType.DCM_SUPPLIER_12	Reserved for SW supplier specific
	DCM_SUPPLIER_13DcmDslProtocolRow.DcmDslProtocolType.DCM_SUPPLIER_13	Reserved for SW supplier specific
	DCM_SUPPLIER_14DcmDslProtocolRow.DcmDslProtocolType.DCM_SUPPLIER_14	Reserved for SW supplier specific

Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Scope / Dependency	scope: ECU		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be

configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

  Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

  b)

interface to application

There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

c)
DcmDslProtocolRxConnectionId

"Unique identifier of the tester which uses this connection for diagnostic communication."

Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

In the DEXT, I found this is mapped to:
SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDslProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation

Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.93 Specification Item ECUC_Dcm_01111

Trace References:

none

Content:

Container Name	DcmDspEcuResetDcmDspEcuReset
Description	This container contains the configuration for DcmDspEcuReset service
Configuration Parameters	

Included parameters:

No Included Parameters

Included containers:

Included Containers		
Container Name	Multiplicity	Scope / Dependency
DcmDspEcuResetRow	1..*	This container contains the configuration for each DcmDspEcuReset subservice.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77811: Clarify response after reset

  Problem description:

  I)
  The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

  1) 10 02
  2) 11 01
  3) 11 02
  4) 11 03
  5) 11 xx ?

  For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

There are OEM use cases having a different response behaviour on different 0x11 SFs.

II)
Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

Agreed solution:

I)

Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuReset
Description This container contains the configuration for DcmDspEcuReset service.

Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuResetRow
Description This container contains the configuration for each DcmDspEcuReset subservice.

Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)
Make OBSOLETE DcmSendRespPendOnTransToBoot
Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.
Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOnRestart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.94 Specification Item ECUC_Dcm_01112

Trace References:

none

Content:

Container Name	DcmDspEcuResetRowDcmDspEcuResetRow
Description	This container contains the configuration for each DcmDspEcuReset subservice.
Configuration Parameters	

Included parameters:

Included Parameters	
Parameter Name	SWS Item ID
DcmDspEcuResetId	ECUC_Dcm_01113
DcmResponseToEcuReset	ECUC_Dcm_01039

Included containers:

No Included Containers

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77811: Clarify response after reset

  Problem description:

  I)
  The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

  1) 10 02
  2) 11 01
  3) 11 02
  4) 11 03
  5) 11 xx ?

  For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

  There are OEM use cases having a different response behaviour on different 0x11 SFs.

  II)

Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

Agreed solution:

I)

Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuReset
Description This container contains the configuration for DcmDspEcuReset service.

Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuResetRow
Description This container contains the configuration for each DcmDspEcuReset subservice.

Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset

is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)
Make OBSOLETE DcmSendRespPendOnTransToBoot
Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.
Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOnRestart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.95 Specification Item ECUC_Dcm_01113

Trace References:

none

Content:

Name	DcmDspEcuResetIdDcmDspEcuResetRow.DcmDspEcuResetId
Parent Container	DcmDspEcuResetRow
Description	Defines the subfunction ID

Multiplicity	1		
Type	EcucIntegerParamDef		
Range	0 .. 127		
Default value	–		
Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77811: Clarify response after reset

  Problem description:

  I)
  The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

  1) 10 02
  2) 11 01
  3) 11 02
  4) 11 03
  5) 11 xx ?

  For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

  There are OEM use cases having a different response behaviour on different 0x11 SFs.

  II)

Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

Agreed solution:

I)

Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuReset
Description This container contains the configuration for DcmDspEcuReset service.

Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuResetRow
Description This container contains the configuration for each DcmDspEcuReset subservice.

Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset

is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)
Make OBSOLETE DcmSendRespPendOnTransToBoot
Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.
Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOnRestart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.96 Specification Item ECUC_Dcm_01114

Trace References:

none

Content:

Name	DcmSendRespPendOnRestartDcmDslProtocolRow.DcmSendRespPendOnRestart
Parent Container	DcmDslProtocolRow
Description	If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.

Multiplicity	1		
Type	EcucBooleanParamDef		
Default value	true		
Post-Build Variant Value	false		
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: local		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77811: Clarify response after reset

  Problem description:

  I)
  The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

  1) 10 02
  2) 11 01
  3) 11 02
  4) 11 03
  5) 11 xx ?

  For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

  There are OEM use cases having a different response behaviour on different 0x11 SFs.

  II)
  Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

  Agreed solution:

  I)

  Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuReset
Description This container contains the configuration for DcmDspEcuReset service.

Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuResetRow
Description This container contains the configuration for each DcmDspEcuReset subservice.

Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)
Make OBSOLETE DcmSendRespPendOnTransToBoot
Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.
Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOnRestart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.97 Specification Item ECUC_Dcm_01115

Trace References:

none

Content:

Name	DcmDslProtocolRxTesterSourceAddrDcmDslMainConnection.DcmDslProtocolRxTesterSourceAddr	
Parent Container	DcmDslMainConnection	
Description	Tester source address uniquely describes a client and will be used e.g within the jump to Bootloader interfaces. This parameter is not required for generic connections (DcmPdus with MetaDataLength >= 1).	
Multiplicity	0..1	
Type	EcucIntegerParamDef	
Range	0 .. 65535	
Default value	–	

Post-Build Variant Multiplicity	false		
Post-Build Variant Value	false		
Multiplicity Configuration Class	Pre-compile time	X	All Variants
	Link time	–	
	Post-build time	–	
Value Configuration Class	Pre-compile time	X	VARIANT-PRE-COMPILE, VARIANT-POST-BUILD
	Link time	X	VARIANT-LINK-TIME
	Post-build time	–	
Scope / Dependency	scope: ECU		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

  Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

  b)
  interface to application

  There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
  In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

c)
DcmDslProtocolRxConnectionId

"Unique identifier of the tester which uses this connection for diagnostic communication."

Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

In the DEXT, I found this is mapped to:
SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC require-

ment is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDslProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692

SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.98 Specification Item SWS_Dcm_00004

Trace References:

SRS_Diag_04010, SRS_Diag_04058 , SRS_Diag_04065

Content:

When receiving a request for OBD Service $04, the Dcm module shall call the interface Dem_SelectDTC with the following parameter values:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref)
- DTC = DEM_DTC_GROUP_ALL_DTCS
- DTCFormat = DEM_DTC_FORMAT_OBD
- DTCOrigin = DEM_DTC_ORIGIN_OBD_RELEVANT_MEMORY

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.99 Specification Item SWS_Dcm_00005

Trace References:

SRS_Diag_04010, SRS_Diag_04058 , SRS_Diag_04065

Content:

If the condition checks are successfully done, the Dcm module shall call Dem_ClearDTC with the following parameter values:

- ClientId = Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be

released with R431 with the current status the document has got none high quality. This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.100 Specification Item SWS_Dcm_00007

Trace References:

SRS_Diag_04010

Content:

The Dcm module shall retrieve the DTCStatusAvailabilityMask by using the function Dem_GetDTCStatusAvailabilityMask().

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.101 Specification Item SWS_Dcm_00028

Trace References:

SRS_Diag_04000

Content:

If enabled (DcmPageBufferCfg.DcmPagedBufferEnabled=TRUE), the Dcm module shall provide a mechanism to send responses larger than the configured and allocated diagnostic buffer.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.102 Specification Item SWS_Dcm_00030

Trace References:

SRS_Diag_04003, SRS_Diag_04000, SRS_Diag_04015

Content:

All functional areas of the DSL submodule shall be in conformance with the specifications ISO14229-1 ISO_2d_14229_2d_1_2d_2013 and the network-independent part of ISO15765-3 ISO_2d_15765_2d_3.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.103 Specification Item SWS_Dcm_00036

Trace References:

SRS_BSW_00101 , SRS_Diag_04138

Content:

With first request of a diagnostic protocol, the DSL submodule shall call all configured Xxx_StartProtocol() functions (see configuration parameter DcmDslCallbackDCMRequestService).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.104 Specification Item SWS_Dcm_00038

Trace References:

SRS_Diag_04000

Content:

If the paged-buffer mechanism is used, the DSP submodule shall determine the overall response length before any data is passed to the DSD submodule or the DSL submodule respectively.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize

the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.105 Specification Item SWS_Dcm_00044

Trace References:

SRS_BSW_00369

Content:

The used return error values shall be the same for development and production. Only unique for all error types. The Dcm shall use only the values given by the Dcm SWS shall be usedin this chapter.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76412: Remove ECUC boolean parameters to switch service request indications on/off

  Problem description:

  The config parameters DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783] and DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868] seems to be useless as they only control the indications on/off. But the indications are anyhow controlled by the existance of DcmDsdServiceRequest<Manufacturer|Supplier>Notification containers.

  Agreed solution:

  set to obsolete:
  DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783].
  DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868]

Change variation of port ServiceRequestManufacturerNotification_Name (SWS_Dcm_01039) to:
Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestManufacturerNotification.SHORT-NAME)

Change variation of port ServiceRequestSupplierNotification_Name (SWS_Dcm_01042) to:
Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestSupplierNotification.SHORT-NAME)

In ECUC_Dcm_00681, SWS_Dcm_00218 and SWS_Dcm_00694, replace if DcmDsdRequestManufacturerNotificationEnabled=True by "if container DcmDsdServiceRequestManufacturerNotification exist" and replace if DcmDsdRequestManufacturerNotificationEnabled=False by "if container DcmDsdServiceRequestManufacturerNotification does not exist"

In SWS_Dcm_00516, SWS_Dcm_00694 and ECUC_Dcm_00816, replace if DcmDsdRequestSupplierNotificationEnabled = True by "if container DcmDsdRequestSupplierNotification exist" and replace DcmDsdRequestSupplierNotificationEnabled = False by "if container DcmDsdRequestSupplierNotification does not exist"
–Last change on issue 76412 comment 15–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.106 Specification Item SWS_Dcm_00092

Trace References:

none

Content:

Service name:	Dcm_CopyTxDataDcm_CopyTxData
Syntax:	BufReq_ReturnType Dcm_CopyTxData(PduIdType id, const PduInfoType* info, const RetryInfoType* retry, PduLengthType* availableDataPtr)

Service ID[hex]:	0x43	
Sync/Async:	Synchronous	
Reentrancy:	Reentrant	
Parameters (in):	idDcm_CopyTxData.id	Identification of the transmitted I-PDU.
	infoDcm_CopyTxData.info	Provides the destination buffer (SduData Ptr) and the number of bytes to be copied (SduLength). If not enough transmit data is available, no data is copied by the upper layer module and BUFREQ_E_BUSY is returned. The lower layer module may retry the call. An SduLength of 0 can be used to indicate state changes in the retry parameter or to query the current amount of available data in the upper layer module. In this case, the SduDataPtr may be a NULL_PTR.
	retryDcm_CopyTxData.retry	This parameter is used to acknowledge transmitted data or to retransmit data after transmission problems. If the retry parameter is a NULL_PTR, it indicates that the transmit data can be removed from the buffer immediately after it has been copied. Otherwise, the retry parameter must point to a valid RetryInfo Type element. If TpDataState indicates TP_CONFPENDING, the previously copied data must remain in the TP buffer to be available for error recovery. TP_DATACONF indicates that all data that has been copied before this call is confirmed and can be removed from the TP buffer. Data copied by this API call is excluded and will be confirmed later. TP_DATARETRY indicates that this API call shall copy previously copied data in order to recover from an error. In this case TxTpDataCnt specifies the offset in bytes from the current data copy position.
Parameters (inout):	None	
Parameters (out):	availableDataPtrDcm_CopyTx Data.availableDataPtr	Indicates the remaining number of bytes that are available in the upper layer module's Tx buffer. availableDataPtr can be used by TP modules that support dynamic payload lengths (e.g. FrIsoTp) to determine the size of the following CFs.
Return value:	BufReq_ReturnType	BUFREQ_OK: Data has been copied to the transmit buffer completely as requested. BUFREQ_E_BUSY: Request could not be fulfilled, because the required amount of Tx data is not available. The lower layer module may retry this call later on. No data has been copied. BUFREQ_E_NOT_OK: Data has not been copied. Request failed.

Description:	This function is called to acquire the transmit data of an I-PDU segment (N-PDU). Each call to this function provides the next part of the I-PDU data unless retry->TpDataState is TP_DATARETRY. In this case the function restarts to copy the data beginning at the offset from the current position indicated by retry->TxTpDataCnt. The size of the remaining data is written to the position indicated by availableDataPtr.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #68035: [diverse] Introduce rules defining which input parameters shall be passed per value and which ones per const reference

  Problem description:

  SWS_BSW_00186 especially states that input pointer parameters shall use the const qualifier (i.e., shall be P2CONST).

  In addition to that there shall be a SWS item that states that input parameters of integral and enum type shall be passed by value whereas input parameters of structure type shall be passed by reference.

  The various transformer SWS documents shall be adapted accordingly.
  –Last change on issue 68035 comment 4–

  Agreed solution:

  BSW UML model
  ———–-
  The attachment "Changed Proposal in WP-A meeting" contains a list of changes to the APIs in the model (see column H). Afterwards all related documents (included in impact list) shall update their
  generated artifacts.

  General Requirements on Basic Software Modules
  ~~~~~~

  Introduce the following requirements prior to SRS_BSW_00371:

  SRS_BSW_xxxxx: Input parameters of scalar and enum types shall be passed as a value.
  Type: valid
  Description: All input parameters of scalar or enum type shall be passed as a value.
  Rationale:
  ~~~~~~

Use case: For example a function named <Mip>_SomeFunction with a return type of Std_ReturnType and a single parameter named SomeParameter of type uint8 is defined with the following signature:

Std_ReturnType <Mip>_SomeFunction(uint8 SomeParameter);
Dependencies: –
Supporting Material: —

SRS_BSW_yyyyy: Input parameters of structure type shall be passed as a reference to a constant structure
Type: valid
Description: All input parameters of structure type shall be passed as a reference constant structure
Rationale: Passing input parameters of structure type by value would result in additional run-time overhead due to efforts for copying the whole structure.
Use case: For example a function named <Mip>_SomeFunction with a return type of Std_ReturnType and a single parameter named SomeParameter of type SomeStructure (where SomeStructure is a struct) is defined with the following signature:

Std_ReturnType <Mip>_SomeFunction(P2CONST(SomeStructure, AUTOMATIC, <MIP>_APPL_DATA) SomeParameter);
Dependencies: –
Supporting Material: —

SRS_BSW_zzzzz: Input parameters of array type shall be passed as a reference to the constant array base type
Type: valid
Description: All input parameters of array type shall be passed as a reference to the constant array base type
Rationale: This effectively matches the behavior specified in the ISO-C:90 namely that a "declaration of a parameter as 'array of type' shall be adjusted to 'qualified pointer to
type'".
Use case: For example a function named <Mip>_SomeFunction with a return type of Std_ReturnType and a single parameter named SomeParameter of type array of uint8 is defined with the following signature:

Std_ReturnType <Mip>_SomeFunction(P2CONST(uint8, AUTOMATIC, <MIP>_APPL_DATA) SomeParameter);
Dependencies: –

Supporting Material: —

General Specification of Transformers
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

In SWS_Xfrm_00036 change

const <type>* dataElement

to

<paramtype> dataElement

and add the following to the where clause after the API table after the bullet "type is data type of the data element
"

<paramtype> is derived from <type> according to the parameter passing rules rules defined by the SRS BSW General (see SRS_BSW_xxxxx, SRS_BSW_yyyyy, and SRS_BSW_zzzzz) and SWS BSW General (see SWS_BSW_00186 and SWS_BSW_00187).

In SWS_Xfrm_00038 change

[<type> data_1,] ...
[<type> data_n]

to

[<paramtype> data_1,] ...
[<paramtype> data_n]

and add the following to the where clause after the API table after the bullet "type is data type of the data element
"

<paramtype> is derived from <type> according to the parameter passing rules rules defined by the SRS BSW General (see SRS_BSW_xxxxx, SRS_BSW_yyyyy, and SRS_BSW_zzzzz) and SWS BSW General (see SWS_BSW_00186 and SWS_BSW_00187).
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

The following paragraph shall then be removed:

For the arguments of ClientServerOperation which are handed over to the transformer as data_1, ..., data_n the requirements to API parameters stated in chapter API Parameters of [5, SWS RTE] are valid (especially [SWS_Rte_01017], [SWS_Rte_01018] and [SWS_Rte_05107]).

In SWS_Xfrm_00040 change

[<originalData1>, ...
<originalDataN>]

to

[<paramtype> originalData1,] ...
[<paramtype> originalDataN]

and add the following to the where clause after the API table after the bullet "type is data type of the data element
"

<paramtype> is derived from <type> according to the parameter passing rules rules defined by the SRS BSW General (see SRS_BSW_xxxxx, SRS_BSW_yyyyy, and SRS_BSW_zzzzz) and SWS BSW General (see SWS_BSW_00186 and SWS_BSW_00187).

In SWS_Xfrm_00044 change

<type> *data_1, ...
<type> *data_n

to

[<paramtype> data_1,] ...
[<paramtype> data_n]

and add the following to the where clause after the API table after the bullet "type is data type of the data element
"

<paramtype> is derived from <type> according to the parameter passing rules rules defined by the SRS BSW General (see SRS_BSW_xxxxx, SRS_BSW_yyyyy, and SRS_BSW_zzzzz) and SWS BSW General (see SWS_BSW_00186 and SWS_BSW_00187).

The following paragraph shall then be removed:

For the arguments of ClientServerOperation which are handed over to the transformer as data_1, ..., data_n the requirements to API parameters stated in chapter API Parameters of [5, SWS RTE] are valid (especially [SWS_Rte_01017], [SWS_Rte_01018] and [SWS_Rte_05107]).

Speci?cation of SOME/IP Transformer
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

In SWS_SomeIpXf_00138 change

const <type>* dataElement

to

<paramtype> dataElement

and add the following to the where clause after the API table after the bullet "type is data type of the data element
"

<paramtype> is derived from <type> according to the parameter passing rules rules defined by the SRS BSW General (see SRS_BSW_xxxxx, SRS_BSW_yyyyy, and SRS_BSW_zzzzz) and SWS BSW General (see SWS_BSW_00186 and SWS_BSW_00187).

In SWS_SomeIpXf_00141 change

[<type> data_1,] ...
[<type> data_n]

to

[<paramtype> data_1,] ...
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

[<paramtype> data_n]

and add the following to the where clause after the API table after the bullet "type is data type of the data element
"

<paramtype> is derived from <type> according to the parameter passing rules rules defined by the SRS BSW General (see SRS_BSW_xxxxx, SRS_BSW_yyyyy, and SRS_BSW_zzzzz) and SWS BSW General (see SWS_BSW_00186 and SWS_BSW_00187).

The following paragraph shall then be removed:

For the arguments of ClientServerOperation which are handed over to the transformer as data_1, ..., data_n the requirements to API parameters stated in chapter API Parameters of [5, SWS RTE] are valid (especially [SWS_Rte_01017], [SWS_Rte_01018] and [SWS_Rte_05107]).

In SWS_SomeIpXf_00145 change

<type> *data_1, ...
<type> *data_n

to

[<paramtype> data_1,] ...
[<paramtype> data_n]

and add the following to the where clause after the API table after the bullet "type is data type of the data element
"

<paramtype> is derived from <type> according to the parameter passing rules rules defined by the SRS BSW General (see SRS_BSW_xxxxx, SRS_BSW_yyyyy, and SRS_BSW_zzzzz) and SWS BSW General (see SWS_BSW_00186 and SWS_BSW_00187).

The following paragraph shall then be removed:

For the arguments of ClientServerOperation which are handed over to the

transformer as data_1, ..., data_n the requirements to API parameters stated in chapter API Parameters of [5, SWS RTE] are valid (especially [SWS_Rte_01017], [SWS_Rte_01018] and [SWS_Rte_05107]).

Specification of COM Based Transformer
~~~~~~

In SWS_ComXf_00007 change

const <type>* dataElement

to

<paramtype> dataElement

and add the following to the where clause after the API table after the bullet "type is data type of the data element
"

<paramtype> is derived from <type> according to the parameter passing rules rules defined by the SRS BSW General (see SRS_BSW_xxxxx, SRS_BSW_yyyyy, and SRS_BSW_zzzzz) and SWS BSW General (see SWS_BSW_00186 and SWS_BSW_00187).

Specification of Time Sync over Ethernet
~~~~~~

In SWS_EthTSyn_00040 make the parameter DataPtr of EthTSyn_RxIndication const.

Specification of SWS FlexRay Interface
~~~~~~

Change SWS_FrIf_05073 from
FrIf_NumOfStartupFramesPtr (IN)
to
FrIf_NumOfStartupFramesPtr (OUT)
~~~~~~

Specification of ADC
~~~~~~
~[SWS_Adc_00419] Adc_SetupResultBuffer: change Adc_ValueGroupType* to const Adc_ValueGroupType*
~[SWS_Adc_00369] Adc_ReadGroup: move Adc_ValueGroupType * from Parameters (in) to Parameters (out)

There is no need to change parameter from IN to INOUT in Adc_SetupResultBuffer

Specification of Com
~~~~~~
Change type of parameter MetaData of Com_TriggerIPDUSendWithMetaData from uint8* to const uint8*

Specification of ComM
~~~~~~
no change required

Specification of Dem
~~~~~~
no change required

Specification of DLT
~~~~~~
no change required

Specification of DoIP
~~~~~~
From:
Std_ReturnType <User>_DoIPRoutingActivationConfirmation(boolean* Confirmed, uint8* ConfirmationReqData, uint8* ConfirmationResData)
Std_ReturnType <User>_DoIPRoutingActivationAuthentication(boolean* Authentified, uint8* AuthenticationReqData, uint8* AuthenticationResData)

To:
Std_ReturnType <User>_DoIPRoutingActivationConfirmation(boolean* Confirmed, const uint8* ConfirmationReqData, uint8* ConfirmationResData)

Std_ReturnType <User>_DoIPRoutingActivationAuthentication(boolean* Authenticated, const uint8* AuthenticationReqData, uint8* AuthenticationResData)

Specification of E2ELibrary
~~~~~~
no change required

Specification of Eth
~~~~~~
no change required

Specification of EthIf
~~~~~~
no change required

Specification of EthSwitchDriver
~~~~~~
no change required

Specification of ICUDriver
~~~~~~
SWS_Icu_00201: Icu_StartTimestamp
Parameter (IN): Icu_ValueType* BufferPtr shall be changed to Parameters (out) type

Specification of LdCom
~~~~~~
[SWS_LDCOM_00027]: LdCom_CopyTxData
BufReq_ReturnType LdCom_CopyTxData(PduIdType id, const PduInfoType* info, RetryInfoType* retry, PduLengthType* availableDataPtr) shall be changed to
BufReq_ReturnType LdCom_CopyTxData(PduIdType id, const PduInfoType* info, const RetryInfoType* retry, PduLengthType* availableDataPtr)

[SWS_LDCOM_00036]: Rte_LdComCbkCopyTxData_<sn>
BufReq_ReturnType Rte_LdComCbkCopyTxData_<sn>(const PduInfoType* info, RetryInfoType* retry, PduLengthType* availableDataPtr) shall be changed to
BufReq_ReturnType Rte_LdComCbkCopyTxData_<sn>(const PduInfoType* info, const RetryInfoType* retry, PduLengthType* availableDataPtr)

Specification of Lin
~~~~~~
PduInfoPtr needs to be const in Std_ReturnType Lin_SendFrame(uint8 Channel, const Lin_PduType* PduInfoPtr)

Specification of PduR
~~~~~~
* PduR_<User:LoTp>CopyTxData
add const to "RetryInfoType* retry"

Specification of J1939Nm
~~~~~~
Change parameter 'name' of User_AddressClaimedIndication to type 'const uint8*'

Specification of SoAd
~~~~~~
=> everything already fixed with RfC 65633

Specification of SPIHandlerDriver
~~~~~~
==> nothing to change for SWS SPI

Specification of SynchronizedTimeBaseManager
~~~~~~
"StbM not affected. All issues listed in the WP-A attachment have been already implemented by IT 69124 in context of RfC 65633"

Specification of TcpIp
~~~~~~
~[SWS_TCPIP_00040] TcpIp_DhcpReadOption: change DataPtr from (IN) to (OUT)
~[SWS_TCPIP_00189] TcpIp_DhcpV6ReadOption: change DataPtr from (IN) to (OUT)
=> everything else already fixed with RfC 65633
~~~~~~

Specification of TimeSyncOverFlexRay
~~~~~~
"Change SWS_FrTSyn_00064: parameter versioninfo of type Std_VersionInfoType* is marked wrongly as IN. Change to OUT"

Specification of EFX
~~~~~~~~~~~~~~~~~~~~~~
~ [SWS_Efx_00355] Efx_Debounce_u8_u8: Include constant for pointer Input-parameter as like below.
uint8 Efx_Debounce_u8_u8(boolean X, Efx_DebounceState_Type * State, const Efx_DebounceParam_Type * Param, sint32 dT)

~ [SWS_Efx_00376] Efx_MedianSort: The parameter <InType>* Array should be InOut instead of In parameter as like below.
Parameters (in): N Size of an array
Parameters (inout): Array Pointer to an array

~ [SWS_Efx_00309] Efx_RampCheckActivity: Include constant for pointer Input-parameter as like below.
boolean Efx_RampCheckActivity(const Efx_StateRamp_Type* State_cpst)

~ [SWS_Efx_00307] Efx_RampGetSwitchPos: Include constant for pointer Input-parameter as like below.
boolean Efx_RampGetSwitchPos(const Efx_StateRamp_Type* State_cpst)

~ [SWS_Efx_00193] Efx_Array_Average: Include constant for pointer Input-parameter as like below.
<OutType> Efx_Array_Average_<InTypeMn>_<OutTypeMn>(const <InType>* Array, uint16 Count)

Specification of MFL
~~~~~~~~~~~~~~~~~~~~~~
~ [SWS_Mfl_00192] Mfl_Debounce_u8_u8: Include constant for pointer Input-parameter as like below.
boolean Mfl_Debounce_u8_u8(boolean X, Mfl_DebounceState_Type* State, const Mfl_DebounceParam_Type* Param, float32 dT)

~ [SWS_Mfl_00266] Mfl_DebounceInit: The parameter Mfl_DebounceState_Type* State should be Out instead of In parameter as like below.
Parameters (in): X Initial value for the input state
~~~~~~~~~~~~~~~~~~~~~~

Parameters (out): State Pointer to structure for debouncing state variables

~ [SWS_Mfl_00246] Mfl_HystDeltaRight_f32_u8: Include constant for pointer Input-parameter as like below.
boolean Mfl_HystDeltaRight_f32_u8(float32 X, float32 Delta, float32 Rsp, const uint8* State)

~ [SWS_Mfl_00285] Mfl_MedianSort_f32_f32: The parameter Array should be InOut instead of In parameter as like below.
Parameters (in): N Size of an array
Parameters (inout): Array Pointer to an array

~ [SWS_Mfl_00037] Mfl_PT1SetState: The parameter State_cpst should be Out instead of In parameter as like below.
Parameters (in): X1_f32 Initial value for input state
Y1_f32 Initial value for output state
Parameters (out): State_cpst Pointer to internal state structure

~ [SWS_Mfl_00225] Mfl_RampCheckActivity: Include constant for pointer Input-parameter as like below.
boolean Mfl_RampCheckActivity(const Mfl_StateRamp_Type* State_cpst)

~ [SWS_Mfl_00223] Mfl_RampGetSwitchPos: Include constant for pointer Input-parameter as like below.
boolean Mfl_RampGetSwitchPos(const Mfl_StateRamp_Type* State_cpst)
–Last change on issue 68035 comment 135–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.107 Specification Item SWS_Dcm_00218

Trace References:

none

Content:

If configured (configuration parameter container DcmDsd.DcmDsdServiceRequestManufacturerNotification Enabled=TRUE)exists, the DSD submodule shall call the operation Xxx_Indication () on all configured ServiceRequestIndication ports (see configuration parameter DcmDsdServiceRequestManufacturerNotification).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76412: Remove ECUC boolean parameters to switch service request indications on/off

  Problem description:

  The config parameters DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783] and DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868] seems to be useless as they only control the indications on/off. But the indications are anyhow controlled by the existance of DcmDsdServiceRequest<Manufacturer|Supplier>Notification containers.

  Agreed solution:

  set to obsolete:
  DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783].
  DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868]

  Change variation of port ServiceRequestManufacturerNotification_Name (SWS_Dcm_01039) to:
  Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestManufacturerNotification.SH
  NAME)

  Change variation of port ServiceRequestSupplierNotification_Name (SWS_Dcm_01042) to:
  Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestSupplierNotification.SHORT-
  NAME)

  In ECUC_Dcm_00681, SWS_Dcm_00218 and SWS_Dcm_00694, replace if DcmDsdRequestManufacturerNotificationEnabled=True by "if container DcmDsdServiceRequestManufacturerNotification exist" and replace if DcmDsdRequestManufacturerNotificationEnabled=False by "if container DcmDsdServiceRequestManufacturerNotification does not exist"

  In SWS_Dcm_00516, SWS_Dcm_00694 and ECUC_Dcm_00816, replace if DcmDsdRequestSupplierNotificationEnabled = True by "if container DcmDsdRequestSupplierNotification exist" and replace DcmDsdRequestSupplierNotificationEnabled = False by "if container DcmDsdRequestSupplierNotification does not exist"
  –Last change on issue 76412 comment 15–

  BW-C-Level:

Application	Specification	Bus
1	3	1

1.108 Specification Item SWS_Dcm_00243

Trace References:

SRS_Diag_04082, SRS_Diag_04001

Content:

The Dcm module shall implement the OBD service $01 (Request Current Powertrain diagnostic Data) in compliance to all provisions of the OBD standard.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example:

SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.109 Specification Item SWS_Dcm_00244

Trace References:

SRS_Diag_04082, SRS_Diag_04001

Content:

The Dcm shall implement OBD Service $02 (Request Power Train FreezeFrame Data) in compliance to all provisions of the OBD standard.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be

released with R431 with the current status the document has got none high quality. This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.110 Specification Item SWS_Dcm_00245

Trace References:

SRS_Diag_04082, SRS_Diag_04001

Content:

The Dcm module shall implement OBD Service $03 (Request emission-related diagnostic trouble codes) in compliance to all provisions of the OBD standard.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.111 Specification Item SWS_Dcm_00246

Trace References:

SRS_Diag_04082, SRS_Diag_04001

Content:

The Dcm module shall implement OBD Service $04 (Clear/reset emission-related diagnostic information) in compliance to all provisions of the OBD standard.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.112 Specification Item SWS_Dcm_00247

Trace References:

SRS_Diag_04010

Content:

The Dcm module shall implement UDS Service 0x14.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.113 Specification Item SWS_Dcm_00248

Trace References:

SRS_Diag_04010

Content:

The Dcm module shall implement the UDS Service 0x19.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.114 Specification Item SWS_Dcm_00249

Trace References:

SRS_Diag_04000 04159

Content:

The Dcm module shall implement UDS Service ControlDTCSetting (0x85) to enable or disable the storage of DTCs in the ECUs error memory.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.115 Specification Item SWS_Dcm_00254

Trace References:

SRS_Diag_04215

Content:

The DSP submodule shall implement the UDS Service ReadDataByPeriodicIdentifier (0x2A)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]

[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.116 Specification Item SWS_Dcm_00273

Trace References:

none

Content:

The DSD submodule shall trigger a negative response with shall send the negative response NRC 0x12 (SubFunction not supported), when the analysis of the request message results in subfunction not supported. This analysis sub-functionNotSupported), if for the processed service no configured DcmDsdSubService exists with the DcmDsdSub Service.DcmDsdSubServiceId of the processed service. This NRC check shall not be done for UDS Service 0x31 (RoutineControl(0x31).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76640: [Dcm] Clarification for DcmDsdSubServiceId

Problem description:

DcmDsdSubServiceId is having the range 0..255.
According ISO 14229-1:2013 (table 11) Bit 7 (MSB) is the suppressPosRspMsgIndicationBit.
It is expected to configure for a subfunction the representation of SPRMIB.

When I check with the DEXT, there the SPRMIB is not configured in the available "categories".

Shall we change the range of DcmDsdSubServiceId to 0..127 ?

Agreed solution:

===DCM===
In chapter 7.4.4.4 "Check format and subfunction support" add a new requirement

SWS_Dcm_XXXX :
If DcmDsdSubService is configured for a DcmDsdService, the Dcm shall support the sub-function configured in DcmDsdSubServiceId with SPRMIB set to 0 or 1.

Rephrase SWS_Dcm_00273 to: "General sub-function supported NRC check" The DSD shall send the negative response NRC 0x12 (sub-functionNotSupported), if for the processed service no configured DcmDsdSubService exists with the DcmDsdSubServiceId of the processed service. This NRC check shall not be done for UDS Service 0x31 (RoutineControl). (SRS_Diag_04010)

===ECUC XML===

Update ECUC_Dcm_00803

Name DcmDsdSubServiceId [ECUC_Dcm_00803]
Description Identifier of the subservice.
The possible subservice identifiers are defined in ISO 14229-1 and ISO 15031-5.
Multiplicity 1
Type EcucIntegerParamDef
Range 0 .. 127
Default Value
Post-Build Variant
Value
false
Value Configuration Class
Pre-compile time X

VARIANT-PRE-COMPILE,
VARIANT-POST-BUILD
Link time X
VARIANT-LINK-TIME
Post-build time
Scope / Dependency scope: ECU
–Last change on issue 76640 comment 8–

BW-C-Level:

Application	Specification	Bus
1	3	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.117 Specification Item SWS_Dcm_00279

Trace References:

SRS_Diag_04010, SRS_Diag_04058

Content:

On reception of a request for Service $02 with PID $02, the Dcm shall call Dem_DcmGet DTCOfOBDFreezeFrame() with FrameNumber set to 0x00 to get the DTC number.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.118 Specification Item SWS_Dcm_00284

Trace References:

SRS_Diag_04010

Content:

On reception of a service $02 request with an "availability PID", the Dcm shall respond with the corresponding supported (=configured) PIDs encoded according to the OBD standard.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.

There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.119 Specification Item SWS_Dcm_00286

Trace References:

SRS_Diag_04010

Content:

On reception of a service $02 request with a PID that is not an "availability PID" and is not $02, the Dcm shall call Dem_DcmReadDataOfOBDFreezeFrame() for every data of the PID with the following parameter values:

- PID = the PID received in the OBD request
- DestBuffer = a buffer in which the callee can write the value of the PID
- BufSize = the size of the DestBuffer, this must be at least equal to the size needed to store the value of the PID as configured in the DCM
- DataElementIndexOfPid = implicit index (from 0 to n) of the DataElement calculated by Dcm according to the order of the DataElement positions in the PID (see parameter DcmDspPidData.DcmDspPidByteOffset)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.120 Specification Item SWS_Dcm_00287

Trace References:

SRS_Diag_04010

Content:

Upon the completion of SWS_Dcm_00286, the Dcm shall generate a response message including the respective PID, FreezeFrame Number and the associated data record for the requested FreezeFrame number.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.121 Specification Item SWS_Dcm_00289

Trace References:

SRS_Diag_04010

Content:

When receiving a request for OBD Service $03, the Dcm module shall obtain from the DEM all DTCs in primary memory and with a "confirmed" status using the functions Dem_SetDTCFilter() and Dem_GetNextFilteredDTC().

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"

2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.122 Specification Item SWS_Dcm_00293

Trace References:

SRS_Diag_04010, SRS_Diag_04058, SRS_Diag_04067

Content:

When responding to UDS Service 0x19 with subfunction 0x01, 0x07, 0x11 or 0x12, the Dcm module shall calculate the number of DTCs using Dem_Get NumberOfFilteredDTC() after having set the DEM-filter with Dem_SetDTCFilter() using the parameter values according to Table [REF tab_3a_Dem_SetDTCFilter_param_values_for_Sub_0x01_0x07_0x11_and_0x12].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.

There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.123 Specification Item SWS_Dcm_00295

Trace References:

SRS_Diag_04010, SRS_Diag_04058

Content:

When responding to UDS Service 0x19 with subfunction 0x06, 0x10 or 0x19, the Dcm module shall calculate the statusOfDTC by first calling Dem_SelectDTC() with the parameters values set according to Table [REF tab_3a_Dem_GetStatusOf DTC_param_values_for_Sub_0x06_0x10_0x19] and then Dem_GetStatusOfDTC() with ClientId = Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClientRef).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.124 Specification Item SWS_Dcm_00298

Trace References:

SRS_Diag_04010

Content:

The DSP submodule shall call Dem_SetFreezeFrameRecordFilter() that returns the NumberOfFilteredRecords value with DTCFormat equal to DEM_DTC_FORMAT_UDS.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.125 Specification Item SWS_Dcm_00299

Trace References:

SRS_Diag_04010

Content:

When responding to UDS Service 0x19 with subfunction 0x03, the Dcm module shall obtain the consecutive DTCs and DTCSnapshotRecordNumbers by repeatedly calling Dem_GetNextFilteredRecord().

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.126 Specification Item SWS_Dcm_00300

Trace References:

SRS_Diag_04010

Content:

When sending a positive response to UDS Service 0x19 with subfunction 0x03, the Dcm module shall use the data in the response message according to Table [REF tab_3a_subfunction_0x03_Response_Values].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"

2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.127 Specification Item SWS_Dcm_00302

Trace References:

none

Content:

When sending a positive response to UDS Service 0x19 with subfunction 0x04 or 0x18and DTCSnapshotRecordNumber not 0xFF, the Dcm module shall use the data in the response message according to Table [REF tab_3a_subfunction_0x04_0x18_Response_Values_DTCSnapshotRecordNumber_not_0xFF].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77867: [Dcm] ReDesign Dem/Dcm interface of AR4.3: conflict with Dem_GetNextFreezeFrameData() parameter usage

  Problem description:

  DCM spec says:

  SWS_Dcm_00384] d Upon reception of UDS Service 0x019 with subfunction 0x04 and DTCSnapshotRecordNumber not 0xff, Dcm module shall obtain the "DTCSnapshotRecordNumberOfIdentifiers" and the FreezeFrame by calling Dem_GetNextFreezeFrameData() with the following parameter values:
  - DTC: DTCMaskRecord from the request in UDS format
  - DTCOrigin: DEM_DTC_ORIGIN_PRIMARY_MEMORY
  - RecordNumber: DTCSnapshotRecordNumber from the request

  However in Dem SWS Dem_GetNextFreezeFrameData() function prototype is defines as

```
Std_ReturnType Dem_GetNextFreezeFrameData(
uint8 ClientId,
uint8* DestBuffer,
uint16* BufSize
)
```

The parameters do not match. It sees that the Dcm specification is not updated to the new AR 4.3 access methods with Filter and following reading based on a client id.
For Dcm the requirement should be to first set the filter via Dem_SelectFreezeFrameData(), then to disable the DTC record Update, then call Dem_GetNextFreezeFrameData() to read the snapshot data and finally to release the DTCRecordUpdate.

The same issue also detected for
- SWS_Dcm_01148
- SWS_Dcm_00385
- SWS_Dcm_01149

Agreed solution:

Update SWS_Dcm_00384:

[SWS_Dcm_00384] [Upon reception of UDS Service 0x019 with subfunction 0x04 or 0x18 the Dcm shall retrieve from the Dem the stored snapshot records for the requested DTC and origin.](SRS_Diag_04010, SRS_Diag_04058)

Remove the following requirements:
- SWS_Dcm_01148
- SWS_Dcm_00385
- SWS_Dcm_01149
–Last change on issue 77867 comment 5–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.128 Specification Item SWS_Dcm_00304

Trace References:

SRS_Diag_04010

Content:

On reception of the UDS Service 0x85 with sub-function 0x01 (DTCSettingType "ON") and the optional parameter DTCSettingControlOptionRecord is NOT present in the request message, the Dcm module shall call Dem_EnableDTCSetting() with the following parameter:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76395: Restore DEXT DiagnosticControlDTCSettings.controlOptionRecordPresent

  Problem description:

  Within RfC # 71838 the DiagnosticControlDTCSettings.controlOptionRecordPresent was removed (obosoleted) from DEXT, see comment 28, 55 and 56.
  In the Dcm ECUC_Dcm_00965 DcmSupportDTCSettingControlOptionRecord was also removed.

  This is wrong, as the Dcm still supports this parameter (see SWS_Dcm_01399). The restriction of # 71838 is that DTCSettingControlOptionRecord only allows values of 0xFFFFFF.

  The 4.2.2 Dcm had after SWS_Dcm_01063 and SWS_Dcm_00406 the following sentence: "This requirement is only valid if DcmSupportDTCSettingControlOption-Record is set to true (see [SWS_Dcm_00829] and [SWS_Dcm_00852])".
  We or have to restore this information or better structure and change the chapter for 0x85 in a way that it is clear, that after the length check, no further processing is done and the requirements for processing do not apply.
  –Last change on issue 76395 comment 14–

  Agreed solution:

  DEXT:
  Remove tagged value atp.Status=removed from DiagnosticControlDTCSettings.controlOptionRecordPresent.

  Dcm:
  1) Restore Dcm ECUC_Dcm_00965 from 4.2.2
  2) Move editorial text between SWS_Dcm_01399 and SWS_Dcm_00304 to top of chapter "7.5.2.23 Service 0x85 - ControlDTCSetting"

3) Restore SWS_Dcm_00829 ans SWS_Dcm_00852 from 4.2.2:
[SWS_Dcm_00829] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to true and the length of DTCSettingControlOptionRecord in the request is different from 3 bytes, the Dcm shall return NRC 0x13 (Incorrect message length or invalid format).
[SWS_Dcm_00852] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to false and the request contains any data after the subfunction, the DCM shall return NRC 0x13 (Incorrect message length or invalid format).
4)Update the following requirements:

Change SWS_Dcm_01063 to :
On reception of UDS Service 0x85 with subfunction 0x01 (DTCSettingType "ON"), the Dcm shall call Dem_EnableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

Change SWS_Dcm_00406 to :
On reception of UDS Service 0x85 with subfunction 0x02 (DTCSettingType "OFF"), the Dcm shall call Dem_DisableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

5) New changes needed and detected during implementation (agreed with cm):
Remove the following requirements:
SWS_Dcm_00304
SWS_Dcm_01064
SWS_Dcm_00830
–Last change on issue 76395 comment 23–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.129 Specification Item SWS_Dcm_00325

Trace References:

none

Content:

If the operation SecurityAccess_SecurityLevel.CompareKey() returns E_OK, the DSP submodule shall set the new access type with DslInternal_SetSecurityLevel()(see the conversion formula given in SWSECUC_Dcm_00754 DcmDspSecurityRow.DcmDspSecurity Level).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76923: [Dcm] incorrect reference at [SWS_Dcm_00325]: SWS_Dcm_00754 instead of ECUC_Dcm_00754

  Problem description:

  Trivial typo at [SWS_Dcm_00325]: the reference to [SWS_Dcm_00754] must be [ECUC_Dcm_00754].
  (See also RfC # 72423)

  Agreed solution:

  Change [SWS_Dcm_00325]
  from
  <[SWS_Dcm_00325] d If the operation CompareKey() returns E_OK, the DSP submodule shall set the new access type with DslInternal_SetSecurityLevel()(see the conversion formula given in [SWS_Dcm_00754]). c()
  to
  >[SWS_Dcm_00325] d If the operation CompareKey() returns E_OK, the DSP submodule shall set the new access type with DslInternal_SetSecurityLevel()(see the conversion formula given in [ECUC_Dcm_00754]). c()

  BW-C-Level:

Application	Specification	Bus
1	4	1

1.130 Specification Item SWS_Dcm_00330

Trace References:

SRS_Diag_04010

Content:

When receiving a request for OBD Service $0A, the Dcm module shall obtain from the DEM all DTCs stored in permanent memory using the functions Dem_SetDTCFilter() and Dem_GetNextFilteredDTC().

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.131 Specification Item SWS_Dcm_00340

Trace References:

SRS_Diag_04011

Content:

Service name:	Dcm_GetActiveProtocolDcm_GetActiveProtocol	
Syntax:	Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType* ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress)	
Service ID[hex]:	0x0f	
Sync/Async:	Synchronous	
Reentrancy:	Reentrant	
Parameters (in):	None	
Parameters (inout):	None	
Parameters (out):	ActiveProtocolTypeDcm_GetActive Protocol.ActiveProtocolType	Active protocol type value
	ConnectionIdDcm_GetActive Protocol.ConnectionId	Unique connection identifier
	TesterSourceAddressDcm_GetActive Protocol.TesterSourceAddress	source address of the tester
Return value:	Std_ReturnType	E_OK: this value is always returned.
Description:	This function returns the active UDS protocol name details	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

  Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

  b)
  interface to application

There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

c)
DcmDslProtocolRxConnectionId

"Unique identifier of the tester which uses this connection for diagnostic communication."

Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

In the DEXT, I found this is mapped to:
SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDslProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===

SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.132 Specification Item SWS_Dcm_00376

Trace References:

SRS_Diag_04010

Content:

When sending a positive response to UDS Service 0x19 with subfunction 0x01, 0x07, 0x11 or 0x12, the Dcm module shall use the data in the response message according to Table [REF tab_3a_subfunction_0x01_0x07_0x11_0x12_Response_Values]

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.133 Specification Item SWS_Dcm_00378

Trace References:

SRS_Diag_04010, SRS_Diag_04058, SRS_Diag_04067

Content:

When responding to UDS Service 0x19 with subfunctions 0x02, 0x0A, 0x0F, 0x13, 0x15 or 0x17, the Dcm module shall obtain the records with DTCs (and their associated status) by repeatedly calling Dem_GetNextFilteredDTC() after having configured the filter with Dem_SetDTCFilter() using the parameter values according to Table [REF tab_3a_Dem_SetDTCFilter_param_values_for_Sub_0x02_0x0A_0x0F_0x13_0x15_and_0x17].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were

replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality. This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.134 Specification Item SWS_Dcm_00379

Trace References:

SRS_Diag_04010

Content:

When sending a positive response to UDS Service 0x19 with subfunction 0x08, the Dcm module shall use the data in the response message according to Table [REF tab_3a_subfunction_0x08_Response_Values].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no

added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.135 Specification Item SWS_Dcm_00380

Trace References:

SRS_Diag_04010

Content:

When responding to UDS Service 0x19 with subfunction 0x08, the Dcm module shall obtain the DTCAndSeverityRecords by repeatedly calling Dem_GetNext FilteredDTCAndSeverity() after having configured the filter with Dem_SetDTCFilter() using the parameter values according to Table [REF tab_3a_Dem_SetDTCFilter_param_values_for_Sub_0x08].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.136 Specification Item SWS_Dcm_00381

Trace References:

SRS_Diag_04010

Content:

When sending a positive response to UDS Service 0x19 with subfunction 0x09, the Dcm module shall use the data in the response message according to Table [REF tab_3a_subfunction_0x09_Response_Values].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.137 Specification Item SWS_Dcm_00382

Trace References:

SRS_Diag_04010

Content:

When responding to UDS Service 0x19 with subfunction 0x06, 0x10 or 0x19, the Dcm module shall calculate the DTCExtendedDataRecord by first calling Dem_SelectExtended DataRecord() with the parameter values set according to Table [REF tab_3a_Dem_Dcm GetExtendedDataRecordByDTC_param_values_for_Sub_0x06_0x10_0x19] and then call Dem_GetNextExtendedDataRecord() repeatedly until DEM_NO_SUCH_ELEMENT is returned.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example:

SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.138 Specification Item SWS_Dcm_00383

Trace References:

SRS_Diag_04010, SRS_Diag_04058

Content:

When responding to UDS Service 0x19 with subfunction 0x04, the Dcm module shall obtain the status of the DTC by first calling Dem_SelectDTC() with the following parameters:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref)
- DTC: DTC from the request
- DTCOrigin: DEM_DTC_ORIGIN_PRIMARY_MEMORY

and then Dem_GetStatusOfDTC() with ClientId = Client Id for this Dcm instance (see Dcm DslProtocolRow.DcmDemClientRef)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and

DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.139 Specification Item SWS_Dcm_00384

Trace References:

SRS_Diag_04010, SRS_Diag_04058

Content:

Upon reception of UDS Service 0x019 with subfunction 0x04 and DTCSnapshotRecord Number not 0xff, Dcm module shall obtain the "DTCSnapshotRecordNumberOfIdentifiers" and the FreezeFrame by calling Dem _GetNextFreezeFrameData() with the following parameter values:

- DTC: DTCMaskRecord from the request in UDS format
- DTCOrigin: DEM_DTC _ORIGIN_PRIMARY_MEMORY
- RecordNumber: DTCSnapshotRecordNumber from the request

or 0x18, the Dcm shall retrieve from the Dem the stored snapshot records for the requested DTC and origin.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77867: [Dcm] ReDesign Dem/Dcm interface of AR4.3: conflict with Dem_GetNextFreezeFrameData() parameter usage

  Problem description:

  DCM spec says:

  SWS_Dcm_00384] d Upon reception of UDS Service 0x019 with subfunction 0x04 and DTCSnapshotRecordNumber not 0xff, Dcm module shall obtain the "DTCSnapshotRecordNumberOfIdentifiers" and the FreezeFrame by calling Dem_GetNextFreezeFrameData() with the following parameter values:
  - DTC: DTCMaskRecord from the request in UDS format
  - DTCOrigin: DEM_DTC_ORIGIN_PRIMARY_MEMORY
  - RecordNumber: DTCSnapshotRecordNumber from the request

  However in Dem SWS Dem_GetNextFreezeFrameData() function prototype is defines as

  Std_ReturnType Dem_GetNextFreezeFrameData(
  uint8 ClientId,
  uint8* DestBuffer,
  uint16* BufSize
)

  The parameters do not match. It sees that the Dcm specification is not updated to the new AR 4.3 access methods with Filter and following reading based on a client id.
  For Dcm the requirement should be to first set the filter via Dem_SelectFreezeFrameData(), then to disable the DTC record Update, then call Dem_GetNextFreezeFrameData() to read the snapshot data and finally to release the DTCRecordUpdate.

  The same issue also detected for
  - SWS_Dcm_01148
  - SWS_Dcm_00385
  - SWS_Dcm_01149

  Agreed solution:

Update SWS_Dcm_00384:

[SWS_Dcm_00384] [Upon reception of UDS Service 0x019 with subfunction 0x04 or 0x18 the Dcm shall retrieve from the Dem the stored snapshot records for the requested DTC and origin.](SRS_Diag_04010, SRS_Diag_04058)

Remove the following requirements:
- SWS_Dcm_01148
- SWS_Dcm_00385
- SWS_Dcm_01149
–Last change on issue 77867 comment 5–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example:

SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.140 Specification Item SWS_Dcm_00385

Trace References:

SRS_Diag_04010, SRS_Diag_04058

Content:

Upon reception of UDS Service 0x19 with subfunction 0x04 and DTCSnapshotRecord Number 0xff, the Dcm module shall cycle through all FreezeFrame numbers from 0x00 to 0xfe and obtain the corresponding "DTCSnapshotRecordNumberOfIdentifiers" and FreezeFrame by calling Dem_GetNextFreezeFrameData() with the following parameter values:

- DTC: DTCMaskRecord from the request in UDS format
- DTCOrigin: DEM_DTC_ORIGIN_PRIMARY_MEMORY
- RecordNumber: value from 0x00 -> 0xFE

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77867: [Dcm] ReDesign Dem/Dcm interface of AR4.3: conflict with Dem_GetNextFreezeFrameData() parameter usage

  Problem description:

  DCM spec says:

  SWS_Dcm_00384] d Upon reception of UDS Service 0x019 with subfunction 0x04 and DTCSnapshotRecordNumber not 0xff, Dcm module shall obtain the "DTCSnapshotRecordNumberOfIdentifiers" and the FreezeFrame by calling Dem_GetNextFreezeFrameData() with the following parameter values:
  - DTC: DTCMaskRecord from the request in UDS format
  - DTCOrigin: DEM_DTC_ORIGIN_PRIMARY_MEMORY

- RecordNumber: DTCSnapshotRecordNumber from the request

However in Dem SWS Dem_GetNextFreezeFrameData() function prototype is defines as

```
Std_ReturnType Dem_GetNextFreezeFrameData(
uint8 ClientId,
uint8* DestBuffer,
uint16* BufSize
)
```

The parameters do not match. It sees that the Dcm specification is not updated to the new AR 4.3 access methods with Filter and following reading based on a client id.
For Dcm the requirement should be to first set the filter via Dem_SelectFreezeFrameData(), then to disable the DTC record Update, then call Dem_GetNextFreezeFrameData() to read the snapshot data and finally to release the DTCRecordUpdate.

The same issue also detected for
- SWS_Dcm_01148
- SWS_Dcm_00385
- SWS_Dcm_01149

Agreed solution:

Update SWS_Dcm_00384:

[SWS_Dcm_00384] [Upon reception of UDS Service 0x019 with subfunction 0x04 or 0x18 the Dcm shall retrieve from the Dem the stored snapshot records for the requested DTC and origin.](SRS_Diag_04010, SRS_Diag_04058)

Remove the following requirements:
- SWS_Dcm_01148
- SWS_Dcm_00385
- SWS_Dcm_01149
–Last change on issue 77867 comment 5–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.141 Specification Item SWS_Dcm_00386

Trace References:

none

Content:

When sending a positive response to UDS Service 0x19 Upon reception of UDS Service 0x019 with subfunction 0x06 , or 0x10 or 0x19, the Dcm module shall use the data in the response message according to Table REF tab_3a_Sub_0x06_0x10_0x19_Response_Values_DTCExtendedDataRecordNumber_Diff_0xFF_0xFEshall retrieve from the Dem the stored extended data records for the requested DTC and origin.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76541: Dem_GetNextExtendedDataRecord shall provide the extended data record number as well

  Problem description:

  In RfC # 71838 is was forgotten, that Dem_GetNextExtendedDataRecord needs to provide the EDR number along with the data. If more than one EDR is requested by Dem_SelectExtendedDataRecord is it unclear which EDR number is returned by Dem_GetNextExtendedDataRecord.

  Agreed solution:

  DEM:
  1) Change SWS_Dem_00075 to:
  The API Dem_GetNextExtendedDataRecord shall copy the extended record number and complete data of the requested extended data record by Dem_SelectExtendedDataRecord API for the specified ClientId to the destination buffer (DestBuffer). The function shall transmit these data as a complete record with the format shown in figure 7.52. The extended data record number is placed as the first byte in the copied data. (SRS_Diag_04074)

  2) Change the Description of "Figure 7.52: Buffer format used by Dem_DcmGetExtendedDataRecordByDTC" to "Figure 7.52: Buffer format used by Dem_GetNextExtendedDataRecord"

  3) Update the image 7.52 so that the first byte is the "EDR" number

  === BSW UML start ===
  4) Change the DestBuffer out-param of Dem_GetNextExtendedDataRecord

SWS_Dem_00239 to (it was a copy& pase from freezeframes):
"This parameter contains a byte pointer that points to the buffer, to which the extended data data record shall be written to. The format is: ExtendedDataRecordNumber, data[0], data[1], ..., data[n]"

5) Change description of parameter SizeOfExtendedDataRecord in SWS_Dem_00240 to "Size of the requested extended data record(s) including record number. The format for a single ExtendedDataRecord is: RecordNumber,data[1], ...,data[N]"
=== BSW UML end ===

6) Change parameter description of ExtendedDataNumber in SWS_Dem_91017 to: "Identification/Number of requested extended data record(s). Additionally the values 0xFE and 0xFF are explicitly allowed to request."

DCM:

Update SWS_Dcm_00386:

[SWS_Dcm_00386] [Upon reception of UDS Service 0x019 with subfunction 0x06 or 0x10 or 0x19 the Dcm shall retrieve from the Dem the stored extended data records for the requested DTC and origin.]
–Last change on issue 76541 comment 22–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.142 Specification Item SWS_Dcm_00387

Trace References:

none

Content:

When sending a positive response to UDS Service 0x19 with subfunction 0x04 or 0x18 and DTCSnapshotRecordNumber=0xFF, the Dcm module shall use the data in the response message according to Table REF tab_3a_subfunction_0x04_0x18_Response_Values_DTCSnapshotRecordNumber_equal_0xFF.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77867: [Dcm] ReDesign Dem/Dcm interface of AR4.3: conflict with Dem_GetNextFreezeFrameData() parameter usage

  Problem description:

  DCM spec says:

  SWS_Dcm_00384] d Upon reception of UDS Service 0x019 with subfunction 0x04 and DTCSnapshotRecordNumber not 0xff, Dcm module shall obtain the "DTCSnapshotRecordNumberOfIdentifiers" and the FreezeFrame by calling Dem_GetNextFreezeFrameData() with the following parameter values:
  - DTC: DTCMaskRecord from the request in UDS format
  - DTCOrigin: DEM_DTC_ORIGIN_PRIMARY_MEMORY
  - RecordNumber: DTCSnapshotRecordNumber from the request

  However in Dem SWS Dem_GetNextFreezeFrameData() function prototype is defines as

  Std_ReturnType Dem_GetNextFreezeFrameData(
  uint8 ClientId,
  uint8* DestBuffer,
  uint16* BufSize
)

  The parameters do not match. It sees that the Dcm specification is not updated to the new AR 4.3 access methods with Filter and following reading based on a client id.
  For Dcm the requirement should be to first set the filter via Dem_SelectFreezeFrameData(), then to disable the DTC record Update, then call Dem_GetNextFreezeFrameData() to read the snapshot data and finally to release the DTCRecordUpdate.

  The same issue also detected for
  - SWS_Dcm_01148
  - SWS_Dcm_00385
  - SWS_Dcm_01149

  Agreed solution:

  Update SWS_Dcm_00384:

  [SWS_Dcm_00384] [Upon reception of UDS Service 0x019 with subfunction

0x04 or 0x18 the Dcm shall retrieve from the Dem the stored snapshot records for the requested DTC and origin.](SRS_Diag_04010, SRS_Diag_04058)

Remove the following requirements:
- SWS_Dcm_01148
- SWS_Dcm_00385
- SWS_Dcm_01149
–Last change on issue 77867 comment 5–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.143 Specification Item SWS_Dcm_00388

Trace References:

SRS_Diag_04010, SRS_Diag_04058

Content:

When responding to UDS Service 0x19 with subfunction 0x05 and DTCStoredDataRecord Number is 0x00, the Dcm shall compose the OBD Freezeframe by looping all DcmDsp Pid and collecting all DcmDspPidData which are configured for service 0x02 by calling Dem_DcmReadDataOfOBDFreezeFrame() for the Data Element. The Dcm shall compose the DidId by adding 0xF400 to the Pid, and calculate padding and supported informations.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.144 Specification Item SWS_Dcm_00389

Trace References:

SRS_Diag_04010, SRS_Diag_04058

Content:

When responding to UDS Service 0x19 with subfunction 0x05 and DTCStoredDataRecord Number is 0x00, the Dcm module shall obtain the status of the DTC by first calling Dem_SelectDTC() with the following parameters:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref)
- DTC: DTC as defined in SWS_Dcm_00388
- DTCOrigin: DEM_DTC_ORIGIN_PRIMARY_MEMORY

and then Dem_GetStatusOfDTC() with the following parameter:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.145 Specification Item SWS_Dcm_00392

Trace References:

SRS_Diag_04010

Content:

When sending a positive response to UDS Service 0x19 with subfunction 0x0B, 0x0C, 0x0D or 0x0E, the Dcm module shall use the data in the response message according to Table [REF tab_3a_subfunction_0x0B_0x0C_0x0D_0x0E_Response_Values].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.146 Specification Item SWS_Dcm_00393

Trace References:

SRS_Diag_04010, SRS_Diag_04058

Content:

For the purpose of responding to UDS Service 0x19 with subfunctions 0x0B, 0x0C, 0x0D or 0x0E, the Dcm module shall obtain the StatusOfDtc by calling Dem_GetStatusOfDTC() with the following parameter values:

- ClientId :Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref
- DTC: the DTC value as defined in SWS_Dcm_00466
- DTCOrigin: DEM_DTC_ORIGIN_PRIMARY_MEMORY

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.

There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.147 Specification Item SWS_Dcm_00401

Trace References:

SRS_Diag_04010

Content:

Upon completing SWS_Dcm_00400, when Xxx_Start() returns E_OK, the Dcm module shall reply with a positive response with the data returned by Xxx_Start() in the dataOut as routineStatusRecord (dataOut are merged according to the list of output signal configured for this routine (see configuration parameter DcmDspStartRoutineOut)).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update. There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.148 Specification Item SWS_Dcm_00406

Trace References:

SRS_Diag_04010 04115

Content:

On reception of the UDS Service 0x85 with subfunction 0x02 (DTCSettingType "OFF"and the optional parameter DTCSettingControlOptionRecord is present in the request message), the Dcm module shall call Dem_DisableDTCSetting(DTCGroup, DTCKind) with DTCGroup) with ClientId = DTCSettingControlOptionRecord of the request message and

DTCKind = DEM_DTC_KIND_ALL_DTCSClient Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClientRef).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76395: Restore DEXT DiagnosticControlDTCSettings.controlOptionRecordPresent

  Problem description:

  Within RfC # 71838 the DiagnosticControlDTCSettings.controlOptionRecordPresent was removed (obosoleted) from DEXT, see comment 28, 55 and 56.
  In the Dcm ECUC_Dcm_00965 DcmSupportDTCSettingControlOptionRecord was also removed.

  This is wrong, as the Dcm still supports this parameter (see SWS_Dcm_01399). The restriction of # 71838 is that DTCSettingControlOptionRecord only allows values of 0xFFFFFF.

  The 4.2.2 Dcm had after SWS_Dcm_01063 and SWS_Dcm_00406 the following sentence: "This requirement is only valid if DcmSupportDTCSettingControlOptionRecord is set to true (see [SWS_Dcm_00829] and [SWS_Dcm_00852])".
  We or have to restore this information or better structure and change the chapter for 0x85 in a way that it is clear, that after the length check, no further processing is done and the requirements for processing do not apply.
  –Last change on issue 76395 comment 14–

  Agreed solution:

  DEXT:
  Remove tagged value atp.Status=removed from DiagnosticControlDTCSettings.controlOptionRecordPresent.

  Dcm:
  1) Restore Dcm ECUC_Dcm_00965 from 4.2.2
  2) Move editorial text between SWS_Dcm_01399 and SWS_Dcm_00304 to top of chapter "7.5.2.23 Service 0x85 - ControlDTCSetting"
  3) Restore SWS_Dcm_00829 ans SWS_Dcm_00852 from 4.2.2:
  [SWS_Dcm_00829] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to true and the length of DTCSettingControlOptionRecord in the request is different from 3 bytes, the Dcm shall return NRC 0x13 (Incorrect message length or invalid format).
  [SWS_Dcm_00852] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to false and the request contains any data after the subfunction, the DCM shall return NRC 0x13 (Incorrect message length or invalid

format).
4)Update the following requirements:

Change SWS_Dcm_01063 to :
On reception of UDS Service 0x85 with subfunction 0x01 (DTCSettingType "ON"), the Dcm shall call Dem_EnableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

Change SWS_Dcm_00406 to :
On reception of UDS Service 0x85 with subfunction 0x02 (DTCSettingType "OFF"), the Dcm shall call Dem_DisableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

5) New changes needed and detected during implementation (agreed with cm):
Remove the following requirements:
SWS_Dcm_00304
SWS_Dcm_01064
SWS_Dcm_00830
–Last change on issue 76395 comment 23–

BW-C-Level:

Application	Specification	Bus
1	3	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update. There are too many "No description" shown in the documents -

~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.149 Specification Item SWS_Dcm_00409

Trace References:

SRS_Diag_04010

Content:

The Dcm shall ignore all requests regarding record-numbers that are not 0

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no

added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.150 Specification Item SWS_Dcm_00410

Trace References:

SRS_Diag_04082, SRS_Diag_04001

Content:

The Dcm module shall implement OBD Service $07 (Request Emission-Related Diagnostic Trouble Codes Detected during Current or Last Completed Driving Cycle) in compliance to all provisions of the OBD standard.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.151 Specification Item SWS_Dcm_00411

Trace References:

SRS_Diag_04082, SRS_Diag_04001

Content:

The Dcm module shall implement OBD Service $0A (Request Emission-Related Diagnostic Trouble Codes with Permanent Status) in compliance to all provisions of the OBD standard.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.152 Specification Item SWS_Dcm_00412

Trace References:

SRS_Diag_04010

Content:

When receiving a request for OBD Service $07, the Dcm module shall obtain from the DEM module all DTCs in primary memory with a "pending" status using the functions Dem_SetDTCFilter() and Dem_GetNextFilteredDTC().

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.153 Specification Item SWS_Dcm_00413

Trace References:

SRS_Diag_04010

Content:

In case Dem_ClearDTC() returns E_OK, the Dcm module shall send a positive response.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.154 Specification Item SWS_Dcm_00414

Trace References:

SRS_Diag_04082, SRS_Diag_04001

Content:

The Dcm module shall implement OBD Service $06 (Request On-Board Monitoring Test-results for Specific Monitored Systems) in compliance to all provisions of the OBD standard.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.

There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.155 Specification Item SWS_Dcm_00417

Trace References:

SRS_Diag_04082, SRS_Diag_04001

Content:

The Dcm module shall implement OBD Service $08 (Request Control of On-Board System, Test or Component) in compliance to all provisions of the OBD standard.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update. There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.156 Specification Item SWS_Dcm_00421

Trace References:

SRS_Diag_04082, SRS_Diag_04001

Content:

The Dcm module shall implement OBD Service $09 (Request Vehicle Information) in compliance to all provisions of the OBD standard.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.157 Specification Item SWS_Dcm_00441

Trace References:

SRS_Diag_04010, SRS_Diag_04079

Content:

The Dcm module shall obtain the size of the data returned by Dem in Dem_GetNextFreeze FrameData() call by using Dem_GetSizeOfFreezeFrameSelection().

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.158 Specification Item SWS_Dcm_00464

Trace References:

SRS_Diag_04010

Content:

When sending a positive response to UDS Service 0x19 with subfunction 0x14, the Dcm module shall use the data in the response message according to Table [REF tab_3a_subfunction_0x14_Response_Values].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.159 Specification Item SWS_Dcm_00465

Trace References:

SRS_Diag_04010, SRS_Diag_04058

Content:

When responding to UDS Service 0x19 with subfunctions 0x14, the Dcm module shall obtain the DTCFaultCounter of every DTCs with status "prefailed" by repeatedly calling Dem_GetNextFilteredDTCAndFDC() after having configured the filter with Dem_SetDTC-Filter() using the parameter values according to Table [REF tab_3a_Dem_GetNextFiltered DTCAndFDC_param_values_for_Sub_0x14].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be

released with R431 with the current status the document has got none high quality. This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.160 Specification Item SWS_Dcm_00466

Trace References:

SRS_Diag_04010

Content:

For the purpose of responding to UDS Service 0x19 with subfunctions 0x0B, 0x0C, 0x0D or 0x0E, the Dcm shall obtain the DTC with Dem_GetDTCByOccurrenceTime() using the parameter values according to Table [REF tab_3a_Dem_GetDTCByOccurrence Time_param_values_for_Sub_0x0B_0x0C_0x0D_0x0E].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no

added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.161 Specification Item SWS_Dcm_00516

Trace References:

none

Content:

If configured (configuration parameter container DcmDsd.DcmDsdServiceRequestSupplierNotification Enabled=TRUE)exists, the DSD submodule shall call the operation Xxx_Indication () on all configured ServiceRequestIndication ports (see configuration parameter DcmDsdServiceRequestSupplierNotification).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76412: Remove ECUC boolean parameters to switch service request indications on/off

Problem description:

The config parameters DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783] and DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868] seems to be useless as they only control the indications on/off. But the indications are anyhow controlled by the existance of DcmDsdServiceRequest<Manufacturer|Supplier>Notification containers.

Agreed solution:

set to obsolete:
DcmDsdRequestManufacturerNotificationEnabled [ECUC_Dcm_00783].
DcmDsdRequestSupplierNotificationEnabled [ECUC_Dcm_00868]

Change variation of port ServiceRequestManufacturerNotification_Name (SWS_Dcm_01039) to:
Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestManufacturerNotification.SHORT-NAME)

Change variation of port ServiceRequestSupplierNotification_Name (SWS_Dcm_01042) to:
Name = ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestSupplierNotification.SHORT-NAME)

In ECUC_Dcm_00681, SWS_Dcm_00218 and SWS_Dcm_00694, replace if DcmDsdRequestManufacturerNotificationEnabled=True by "if container DcmDsdServiceRequestManufacturerNotification exist" and replace if DcmDsdRequestManufacturerNotificationEnabled=False by "if container DcmDsdServiceRequestManufacturerNotification does not exist"

In SWS_Dcm_00516, SWS_Dcm_00694 and ECUC_Dcm_00816, replace if DcmDsdRequestSupplierNotificationEnabled = True by "if container DcmDsdRequestSupplierNotification exist" and replace DcmDsdRequestSupplierNotificationEnabled = False by "if container DcmDsdRequestSupplierNotification does not exist"
–Last change on issue 76412 comment 15–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.162 Specification Item SWS_Dcm_00519

Trace References:

SRS_Diag_04010

Content:

The calls to Dem_SetDTCFilter() with parameter FilterForFaultDetectionCounter set to YES shall be done in the context of the Dcm_MainFunction

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.163 Specification Item SWS_Dcm_00535

Trace References:

SRS_Diag_04098

Content:

If the jump to bootloader is requested (see SWS_Dcm_00532, SWS_Dcm_00592, the configuration parameter DcmDslProtocolRow.DcmSendRespPendOnTransToBootRestart is set to TRUE (see SWS_Dcm_00654) and the configuration parameter DcmDspSessionRow.DcmDspSessionForBoot is set to DCM_OEM_BOOT or DCM_SYS_BOOT, the Dcm shall call Dcm_SetProgConditions after a successful transmission of NRC 0x78 (Response pending).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77811: Clarify response after reset

  Problem description:

  I)
  The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

  1) 10 02
  2) 11 01
  3) 11 02
  4) 11 03
  5) 11 xx ?

  For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

  There are OEM use cases having a different response behaviour on different 0x11 SFs.

II)
Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

Agreed solution:

I)

Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuReset
Description This container contains the configuration for DcmDspEcuReset service.

Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuResetRow
Description This container contains the configuration for each DcmDspEcuReset subservice.

Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset

Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)
Make OBSOLETE DcmSendRespPendOnTransToBoot
Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.
Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOnRestart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.164 Specification Item SWS_Dcm_00541

Trace References:

SRS_Diag_04000

Content:

If the data is configured as a BlockId of the NvRam (parameter DcmDspData.DcmDspDataUsePort set to DcmDspData.DcmDspDataUsePort.USE_BLOCK_ID), the Dcm shall :

1) Request NvM_SetBlockLockStatus(<DcmDspData.DcmDspDataBlockIdRef>, FALSE), to temporarily unlock the NvM Block (It might be locked by executing this procedure before). 2) Request NvM_WriteBlock(<DcmDspData.DcmDspDataBlockIdRef >, <Data Buffer>) with BlockId corresponding to the configuration parameter DcmDspData.DcmDsp DataBlockIdRef) 3) Poll for completion of write request, using NvM_GetErrorStatus() 4a) On success (NVM_REQ_OK), the Dcm shall issue NvM_SetBlockLockStatus(<DcmDsp Data.DcmDspDataBlockIdRef >, TRUE) (to lock the NvM block against further updates from the application) and send a positive response message. 4b) Otherwise (on any Nv M failure) the Dcm module shall trigger a negative response with NRC 0x72 (General ProgrammingFailure).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.165 Specification Item SWS_Dcm_00556

Trace References:

none

Content:

Service name:	Dcm_CopyRxDataDcm_CopyRxData	
Syntax:	BufReq_ReturnType Dcm_CopyRxData(PduIdType id, const PduInfoType* info, PduLengthType* bufferSizePtr)	
Service ID[hex]:	0x44	
Sync/Async:	Synchronous	
Reentrancy:	Reentrant	
Parameters (in):	idDcm_CopyRxData.id	Identification of the received I-PDU.
	infoDcm_CopyRxData.info	Provides the source buffer (SduDataPtr) and the number of bytes to be copied (SduLength). An SduLength of 0 can be used to query the current amount of available buffer in the upper layer module. In this case, the SduDataPtr may be a NULL_PTR.
Parameters (inout):	None	
Parameters (out):	bufferSizePtrDcm_CopyRxData.buffer SizePtr	Available receive buffer after data has been copied.
Return value:	BufReq_ReturnType	BUFREQ_OK: Data copied successfully BUFREQ_E_NOT_OK: Data was not copied because an error occurred.
Description:	This function is called to provide the received data of an I-PDU segment (N-PDU) to the upper layer. Each call to this function provides the next part of the I-PDU data. The size of the remaining data buffer is written to the position indicated by bufferSize Ptr.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77935: [PduR] Misleading description of CopyRxData

  Problem description:

Name: Martin Schlodder
Role: Member of WP-A2

Description/Motivation:

The description of the CopyRxData API says: "The size of the remaining data is written to the position indicated by bufferSizePtr."

This text seems to have been copied from the CopyTxData call, where it is correct. CopyRxData should talk about "remaining buffer", not "remaining data".

Agreed solution:

In the description of the API PduR_<User:LoTp>CopyRxData (SWS_PduR_00512), replace "remaining data" by "remaining buffer".

BW-C-Level:

Application	Specification	Bus
1	1	1

1.166 Specification Item SWS_Dcm_00574

Trace References:

SRS_Diag_04010

Content:

When sending a positive response to UDS Service 0x19 with subfunction 0x05 and DTC-StoredDataRecordNumber is 0x00, the Dcm module shall use the data in the response message according to Table [REF tab_3a_subfunction_0x05_Response_Values].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.167 Specification Item SWS_Dcm_00632

Trace References:

SRS_Diag_04010

Content:

On reception of service 0x19 with subfunction 0x05, if the record number of the diagnostic request is different from 0x00, the Dcm module shall send a negative response with NRC 0x31 (request out of range).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.168 Specification Item SWS_Dcm_00638

Trace References:

none

Content:

To serialize the required AUTOSAR data types (signed- and unsigned integer) into the response message of ReadDataByIdentifier responses, the target endianness configured in DcmDspData.DcmDspDataEndianness shall be considered for DcmDsp Data elements having DcmDspData.DcmDspDataUsePort set to DcmDspData.Dcm DspDataUsePort.USE_DATA_SENDER_RECEIVER, DcmDspData.DcmDspDataUse Port.USE_DATA_SENDER_RECEIVER_AS_SERVICE, USE_ECU_SIGNAL. In case DcmDspData.DcmDspDataEndianness is not present, the DcmDsp.DcmDspDataDefault Endianness shall be used insteadUsePort.USE_ECU_SIGNAL.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :

SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.169 Specification Item SWS_Dcm_00641

Trace References:

none

Content:

To serialize the required AUTOSAR data types (signed- and unsigned integer) from the request message / into the response message of UDS Service RoutineControl, the target endianness configured in DcmDspRoutineSignalStartRoutineInSignal.DcmDspRoutineSignalEndianness shall be considered for DcmDspRoutine signals having DcmDspRoutineSignalStartRoutineInSignal.DcmDspRoutineSignalType set to fixed length (DcmDsp RoutineSignalStartRoutineInSignal.DcmDspRoutineSignalType set to other value than VARIABLE_LENGTH). In case DcmDspRoutineSignalEndianness is not present, the Dcm

DspStartRoutineInSignal.DcmDspDataDefaultEndianness shall be used insteadRoutine SignalType.VARIABLE_LENGTH).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-
  see file under svn.:

https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.170 Specification Item SWS_Dcm_00654

Trace References:

SRS_Diag_04098

Content:

In case the ModeDeclarationGroupPrototype DcmEcuReset is switched to mode JUMPTOBOOTLOADER or JUMPTOSYSSUPPLIERBOOTLOADER and the configuration parameter DcmDslProtocolRow.DcmSendRespPendOnTransToBoot Restart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77811: Clarify response after reset

  Problem description:

  I)
  The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

  1) 10 02
  2) 11 01

3) 11 02
4) 11 03
5) 11 xx ?

For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

There are OEM use cases having a different response behaviour on different 0x11 SFs.

II)
Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

Agreed solution:

I)

Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuReset
Description This container contains the configuration for DcmDspEcuReset service.

Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuResetRow
Description This container contains the configuration for each DcmDspEcuReset subservice.

Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)
Make OBSOLETE DcmSendRespPendOnTransToBoot
Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.
Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOnRestart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.171 Specification Item SWS_Dcm_00680

Trace References:

SRS_Diag_04218

Content:

The following mapping shall be used for the controlMask management: First bit of controlMask maps to If DcmDspDidControl.DcmDspDidControlMask is set to DcmDspDid Control.DcmDspDidControlMask.DCM_CONTROLMASK_INTERNAL,the ControlEnable MaskRecord shall be mapped to the DID data elements by applying the following mapping :

- The most significant bit of the first byte of the ControlEnableMask shall correspond to the first DID data element)
- The second most significant bit of the first byte of the ControlEnableMask shall correspond to the second DID data element and continuing on in this fashion utilizing as many ControlEnableMask bytes as necessary to map all DID data elements.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75082: [DCM] IOControl service with configuration parameter DcmDspDidControlMask set to DCM_CONTROLMASK_EXTERNAL or Port as SenderReceiver/SenderReceiver AS Service

  Problem description:

  Name: KPIT
  Phone:
  Role:

  Description:
  Requirement "constr_6049" states that the upper multiplicity DcmDspDidSignal is limited to 1.
  Requirement "constr_6050" states that parameter DcmDspDidControlMaskSize shall be present with a value greater than zero.

  What is the use case to have DcmDspDidControlEnableMask when the Signal is limited to one for DCM_CONTROLMASK_EXTERNAL or Ports like SenderReceiver or SenderReceiver As Service?

  Was there already a decision?No

Agreed solution:

Change [SWS_Dcm_00680] to : "Mapping of internal ControlEnableMaskRecord to DID data elements"
If DcmDspDidControlMask is set to DCM_CONTROLMASK_INTERNAL,the ControlEnableMaskRecord shall be mapped to the DID data elements by applying the following mapping :
- The most significant bit of the first byte of the ControlEnableMask shall correspond to the first DID data element
- The second most significant bit of the first byte of the ControlEnableMask shall correspond to the second DID data element and continuing on in this fashion utilizing as many ControlEnableMask bytes as necessary to map all DID data elements.(SRS_Diag_xxxx)

AUTOSAR_SRS_Diagnostic document can be found in Foundation. Please refer RfC 77612.
–Last change on issue 75082 comment 23–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.172 Specification Item SWS_Dcm_00682

Trace References:

none

Content:

The controlState in the ControlStatusRecord in the for positive response message of for the IoControl service shall be retrieved using the associated ReadData operation/function/SenderReceiver after applicaton application processing on the IO control request is positively finalized.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75083: [DCM] IOControl service requirement SWS_Dcm_00682

Problem description:

Name: KPIT
Phone:
Role:

Description:

Sentence needs to be reframed for requirement SWS_Dcm_00682 as there are gramatical mistakes.

Was there already a decision?No

Agreed solution:

~SWS_Dcm_00682
From ->
The controlState in the ControlStatusRecord in the positive response message of for the IoControl service shall be retrieved using the associated ReadData operation/function/SenderReceiver after applicaton processing on the IO control request is positively finalized.

To ->
The controlState in the ControlStatusRecord for positive response message of IoControl service shall be retrieved using the associated ReadData operation/function/SenderReceiver after application processing on the IO control request is positively finalized.
–Last change on issue 75083 comment 11–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.173 Specification Item SWS_Dcm_00686

Trace References:

none

Content:

Name	DataServices_{Data}DataServicesCS	
Comment	–	
IsService	true	
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUsePort)} == USE_DATA_SYNCH_CLIENT_SERVER) || ({ecuc(Dcm/DcmConfigSet/DcmDsp/Dcm DspData.DcmDspDataUsePort)} == USE_DATA_ASYNCH_CLIENT_SERVER) || ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUsePort)} == USE_DATA_ASYNCH_CLIENT_SERVER_ERROR) || ({ecuc(Dcm/DcmConfig Set/DcmDsp/DcmDspPid/DcmDspPidData/DcmDspPidService01.DcmDspPidData UsePort)} == USE_DATA_SYNCH_CLIENT_SERVER) Data = ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME)}) || ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspPid/DcmDspPidData.SHORT-NAME)})	
Possible Errors	0	E_OK
	1	E_NOT_OK
	10	DCM_E_PENDING

Operations:

ConditionCheckRead.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUsePo (USE_DATA_ASYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidRead)} != NULL) && ({ecuc(Dcm/Dcm DspData.DcmDspDataConditionCheckReadFncUsed)} == TRUE)		
Parameters	OpStatusDataServices CS.ConditionCheckRead Asynch.OpStatus	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	ErrorCodeDataServices CS.ConditionCheckRead Asynch.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

ConditionCheckRead.		
Comments	–	
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUsePo USE_DATA_SYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfigS Info/DcmDspDidRead)} != NULL) && ({ecuc(Dcm/DcmConfigSet/DcmD DspDataConditionCheckReadFncUsed)} == TRUE)	

ConditionCheckRead.			
Parameters	ErrorCodeDataServices CS.ConditionCheckRead Synch.ErrorCode	Comment	–
		Type	Dcm Cod
		Variation	–
		Direction	OUT
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

FreezeCurrentState.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP (USE_DATA_ASYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidFreezeCurrentSta ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDi Info/DcmDspDidControl/DcmDspDidControlMask)} != DCM_CONTRO		
Parameters	OpStatusDataServices CS.FreezeCurrentState Asynch.OpStatus	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	ErrorCodeDataServices CS.FreezeCurrentState Asynch.ErrorCode	Comment	–
		Type	Dcm Cod
		Variation	–
		Direction	OUT
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

FreezeCurrentState.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP (USE_DATA_ASYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidFreezeCurrentSta ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDi Info/DcmDspDidControl/DcmDspDidControlMask)} == DCM_CONTRO

FreezeCurrentState.			
Parameters	OpStatusDataServices CS.FreezeCurrentState Asynch.OpStatus	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	controlMaskDataServices CS.FreezeCurrentState Asynch.controlMask	Comment	–
		Type	Dcr Mas
		Variation	Dat Cor Dat
		Direction	IN
	ErrorCodeDataServices CS.FreezeCurrentState Asynch.ErrorCode	Comment	–
		Type	Dcr Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

FreezeCurrentState.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP USE_DATA_SYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfigS Info/DcmDspDidControl/DcmDspDidFreezeCurrentState)} == TRUE) & Set/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->DcmDspDidI Control/DcmDspDidControlMask)} != DCM_CONTROLMASK_EXTER		
Parameters	ErrorCodeDataServices CS.FreezeCurrentState Synch.ErrorCode	Comment	–
		Type	Dcr Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

FreezeCurrentState.		
Comments	–	
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP USE_DATA_SYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfigS Info/DcmDspDidControl/DcmDspDidFreezeCurrentState)} == TRUE) & Set/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->DcmDspDidI Control/DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTER	

FreezeCurrentState.			
Parameters	controlMaskDataServices CS.FreezeCurrentState Synch.controlMask	Comment	–
		Type	Dcm Mas
		Variation	Dat Con Dat
		Direction	IN
	ErrorCodeDataServices CS.FreezeCurrentState Synch.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

GetScalingInformation.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP (USE_DATA_ASYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspData/DcmDspDataInfoRef->DcmDspDataScalingInfoSize		
Parameters	OpStatusDataServices CS.GetScalingInformation Asynch.OpStatus	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	ScalingInfoDataServices CS.GetScalingInformation Asynch.ScalingInfo	Comment	–
		Type	Dcm Arra
		Variation	Dat Con Dat
		Direction	OU
	ErrorCodeDataServices CS.GetScalingInformation Asynch.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

GetScalingInformation.	
Comments	–

GetScalingInformation.			
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP USE_DATA_SYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfigS Data/DcmDspDataInfoRef->DcmDspDataScalingInfoSize)} != NULL)		
Parameters	ScalingInfoDataServices CS.GetScalingInformation Synch.ScalingInfo	Comment	–
		Type	Dcm Arra
		Variation	Dat Con Dat
		Direction	OU
	ErrorCodeDataServices CS.GetScalingInformation Synch.ErrorCode	Comment	–
		Type	Dcm Cod
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

ReadData.			
Comments	The server is not allowed to return E_NOT_OK, but shall always provid a default/replacement value in an error-case) to Dcm/Dem neverthelesi operation includes E_NOT_OK to ensure compatibility between server API, since the RTE may return negative Std_Return values in certain c server stopped)		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP USE_DATA_ASYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfig Info/DcmDspDidRead)} != NULL)		
Parameters	OpStatusDataServices CS.ReadDataAsynch.Op Status	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	DataDataServicesCS.Read DataAsynch.Data	Comment	–
		Type	Dcm Uint
		Variation	Dat Con Dat ({ec Set Pid Dat
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

ReadData.

ReadData.			
Comments			The server is not allowed to return E_NOT_OK, but shall always provid a default/replacement value in an error-case) to Dcm/Dem nevertheles operation includes E_NOT_OK to ensure compatibility between server API, since the RTE may return negative Std_Return values in certain c server stopped)
Variation			({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUsePo USE_DATA_ASYNCH_CLIENT_SERVER_ERROR) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidRead)} != NULL)
Parameters	OpStatusDataServicesCS.ReadDataAsynch.OpStatus	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	DataDataServicesCS.ReadDataAsynch.Data	Comment	–
		Type	Dcm Uint
		Variation	Dat Con Dat ({ec Set Pid Dat
		Direction	OU
	ErrorCodeDataServicesCS.ReadDataAsynch.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK		Request was successful
	E_NOT_OK		Request was not successful
	DCM_E_PENDING		Request is not yet finished. Further c

ReadData.		
Comments		The server is not allowed to return E_NOT_OK, but shall always provid a default/replacement value in an error-case) to Dcm/Dem nevertheles operation includes E_NOT_OK to ensure compatibility between server API, since the RTE may return negative Std_Return values in certain c server stopped)
Variation		({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUsePo USE_DATA_SYNCH_CLIENT_SERVER) && (({ecuc(Dcm/DcmConfigS Info/DcmDspDidRead)} != NULL) || ({ecuc(Dcm/DcmConfigSet/DcmDs PidData/DcmDspPidService01.DcmDspPidDataUsePort)} == USE_DATA_SYNCH_CLIENT_SERVER))

ReadData.			
Parameters	DataDataServicesCS.Read DataSynch.Data	Comment	–
		Type	Dcm Uin
		Variation	Dat Con Dat ({ec Set Pid Dat
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

ReadDataLength.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP (USE_DATA_ASYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidRead)} != NULL) && ({ecuc(Dcm/Dcm DspData.DcmDspDataType} == UINT8_DYN)		
Parameters	OpStatusDataServices CS.ReadDataLength Asynch.OpStatus	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	DataLengthDataServices CS.ReadDataLength Asynch.DataLength	Comment	–
		Type	uint
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

ReadDataLength.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP USE_DATA_SYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfigS Info/DcmDspDidRead)} != NULL) && ({ecuc(Dcm/DcmConfigSet/DcmD DspDataType} == UINT8_DYN)		
Parameters	DataLengthDataServices CS.ReadDataLength Synch.DataLength	Comment	–
		Type	uint
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

ResetToDefault.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP (USE_DATA_ASYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidResetToDefault)} ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDi Info/DcmDspDidControl/DcmDspDidControlMask)} != DCM_CONTRO		
Parameters	OpStatusDataServices CS.ResetToDefault Asynch.OpStatus	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	ErrorCodeDataServices CS.ResetToDefault Asynch.ErrorCode	Comment	–
		Type	Dcr Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

ResetToDefault.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP (USE_DATA_ASYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidResetToDefault)} ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDi Info/DcmDspDidControl/DcmDspDidControlMask)} == DCM_CONTRO		
Parameters	OpStatusDataServices CS.ResetToDefault Asynch.OpStatus	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	controlMaskDataServices CS.ResetToDefault Asynch.controlMask	Comment	–
		Type	Dcr Mas
		Variation	Dat Cor Dat
		Direction	IN
	ErrorCodeDataServices CS.ResetToDefault Asynch.ErrorCode	Comment	–
		Type	Dcr Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

ResetToDefault.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP USE_DATA_SYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfigS Info/DcmDspDidControl/DcmDspDidResetToDefault)} == TRUE) && ({ Set/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->DcmDspDidI Control/DcmDspDidControlMask)} != DCM_CONTROLMASK_EXTER		
Parameters	ErrorCodeDataServices CS.ResetToDefault Synch.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

ResetToDefault.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP USE_DATA_SYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfigS Info/DcmDspDidControl/DcmDspDidResetToDefault)} == TRUE) && ({ Set/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->DcmDspDidI Control/DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTER		
Parameters	controlMaskDataServices CS.ResetToDefault Synch.controlMask	Comment	–
		Type	Dcm Mas
		Variation	Dat Con Dat
		Direction	IN
	ErrorCodeDataServices CS.ResetToDefault Synch.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

ReturnControlToECU.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP (USE_DATA_SYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLI USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidFreezeCurrentSta ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidCont Default)} == TRUE) || ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid Control/DcmDspDidShortTermAdjustment)} == TRUE) && ({ecuc(Dcm Dsp/DcmDspDataDid/DcmDspDataDidInfoRef->DcmDspDidInfo/DcmD DidControlMask)} != DCM_CONTROLMASK_EXTERNAL)

ReturnControlToECU.			
Parameters	ErrorCodeDataServicesCS.ReturnControlToECUSynch.ErrorCode	Comment	–
		Type	Dcm Cod
		Variation	–
		Direction	OUT
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

ReturnControlToECU.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidCont CurrentState)} == TRUE) || ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmD Control/DcmDspDidResetToDefault)} == TRUE) || ({ecuc(Dcm/DcmCo DidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment)} == TR ConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->DcmDs Control/DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTEF		
Parameters	controlMaskDataServicesCS.ReturnControlToECUSynch.controlMask	Comment	–
		Type	Dcm Mas
		Variation	Dat Con Dat
		Direction	IN
	ErrorCodeDataServicesCS.ReturnControlToECUSynch.ErrorCode	Comment	–
		Type	Dcm Cod
		Variation	–
		Direction	OUT
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

ShortTermAdjustment.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP (USE_DATA_ASYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjust ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataType} ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDi Info/DcmDspDidControl/DcmDspDidControlMask)} != DCM_CONTRO

ShortTermAdjustment.			
Parameters	ControlStateInfoData ServicesCS.ShortTerm AdjustmentAsynchFixed Length.ControlStateInfo	Comment	–
		Type	Dcm Uin
		Variation	Dat Co Dat
		Direction	IN
	OpStatusDataServices CS.ShortTermAdjustment AsynchFixedLength.Op Status	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	ErrorCodeDataServices CS.ShortTermAdjustment AsynchFixedLength.Error Code	Comment	–
		Type	Dcm Co
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

ShortTermAdjustment.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP (USE_DATA_ASYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjust ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataType} ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDi Info/DcmDspDidControl/DcmDspDidControlMask)} == DCM_CONTRO

ShortTermAdjustment.			
Parameters	ControlStateInfoDataServicesCS.ShortTermAdjustmentAsynchFixedLength.ControlStateInfo	Comment	–
		Type	Dcm Uin
		Variation	Dat Cor Dat
		Direction	IN
	OpStatusDataServicesCS.ShortTermAdjustmentAsynchFixedLength.OpStatus	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	controlMaskDataServicesCS.ShortTermAdjustmentAsynchFixedLength.controlMask	Comment	–
		Type	Dcm Mas
		Variation	Dat Cor Dat
		Direction	IN
	ErrorCodeDataServicesCS.ShortTermAdjustmentAsynchFixedLength.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

ShortTermAdjustment.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP (USE_DATA_ASYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjust ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataType} &&({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspData Info/DcmDspDidControl/DcmDspDidControlMask)} != DCM_CONTRO

ShortTermAdjustment.			
Parameters	ControlStateInfoData ServicesCS.ShortTerm AdjustmentAsynchNon Fixed.ControlStateInfo	Comment	–
		Type	Dcm Uin
		Variation	Dat Cor Dat
		Direction	IN
	DataLengthDataServices CS.ShortTermAdjustment AsynchNonFixed.DataLength	Comment	–
		Type	uint
		Variation	–
		Direction	IN
	OpStatusDataServices CS.ShortTermAdjustment AsynchNonFixed.OpStatus	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	ErrorCodeDataServices CS.ShortTermAdjustment AsynchNonFixed.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

ShortTermAdjustment.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP (USE_DATA_ASYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjust ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataType} ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDi Info/DcmDspDidControl/DcmDspDidControlMask)} == DCM_CONTRO

ShortTermAdjustment.			
Parameters	ControlStateInfoDataServicesCS.ShortTermAdjustmentAsynchNonFixed.ControlStateInfo	Comment	–
		Type	Dcm Uin
		Variation	Dat Cor Dat
		Direction	IN
	DataLengthDataServicesCS.ShortTermAdjustmentAsynchNonFixed.DataLength	Comment	–
		Type	uint
		Variation	–
		Direction	IN
	OpStatusDataServicesCS.ShortTermAdjustmentAsynchNonFixed.OpStatus	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	controlMaskDataServicesCS.ShortTermAdjustmentAsynchNonFixed.controlMask	Comment	–
		Type	Dcm Mas
		Variation	Dat Cor Dat
		Direction	IN
	ErrorCodeDataServicesCS.ShortTermAdjustmentAsynchNonFixed.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

ShortTermAdjustment.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP USE_DATA_SYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfigS Info/DcmDspDidControl/DcmDspDidShortTermAdjustment)} == TRUE ConfigSet/DcmDsp/DcmDspData.DcmDspDataType} != UINT8_DYN) ConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->DcmD Control/DcmDspDidControlMask)} != DCM_CONTROLMASK_EXTER

ShortTermAdjustment.			
Parameters	ControlStateInfoDataServicesCS.ShortTermAdjustmentSynchFixedLength.ControlStateInfo	Comment	–
		Type	Dcm Uin
		Variation	Dat Cor Dat
		Direction	IN
	ErrorCodeDataServicesCS.ShortTermAdjustmentSynchFixedLength.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

ShortTermAdjustment.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP USE_DATA_SYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfigS Info/DcmDspDidControl/DcmDspDidShortTermAdjustment)} == TRUE ConfigSet/DcmDsp/DcmDspData.DcmDspDataType} != UINT8_DYN) ConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->DcmD Control/DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTEF		
Parameters	ControlStateInfoDataServicesCS.ShortTermAdjustmentSynchFixedLength.ControlStateInfo	Comment	–
		Type	Dcm Uin
		Variation	Dat Cor Dat
		Direction	IN
	controlMaskDataServicesCS.ShortTermAdjustmentSynchFixedLength.controlMask	Comment	–
		Type	Dcm Mas
		Variation	Dat Cor Dat
		Direction	IN
	ErrorCodeDataServicesCS.ShortTermAdjustmentSynchFixedLength.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

ShortTermAdjustment.

ShortTermAdjustment.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUsePo USE_DATA_SYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfigS Info/DcmDspDidControl/DcmDspDidShortTermAdjustment)} == TRUE) ConfigSet/DcmDsp/DcmDspData.DcmDspDataType} == UINT8_DYN) ConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->DcmDs Control/DcmDspDidControlMask)} != DCM_CONTROLMASK_EXTER		
Parameters	ControlStateInfoData ServicesCS.ShortTerm AdjustmentSynchNon Fixed.ControlStateInfo	Comment	–
		Type	Dcm Uint
		Variation	Dat Con Dat
		Direction	IN
	DataLengthDataServices CS.ShortTermAdjustment SynchNonFixed.DataLength	Comment	–
		Type	uint
		Variation	–
		Direction	IN
	ErrorCodeDataServices CS.ShortTermAdjustment SynchNonFixed.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OUT
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

ShortTermAdjustment.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUsePo USE_DATA_SYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfigS Info/DcmDspDidControl/DcmDspDidShortTermAdjustment)} == TRUE) ConfigSet/DcmDsp/DcmDspData.DcmDspDataType} == UINT8_DYN) ConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->DcmDs Control/DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTER

ShortTermAdjustment.			
Parameters	ControlStateInfoDataServicesCS.ShortTermAdjustmentSynchNonFixed.ControlStateInfo	Comment	–
		Type	Dcm Uint
		Variation	Dat Con Dat
		Direction	IN
	DataLengthDataServicesCS.ShortTermAdjustmentSynchNonFixed.DataLength	Comment	–
		Type	uint
		Variation	–
		Direction	IN
	controlMaskDataServicesCS.ShortTermAdjustmentSynchNonFixed.controlMask	Comment	–
		Type	Dcm Mas
		Variation	Dat Con Dat
		Direction	IN
	ErrorCodeDataServicesCS.ShortTermAdjustmentSynchNonFixed.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

WriteData.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP (USE_DATA_ASYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidWrite)} != NULL) && ({ecuc(Dcm/Dcm DspData.DcmDspDataType} != UINT8_DYN)

WriteData.			
Parameters	DataDataServicesCS.WriteDataAsynchFixedLength.Data	Comment	–
		Type	Dcm Uin
		Variation	Dat Cor Dat
		Direction	IN
	OpStatusDataServicesCS.WriteDataAsynchFixedLength.OpStatus	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	ErrorCodeDataServicesCS.WriteDataAsynchFixedLength.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

WriteData.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP (USE_DATA_ASYNCH_CLIENT_SERVER || USE_DATA_ASYNCH_CLIENT_SERVER_ERROR)) && ({ecuc(Dcm/D Dsp/DcmDspDidInfo/DcmDspDidWrite)} != NULL) && ({ecuc(Dcm/Dcm DspData.DcmDspDataType} == UINT8_DYN)

WriteData.			
Parameters	DataDataServicesCS.WriteDataAsynchNonFixedLength.Data	Comment	–
		Type	Dcm Uin
		Variation	Dat Cor Dat
		Direction	IN
	DataLengthDataServicesCS.WriteDataAsynchNonFixedLength.DataLength	Comment	–
		Type	uint
		Variation	–
		Direction	IN
	OpStatusDataServicesCS.WriteDataAsynchNonFixedLength.OpStatus	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	ErrorCodeDataServicesCS.WriteDataAsynchNonFixedLength.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	

WriteData.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP USE_DATA_SYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfigS Info/DcmDspDidWrite)} != NULL) && ({ecuc(Dcm/DcmConfigSet/DcmD DspDataType} != UINT8_DYN)		
Parameters	DataDataServicesCS.WriteDataSynchFixedLength.Data	Comment	–
		Type	Dcm Uin
		Variation	Dat Cor Dat
		Direction	IN
	ErrorCodeDataServicesCS.WriteDataSynchFixedLength.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

WriteData.			
Comments	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUseP USE_DATA_SYNCH_CLIENT_SERVER) && ({ecuc(Dcm/DcmConfigS Info/DcmDspDidWrite)} != NULL) && ({ecuc(Dcm/DcmConfigSet/DcmD DspDataType} == UINT8_DYN)		
Parameters	DataDataServicesCS.Write DataSynchNonFixed Length.Data	Comment	–
		Type	Dcm Uin
		Variation	Dat Con Dat
		Direction	IN
	DataLengthDataServices CS.WriteDataSynchNon FixedLength.DataLength	Comment	–
		Type	uint
		Variation	–
		Direction	IN
	ErrorCodeDataServices CS.WriteDataSynchNon FixedLength.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Request was successful	
	E_NOT_OK	Request was not successful	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

Replace

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311

SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.174 Specification Item SWS_Dcm_00690

Trace References:

none

Content:

Name	RoutineServices_{RoutineName}RoutineServices	
Comment	–	
IsService	true	
Variation	{ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine.DcmDspRoutineUsePort)} == TRUE RoutineName = {ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDsp Routine.SHORT-NAME)}	
Possible Errors	0	E_OK
	1	E_NOT_OK
	10	DCM_E_PENDING
	12	DCM_E_FORCE_RCRRP

Operations:

RequestResults.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspReques RequestRoutineResultsOut/DcmDspRequestRoutineResultsOutSignal Type)} != VARIABLE_LENGTH)

RequestResults.			
Parameters	OpStatusRoutine Services.RequestResults Fixed.OpStatus	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	DataOut_{Signal}Routine Services.RequestResults Fixed.DataOut_{Signal}	Comment	–
		Type	Dcr Out
		Variation	Sig Con Rou Rou Rec Out Res Sig Rou Con Rou
		Direction	OU
	ErrorCodeRoutine Services.RequestResults Fixed.ErrorCode	Comment	–
		Type	Dcr Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Operation successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	
	DCM_E_FORCE_RCRRP	application request the transmission Pending (NRC 0x78)	

RequestResults.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspReques RequestRoutineResultsOut/DcmDspRequestRoutineResultsOutSignal Type)} == VARIABLE_LENGTH)

RequestResults.			
Parameters	OpStatusRoutine Services.RequestResults Flex.OpStatus	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	DataOut_{Signal}Routine Services.RequestResults Flex.DataOut_{Signal}	Comment	–
		Type	Dcr _{R
		Variation	{ecu Set Rou Rou Rec Out Res Rou VAR Sig Cor Rou Rou Rec Out Res Sig Rou Cor Rou
		Direction	OU
	DataOut_{Signal}Routine Services.RequestResults Flex.DataOut_{Signal}	Comment	–
		Type	Dcr Arra Dat
		Variation	{ecu Set Rou Rou Rec Out Res Rou VAR Sig Cor Rou Rou Rec Out Res Sig Rou Cor Rou
		Direction	OU
	currentDataLengthRoutine Services.RequestResults Flex.currentDataLength	Comment	–
		Type	uint
		Variation	–
		Direction	OU
	ErrorCodeRoutine Services.RequestResults Flex.ErrorCode	Comment	–
		Type	Dcr Coc
		Variation	–

RequestResults.		
Possible Errors	E_OK	Operation successful
	E_NOT_OK	Request was not successful
	DCM_E_PENDING	Request is not yet finished. Further c
	DCM_E_FORCE_RCRRP	application request the transmission Pending (NRC 0x78)

RequestResultsConfirmationRoutineServices.RequestResultsConfirmation			
Comments			This operation indicates the transmission of a response to a RequestR
Variation			({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspReques RequestRoutineResultsConfirmationEnabled)}==TRUE)
Parameters	ConfirmationStatusRoutine Services.RequestResults Confirmation.Confirmation Status	Comment	Cor Rec Rou
		Type	Dcr Typ
		Variation	–
		Direction	IN
Possible Errors	E_OK		Operation successful
	E_NOT_OK		

Start.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStartRo RoutineIn/DcmDspStartRoutineInSignal.DcmDspRoutineSignalType)} && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStartRo RoutineOut/DcmDspStartRoutineOutSignal.DcmDspRoutineSignalTyp VARIABLE_LENGTH)

Start.			
Parameters	DataIn_{Signal}RoutineServices.StartFixedFixed.DataIn_{Signal}	Comment	–
		Type	Dcm In_{
		Variation	Sig Con Rou Rou Rou Rou Sig Rou Con Rou
		Direction	IN
	OpStatusRoutineServices.StartFixedFixed.OpStatus	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	DataOut_{Signal}RoutineServices.StartFixedFixed.DataOut_{Signal}	Comment	–
		Type	Dcm Out
		Variation	Sig Con Rou Rou Rou Rou Sig Rou Con Rou
		Direction	OU
	ErrorCodeRoutineServices.StartFixedFixed.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Operation successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	
	DCM_E_FORCE_RCRRP	application request the transmission Pending (NRC 0x78)	

Start.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStartRo RoutineIn/DcmDspStartRoutineInSignal.DcmDspRoutineSignalType)} && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStartRo RoutineOut/DcmDspStartRoutineOutSignal.DcmDspRoutineSignalTyp VARIABLE_LENGTH)

Start.			
Parameters	DataInXRoutine _{Signal}Routine Services.StartFixedFlex.Data InX _{Signal}	Comment	–
		Type	Dcr In_{
		Variation	– R Con Rou Sig Con Rou Rou Rou Rou Sig
		Direction	IN
	OpStatusRoutine Services.StartFixedFlex.Op Status	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	DataOutXRoutine _{Signal}Routine Services.StartFixedFlex.Data OutX _{Signal}	Comment	–
		Type	Dcr Out
		Variation	– S Con Rou Rou Rou Rou Sig Rou Con Rou
		Direction	OU
	DataOutNRoutine _{Signal}Routine Services.StartFixedFlex.Data OutN _{Signal}	Comment	–
		Type	Dcr Dat
		Variation	–
		Direction	OU
	currentDataLengthRoutine Services.StartFixed Flex.currentDataLength	Comment	–
		Type	uint
		Variation	–
		Direction	OU
	ErrorCodeRoutine Services.StartFixedFlex.Error Code	Comment	–
		Type	Dcr Coc
		Variation	–
		Direction	OU

Start.		
Possible Errors	E_OK	Operation successful
	E_NOT_OK	
	DCM_E_PENDING	Request is not yet finished. Further c
	DCM_E_FORCE_RCRRP	application request the transmission Pending (NRC 0x78)

Start.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStartRo RoutineIn/DcmDspStartRoutineInSignal.DcmDspRoutineSignalType)} && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStartRo RoutineOut/DcmDspStartRoutineOutSignal.DcmDspRoutineSignalTyp VARIABLE_LENGTH)

Start.			
Parameters	DataInXRoutine _{Signal}Routine Services.StartFlexFixed.Data InX _{Signal}	Comment	–
		Type	Dcr In_{
		Variation	– S Cor Rou Rou Rou Rou Sig Rou Cor Rou
		Direction	IN
	DataInNRoutine _{Signal}Routine Services.StartFlexFixed.Data InN _{Signal}	Comment	–
		Type	Dcr Dat
		Variation	–
		Direction	IN
	OpStatusRoutine Services.StartFlexFixed.Op Status	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	DataOutXRoutine _{Signal}Routine Services.StartFlexFixed.Data OutX _{Signal}	Comment	–
		Type	Dcr Out
		Variation	– S Cor Rou Rou Rou Rou Sig Rou Cor Rou
		Direction	OU
	currentDataLengthRoutine Services.StartFlex Fixed.currentDataLength	Comment	–
		Type	uint
		Variation	–
		Direction	IN
	ErrorCodeRoutine Services.StartFlexFixed.Error Code	Comment	–
		Type	Dcr Coc
		Variation	–
		Direction	OU

Start.		
Possible Errors	E_OK	Operation successful
	E_NOT_OK	
	DCM_E_PENDING	Request is not yet finished. Further c
	DCM_E_FORCE_RCRRP	application request the transmission Pending (NRC 0x78)

Start.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStartRo RoutineIn/DcmDspStartRoutineInSignal.DcmDspRoutineSignalType)} && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStartRo RoutineOut/DcmDspStartRoutineOutSignal.DcmDspRoutineSignalTyp VARIABLE_LENGTH)

Start.			
Parameters	DataIn_{Signal}RoutineServices.StartFlexFlex.DataIn_{Signal}	Comment	–
		Type	Dcr In_{
		Variation	{ecu Set Rou Rou Rou Rou Rou VAR Sig Cor Rou Rou Rou Rou Sig Rou Cor Rou
		Direction	IN
	DataIn_{Signal}RoutineServices.StartFlexFlex.DataIn_{Signal}	Comment	–
		Type	Dcr Dat
		Variation	{ecu Set Rou Rou Rou Rou Rou VAR Sig Cor Rou Rou Rou Rou Sig Rou Cor Rou
		Direction	IN
	OpStatusRoutineServices.StartFlexFlex.OpStatus	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	DataOut_{Signal}RoutineServices.StartFlexFlex.DataOut_{Signal}	Comment	–
		Type	Dcr Out
		Variation	{ecu Set Rou Rou Rou Rou Rou VAR Sig Cor Rou Rou

Start.		
Possible Errors	E_OK	Operation successful
	E_NOT_OK	Request was not successful
	DCM_E_PENDING	Request is not yet finished. Further c
	DCM_E_FORCE_RCRRP	application request the transmission Pending (NRC 0x78)

StartConfirmationRoutineServices.StartConfirmation			
Comments	This operation indicates the transmission of a response to a StartRout		
Variation	{ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStartRou RoutineConfirmationEnabled)}==TRUE		
Parameters	ConfirmationStatusRoutine Services.Start Confirmation.Confirmation Status	Comment	Cor Rou
		Type	Dcr Typ
		Variation	–
		Direction	IN
Possible Errors	E_OK	Operation successful	
	E_NOT_OK		

Stop.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStopRo RoutineIn/DcmDspStopRoutineInSignal.DcmDspRoutineSignalType)} && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStopRo RoutineOut/DcmDspStopRoutineOutSignal.DcmDspRoutineSignalTyp VARIABLE_LENGTH)

Stop.			
Parameters	DataIn_{Signal}RoutineServices.StopFixedFixed.DataIn_{Signal}	Comment	–
		Type	Dcm In_{
		Variation	Sig Con Rou Rou In/D Sig Rou Con Rou
		Direction	IN
	OpStatusRoutineServices.StopFixedFixed.OpStatus	Comment	–
		Type	Dcm
		Variation	–
		Direction	IN
	DataOut_{Signal}RoutineServices.StopFixedFixed.DataOut_{Signal}	Comment	–
		Type	Dcm Out
		Variation	Sig Con Rou Rou Out Sig Rou Con Rou
		Direction	OU
	ErrorCodeRoutineServices.StopFixedFixed.ErrorCode	Comment	–
		Type	Dcm Coc
		Variation	–
		Direction	OU
Possible Errors	E_OK	Operation successful	
	E_NOT_OK	Request was not successful	
	DCM_E_PENDING	Request is not yet finished. Further c	
	DCM_E_FORCE_RCRRP	application request the transmission Pending (NRC 0x78)	

Stop.	
Comments	–
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStopRo RoutineIn/DcmDspStopRoutineInSignal.DcmDspRoutineSignalType)} && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStopRo RoutineOut/DcmDspStopRoutineOutSignal.DcmDspRoutineSignalTyp VARIABLE_LENGTH)

Stop.			
Parameters	DataInXRoutine _{Signal}Routine Services.StopFixedFlex.Data InX _{Signal}	Comment	–
		Type	Dcr In_{
		Variation	– S Con Rou Rou In/D Sig Rou Con Rou
		Direction	IN
	OpStatusRoutine Services.StopFixedFlex.Op Status	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	DataOutXRoutine _{Signal}Routine Services.StopFixedFlex.Data OutX _{Signal}	Comment	–
		Type	Dcr Out
		Variation	– S Con Rou Rou Out Sig Rou Con Rou
		Direction	OU
	DataOutNRoutine _{Signal}Routine Services.StopFixedFlex.Data OutN _{Signal}	Comment	–
		Type	Dcr Dat
		Variation	–
		Direction	OU
	currentDataLengthRoutine Services.StopFixed Flex.currentDataLength	Comment	–
		Type	uint
		Variation	–
		Direction	OU
	ErrorCodeRoutine Services.StopFixedFlex.Error Code	Comment	–
		Type	Dcr Coc
		Variation	–
		Direction	OU

Stop.		
Possible Errors	E_OK	Operation successful
	E_NOT_OK	
	DCM_E_PENDING	Request is not yet finished. Further c
	DCM_E_FORCE_RCRRP	application request the transmission Pending (NRC 0x78)

Stop.	
Comments	–
Variation	({ecuc(Dm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStopRo RoutineIn/DcmDspStopRoutineInSignal.DcmDspRoutineSignalType)} && ({ecuc(Dm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStopRo RoutineOut/DcmDspStopRoutineOutSignal.DcmDspRoutineSignalTyp VARIABLE_LENGTH)

Stop.			
Parameters	DataInXRoutine _{Signal}Routine Services.StopFlexFixed.Data InX _{Signal}	Comment	–
		Type	Dcr In_{
		Variation	– S Con Rou Rou In/D Sig Rou Con Rou
		Direction	IN
	DataInNRoutine _{Signal}Routine Services.StopFlexFixed.Data InN _{Signal}	Comment	–
		Type	Dcr Dat
		Variation	–
		Direction	IN
	OpStatusRoutine Services.StopFlexFixed.Op Status	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	DataOutXRoutine _{Signal}Routine Services.StopFlexFixed.Data OutX _{Signal}	Comment	–
		Type	Dcr Out
		Variation	– S Con Rou Rou Out Sig Rou Con Rou
		Direction	OU
	currentDataLengthRoutine Services.StopFlex Fixed.currentDataLength	Comment	–
		Type	uint
		Variation	–
		Direction	IN
	ErrorCodeRoutine Services.StopFlexFixed.Error Code	Comment	–
		Type	Dcr Coc
		Variation	–
		Direction	OU

Stop.		
Possible Errors	E_OK	Operation successful
	E_NOT_OK	
	DCM_E_PENDING	Request is not yet finished. Further c
	DCM_E_FORCE_RCRRP	application request the transmission Pending (NRC 0x78)

Stop.	
Comments	–
Variation	({ecuc(Dm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStopRo RoutineIn/DcmDspStopRoutineInSignal.DcmDspRoutineSignalType)} && ({ecuc(Dm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStopRo RoutineOut/DcmDspStopRoutineOutSignal.DcmDspRoutineSignalTyp VARIABLE_LENGTH)

Stop.			
Parameters	DataIn_{Signal}RoutineServices.StopFlexFlex.DataIn_{Signal}	Comment	–
		Type	Dcr In_{
		Variation	{ecu Set Rou Rou In/D Sig Sig VAR Sig Cor Rou Rou In/D Sig Rou Cor Rou
		Direction	IN
	DataIn_{Signal}RoutineServices.StopFlexFlex.DataIn_{Signal}	Comment	–
		Type	Dcr Dat
		Variation	{ecu Set Rou Rou In/D Sig Sig VAR Sig Cor Rou Rou In/D Sig Rou Cor Rou
		Direction	IN
	OpStatusRoutineServices.StopFlexFlex.OpStatus	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	DataOut_{Signal}RoutineServices.StopFlexFlex.DataOut_{Signal}	Comment	–
		Type	Dcr Out
		Variation	{ecu Set Rou Rou Out Sig Sig VAR Sig Cor Rou Rou Out Sig

Stop.		
Possible Errors	E_OK	Operation successful
	E_NOT_OK	Request was not successful
	DCM_E_PENDING	Request is not yet finished. Further c
	DCM_E_FORCE_RCRRP	application request the transmission Pending (NRC 0x78)

StopConfirmationRoutineServices.StopConfirmation			
Comments	This operation indicates the transmission of a response to a StopRouti		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspRoutine/DcmDspStopRo RoutineConfirmationEnabled)}==TRUE)		
Parameters	ConfirmationStatusRoutine Services.Stop Confirmation.Confirmation Status	Comment	Cor Rou
		Type	Dcr Typ
		Variation	–
		Direction	IN
Possible Errors	E_OK	Operation successful	
	E_NOT_OK		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74070: Name pattern and BlueprintPolicy for the arguments of some operations are missing

  Problem description:

  The name pattern and the BlueprintPolicy for the arguments of these operations are missing:
  Table 8.170: Operation Start
  Table 8.171: Operation Start
  Table 8.174: Operation Stop
  Table 8.175: Operation Stop

  Agreed solution:

  Add the name pattern and the BlueprintPolicy for the arguments of these operations:
  1) Table 8.190: Operation Start
  2) Table 8.191: Operation Start
  3) Table 8.195: Operation Stop
  4) Table 8.196: Operation Stop

  Changes:
  Parameters DataInX

–>
Parameters: DataIn_Signal
Type: Dcm_StartDataIn_Routine_SignalType
Variation Signal: = ecuc(Dcm/DcmConfigSet/
DcmDsp/DcmDspRoutine/
DcmDspStartRoutine/
DcmDspStartRoutineIn/
DcmDspStartRoutineInSignal.
SHORT-NAME)
Routine =
ecuc(Dcm/DcmConfigSet/
DcmDsp/DcmDspRoutine.
SHORT-NAME)

Parameters DataOutX
–>
DataOut_Signal Comment
Type Dcm_StartDataOut_Routine_SignalType
Variation Signal = ecuc(Dcm/DcmConfigSet/
DcmDsp/DcmDspRoutine/
DcmDspStartRoutine/
DcmDspStartRoutineOut/
DcmDspStartRoutineOutSignal.
SHORT-NAME)
Routine =
ecuc(Dcm/DcmConfigSet/
DcmDsp/DcmDspRoutine.
SHORT-NAME)
–Last change on issue 74070 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.175 Specification Item SWS_Dcm_00692

Trace References:

none

Content:

Name	CallbackDCMRequestServicesCallbackDCMRequestServices

Name	CallbackDCMRequestServicesCallbackDCMRequestServices	
Comment	–	
IsService	true	
Variation	–	
Possible Errors	0	E_OK
	1	E_NOT_OK
	5	E_PROTOCOL_NOT_ALLOWED

Operations:

StartProtocolCallbackDCMRequestServices.StartProtocol			
Comments	–		
Variation	–		
Parameters	ProtocolIDCallbackType CallbackDCMRequestServices.StartProtocol.ProtocolID Type	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	TesterSourceAddressCallbackDCMRequestServices.StartProtocol.TesterSourceAddress	Comment	–
		Type	uint
		Variation	–
		Direction	IN
	ConnectionIdCallbackDCMRequestServices.StartProtocol.ConnectionId	Comment	–
		Type	uint
		Variation	–
		Direction	IN
Possible Errors	E_OK	Operation successful	
	E_NOT_OK		
	E_PROTOCOL_NOT_ALLOWED	conditions in application allows no fu protocol	

StopProtocolCallbackDCMRequestServices.StopProtocol	
Comments	–
Variation	–

StopProtocolCallbackDCMRequestServices.StopProtocol			
Parameters	ProtocolIDCallbackType CallbackDCMRequestServices.StopProtocol.ProtocolID Type	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	TesterSourceAddressCallbackDCMRequestServices.StopProtocol.TesterSourceAddress	Comment	–
		Type	uint
		Variation	–
		Direction	IN
	ConnectionIdCallbackDCMRequestServices.StopProtocol.ConnectionId	Comment	–
		Type	uint
		Variation	–
		Direction	IN
Possible Errors	E_OK	Operation successful	
	E_NOT_OK		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

  Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

  b)
  interface to application

  There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.

In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

c)
DcmDslProtocolRxConnectionId

"Unique identifier of the tester which uses this connection for diagnostic communication."

Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

In the DEXT, I found this is mapped to:
SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete

1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDslProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341

SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation

Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.176 Specification Item SWS_Dcm_00694

Trace References:

none

Content:

Name	ServiceRequestNotificationServiceRequestNotification	
Comment	–	
IsService	true	
Variation	({ecuc(Dm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestManufacturer NotificationEnabled)})} != =TRUENULL)||({ecuc(Dm/DcmConfigSet/DcmDsd/Dcm DsdRequestSupplierNotificationEnabled)})} != =TRUENULL)	
Possible Errors	0	E_OK
	1	E_NOT_OK
	8	E_REQUEST_NOT_ACCEPTED

Operations:

ConfirmationServiceRequestNotification.Confirmation	
Comments	–
Variation	–

ConfirmationServiceRequestNotification.Confirmation			
Parameters	SIDServiceRequest Notification.Confirmation.SID	Comment	Valu
		Type	uint
		Variation	–
		Direction	IN
	ReqTypeServiceRequest Notification.Confirmation.Req Type	Comment	Ado req 1=fu
		Type	uint
		Variation	–
		Direction	IN
	ConnectionIdServiceRequest Notifica- tion.Confirmation.Connection Id	Comment	Uni
		Type	uint
		Variation	–
		Direction	IN
	ConfirmationStatusService RequestNotifica- tion.Confirmation.Confirmation Status	Comment	Con tran tran diag
		Type	Dcn Typ
		Variation	–
		Direction	IN
	ProtocolTypeServiceRequest Notifica- tion.Confirmation.Protocol Type	Comment	–
		Type	Dcn
		Variation	–
		Direction	IN
	TesterSourceAddressService RequestNotifica- tion.Confirmation.Tester SourceAddress	Comment	–
		Type	uint
		Variation	–
		Direction	IN
Possible Errors	E_OK	Operation successful	
	E_NOT_OK		

IndicationServiceRequestNotification.Indication	
Comments	–
Variation	–

IndicationServiceRequestNotification.Indication			
Parameters	SIDServiceRequest Notification.Indication.SID	Comment	Valu
		Type	uint
		Variation	–
		Direction	IN
	RequestDataServiceRequest Notifica-tion.Indication.Request Data	Comment	This com (dia serv
		Type	Dcr
		Variation	–
		Direction	IN
	DataSizeServiceRequest Notification.Indication.Data Size	Comment	This mar Dat
		Type	uint
		Variation	–
		Direction	IN
	ReqTypeServiceRequest Notification.Indication.Req Type	Comment	Ado requ 1=fu
		Type	uint
		Variation	–
		Direction	IN
	ConnectionIdServiceRequest Notifica-tion.Indication.Connection Id	Comment	Uni
		Type	uint
		Variation	–
		Direction	IN
	ErrorCodeServiceRequest Notification.Indication.Error Code	Comment	–
		Type	Dcr Coc
		Variation	–
		Direction	OU
	ProtocolTypeServiceRequest Notifica-tion.Indication.ProtocolType	Comment	–
		Type	Dcr
		Variation	–
		Direction	IN
	TesterSourceAddressService Request Notification.Indication.Tester SourceAddress	Comment	–
		Type	uint
		Variation	–
		Direction	IN

IndicationServiceRequestNotification.Indication		
Possible Errors	E_OK	Operation successful
	E_NOT_OK	
	E_REQUEST_NOT_ACCEPTED	no response will be sent

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

  Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

  b)
  interface to application

  There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
  In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

  c)
  DcmDslProtocolRxConnectionId

  "Unique identifier of the tester which uses this connection for diagnostic communication."

  Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

In the DEXT, I found this is mapped to:
SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.

The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDslProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)

Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.177 Specification Item SWS_Dcm_00698

Trace References:

none

Content:

Name	DCMServicesDCMServices	
Comment	–	
IsService	true	
Variation	–	
Possible Errors	0	E_OK
	1	E_NOT_OK

Operations:

GetActiveProtocolDCMServices.GetActiveProtocol

GetActiveProtocolDCMServices.GetActiveProtocol			
Comments	–		
Variation	–		
Parameters	ActiveProtocolType DCMServices.GetActive Protocol.ActiveProtocolType	Comment	–
		Type	Dcr
		Variation	–
		Direction	OU
	ConnectionId DCMServices.GetActive Protocol.ConnectionId	Comment	–
		Type	uint
		Variation	–
		Direction	OU
	TesterSourceAddress DCMServices.GetActive Protocol.TesterSource Address	Comment	–
		Type	uint
		Variation	–
		Direction	OU
Possible Errors	E_OK	Operation successful	

GetSecurityLevelDCMServices.GetSecurityLevel			
Comments	–		
Variation	–		
Parameters	SecLevelDCMServices.Get SecurityLevel.SecLevel	Comment	–
		Type	Dcr
		Variation	–
		Direction	OU
Possible Errors	E_OK	Operation successful	
	E_NOT_OK		

GetSesCtrlTypeDCMServices.GetSesCtrlType			
Comments	–		
Variation	–		
Parameters	SesCtrlType DCMServices.GetSesCtrl Type.SesCtrlType	Comment	–
		Type	Dcr
		Variation	–
		Direction	OU
Possible Errors	E_OK	Operation successful	
	E_NOT_OK		

ResetToDefaultSessionDCMServices.ResetToDefaultSession	
Comments	–
Variation	–

ResetToDefaultSessionDCMServices.ResetToDefaultSession		
Possible Errors	E_OK	Operation successful
	E_NOT_OK	

SetActiveDiagnosticDCMServices.SetActiveDiagnostic			
Comments	Allows to activate and deactivate the call of ComM_DCM_ActiveDiagn		
Variation	–		
Parameters	activeDCMServices.Set ActiveDiagnostic.active	Comment	If fa Cor Dia call Dia
		Type	boo
		Variation	–
		Direction	IN
Possible Errors	E_OK	Operation successful	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

  Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

  b)
  interface to application

  There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
  In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

c)
DcmDslProtocolRxConnectionId

"Unique identifier of the tester which uses this connection for diagnostic communication."

Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

In the DEXT, I found this is mapped to:
SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDslProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16

Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.178 Specification Item SWS_Dcm_00701

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

On reception of the UDS Service RoutineControl (0x31), for every requested RID inside the OBD range (E000-E0FF) and usage of UDS interface, the Dcm module shall use the routineInfo byte value from the configuration (see ECUC_Dcm_01063) in the response to the tester.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.179 Specification Item SWS_Dcm_00702

Trace References:

none

Content:

If function Dem_DisableDTCRecordUpdate() returns DEM_DISABLE_DTCRECUP_PENDING, the Dcm shall retry to get the lock in the next Dcm_MainFunction.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77866: [Dcm] ReDesign Dem/Dcm interface of AR4.3: Dcm Note on Dem behavior

  Problem description:

  Dcm spec has a note which specifies:
  Note: A timeout or maximum counter is not necessary, because the DEM guarantees not to lock the DTC for longer time.

  There is no requirement for Dem which acts on a lock time. This can also not be handled in Dem since it has no protocol information. Hence this note in Dcm SWS is wrong and to be removed.

  Furthermore in SWS_Dcm_00702 the returntype DEM_DISABLE_DTCRECUP_PENDING is mentioned, which does not exist.
  –Last change on issue 77866 comment 3–

  Agreed solution:

  Remove the Note under SWS_Dcm_00702 which specifies:
  Note: A timeout or maximum counter is not necessary, because the DEM guarantees not to lock the DTC for longer time.

  In SWS_Dcm_00702 change DEM_DISABLE_DTCRECUP_PENDING to DEM_PENDING.
  –Last change on issue 77866 comment 4–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.180 Specification Item SWS_Dcm_00703

Trace References:

SRS_Diag_04010

Content:

In case Dem_ClearDTC() returns DEM_PENDING, the Dcm shall invoke Dem_Clear DTC() on next Dcm_MainFunction call again. It is up to the Dcm to send NRC 78 (ResponsePending) to respect the response behaviour

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"

2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.181 Specification Item SWS_Dcm_00704

Trace References:

SRS_Diag_04010

Content:

In case Dem_ClearDTC() returns DEM_CLEAR_FAILED, the Dcm shall send a negative response 0x22 (conditionsNotCorrect).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were

replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality. This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.182 Specification Item SWS_Dcm_00705

Trace References:

SRS_Diag_04010

Content:

In case Dem_ClearDTC() returns E_OK, the Dcm module shall send a positive response.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.183 Specification Item SWS_Dcm_00706

Trace References:

SRS_Diag_04010

Content:

In case Dem_ClearDTC() returns DEM_PENDING, the Dcm shall invoke Dem_Clear DTC() on next Dcm_MainFunction call again. It is up to the Dcm to send NRC 0x78 (requestCorrectlyReceived-ResponsePending) to respect the response behaviour

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

  The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behav-

ior on DEM_PENDING.
The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

Agreed solution:

Add new sub-chapter 7.5.1.8 Asynchronous call behavior
Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned. (SRS_Diag_04010)

Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
-SWS_Dcm_00120
-SWS_Dcm_00527
-SWS_Dcm_00528
-SWS_Dcm_00529
-SWS_Dcm_00530
-SWS_Dcm_01184
-SWS_Dcm_00760

Convert the note below SWS_Dcm_00530 to:
SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.184 Specification Item SWS_Dcm_00707

Trace References:

SRS_Diag_04010

Content:

In case Dem_ClearDTC() returns DEM_CLEAR_FAILED, the Dcm shall send a negative response 0x22 (conditionsNotCorrect).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example:

SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.185 Specification Item SWS_Dcm_00708

Trace References:

SRS_Diag_04010

Content:

In case Dem_ClearDTC() returns DEM_WRONG_DTC, the Dcm shall send a negative response 0x31 (requestOutOfRange).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be

released with R431 with the current status the document has got none high quality. This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.186 Specification Item SWS_Dcm_00716

Trace References:

SRS_Diag_04215

Content:

To serialize the required AUTOSAR data types (signed- and unsigned integer) into the response message of ReadDataByPeriodicIdentifier responses the target endianness configured in DcmDspData.DcmDspDataEndianness shall be considered for DcmDsp Data elements having DcmDspData.DcmDspDataUsePort set to DcmDspData.Dcm DspDataUsePort.USE_DATA_SENDER_RECEIVER, DcmDspData.DcmDspDataUse Port.USE_DATA_SENDER_RECEIVER_AS_SERVICE, USE_ECU_SIGNAL. In case DcmDspData.DcmDspDataEndianness is not present, the DcmDsp.DcmDspDataDefault Endianness shall be used instead.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

-> Both are distinct topics and shall not appear in the same requirement.

2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]

[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.187 Specification Item SWS_Dcm_00718

Trace References:

none

Content:

To serialize the required AUTOSAR data types (signed- and unsigned integer) into the response message of OBD Service $01 responses the target endianness configured in DcmDspPidService01.DcmDspPidDataEndianness shall be considered for DcmDsp PidData elements having DcmDspPidService01.DcmDspPidDataUsePort set to DcmDsp Data.DcmDspDataUsePort.USE_DATA_SENDER_RECEIVER or DcmDspData.DcmDsp DataUsePort.USE_DATA_SENDER_RECEIVER_AS_SERVICE. In case DcmDspPidService01.DcmDspPidDataEndianness is not present, the DcmDsp.DcmDspDataDefaultEndianness shall be used instead.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]

FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.188 Specification Item SWS_Dcm_00719

Trace References:

none

Content:

If Dcm_SetProgConditions returns E_OK according to SWS_Dcm_00720, the Dcm shall shall trigger the mode switch of the ModeDeclarationGroupPrototype DcmEcuReset to EXECUTE without sending a NRC 0x78 (Response pending).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.189 Specification Item SWS_Dcm_00720

Trace References:

none

Content:

In case the ModeDeclarationGroupPrototype DcmEcuReset is switched to mode JUMPTOBOOTLOADER or JUMPTOSYSSUPPLIERBOOTLOADER, the configuration parameter DcmDslProtocolRow.DcmSendRespPendOnTransToBoot Restart is set to FALSE and the configuration parameter DcmDspSessionRow.DcmDspSessionForBoot it set to DCM_OEM_BOOT or DCM_SYS_BOOT, the Dcm shall call Dcm_SetProgConditions immediately. (see SWS_Dcm_00532 and SWS_Dcm_00592)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77811: Clarify response after reset

  Problem description:

  I)
  The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

  1) 10 02
  2) 11 01
  3) 11 02
  4) 11 03
  5) 11 xx ?

  For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

  There are OEM use cases having a different response behaviour on different 0x11 SFs.

  II)
  Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

  Agreed solution:

  I)

  Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

  SWS Item [ECUC_Dcm_0xxxx]
  Container Name DcmDspEcuReset
  Description This container contains the configuration for DcmDspEcuReset service.

Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuResetRow
Description This container contains the configuration for each DcmDspEcuReset subservice.

Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)
Make OBSOLETE DcmSendRespPendOnTransToBoot

Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.
Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOnRestart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.190 Specification Item SWS_Dcm_00721

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A), for every requested periodicDIDs, the Dcm module shall check if the periodicDID can be read in the current session (see configuration parameter DcmDspDidRead.DcmDspDidReadSession Ref). If none of the periodicDID can be read in the current session, the Dcm module shall send a NRC 0x31 (RequestOutOfRange).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

-> Both are distinct topics and shall not appear in the same requirement.

2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]

[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.191 Specification Item SWS_Dcm_00722

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A), for every requested periodicDIDs, the Dcm module shall check if the periodicDID can be read in the current security level (see configuration parameter DcmDspDidRead.DcmDspDidReadSecurityLevelRef). If not, the Dcm module shall send NRC 0x33 (Security access denied).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]

[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.192 Specification Item SWS_Dcm_00739

Trace References:

SRS_Diag_04010

Content:

If a DEM_PENDING value is returned from Dem_GetStatusOfDTC(), the Dcm shall call the API (at least on each Dcm_MainFunction cycle) again as long as DEM_PENDING is returned.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

  The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behavior on DEM_PENDING.
  The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

  Agreed solution:

Add new sub-chapter 7.5.1.8 Asynchronous call behavior
Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned. (SRS_Diag_04010)

Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
-SWS_Dcm_00120
-SWS_Dcm_00527
-SWS_Dcm_00528
-SWS_Dcm_00529
-SWS_Dcm_00530
-SWS_Dcm_01184
-SWS_Dcm_00760

Convert the note below SWS_Dcm_00530 to:
SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.193 Specification Item SWS_Dcm_00740

Trace References:

SRS_Diag_04010

Content:

If a DEM_PENDING value is returned from Dem_GetNextFilteredRecord() or Dem_Get NextFilteredDTCAndFDC(), the Dcm shall call the API (at least on each Dcm_MainFunction cycle) again as long as DEM_PENDING is returned

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

  The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behavior on DEM_PENDING.
  The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

  Agreed solution:

  Add new sub-chapter 7.5.1.8 Asynchronous call behavior
  Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
  SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned. (SRS_Diag_04010)

  Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
  -SWS_Dcm_00120
  -SWS_Dcm_00527
  -SWS_Dcm_00528
  -SWS_Dcm_00529
  -SWS_Dcm_00530
  -SWS_Dcm_01184
  -SWS_Dcm_00760

  Convert the note below SWS_Dcm_00530 to:
  SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.194 Specification Item SWS_Dcm_00751

Trace References:

SRS_Diag_04010

Content:

In case the DTCSetting is disabled and a transitions to default session or upon any diagnostic session change where the new session does not support UDS Service Control DTCsetting anymore, the Dcm module shall call Dem_EnableDTCSetting() with the following parameters

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref)

and switch the mode DcmControlDTCSetting to DcmControlDTCSetting.DCM_ENABLEDTCSETTING.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.195 Specification Item SWS_Dcm_00752

Trace References:

SRS_Diag_04010

Content:

In case the DTCSetting is disabled and at least one referenced arbitrary ModeDeclarationGroupPrototypes (see configuration parameter DcmDspControlDTCSetting.DcmDspControlDTCSettingReEnableModeRuleRef) for service ControlDTCSetting (0x85) with DTCSettingType "OFF" (0x02) are not fulfilled anymore, the Dcm module shall call Dem_EnableDTCSetting() with the following parameters:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClientRef)

and switch the mode DcmControlDTCSetting to DcmControlDTCSetting.DCM_ENABLEDTCSETTING

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.196 Specification Item SWS_Dcm_00754

Trace References:

none

Content:

Service name:	Dcm_ProcessRequestDownloadDcm_ProcessRequestDownload	
Syntax:	Std_ReturnType Dcm_ProcessRequestDownload(Dcm_OpStatusType OpStatus, uint8 DataFormatIdentifier, uint32 MemoryAddress, uint32 MemorySize, uint32* BlockLength, Dcm_NegativeResponseCodeType* ErrorCode)	
Service ID[hex]:	0x30	
Sync/Async:	Asynchronous	
Reentrancy:	Non Reentrant	
Parameters (in):	OpStatusDcm_ProcessRequestDownload.OpStatus	DCM_INITIAL DCM_PENDING DCM_CANCEL
	DataFormatIdentifierDcm_ProcessRequestDownload.DataFormatIdentifier	Bit 7 - 4: Compression Method - 0x0: not compressed - 0x1..F: vehicle-manufacturer-specific Bit 3 - 0: Encrypting method - 0x0: not encrypted - 0x1..F: vehicle-manufacturer-specific
	MemoryAddressDcm_ProcessRequestDownload.MemoryAddress	Starting address of server memory to which data is to be written
	MemorySizeDcm_ProcessRequestDownload.MemorySize	Uncompressed memory size in bytes
Parameters (inout):	None	
Parameters (out):	BlockLengthDcm_ProcessRequestDownload.BlockLength	Max. Number of bytes for one Dcm_WriteMemory
	Parameters (out):	ErrorCodeDcm_ProcessRequestDownload.ErrorCode
Return value:	Std_ReturnType	E_OK: Request was successful E_NOT_OK: Request was not successful DCM_E_PENDING: Request is not yet finished
Description:	Callout function. DCM shall call this callout function to start a download process. This service is needed for the implementation of UDS service RequestDownload.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77624: Increase stability of maxNumberOfBlockLength

  Problem description:

  Dcm_ProcessRequestUpload SWS_Dcm_00756
  Dcm_ProcessRequestDownload SWS_Dcm_00754

  have both the in param BlockLength. Applications could not know the maximum size of the Dcm buffer and thus provide a blockLengthh larger than the supported Dcm buffer.

  Agreed solution:

  Change blockLength parameter to in/out in SWS_Dcm_00756 and SWS_Dcm_00754.

  Add new requirement SWS_Dcm_xxxx1:
  Upon calling Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload, the Dcm shall write the maximum possible buffer size into the blockLength parameter.

  Add a new requirement SWS_Dcm_xxxx2:
  If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length larger than the supported buffer length of the current protocol connection, the Dcm shall report the DET DCM_E_INTERFACE_BUFFER_OVERFLOW.

  Add a new requirement SWS_Dcm_xxxx3:
  If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length smaller or equal than the supported buffer length of the current protocol connection, the Dcm shall return the blockLength value within the maxNumberOfBlockLength parameter of the positive response.
  –Last change on issue 77624 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	4	1

1.197 Specification Item SWS_Dcm_00756

Trace References:

none

Content:

Service name:	Dcm_ProcessRequestUploadDcm_ProcessRequestUpload	
Syntax:	Std_ReturnType Dcm_ProcessRequestUpload(Dcm_OpStatusType OpStatus, uint8 DataFormatIdentifier, uint32 MemoryAddress, uint32 MemorySize, uint32* BlockLength, Dcm_NegativeResponseCodeType* ErrorCode)	
Service ID[hex]:	0x31	
Sync/Async:	Asynchronous	
Reentrancy:	Non Reentrant	
Parameters (in):	OpStatusDcm_ProcessRequestUpload.OpStatus	DCM_INITIAL DCM_PENDING DCM_CANCEL DCM_FORCE_RCRRP_OK
	DataFormatIdentifierDcm_ProcessRequestUpload.DataFormatIdentifier	Bit 7 - 4: Compression Method - 0x0: not compressed - 0x1..F: vehicle-manufacturer-specific Bit 3 - 0: Encrypting method - 0x0: not encrypted - 0x1..F: vehicle-manufacturer-specific
	MemoryAddressDcm_ProcessRequestUpload.MemoryAddress	Starting address of server memory from which data are to be copied
	MemorySizeDcm_ProcessRequestUpload.MemorySize	Uncompressed memory size in bytes
Parameters (inout):	None	
Parameters (out):	BlockLengthDcm_ProcessRequestUpload.BlockLength	Max. Number of bytes for one Dcm_ReadMemory
	Parameters (out):	ErrorCodeDcm_ProcessRequestUpload.ErrorCode
Return value:	Std_ReturnType	E_OK: Request was successful E_NOT_OK: Request was not successful DCM_E_PENDING: Request is not yet finished
Description:	Callout function. DCM shall call this callout function to start an upload process. This service is needed for the implementation of UDS service RequestUpload.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77624: Increase stability of maxNumberOfBlockLength

  Problem description:

  Dcm_ProcessRequestUpload SWS_Dcm_00756
  Dcm_ProcessRequestDownload SWS_Dcm_00754

  have both the in param BlockLength. Applications could not know the maximum size of the Dcm buffer and thus provide a blockLengthh larger than the supported Dcm buffer.

Agreed solution:

Change blockLength parameter to in/out in SWS_Dcm_00756 and SWS_Dcm_00754.

Add new requirement SWS_Dcm_xxxx1:
Upon calling Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload, the Dcm shall write the maximum possible buffer size into the blockLength parameter.

Add a new requirement SWS_Dcm_xxxx2:
If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length larger than the supported buffer length of the current protocol connection, the Dcm shall report the DET DCM_E_INTERFACE_BUFFER_OVERFLOW.

Add a new requirement SWS_Dcm_xxxx3:
If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length smaller or equal than the supported buffer length of the current protocol connection, the Dcm shall return the blockLength value within the maxNumberOfBlockLength parameter of the positive response.
–Last change on issue 77624 comment 6–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.198 Specification Item SWS_Dcm_00763

Trace References:

none

Content:

Service name:	<Module>_<DiagnosticService><Module>_<DiagnosticService>
Syntax:	Std_ReturnType <Module>_<DiagnosticService>(Dcm_ExtendedOpStatusType OpStatus, const Dcm_MsgContextType* pMsgContext, Dcm_NegativeResponseCodeType* ErrorCode)
Service ID[hex]:	0x32
Sync/Async:	Asynchronous
Reentrancy:	Reentrant

Parameters (in):	OpStatus<Module>_<Diagnostic Service>.OpStatus	DCM_INITIAL DCM_PENDING DCM_CANCEL DCM_FORCE_RCRRP_OK DCM_POS_RESPONSE_SENT DCM_POS_RESPONSE_FAILED DCM_NEG_RESPONSE_SENT DCM_NEG_RESPONSE_FAILED
Parameters (inout):	pMsgContext<Module>_<Diagnostic Service>.pMsgContext	Message-related information for one diagnostic protocol identifier. The pointers in pMsgContext shall point behind the SID.
Parameters (inout):	None	
Parameters (out):	ErrorCode<Module>_<Diagnostic Service>.ErrorCode	If the operation <Module>_<Diagnostic Service> returns value E_NOT_OK, the DCM Dcm module shall send a negative response with NRC code equal to the parameter ErrorCode parameter value.
Return value:	Std_ReturnType	E_OK: Request was successful E_NOT_OK: Request was not successful DCM_E_PENDING: Request is not yet finished DCM_E_FORCE_RCRRP: Application requests the transmission of a response Response Pending (NRC 0x78)
Description:	Callout function. The Dcm shall call this callout function as soon as valid message is received on relevant DcmRxPduId on SID level. The usecase of multiple diagnostic protocols will be possible by using different arguments and the function shall be programmed in a way that it is reentrant. Caller is responsible for the lifetime of the argument pMsgContext. The name of the callout is defined within parameter Dcm DsdSidTabFnc	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76056: Diagnostics DCM callout functions description and signature for external diagnostic service processing

  Problem description:

  Regarding the callout functions description and signature for external diagnostic service processing. The parameter pMsgContext, is currently a constant pointer of type Dcm_MsgContextType. Considering external processing, we expect the service/-subservice callout configured in Dsd under DcmDsdSidTabFnc or DcmDsdSubServiceFnc to completely handle the service and also provide the response data and the response length.
  Updating the response length (pMsgContext->resDataLen) would not be possible if the current in parameter is defined as a constant pointer of Dcm_MsgContextType.

  Agreed solution:

  In SWS_Dcm_00763 and SWS_Dcm_00764:
  * Update the API prototypes

* Move pMsgContext from In to InOut section.

SWS_Dcm_00763:

Service name: <Module>_<DiagnosticService>
Syntax: Std_ReturnType <Module>_<DiagnosticService>(
Dcm_ExtendedOpStatusType OpStatus,
Dcm_MsgContextType * pMsgContext,
Dcm_NegativeResponseCodeType * ErrorCode
)
Service ID[hex]: 0x32
Sync/Async: Asynchronous
Reentrancy: Reentrant
Parameters (in): OpStatus DCM_INITIAL
DCM_PENDING
DCM_CANCEL
DCM_FORCE_RCRRP_OK
DCM_POS_RESPONSE_SENT
DCM_POS_RESPONSE_FAILED
DCM_NEG_RESPONSE_SENT
DCM_NEG_RESPONSE_FAILED
Parameters (inout): pMsgContext Message-related information for one diagnostic protocol identifier The pointers in pMsgContext shall point behind the SID
Parameters (out): ErrorCode If the operation <Module>_<DiagnosticService> returns value E_NOT_OK, the DCM module shall send a negative response with NRC code equal to the parameter ErrorCode parameter value.
Return value: Std_ReturnType E_OK: Request was successful
E_NOT_OK: Request was not successful
DCM_E_PENDING: Request is not yet finished
DCM_E_FORCE_RCRRP: Application requests the transmission of a response Response Pending (NRC 0x78)
Description: Callout function. The Dcm shall call this callout function as soon as valid message is received on relevant DcmRxPduId on SID level. The usecase of multiple diagnostic protocols will be possible by using different arguments and the function shall be programmed in a way that it is reentrant. Caller is responsible for the lifetime of the argument pMsgContext. The name of the callout is defined within parameter DcmDsdSidTabFnc

SWS_Dcm_00764:

Service name: <Module>_<DiagnosticService>_<SubService>
Syntax: Std_ReturnType <Module>_<DiagnosticService>_<SubService>(
Dcm_ExtendedOpStatusType OpStatus,

Dcm_MsgContextType * pMsgContext,
Dcm_NegativeResponseCodeType * ErrorCode
)
Service ID[hex]: 0x33
Sync/Async: Asynchronous
Reentrancy: Reentrant
Parameters (in): OpStatus DCM_INITIAL
DCM_PENDING
DCM_CANCEL
DCM_FORCE_RCRRP_OK
DCM_POS_RESPONSE_SENT
DCM_POS_RESPONSE_FAILED
DCM_NEG_RESPONSE_SENT
DCM_NEG_RESPONSE_FAILED
Parameters (inout): pMsgContext Message-related information for one diagnostic protocol identifier The pointers in pMsgContext shall point behind the SID
Parameters (out): ErrorCode If the operation <Module>_<DiagnosticService> returns value E_NOT_OK, the DCM module shall send a negative response with NRC code equal to the parameter ErrorCode parameter value.
Return value: Std_ReturnType E_OK: Request was successful
E_NOT_OK: Request was not successful
DCM_E_PENDING: Request is not yet finished
DCM_E_FORCE_RCRRP: Application requests the transmission of a response Response Pending (NRC 0x78)
Description: Callout function. If a DcmDsdSubServiceFnc is configured for the received subservice, the Dcm shall call this callout function as soon as this subservice is requested. The usecase of multiple diagnostic protocols will be possible by using different arguments and the function shall be programmed in a way that it is reentrant. Caller is responsible for the lifetime of the argument pMsgContext. The name of the callout is defined within parameter DcmDsdSubServiceFnc.

===BSW UML===
–Last change on issue 76056 comment 12–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.199 Specification Item SWS_Dcm_00764

Trace References:

none

Content:

Service name:	<Module>_<DiagnosticService>_<SubService><Module>_<Diagnostic Service>_<SubService>	
Syntax:	Std_ReturnType <Module>_<DiagnosticService>_<SubService>(Dcm_ExtendedOpStatusType OpStatus, const Dcm_MsgContextType* pMsgContext, Dcm_NegativeResponseCodeType* ErrorCode)	
Service ID[hex]:	0x33	
Sync/Async:	Asynchronous	
Reentrancy:	Reentrant	
Parameters (in):	OpStatus<Module>_<Diagnostic Service>_<SubService>.OpStatus	DCM_INITIAL DCM_PENDING DCM_CANCEL DCM_FORCE_RCRRP_OK DCM_POS_RESPONSE_SENT DCM_POS_RESPONSE_FAILED DCM_NEG_RESPONSE_SENT DCM_NEG_RESPONSE_FAILED
Parameters (inout):	pMsgContext<Module>_<Diagnostic Service>_<SubService>.pMsgContext	Message-related information for one diagnostic protocol identifierThe pointer . The pointers in pMsgContext shall point behind the SubFunction SID.
Parameters (inout):	None	
Parameters (out):	ErrorCode<Module>_<Diagnostic Service>_<SubService>.ErrorCode	If the operation <Module>_<Diagnostic Service>_<SubService> returns value E_NOT_OK, the Dcm module shall send a negative response with NRC code equal to the parameter ErrorCode parameter value.
Return value:	Std_ReturnType	E_OK: Request was successful E_NOT_OK: Request was not successful DCM_E_PENDING: Request is not yet finished DCM_E_FORCE_RCRRP: Application requests the transmission of a response Response Pending (NRC 0x78)
Description:	Callout function. If a DcmDsdSubServiceFnc is configured for the received subservice, the DCM Dcm shall call this callout function as soon as this subservice is requested. The usecase of multiple diagnostic protocols will be possible by using different arguments and the function shall be programmed in a way that it is reentrant. Caller is responsible for the lifetime of the argument pMsgContext. The name of the callout is defined within parameter DcmDsdSubServiceFnc.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76056: Diagnostics DCM callout functions description and signature for external diagnostic service processing

Problem description:

Regarding the callout functions description and signature for external diagnostic service processing. The parameter pMsgContext, is currently a constant pointer of type Dcm_MsgContextType. Considering external processing, we expect the service/-subservice callout configured in Dsd under DcmDsdSidTabFnc or DcmDsdSubServiceFnc to completely handle the service and also provide the response data and the response length.
Updating the response length (pMsgContext->resDataLen) would not be possible if the current in parameter is defined as a constant pointer of Dcm_MsgContextType.

Agreed solution:

In SWS_Dcm_00763 and SWS_Dcm_00764:
* Update the API prototypes
* Move pMsgContext from In to InOut section.

SWS_Dcm_00763:

Service name: <Module>_<DiagnosticService>
Syntax: Std_ReturnType <Module>_<DiagnosticService>(
Dcm_ExtendedOpStatusType OpStatus,
Dcm_MsgContextType * pMsgContext,
Dcm_NegativeResponseCodeType * ErrorCode
)
Service ID[hex]: 0x32
Sync/Async: Asynchronous
Reentrancy: Reentrant
Parameters (in): OpStatus DCM_INITIAL
DCM_PENDING
DCM_CANCEL
DCM_FORCE_RCRRP_OK
DCM_POS_RESPONSE_SENT
DCM_POS_RESPONSE_FAILED
DCM_NEG_RESPONSE_SENT
DCM_NEG_RESPONSE_FAILED
Parameters (inout): pMsgContext Message-related information for one diagnostic protocol identifier The pointers in pMsgContext shall point behind the SID
Parameters (out): ErrorCode If the operation <Module>_<DiagnosticService> returns value E_NOT_OK, the DCM module shall send a negative response with NRC code equal to the parameter ErrorCode parameter value.
Return value: Std_ReturnType E_OK: Request was successful
E_NOT_OK: Request was not successful
DCM_E_PENDING: Request is not yet finished

DCM_E_FORCE_RCRRP: Application requests the transmission of a response Response Pending (NRC 0x78)
Description: Callout function. The Dcm shall call this callout function as soon as valid message is received on relevant DcmRxPduId on SID level. The usecase of multiple diagnostic protocols will be possible by using different arguments and the function shall be programmed in a way that it is reentrant. Caller is responsible for the lifetime of the argument pMsgContext. The name of the callout is defined within parameter DcmDsdSidTabFnc

SWS_Dcm_00764:

Service name: <Module>_<DiagnosticService>_<SubService>
Syntax: Std_ReturnType <Module>_<DiagnosticService>_<SubService>(
Dcm_ExtendedOpStatusType OpStatus,
Dcm_MsgContextType * pMsgContext,
Dcm_NegativeResponseCodeType * ErrorCode
)
Service ID[hex]: 0x33
Sync/Async: Asynchronous
Reentrancy: Reentrant
Parameters (in): OpStatus DCM_INITIAL
DCM_PENDING
DCM_CANCEL
DCM_FORCE_RCRRP_OK
DCM_POS_RESPONSE_SENT
DCM_POS_RESPONSE_FAILED
DCM_NEG_RESPONSE_SENT
DCM_NEG_RESPONSE_FAILED
Parameters (inout): pMsgContext Message-related information for one diagnostic protocol identifier The pointers in pMsgContext shall point behind the SID
Parameters (out): ErrorCode If the operation <Module>_<DiagnosticService> returns value E_NOT_OK, the DCM module shall send a negative response with NRC code equal to the parameter ErrorCode parameter value.
Return value: Std_ReturnType E_OK: Request was successful
E_NOT_OK: Request was not successful
DCM_E_PENDING: Request is not yet finished
DCM_E_FORCE_RCRRP: Application requests the transmission of a response Response Pending (NRC 0x78)
Description: Callout function. If a DcmDsdSubServiceFnc is configured for the received subservice, the Dcm shall call this callout function as soon as this subservice is requested. The usecase of multiple diagnostic protocols will be possible by using different arguments and the function shall be programmed in a way that it is reentrant. Caller is responsible for the lifetime of the argument pMsgContext. The

name of the callout is defined within parameter DcmDsdSubServiceFnc.

===BSW UML===
–Last change on issue 76056 comment 12–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.200 Specification Item SWS_Dcm_00766

Trace References:

SRS_Diag_04010

Content:

If the Dcm received E_NOT_OK DEM_NO_SUCH_ELEMENT by calling Dem_GetDTCBy OccurrenceTime it shall response reply with a positive and empty responseresponse and empty DTCAndStatusRecord.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76861: Wrong return values of Dem_GetDTCByOccurrenceTime [SWS_Dem_00218]

  Problem description:

  Dem_GetDTCByOccurrenceTime [SWS_Dem_00218] provides the return value:
  DEM_NO_SUCH_ELEMENT: Request is not supported by configuration and therefore invalid

  which is wrong. It is a valid situation that no DTC is stored in the fault memory and this has nothing to do with configuration.
  –Last change on issue 76861 comment 2–

  Agreed solution:

  1) Change return value description for DEM_NO_SUCH_ELEMENT of SWS_Dem_00218 to:
  DEM_NO_SUCH_ELEMENT: The requested element is not stored

  2) Change [SWS_Dem_00221] to:
  The function Dem_GetDTCByOccurrenceTime shall return

DEM_NO_SUCH_ELEMENT, if no DTC is matching the requested occurrence time in the parameter DTCRequest. (SRS_Diag_04070)

3) Change [SWS_Dcm_00766] to:
If the Dcm received DEM_NO_SUCH_ELEMENT by calling Dem_GetDTCByOccurrenceTime it shall response with a positive response and empty DTCAndStatusRecord. (SRS_Diag_04010)

4) remove req. [SWS_Dem_00958] as the type Dem_ReturnGetDTCByOccurrenceTimeType is not used anywhere
–Last change on issue 76861 comment 9–

BW-C-Level:

Application	Specification	Bus
1	4	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example:

SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.201 Specification Item SWS_Dcm_00783

Trace References:

SRS_Diag_04010

Content:

In case of Dem_EnableDTCSetting returns E_OK (see SWS_Dcm_0030401063), the Dcm shall invoke a mode switch of the ModeDeclarationGroupPrototype DcmControl DTCSetting by calling SchM_Switch_<bsnp>_DcmControlDTCSetting (RTE_MODE_Dcm ControlDTCSetting_ENABLEDTCSETTING).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76395: Restore DEXT DiagnosticControlDTCSettings.controlOptionRecordPresent

  Problem description:

  Within RfC # 71838 the DiagnosticControlDTCSettings.controlOptionRecordPresent was removed (obosoleted) from DEXT, see comment 28, 55 and 56.
  In the Dcm ECUC_Dcm_00965 DcmSupportDTCSettingControlOptionRecord was also removed.

  This is wrong, as the Dcm still supports this parameter (see SWS_Dcm_01399). The restriction of # 71838 is that DTCSettingControlOptionRecord only allows values of 0xFFFFFF.

  The 4.2.2 Dcm had after SWS_Dcm_01063 and SWS_Dcm_00406 the following sentence: "This requirement is only valid if DcmSupportDTCSettingControlOption-Record is set to true (see [SWS_Dcm_00829] and [SWS_Dcm_00852])".
  We or have to restore this information or better structure and change the chapter for 0x85 in a way that it is clear, that after the length check, no further processing is

done and the requirements for processing do not apply.
–Last change on issue 76395 comment 14–

Agreed solution:

DEXT:
Remove tagged value atp.Status=removed from DiagnosticControlDTCSettings.controlOptionRecordPresent.

Dcm:
1) Restore Dcm ECUC_Dcm_00965 from 4.2.2
2) Move editorial text between SWS_Dcm_01399 and SWS_Dcm_00304 to top of chapter "7.5.2.23 Service 0x85 - ControlDTCSetting"
3) Restore SWS_Dcm_00829 ans SWS_Dcm_00852 from 4.2.2:
[SWS_Dcm_00829] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to true and the length of DTCSettingControlOptionRecord in the request is different from 3 bytes, the Dcm shall return NRC 0x13 (Incorrect message length or invalid format).
[SWS_Dcm_00852] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to false and the request contains any data after the subfunction, the DCM shall return NRC 0x13 (Incorrect message length or invalid format).
4)Update the following requirements:

Change SWS_Dcm_01063 to :
On reception of UDS Service 0x85 with subfunction 0x01 (DTCSettingType "ON"), the Dcm shall call Dem_EnableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

Change SWS_Dcm_00406 to :
On reception of UDS Service 0x85 with subfunction 0x02 (DTCSettingType "OFF"), the Dcm shall call Dem_DisableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

5) New changes needed and detected during implementation (agreed with cm):
Remove the following requirements:
SWS_Dcm_00304
SWS_Dcm_01064
SWS_Dcm_00830
–Last change on issue 76395 comment 23–

BW-C-Level:

Application	Specification	Bus
1	3	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.202 Specification Item SWS_Dcm_00784

Trace References:

SRS_Diag_04010

Content:

In case of Dem_DisableDTCSetting returns E_OK (see SWS_Dcm_00406), the Dcm shall invoke a mode switch of the ModeDeclarationGroupPrototype DcmControlDTCSetting by calling SchM_Switch_<bsnp>_DcmControlDTCSetting (RTE_MODE_DcmControl DTCSetting_DISABLEDTCSETTING).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example:

SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.203 Specification Item SWS_Dcm_00799

Trace References:

none

Content:

If ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == (DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC || DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC || DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR) && {ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidFreezeCurrentState)} == TRUE) || ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidResetToDefault)} == TRUE) || ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidShortTermAdjustment)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} != DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo.

This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

Agreed solution:

Replace

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298

SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996

SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644

SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the di-

agnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.204 Specification Item SWS_Dcm_00800

Trace References:

none

Content:

if ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == (DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC)) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidResetToDefault)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} != DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat

unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

Agreed solution:

Replace

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299

SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

  Problem description:

  All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

  e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

  Agreed solution:

  SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
  SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

  Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
  SWS_Dcm_00444
  SWS_Dcm_00788
  SWS_Dcm_00789
  SWS_Dcm_00790
  SWS_Dcm_00557
  SWS_Dcm_01145
  SWS_Dcm_01146
  SWS_Dcm_00642
  SWS_Dcm_00655
  SWS_Dcm_00656
  SWS_Dcm_00833

  Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
  SWS_Dcm_00443
  SWS_Dcm_00996
  SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839

SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation

field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message

SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.205 Specification Item SWS_Dcm_00801

Trace References:

none

Content:

if ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidFreezeCurrentState)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} != DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

Agreed solution:

Replace

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306

SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication

SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292

SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733

SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.206 Specification Item SWS_Dcm_00802

Trace References:

none

Content:

Service name:	Xxx_ShortTermAdjustmentXxx_ShortTermAdjSynchFixed	
Syntax:	Std_ReturnType Xxx_ShortTermAdjustment(const uint8* ControlStateInfo, [Dcm_ControlMask_{Data}Type controlMask,] Dcm_NegativeResponseCodeType* ErrorCode)	
Service ID[hex]:	0x50	
Sync/Async:	Synchronous	
Reentrancy:	Non Reentrant	
Parameters (in):	ControlStateInfoXxx_ShortTermAdj SynchFixed.ControlStateInfo	ControlState information contained in the ControlOptionRecord parameter of the InputOutputControlByIdentifier diagnostic request
	controlMaskXxx_ShortTermAdjSynch Fixed.controlMask	–
		Variation:
		({ecuc(Dcm/DcmConfigSet/Dcm Dsp/DcmDspData.DcmDspDataUse Port)} == USE_DATA_SYNCH_FNC) && ({ecuc(Dcm/DcmConfigSet/Dcm Dsp/DcmDspDidInfo/DcmDspDid Control/DcmDspDidShortTerm Adjustment)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/Dcm Dsp/DcmDspData.DcmDspDataType} != UINT8_DYN) && ({ecuc(Dcm/Dcm ConfigSet/DcmDsp/DcmDspDid/Dcm DspDidInfoRef -> DcmDspDidInfo/Dcm DspDidControl/DcmDspDidControl Mask)} == DCM_CONTROLMASK_EXTERNAL)
Parameters (inout):	None	

Parameters (out):	ErrorCodeXxx_ShortTermAdjSynch Fixed.ErrorCode	If the operation Xxx_ShortTerm Adjustment returns value E_NOT_OK, the DCM module shall send a negative response with NRC code equal to the parameter ErrorCode parameter value.
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful.
Description:	This function requests to the application to adjust the IO signal.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75180: Move requirements to chapter7

  Problem description:

  All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

  e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

  Agreed solution:

  SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
  SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

  Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
  SWS_Dcm_00444
  SWS_Dcm_00788
  SWS_Dcm_00789
  SWS_Dcm_00790
  SWS_Dcm_00557
  SWS_Dcm_01145
  SWS_Dcm_01146
  SWS_Dcm_00642
  SWS_Dcm_00655
  SWS_Dcm_00656
  SWS_Dcm_00833

  Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
  SWS_Dcm_00443
  SWS_Dcm_00996
  SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839

SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation

field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message

SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.207 Specification Item SWS_Dcm_00820

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A), for every requested periodicDIDs, the Dcm module shall check if the periodicDID can be read in the current mode condition (see configuration parameter DcmDspDidRead.DcmDspDidRead ModeRuleRef). If not, the Dcm module shall send the calculated negative response code of the reference DcmModeRule

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]

[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.208 Specification Item SWS_Dcm_00829

Trace References:

none

Content:

If the configuration parameter DcmDspControlDTCSetting.DcmSupportDTCSettingControlOptionRecord is set to true and the length of DTCSettingControlOptionRecord in the request is different from 3 bytes, the Dcm shall return NRC 0x13 (Incorrect message length or invalid format).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76395: Restore DEXT DiagnosticControlDTCSettings.controlOptionRecordPresent

  Problem description:

  Within RfC # 71838 the DiagnosticControlDTCSettings.controlOptionRecordPresent was removed (obosoleted) from DEXT, see comment 28, 55 and 56.
  In the Dcm ECUC_Dcm_00965 DcmSupportDTCSettingControlOptionRecord was also removed.

  This is wrong, as the Dcm still supports this parameter (see SWS_Dcm_01399). The restriction of # 71838 is that DTCSettingControlOptionRecord only allows values of 0xFFFFFF.

  The 4.2.2 Dcm had after SWS_Dcm_01063 and SWS_Dcm_00406 the following sentence: "This requirement is only valid if DcmSupportDTCSettingControlOptionRecord is set to true (see [SWS_Dcm_00829] and [SWS_Dcm_00852])".
  We or have to restore this information or better structure and change the chapter for 0x85 in a way that it is clear, that after the length check, no further processing is done and the requirements for processing do not apply.
  –Last change on issue 76395 comment 14–

  Agreed solution:

  DEXT:
  Remove tagged value atp.Status=removed from DiagnosticControlDTCSettings.controlOptionRecordPresent.

  Dcm:
  1) Restore Dcm ECUC_Dcm_00965 from 4.2.2
  2) Move editorial text between SWS_Dcm_01399 and SWS_Dcm_00304 to top of chapter "7.5.2.23 Service 0x85 - ControlDTCSetting"
  3) Restore SWS_Dcm_00829 ans SWS_Dcm_00852 from 4.2.2:
  [SWS_Dcm_00829] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to true and the length of DTCSettingControlOptionRecord in the request is different from 3 bytes, the Dcm shall return NRC 0x13 (Incorrect message length or invalid format).
  [SWS_Dcm_00852] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to false and the request contains any data after the subfunction, the DCM shall return NRC 0x13 (Incorrect message length or invalid format).
  4)Update the following requirements:

Change SWS_Dcm_01063 to :
On reception of UDS Service 0x85 with subfunction 0x01 (DTCSettingType "ON"), the Dcm shall call Dem_EnableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

Change SWS_Dcm_00406 to :
On reception of UDS Service 0x85 with subfunction 0x02 (DTCSettingType "OFF"), the Dcm shall call Dem_DisableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

5) New changes needed and detected during implementation (agreed with cm):
Remove the following requirements:
SWS_Dcm_00304
SWS_Dcm_01064
SWS_Dcm_00830
–Last change on issue 76395 comment 23–

BW-C-Level:

Application	Specification	Bus
1	3	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be

released with R431 with the current status the document has got none high quality. This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.209 Specification Item SWS_Dcm_00830

Trace References:

none

Content:

In case of Dem_DisableDTCSetting or Dem_EnableDTCSetting returns DEM_CONTROL_DTC_WRONG_DTCGROUP (wrong groupOfDTC), the Dcm shall return NRC 0x31 (RequestOutOfRange).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76395: Restore DEXT DiagnosticControlDTCSettings.controlOptionRecordPresent

  Problem description:

  Within RfC # 71838 the DiagnosticControlDTCSettings.controlOptionRecordPresent was removed (obosoleted) from DEXT, see comment 28, 55 and 56.
  In the Dcm ECUC_Dcm_00965 DcmSupportDTCSettingControlOptionRecord was also removed.

  This is wrong, as the Dcm still supports this parameter (see SWS_Dcm_01399). The restriction of # 71838 is that DTCSettingControlOptionRecord only allows values of 0xFFFFFF.

The 4.2.2 Dcm had after SWS_Dcm_01063 and SWS_Dcm_00406 the following sentence: "This requirement is only valid if DcmSupportDTCSettingControlOption-Record is set to true (see [SWS_Dcm_00829] and [SWS_Dcm_00852])".
We or have to restore this information or better structure and change the chapter for 0x85 in a way that it is clear, that after the length check, no further processing is done and the requirements for processing do not apply.
–Last change on issue 76395 comment 14–

Agreed solution:

DEXT:
Remove tagged value atp.Status=removed from DiagnosticControlDTCSet-tings.controlOptionRecordPresent.

Dcm:
1) Restore Dcm ECUC_Dcm_00965 from 4.2.2
2) Move editorial text between SWS_Dcm_01399 and SWS_Dcm_00304 to top of chapter "7.5.2.23 Service 0x85 - ControlDTCSetting"
3) Restore SWS_Dcm_00829 ans SWS_Dcm_00852 from 4.2.2:
[SWS_Dcm_00829] If the configuration parameter DcmSupportDTCSettingCon-trolOptionRecord is set to true and the length of DTCSettingControlOptionRecord in the request is different from 3 bytes, the Dcm shall return NRC 0x13 (Incorrect message length or invalid format).
[SWS_Dcm_00852] If the configuration parameter DcmSupportDTCSettingCon-trolOptionRecord is set to false and the request contains any data after the subfunction, the DCM shall return NRC 0x13 (Incorrect message length or invalid format).
4)Update the following requirements:

Change SWS_Dcm_01063 to :
On reception of UDS Service 0x85 with subfunction 0x01 (DTCSettingType "ON"), the Dcm shall call Dem_EnableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

Change SWS_Dcm_00406 to :
On reception of UDS Service 0x85 with subfunction 0x02 (DTCSettingType "OFF"), the Dcm shall call Dem_DisableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

5) New changes needed and detected during implementation (agreed with cm):
Remove the following requirements:

SWS_Dcm_00304
SWS_Dcm_01064
SWS_Dcm_00830
–Last change on issue 76395 comment 23–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.210 Specification Item SWS_Dcm_00843

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A),the Dcm module shall check if the periodicDataIdentifiers requested in a single request do not exceed the configured DcmDsp.DcmDspMaxPeriodicDidToRead (maximum length check). Otherwise (in case the number of elements is exceeded) the Dcm module shall send a NRC 0x13 (Incorrect message length or invalid format).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]

[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.211 Specification Item SWS_Dcm_00849

Trace References:

SRS_Diag_04153

Content:

The stored source address shall be used as target address of responsesIf the Dcm is about to send a response, response on event, and periodic messages transmitted via or periodic message for a generic connection . It shall be provided request, the Dcm shall set TARGET_ADDRESS_16 to the value of the stored source address in the MetaData Item SOURCE_ADDRESS_16 provided to Ptr in the PduR_DcmTransmit().

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76713: [Dcm] some address issues

  Problem description:

  as discussed in the telco with WP-A2 today, we can copy the PS for Dcm from RfC # 67638 (which will go for AR4.4) and move them into a new RfC for the correction already in AR4.3.1.

  SWS DCM
  =======
  No changes required. But the discrepancy between SWS_Dcm_01347/SWS_Dcm_01348 and ECUC_Dcm_00709/ECUC_Dcm_00711/ECUC_Dcm_ regarding the usage of the local address should be mended.

  Change SOURCE_ADDRESS_16 to TARGET_ADDRESS_16:
  [SWS_Dcm_00849] d The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
  It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit(). c()

  Agreed solution:

  SWS DCM
  =======
  Change [SWS_Dcm_00849] :
  The stored source address shall be used as target address of responses, response on event, and periodic messages transmitted via a generic connection.
  It shall be provided in the MetaDataItem SOURCE_ADDRESS_16 provided to PduR_DcmTransmit().
  By

  TITLE : Target address for generic connection transmission.
  If the Dcm is about to send a response, response on event, or periodic message for a generic connection request, the Dcm shall set TARGET_ADDRESS_16 to the value of the stored source address in the MetaDataPtr in the PduR_DcmTransmit() (SRS_Diag_04153)

  Extend the [ECUC_Dcm_00709] DcmDslProtocolRx from :
  "The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16." to

"The PDU referenced by this reception channel can consume meta data items of type SOURCE_ADDRESS_16 and TARGET_ADDRESS_16."

Extend the [ECUC_Dcm_00711]DcmDslProtocolTx and [ECUC_Dcm_00897]DcmDslPeriodicConnection and [ECUC_Dcm_00744] DcmDslResponseOnEvent from :
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16." to
"The PDU referenced by this transmission channel can produce meta data items of type TARGET_ADDRESS_16 and SOURCE_ADDRESS_16."
–Last change on issue 76713 comment 8–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.212 Specification Item SWS_Dcm_00851

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier(0x2A) with transmission Mode different than 0x04 "stopSending", the Dcm module shall check if all requested periodicDataIdentifiers not currently in the periodic scheduler can be added to the scheduler considering the free space of the scheduler (maximum size is defined by configuration parameter DcmDspPeriodicTransmission.DcmDspMaxPeriodicDidScheduler). Otherwise (in case the requested periodicDataIdentifiers can not be added to the scheduler) the Dcm module shall send a NRC 0x31 (RequestOutOfRange).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]

[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.213 Specification Item SWS_Dcm_00852

Trace References:

none

Content:

If the configuration parameter DcmDspControlDTCSetting.DcmSupportDTCSettingControlOptionRecord is set to false and the request contains any data after the subfunction, the Dcm shall return NRC 0x13 (Incorrect message length or invalid format).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76395: Restore DEXT DiagnosticControlDTCSettings.controlOptionRecordPresent

  Problem description:

  Within RfC # 71838 the DiagnosticControlDTCSettings.controlOptionRecordPresent was removed (obosoleted) from DEXT, see comment 28, 55 and 56.
  In the Dcm ECUC_Dcm_00965 DcmSupportDTCSettingControlOptionRecord was also removed.

  This is wrong, as the Dcm still supports this parameter (see SWS_Dcm_01399). The restriction of # 71838 is that DTCSettingControlOptionRecord only allows values of 0xFFFFFF.

  The 4.2.2 Dcm had after SWS_Dcm_01063 and SWS_Dcm_00406 the following sentence: "This requirement is only valid if DcmSupportDTCSettingControlOptionRecord is set to true (see [SWS_Dcm_00829] and [SWS_Dcm_00852])".
  We or have to restore this information or better structure and change the chapter for 0x85 in a way that it is clear, that after the length check, no further processing is done and the requirements for processing do not apply.
  –Last change on issue 76395 comment 14–

  Agreed solution:

  DEXT:
  Remove tagged value atp.Status=removed from DiagnosticControlDTCSettings.controlOptionRecordPresent.

  Dcm:
  1) Restore Dcm ECUC_Dcm_00965 from 4.2.2
  2) Move editorial text between SWS_Dcm_01399 and SWS_Dcm_00304 to top of chapter "7.5.2.23 Service 0x85 - ControlDTCSetting"
  3) Restore SWS_Dcm_00829 ans SWS_Dcm_00852 from 4.2.2:
  [SWS_Dcm_00829] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to true and the length of DTCSettingControlOptionRecord in the request is different from 3 bytes, the Dcm shall return NRC 0x13 (Incorrect

message length or invalid format).
[SWS_Dcm_00852] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to false and the request contains any data after the subfunction, the DCM shall return NRC 0x13 (Incorrect message length or invalid format).
4)Update the following requirements:

Change SWS_Dcm_01063 to :
On reception of UDS Service 0x85 with subfunction 0x01 (DTCSettingType "ON"), the Dcm shall call Dem_EnableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

Change SWS_Dcm_00406 to :
On reception of UDS Service 0x85 with subfunction 0x02 (DTCSettingType "OFF"), the Dcm shall call Dem_DisableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

5) New changes needed and detected during implementation (agreed with cm):
Remove the following requirements:
SWS_Dcm_00304
SWS_Dcm_01064
SWS_Dcm_00830
–Last change on issue 76395 comment 23–

BW-C-Level:

Application	Specification	Bus
1	3	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.214 Specification Item SWS_Dcm_00863

Trace References:

none

Content:

On reception of the UDS Service SecurityAccess (0x27) with subfunction type "sendKey", if the requested access type is not already active and if the "request seed" for the related access type was executed successfully, the Dcm module shall request the result of a key comparison by calling the configured Xxx_CompareKey() function (if the configuration parameter DcmDspSecurityRow.DcmDspSecurityUsePort is set to DcmDspSecurityRow.DcmDspSecurityUsePort.USE_ASYNCH_FNC, refer to configuration parameter DcmDspSecurityRow.DcmDspSecurityCompareKeyFnc).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-
  see file under svn.:
  https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

  DCM
  —-

See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.215 Specification Item SWS_Dcm_00900

Trace References:

none

Content:

If ResponseOnEvent started in default session a RoeEvent set up with the EventWindow Time set to CurrentAndFollowingCycle is started in default session, the EventWindow Time shall end at the end of the next power cycle or with a clearResponseOnEvent/stop ResponseOnEvent request.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #73198: [DCM]: Conflict in the SWS and ISO requirement regarding evalution of the Event Window Time of the Control requests

  Problem description:

  1. SWS Requirements, [SWS_Dcm_00900]: If ResponseOnEvent started in default session with the EventWindowTime CurrentAndFollowingCycle the EventWindowTime shall end at the end of the next power cycle or with a clearResponseOnEvent/stopResponseOnEvent request.() and
  [SWS_Dcm_00901]: If ResponseOnEvent is started in default session with an EventWindowTime currentCycle the EventWindowTime will end at the end of this power cycle or with a clearResponseOnEvent/stopResponseOnEvent. ()
  are conflicting with the ISO requirement
  Table 104, eventWindowTime : NOTE This parameter is not applicable to be evaluated by the server in case the eventType is equal to a ROE control sub-function.

Since the eventWindowTime of Start request which is a control request is not evaluated.

Agreed solution:

SWS_Dcm_00900 - If a RoeEvent set up with the EventWindowTime set to CurrentAndFollowingCycle is started in default session, the EventWindowTime shall end at the end of the next power cycle or with a clearResponseOnEvent/stopResponseOnEvent request.

SWS_Dcm_00901 - If a RoeEvent set up with the EventWindowTime set to CurrentCycle is started in default session, the EventWindowTime shall end at the end of the current power cycle or with a clearResponseOnEvent/stopResponseOnEvent
–Last change on issue 73198 comment 4–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.216 Specification Item SWS_Dcm_00901

Trace References:

none

Content:

If ResponseOnEvent is started in default session with an a RoeEvent set up with the Event WindowTime currentCycle set to CurrentCycle is started in default session, the EventWindowTime will shall end at the end of this the current power cycle or with a clearResponse OnEvent/stopResponseOnEvent.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #73198: [DCM]: Conflict in the SWS and ISO requirement regarding evalution of the Event Window Time of the Control requests

  Problem description:

  1. SWS Requirements, [SWS_Dcm_00900]: If ResponseOnEvent started in default session with the EventWindowTime CurrentAndFollowingCycle the EventWindowTime shall end at the end of the next power cycle or with a clearResponseOnEvent/stopResponseOnEvent request.() and
  [SWS_Dcm_00901]: If ResponseOnEvent is started in default session with an Even-

tWindowTime currentCycle the EventWindowTime will end at the end of this power cycle or with a clearResponseOnEvent/stopResponseOnEvent. ()
are conflicting with the ISO requirement
Table 104, eventWindowTime : NOTE This parameter is not applicable to be evaluated by the server in case the eventType is equal to a ROE control sub-function.
Since the eventWindowTime of Start request which is a control request is not evaluated.

Agreed solution:

SWS_Dcm_00900 - If a RoeEvent set up with the EventWindowTime set to CurrentAndFollowingCycle is started in default session, the EventWindowTime shall end at the end of the next power cycle or with a clearResponseOnEvent/stopResponseOnEvent request.

SWS_Dcm_00901 - If a RoeEvent set up with the EventWindowTime set to CurrentCycle is started in default session, the EventWindowTime shall end at the end of the current power cycle or with a clearResponseOnEvent/stopResponseOnEvent
–Last change on issue 73198 comment 4–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.217 Specification Item SWS_Dcm_00912

Trace References:

SRS_Diag_04010

Content:

If the state of one RoeEvent that is configured for onDTCStatusChange changes to 'ROE started' the Dcm shall evaluate the callback Dcm_DemTriggerOnDTCStatus.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.218 Specification Item SWS_Dcm_00913

Trace References:

SRS_Diag_04010

Content:

If the state of the RoeEvent, configured to OnDTCStatusChange, leaves ’ROE started’ the Dcm shall ignore the callback Dcm_DemTriggerOnDTCStatus.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.219 Specification Item SWS_Dcm_00914

Trace References:

SRS_Diag_04010

Content:

If the state of the RoeEvent is 'ROE started' for the sub-function OnDTCStatusChange shall trigger a serviceToRespondTo if Dcm_DemTriggerOnDTCStatus is called and the DTCStatusNew fits to the corresponding DTCStatusMask.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.220 Specification Item SWS_Dcm_00915

Trace References:

SRS_Diag_04010

Content:

If an event is trigger for onDTCStatusChange, the Dcm shall execute a serviceToResponseTo 0x19 0x0E, if the DTCStatusNew fits to the corresponding DTCStatusMask.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example:

SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.221 Specification Item SWS_Dcm_00941

Trace References:

none

Content:

The type definition of Dcm_SesCtrlType in the standardized AUTOSAR interface shall include the required prefix "DCM_".

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #73805: Make Dcm document compliant with Autosar Template

  Problem description:

  Autosar provides a template for SWS documents. In some parts the Dcm does not follow this template. Within the scope of this RfC the Dcm document owner shall verify the template and update the document by moving text from one chapter to another one.

  some topics for this task:
  - add chapter 4 (about limitations and constrains)
  - move all requirements below chapter 8 APIs to chapter 7
  - ...

  @CM: This RfC is editorial only, and probably does not require an WP-A4 expert discussion, but the acceptance of Rachid (no content changed in the Dcm)

  Agreed solution:

  - Move SWS_Dcm_00334 and the note below in a new sub-chapter 7.1 : Startup behavior
  - Change the SWS_Dcm_01174] to "If DcmVinRef is configured then the VIN shall

be fetched once by the Dcm during startup by calling Dcm_GetVin ()
and move it and the note below in a new sub-chapter 7.1 : Startup behavior
- Move all requirements and notes from chap 8.4.1 Dcm_StartOfReception, chap 8.4.2 Dcm_CopyRxData, chap 8.4.3 Dcm_TpRxIndication into chap 7.3.4.2 Forward requests from the PduR module to the DSD submodule.
- Move all requirements and notes from chap 8.4.4 Dcm_CopyTxData and chap 8.4.5 Dcm_TpTxConfirmation to chap 7.3.4.4 Forward responses from the DSD submodule to the PduR module.
- Move all requirements and notes from chap 8.4.7 Dcm_ComM_NoComModeEntered to chap 7.3.4.17.1 No Communication
- Move all requirements and notes from chap 8.4.8 Dcm_ComM_SilentComModeEntered to chap 7.3.4.17.2 Silent Communication
- Move all requirements and notes from chap 8.4.9 Dcm_ComM_FullComModeEntered to chap 7.3.4.17.3 Full Communication
- Create a new chapter 7.5.1.8 Callouts handling in chapter 7.5.1 General and
- Move all requirements and notes from chap 8.5.1 Dcm_ReadMemory to chap 7.5.1.8.1 Dcm_ReadMemory
- Move all requirements and notes from chap 8.5.2 Dcm_WriteMemory to chap 7.5.1.8.2 Dcm_WriteMemory
- Move all requirements and notes from chap 8.5.5 Dcm_ProcessRequestTransferExit to chap 7.5.1.8.3 Dcm_ProcessRequestTransferExit
- Move all requirements and notes from chap 8.5.6 Dcm_ProcessRequestUpload to chap 7.5.1.8.4 Dcm_ProcessRequestUpload
- Move all requirements and notes from chap 8.5.7 Dcm_ProcessRequestDownload to chap 7.5.1.8.5 Dcm_ProcessRequestDownload
- Move all requirements and notes from chap 8.8.1.1 Dcm_OpStatusType to chap 7.8 Synchronous and Asynchronous implementation
- remove SWS_Dcm_00941 as not needed
- Move all requirements and notes from chap 8.8.3.5 RoutineServices_RoutineNameto chap 7.5.2.13 Service 0x31 - RoutineControl
- Move all requirements and notes from chap 8.8.3.8 ServiceRequestNotification to chap 7.4.4.7 Initiate transmission
- Move all requirements and notes from chap 8.9.1 <Module>_<DiagnosticService> to chap 7.4.3 Interaction of the DSD with other modules after the last bullet point.
-
–Last change on issue 73805 comment 2–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.222 Specification Item SWS_Dcm_00954

Trace References:

none

Content:

If DcmDspRoeEvent.DcmDspRoeInitialEventStatus is set to DcmDspRoeEvent.DcmDspRoeInitialEventStatus.DCM_ROE_STOPPED, the Dcm shall behave like this according RoeEvent was set-upwith :

- StorageState set to '"StoreEvent' and Eveten"
- EventWindowTime set to infinity. "infinity"
- DTCStatusMask set to value configured in DcmDspRoeOnDTCStatusChange.DcmDspRoeDTCStatusMask in case of onDTCStatusChange and
- ARTechTermRefDID set to the value given with DcmDspRoeOnChangeOfDataIdentifier.DcmDspRoeDidRef in case of onChangeOfDataIdentifier

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76721: [Dcm] Clarifications for ROE

  Problem description:

  Some clarification for ROE transmission is required:

  1) DcmDspRoeStorageState
  For this parameter the following description is given:
  If this parameter is set to TRUE the StorageStateBit will be evaluated if this EventWindowTime is requested

  What exactly is the use of this parameter?
  What e.g in case this parameter is set to FALSE for the EventWindowTime CurrentCycle, will then the SWS_Dcm_01076 not done?

  [SWS_Dcm_01076] d If the Roe request has a storageState equal to storeEvent and contains an EventWindowTime that is not infinite, the Dcm shall reject the request with a negative response with the NRC 0x31 (RequestOutOfRange). c()

  2) Pre-configured setup for DcmDspRoeOnDTCStatusChange

  DcmDspRoeInitialEventStatus allows to bring the status directly to the state

DCM_ROE_STOPPED.
So the ROE event will be init by configuration instead by ROE setup request.
But it looks like, that for DcmDspRoeOnDTCStatusChange the pre-configuration of dtcStatusMask (in container DcmDspRoeOnDTCStatusChange)is missing.

As ISO 14229-1:2013 gives for DcmDspRoeOnDTCStatusChange:
This eventType requires the specification of the DTCStatusMask in the request message (eventTypeParameter# 1).

Agreed solution:

to 1)
set the parameter DcmDspRoeStorageState as obsolete and remove the table : DcmDspRoeStorageState [ECUC_Dcm_00983]

to 2)

2.1) Dcm SWS
2.1.1) Remove in the description of container DcmDspRoeOnDTCStatusChange, ECUC_Dcm_00974
Please note that currently are no additional parameters for DcmDspRoeOnDTCStatusChange are defined. Therefore the existence of the container denotes the choice.

2.1.2) Add a new parameter in the container DcmDspRoeOnDTCStatusChange, ECUC_Dcm_00974

Name: DcmDspRoeDTCStatusMask
Description: value of the relevant DTCStatusMask
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 255
Post-Build Variant Value: false
Value Configuration Class: Pre-compile time: All Variants
Scope / Dependency: scope: local

2.1.3) Add a new constraint in chapter 7.3.4.8.5.1 ROE event-trigger onDTCStatusChange (0x01)

[SWS_Dcm_CONSTR_xxxx] Existence of DTCStatusMask
DcmDspRoeDTCStatusMask shall be present if DcmDspRoeInitialEventStatus is set to DCM_ROE_STOPPED

2.1.4) update requirement SWS_Dcm_00954 as follow:

[SWS_Dcm_00954] Pre-configuraton of ROE events [If DcmDspRoeInitialEventStatus is set to DCM_ROE_STOPPED, the Dcm shall behave according RoeEvent set-up :
* StorageState set to StoreEvent
* EventWindowTime set to 'infinity' and
* DTCStatusMask set to value configured in DcmDspRoeDTCStatusMask in case of onDTCStatusChange
* DID set to the vale given with DcmDspRoeDidRef in case of onChangeOfDataIdentifier
[SRS_Diag_04010]

2.2) DEXT TPS

Add new attribute DiagnosticDtcChangeTrigger.dtcStatusMask, type: PositivieInteger, description: "this attribute represents the ability to define a status mask for the triggering of an ROE response on the change of a DTC.", multiplicity: 0..1
Add upstream mapping DcmDspRoeDTCStatusMask –> DiagnosticDtcChangeTrigger.dtcStatusMask (full, 1:1, TPS_DEXT)
–Last change on issue 76721 comment 24–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update. There are too many "No description" shown in the documents -

~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.223 Specification Item SWS_Dcm_00957

Trace References:

none

Content:

On reception of an OBD Service $06 request with only "availability OBDMID(s)" as parameter(s), the Dcm module shall obtain the supported OBDMIDs by calling the DEM Dem interface Dem_DcmGetAvailableOBDMIDs()for each "availability OBDMID ($00, $20, ...)" contained within the request and concatenate the results within the response message . according to ISO-15031-5 ISO_2d_15031_2d_5.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77870: [Dem / Dcm] ReDesign Dem/Dcm interface of AR4.3: issue with Dem_DcmGetAvailableOBDMIDs()

  Problem description:

  [SWS_Dem_00760] d Upon request by the Dcm, the Dem shall compute Supported-OBDMID information, i.e. the availability OBDMIDs. Since the Dem_DcmGetAvailableOBDMIDs reports only value per standardized OBDMID (00,

20, 40...), the Dcm has to call this API iteratively until no further availability OBDMID is supported. c()

Since Dem_DcmGetAvailableOBDMIDs reports only value per standardized OBDMID (00, 20, 40...), the Dcm has to call this API iteratively until no further availability OBDMID is supported. But there is no matching requirement in the Dcm spec.

Refer to Dcm requirement below

[SWS_Dcm_00957] d On reception of an OBD Service 06 request with only "availability OBDMID(s)" as parameter(s), the Dcm module shall obtain the supported OBDMIDs by calling the DEM interface Dem_DcmGetAvailableOBDMIDs()for each "availability
OBDMID (00, 20, ...)" contained within the request and concatenate the results within the response message. c()

Moreover Dcm expects to get supported OBDMIDs by calling Dem_DcmGetAvailableOBDMIDs, but in Dem spec it is only said to compute, not provide, OBD MID information.

SWS_Dem_00760 should be rephrased to:
Upon request by the Dcm, via Dem_DcmGetAvailableOBDMIDs() the Dem shall compute and provide Supported-OBDMID information, i.e. the availability OBDMIDs.

Additionally SWS_Dcm_00957 should be rephrased to call Dem_DcmGetAvailableOBDMIDs() iteratively until no further availability OBDMID is supported

Agreed solution:

In DEM:
Rephrase the SWS_Dem_00760 to:
[SWS_Dem_00760] If Dem_DcmGetAvailableOBDMIDs is called with an "availablity Obdmid" value of 0x00, 0x20, 0x40, 0x60, 0x80, 0xA0, 0xC0 or 0xE0 and the Dem has configured DemDtrMid [ECUC_Dem_00809], the Dem shall compute and provide the Supported-OBDMID information in the OUT parameter Obdmidvalue and return E_OK. The computed Obdmids parameter is according to ISO-15031-5 and sets a bit for each supported Obdmid in the request range (starting with Obdmid+1) and having the last bit of the Obdmidvalue set, if any subsequent range has configured Obdmids.

After SWS_Dem_00760 add new requirement :
SWS_Dem_00xxx : If Dem_DcmGetAvailableOBDMIDs is called with an invalid

Obdmid value, the Dem shall report the Det development error DEM_E_INVALID_OBDMID.(SRS_DIAG_04082)

Update the table SWS_Dem_00173 with
Type or error:Dem_DcmGetAvailableOBDMIDs called with invalid OBDMID Relevance: Development Related error: DEM_E_INVALID_OBDMID code Value: 0x50 [hex]

Remove in [SWS_Dem_00766] the return value E_NOT_OK: Report of DTR result failed.

In DCM:
Change [SWS_Dcm_00957] to
On reception of an OBD Service 06 request with only "availability OBDMID(s)" as parameter(s), the Dcm module shall obtain the supported OBDMIDs
by calling the DEM interface Dem_DcmGetAvailableOBDMIDs()for each "availability OBDMID (00, 20, ...)" contained within the request and concatenate the results within the response message according to ISO-15031-5.
–Last change on issue 77870 comment 11–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.224 Specification Item SWS_Dcm_00964

Trace References:

SRS_Diag_04000

Content:

The created ports of SWS_Dcm_00962, SWS_Dcm_00963 and SWS_Dcm_01336 shall derive the CompuMethod from the DcmDspDiagnosisScaling container (if present) and add it to the DataType in their respective port interface.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.225 Specification Item SWS_Dcm_00966

Trace References:

SRS_Diag_04010

Content:

In case Dem_ClearDTC() returns DEM_CLEAR_BUSY, the Dcm shall send a negative response 0x22 (conditionsNotCorrect).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.226 Specification Item SWS_Dcm_00967

Trace References:

SRS_Diag_04010

Content:

In case Dem_ClearDTC() returns DEM_CLEAR_BUSY, the Dcm shall send a negative response 0x22 (ConditionsNotCorrect).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.227 Specification Item SWS_Dcm_00971

Trace References:

none

Content:

The Dcm shall extend the endianness conversion defined in OSEKISO_2d_COM (Chapter 2.4)17356_2d_3, to signed data types.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #73564: References to OSEK

  Problem description:

  The OSEK web site is not available.
  References need to be updated.

  OSEK was pushed to ISO 17356
  ISO 17356-2: introduction?
  ISO 17356-3: OS
  ISO 17356-4: COM
  ISO 17356-5: NM (not sure we need to have such reference)
  ISO 17356-6: OIL (not sure we need to have such reference)

  I tried to select the documents where it would make sense to get a fix.

  Agreed solution:

  Replace references to
  * OSEK web site
  * the OSEK file name / version
  with an ISO reference (with ISO version)

  Check references to OSEK subsection (or avoid such references), to make sure that the section numbering in ISO is the same.

SWS OS
======

Change references in chapter 3.2.1 to ISO. Remove [16], [18], [19] and [20]

Remove [22] from chapter 3.2.2

Remove "OSEKtime OS [16] and the HIS Protected OSEK [22] are immature specifications that contain concepts necessary for AUTOSAR and satisfy specific application domains. It is the purpose of this document to identify these needs and to recommend the use of parts (or all) of these specifications as appropriate." from chapter 4.1.

Change "OSEK OS" to new ISO reference ("OSEK OS[..]" - many occurences, also in chapter 10)

Remove "So called hard and smooth synchronization from OSEKtime [16] are supported by this single unified concept in AUTOSAR OS. Smooth synchronization may be emulated by setting the small adjustment values on the final expiry point. Hard synchronization may be emulated by setting large adjustment values on the final expiry point." from 7.4.2.2.3

Remove "and provides the type of protection given by the OSEKtime Interrupt re-enable
schedule event [16]." from 7.7.2.1

Remove chapter 12.3

SWCT:
=====

Replace reference to OSEK COM:

Fifteen filter algorithms formally described by the enumeration type DataFilter-TypeEnum in the meta-model are taken from OSEK COM 3.0.3 specification [18] that is referenced by the RTE specification [2].

by:

Fifteen filter algorithms formally described by the enumeration type DataFilter-

TypeEnum in the meta-model are taken from the ISO 17356-4 specification [18] that is referenced by the RTE specification [2].

Replace:

[TPS_SWCT_01222] Applicability of DataFilter
This OSEK specification states that filtering is only used for messages that can be interpreted as C language unsigned integer types (characters, unsigned integers and enumerations).(RS_SWCT_03221)

by:

[TPS_SWCT_01222] Applicability of DataFilter
The ISO 17356-4 specification states that filtering is only used for messages that can be interpreted as C language unsigned integer types (characters, unsigned integers and enumerations).(RS_SWCT_03221)

Replace:

[constr_1044] Applicability of DataFilter
According to the origin of DataFilter, i.e. OSEK COM 3.0.3 specification [18], DataFilters can only be applied to values with an integer base type.()

by:

[constr_1044] Applicability of DataFilter
According to the origin of DataFilter, i.e. ISO 17356-4 specification [18], DataFilters can only be applied to values with an integer base type.()

Replace footnote to [constr_1090]:

This constraint is valid at least in the OSEK standard where an extended task (that can have wait points) can only exist a single time in the context of the scheduler.

by:

This constraint is valid at least in the ISO 17356-3 standard where an extended task (that can have wait points) can only exist a single time in the context of the scheduler.

==========
Dem
==========
Replace the reference [17] Communication in Chapter 3.1 Input documents &

related standards and norms Bibliography by : ISO 17356-3 in www.iso.org/

==========
Dcm
==========
Replace the reference [8]Communication in Chapter 3.1 Input documents & related standards and norms Bibliography by : ISO 17356-3 in www.iso.org/

==========
EXP_VFB

Add an entry in chapter "13 References" related to ISO 17356-4:
ISO 17356-4
OSEK/VDX Communication (COM)
www.iso.org

Change the references to "OSEK-COM V3.0.3" in Table 4.2 (4.3.2 From the point of view of the receiver) and EXP_Vfb_00028 (4.3.4 Filtering between the sender and the receiver) to "ISO 17356-4". Link the references to the entry in chapter "13 References".

==========
SRS_BSWGeneral

5 General Requirements on Basic Software

Replace "OSEK OS" by "ISO 17356-3"

5.2.3.4 Standard header Files
Replace in [SRS_BSW_00348]

Because E_OK is already defined within OSEK OS, E_OK has to be checked for being already defined:
/* for OSEK compliance this typedef has been added */

by

Because E_OK is already defined within ISO 17356-3, E_OK has to be checked for being already defined
/* for ISO 17356 compliance this typedef has been added */

6.2 Related Standards and Norms

Remove
6.2.1 OSEK
[STD_OSEK_OS] OSEK/VDX Operating System Specification
http://www.osek-vdx.org

Replace with ISO 17356-3 norm

==========
SRS_COM

1)
Remove [DOC_OSEK_GLOS] and all its references, since a) AUTOSAR has an own wording and glossary b) the references to (old) OSEK-terms most probably create more confusion than guidance

2)
Set reference of [DOC_OSEK_COM] to: ISO 17356-4: COM
Move refernce to Chapter 7.3 ISO and remove Chapter 7.2 OSEK

3)
Remove secton references to [DOC_OSEK_COM], just keep the textual references no numbers

4)
Search and replace textual references to OSEK COM 3.0.3 by ISO 17356-4: COM

5)
[SRS_Com_02084]: Change following text in Description,
from
< The possibilities to define those conditions shall be the same as defined in [DOC_OSEK_COM] reception filter algorithms (see [DOC_OSEK_GLOS], Section 2.2.2).
to
> The possibilities to define those conditions shall be the same as defined in [DOC_ISO_COM] reception filter algorithms (see [DOC_ISO_COM], Section 3.2.3).

6)
[SRS_Com_02058]: Change following text in Supporting Material,
from
< If no update bits are used, the AUTOSAR COM module provides the deadline monitoring defined in [DOC_OSEK_COM] (Section 2.5.1).
to

> If no update bits are used, the AUTOSAR COM module provides the deadline monitoring defined in [DOC_ISO_COM] (Section 3.5.1).

==========
SRS_Os

in chapter 6.2.1 OSEK:

Replace "[STD_OSEK_OS] OSEK/VDX Operating System, Version 2.2.3, http://www.osek-vdx.org/mirror/os223.pdf"
by "[STD_OSEK_OS] ISO 17356-3: OS"

Replace "[STD_OSEK_OIL] OSEK / VDX Implementation Language (OIL) V2.5, OSEK Implementation Language, http://www.osek-vdx.org/mirror/oil25.pdf"
by "[STD_OSEK_OIL] ISO 17356-6: OIL"

Remove "[STD_OSEK_TTOS] OSEK/VDX Time-Triggered Operating System, Version 1.0, July 24, 2001, http://www.osek-vdx.org/mirror/ttos10.pdf"

Remove "[STD_OSEK_ORTI] OSEK/VDX ORTI (OSEK RunTime Interface) Part A Version 2.1.1, Part B Version 2.1, http://www.osek-vdx.org/mirror/ORTI-A-211.pdf"

in [SRS_Os_11002]: remove [STD_OSEK_TTOS] from Supporting Material

==========
SWS_COM

1)
Set reference of [17] to ISO 17356-4: COM
Set reference of [18] to ISO 17356-6: OIL

2)
Search and replace textual references to OSEK COM 3.0.3 by ISO 17356-4: COM or [17] (if suitable)
and textual references to OSEK OIL by ISO 17356-6: OIL or [18] (if suitable)

==========
SWS_StandardTypes:
In Section 3.2: replace
[7] OSEK/VDX Operating System, Version 2.2.2 www.osek-vdx.org/os222.pdf
by
[7] OSEK/VDX Operating System, ISO 17356-3: OS

==========
CP_TR_AutosarModelConstraints
see PS for the SWCT.
==========

==========
SRS_NetworkManagement:

1) Change Section 7.2.1 name from "OSEK" to "ISO 17356-5"
Remove the description:
[5] [STD_OSEK_NM]
OSEK/VDX NM Specification (ISO 17356-5), Version 2.5.3
[STD_OSEK_NM] OSEK/VDX NM Specification (ISO 17356-5), V2.5.3
http://www.osek-vdx.org/
Change to :
OSEK/VDX NM Specification
www.iso.org
===>
7.2.1 ISO 17356-5
[5] ISO 17356-5: NM Specification
www.iso.org

2) Replace "OSEK-NM" to "ISO 17356-5: NM Specification" in [SRS_Nm_02515]

3) Replace "OSEK NM 2.5.3" to "ISO 17356-5: NM Specification" in [SRS_Nm_00142]
–Last change on issue 73564 comment 28–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.228 Specification Item SWS_Dcm_00972

Trace References:

SRS_Diag_04010

Content:

On reception of an OBD Service $02 request with a mixure of "availability PIDs" and not "availability PIDs", this request shall be ignored by the Dcm.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.229 Specification Item SWS_Dcm_00973

Trace References:

SRS_Diag_04010

Content:

When responding to OBD Service $02, the Dcm shall put fill-bytes between DcmDspPid Data in the PID whenever content bytes are missing in order to fit to the PID size (see configuration parameter DcmDspPid.DcmDspPidSize).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.230 Specification Item SWS_Dcm_00974

Trace References:

SRS_Diag_04010

Content:

The Dcm shall set the fill bytes to 0x00.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204

3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.231 Specification Item SWS_Dcm_00980

Trace References:

none

Content:

Name	Dcm_NegativeResponseCodeTypeDcm_NegativeResponseCodeType
Kind	Type
Derived from	uint8
Description	This Table of available Negative Response Codes represents the allowed Response C AUTOSAR SW Component shall return after a function call. For the allowed NRC of t executed Service ID please refer to the specification of the service in ISO14229-1 (UD ISO15031-5 (OBD/CARB) (see chapter 4.2.4 Response code parameter definition Ta

Name	Dcm_NegativeResponseCodeTypeDcm_NegativeResponseCodeType			
Range	DCM_POS_RESPDcm_NegativeResponseCode Type.DCM_POS_RESP	0x00		PR
	range of values 0x01..0x0F reserved by ISO 14229	0x01..0x0F		ISOSAERESRVD
	DCM_E_GENERALREJECTDcm_NegativeResponseCode Type.DCM_E_GENERALREJECT	0x10		GR
	DCM_E_SERVICENOTSUPPORTEDDcm_NegativeResponseCode Type.DCM_E_SERVICENOTSUPPORTED	0x11		SNS
	DCM_E_SUBFUNCTIONNOTSUPPORTEDDcm_NegativeResponseCode Type.DCM_E_SUBFUNCTIONNOTSUPPORTED	0x12		SFNS
	DCM_E_INCORRECTMESSAGELENGTHORINVALIDFORMATDcm_NegativeResponseCode Type.DCM_E_INCORRECTMESSAGELENGTHORINVALIDFORMAT	0x13		IMLOIF
	DCM_E_RESPONSETOOLONGDcm_NegativeResponseCode Type.DCM_E_RESPONSETOOLONG	0x14		RTL
	range of values 0x15..0x20 reserved by ISO 14229	0x15..0x20		ISOSAERESRVD
	DCM_E_BUSYREPEATREQUESTDcm_NegativeResponseCode Type.DCM_E_BUSYREPEATREQUEST	0x21		BRR
	DCM_E_CONDITIONSNOTCORRECTDcm_NegativeResponseCode Type.DCM_E_CONDITIONSNOTCORRECT	0x22		CNC
	value 0x23 reserved by ISO 14229	0x23		ISOSAERESRVD
	DCM_E_REQUESTSEQUENCEERRORDcm_NegativeResponseCode Type.DCM_E_REQUESTSEQUENCEERROR	0x24		RSE
	DCM_E_NORESPONSEFROMSUBNETCOMPONENTDcm_NegativeResponseCode Type.DCM_E_NORESPONSEFROMSUBNETCOMPONENT	0x25		NRFSC
	DCM_E_FAILUREPREVENTSEXECUTIONOFREQUESTEDACTIONDcm_NegativeResponseCode Type.DCM_E_FAILUREPREVENTSEXECUTIONOFREQUESTEDACTION	0x26		FPEORA
	range of values 0x27..0x30 reserved by ISO 14229	0x27..0x30		ISOSAERESRVD
	DCM_E_REQUESTOUTOFRANGEDcm_NegativeResponseCode Type.DCM_E_REQUESTOUTOFRANGE	0x31		ROOR
	value 0x32 reserved by ISO 14229	0x32		ISOSAERESRVD
	DCM_E_SECURITYACCESSDENIEDDcm_NegativeResponseCode Type.DCM_E_SECURITYACCESSDENIED	0x33		SAD
	value 0x34 reserved by ISO 14229	0x34		ISOSAERESRVD
	DCM_E_INVALIDKEYDcm_NegativeResponseCode Type.DCM_E_INVALIDKEY	0x35		IK
	DCM_E_EXCEEDNUMBEROFATTEMPTSDcm_NegativeResponseCode Type.DCM_E_EXCEEDNUMBEROFATTEMPTS	0x36		ENOA

Name	Dcm_NegativeResponseCodeTypeDcm_NegativeResponseCodeType
Variation	–

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77039: Support 0x00 in Dcm_NegativeResponseCodeType SWS_Dcm_00980

  Problem description:

  Dcm_NegativeResponseCodeType SWS_Dcm_00980 supports currently only values 01-FF. Many Dcm application interfaces uses this type to allow the application setting the NRC value of an operation. In case the application call is successful (and thus no NRC but pos. response is send), the Dcm_NegativeResponseCodeType parameter is not evaluated by the Dcm. However, for application developpers the out parameter always needs to be initialised and thus the question is, which value out of the allowed range to use.

  It is recommended to extend this type to allow 0x00 - this is internally used as pos return value indication.

  Agreed solution:

  Extend Dcm_NegativeResponseCodeType SWS_Dcm_00980 by
  0x00 "DCM_POS_RESP" "PR"

  Change the title of 7.5.1.3 Additional Negative Response Codes (NRCs) to 7.5.1.3 Negative Response Codes handling.
  Add the following requirement in this chapter after SWS_Dcm_00271:
  [SWS_Dcm_xxxx1] Accepted range of Dcm_NegativeResponseCodeType for negative responses
  If the Dcm calls an external application by any of the APIs having the out parameter NegativeResponseCodeType ErrorCode, the Dcm shall accept only values in the range 0x01-0xFF in case the return value is E_NOT_OK. [SRS_Diag_04207]
  [SWS_Dcm_xxxx2] Behavior on application returning unexpected return code
  If the Dcm calls an API with the out parameter Dcm_NegativeResponseCodeType ErrorCode and the application sets this parameter to DCM_POS_RESP and E_NOT_OK is returned, the Dcm shall report the runtime error DCM_E_INVALID_VALUE. [SRS_Diag_04207]

  Change the SWS_Dcm_00044 by putting it in the upper chapter 7.1 Error Classification :
  The error values shall be the unique for all error types. The Dcm shall use only the values given in this chapter. c(SRS_BSW_00369)

Add a new requirement in chapter 7.1.2 Run time errors
[SWS_Dcm_xxxx4] Runtime Error Types The errors and exceptions described in Table xx shall be detectable by the Dcm module depending on its build version (development/production mode) (SRS_BSW_00452)

Add a new runtime error table in chapter 7.1.2 (Table xx) Runtime Errors :
Type of error: The Dcm is getting called with an invalid input parameter value or the Dcm has called an function and this function returns an invalid out parameter or return value. Related error code: DCM_E_INVALID_VALUE Value [hex]: 0x010
–Last change on issue 77039 comment 25–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.232 Specification Item SWS_Dcm_00988

Trace References:

none

Content:

Name:	Dcm_ProgConditionsTypeDcm_ProgConditionsType
Type:	Structure

Element:	uint16	ConnectionIdDcm_Prog ConditionsType.ConnectionId	Unique id of the connection on which the request has been received
	uint16	TesterAddressDcm_Prog ConditionsType.Tester Address	Source address of the received request if meta data is enabled, otherwise same value as ConnectionId the value as configured in Dcm DslProtocolRxTesterSource Addr
	uint8	SidDcm_ProgConditions Type.Sid	Service identifier of the received request
	uint8	SubFncIdDcm_Prog ConditionsType.SubFncId	Identifier of the received subfonction
	boolean	ReprogramingRequest Dcm_ProgConditions Type.ReprogramingRequest	Set to true in order to request reprogramming of the ECU. HIS representation of FL_Ext ProgRequestType.
	boolean	ApplUpdatedDcm_Prog ConditionsType.ApplUpdated	Indicate whether the application has been updated or not. HIS representation of FL_ApplicationUpdateType.
	boolean	ResponseRequired Dcm_ProgConditions Type.ResponseRequired	Set to true in case the flashloader or application shall send a response. HIS representation of FL_ResponseRequiredType.
Description:	Used in Dcm_SetProgConditions() to allow the integrator to store relevant information prior to jumping to bootloader / jump due to ECUReset request.		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #73567: [diverse] references to HIS

  Problem description:

  The HIS website is no more available.
  We should check what is the impact on the AUTOSAR documents.

  There is already RfC 64155 which will make us rid of some references, but I assume some will remain:
  * SHE
  * list of vendor IDs
  * IO driver API
  * bootloader
  ...

  I tried to list the document where teh HIS reference will survive RfC 64155 to avoid duplicate ITs.

Agreed solution:

Generic approach for the solutions (to be refined per document by documents owners (see below)
* Check the need for an external reference
* Try to find a replacement
* Backup: ask PL solution

AUTOSAR_SRS_BSW_GENERAL
==========
Create new reference to the AUTOSAR Vendor ID List in §6.1:
[VENDOR_ID_LIST] AUTOSAR Vendor ID List
https://www.autosar.org/documents/vendor-id/

SRS_BSW_00374:
Remove reference "(according to HIS)" in the Description
Supporting Material:
replace reference "HIS Software Supplier Identifications [STD_HIS_SUPPLIER_IDS]"
to "AUTOSAR Vendor ID List [VENDOR_ID_LIST]"

Remove Chapter 6.2.2 HIS

SRS_COM
========
Remove Chapter 7.4 HIS
(the reference is not used anymore)

SRS_CryptoStack
==========
Remove abbreviation SHE from table in chapter 3 Acronyms and abbreviations

SRS_DIODriver
==========
Remove abbreviation HIS from table in chapter 3 Acronyms and abbreviations.

SRS_EEPROMDriver
==========

Remove abbreviation HIS from table in chapter 3 Acronyms and abbreviations.
Remove chapter 6.2 Related standards and norms.

SRS_FlashDriver
==========
- remove HIS from list of abbreviations
- remove requirement SRS_Fls_12083
- remove HIS Flash Driver document from reference list

SRS_FlashTest
==========
- Remove HIS from the table of acronyms in chapter 3

SRS_GPTDriver
==========
- Remove abbreviation HIS from table in chapter 4 Acronyms and abbreviations
- Remove from Chapter 7.2 the reference "[5] HIS API I/O Driver Specification www.automotive-his.de/results/ API_IODriver_2.1.3.pdf".

SRS_ICUDriver
==========
- Remove abbreviation HIS from table in chapter 3 Acronyms and abbreviations
- Remove Chapter 7.1.1 HIS

SRS_IOHWAbstraction
==========
Remove chapter 7.2 Related standards and norms.

SRS_MCUDriver
==========
- Remove abbreviation HIS from table in chapter 3 Acronyms and abbreviations
- Remove from Chapter 7.2 the reference "[5] HIS API I/O Driver Specification www.automotive-his.de/results/ API_IODriver_2.1.3.pdf".

SRS_NetworkManagement
==========

- Remove section 7.2.2 "HIS"

SRS_OCUDriver
==========
- Remove abbreviation HIS from table in chapter 2 Acronyms and abbreviations
- Remove whole chapter 5.2 Related standards and norms (including the single subchapter 5.2.1 HIS)

SRS_OS
=======
- Remove abbreviation HIS from table in chapter 2.2 Acronyms and abbreviations
- Remove chapter 5.2.2 HIS

SRS_PortDriver
==========
- Remove abbreviation HIS from table in chapter 3 Acronyms and abbreviations
- Remove reference [STD_HIS_IO_DRIVER] in chapter 6.1 Deliverables of AUTOSAR "[STD_HIS_IO_DRIVER] HIS API IO Driver, V2.1.3, April 29th, 2004, http://www.automotive-his.de/download
API_IODriver_2_1_3.pdf"
- Remove chapter 6.2 Related standards and norms

SRS_PWMDriver
==========
- Remove abbreviation HIS from table in chapter 4 Acronyms and abbreviations
- Remove Supporting Material for requirement SRS_Pwm_12299

SRS_RAMTest
==========
- Remove abbreviation HIS from table in chapter 3 Acronyms and abbreviations

SRS_SPALGeneral
==========
- Remove HIS from acronym table in chapter 3
- Set "Supporting Material:" of SRS_SPAL_12163 to –
- Remove section 7.2 "Related standards and norms"

SRS_SPIHandlerDriver
==========
- Remove abbreviation HIS from table in chapter 3 Acronyms and abbreviations

SRS_WatchdogDriver
==========
Remove from Chapter 7.2 the reference "[5] HIS API I/O Driver Specification www.automotive-his.de/results/ API_IODriver_2.1.3.pdf".

SRS_ADCDriver
==========
- Remove chapter 7.2 Related standards and norms.
- Remove abbreviation HIS from table in chapter 4 Acronyms and abbreviations

SRS_DIAGNOSTIC
==========
Remove in SRS_Diag_04098 the part of the sentence : "(according HIS [FL-504])"

SWS_BSWGeneral
==========
- Remove HIS from section 3.2 "Related standards and norms"
- Remove the sentence "The ID is the same as in HIS Software Supplier Identifications [19]." from the description of the line "<MIP>_VENDOR_ID" in SWS_BSW_00059

SWS_DiagnosticCommunicationManager
==========
Remove last 3 occurrences sentences in SWS_Dcm_00988:
"HIS representation of FL_ExtProgRequestType".
"HIS representation of FL_ApplicationUpdateType."
"HIS representation of FL_ResponseRequiredType."

SWS_DIODriver
==========
Remove chapter 3.2 Related standards and norms.

SWS_EEPROMDriver
==========
Remove chapter 3.2 Related standards and norms.

SWS_FlashDriver
==========
- remove SRS_Fls_12083 from traceability Matrix (should be done automatically by the update)
- remove HIS Flash Driver document from reference list

SWS_FlexRayDriver
==========
- Remove HIS from abbreviation table in chapter 2

SWS_FlexRayISOTransportLayer
==========
- Remove HIS from acronym table in chapter 2
- Remove reference to HIS MISRA subset from section 3.2

SWS_FlexRayTransceiverDriver
==========
- remove HIS from table Acronyms and abbreviations

SWS_OS
==========
- remove HIS from table in chapter 2 "Acronyms and abbreviations"
- remove chapter 3.2.2 "HIS" completely
- remove reference to HIS document in chapter 4.1 ("HIS Protected OSEK")

SWS_XCP
==========
- Remove abbreviation HIS from table in chapter 2 Acronyms and abbreviations
–Last change on issue 73567 comment 49–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

  Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

  b)
  interface to application

  There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
  In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

  c)
  DcmDslProtocolRxConnectionId

  "Unique identifier of the tester which uses this connection for diagnostic communication."

  Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

  In the DEXT, I found this is mapped to:
  SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
  Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDslProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)

Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.233 Specification Item SWS_Dcm_01031

Trace References:

none

Content:

Name	DataServices_{Data}Dcm.DataServicesPPort		
Kind	ProvidedPort	Interface	DataServices_{Da
Description	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataUsePort)} == (USE_DATA_SENDER_RECEIVER || USE_DATA_SENDER_RECEIVER_AS_SERVI ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->Dcm Info/DcmDspDidWrite)} != NULL) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDa DspDataDidInfoRef->DcmDspDidInfo/DcmDspDidRead)} == NULL) Data = {ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME)}		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

Agreed solution:

Replace

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312

SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.234 Specification Item SWS_Dcm_01039

Trace References:

none

Content:

Name	ServiceRequestManufacturerNotification_{Name}Dcm.RequestManufacturerNotification		
Kind	RequiredPort	Interface	ServiceRequestNo
Description	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestManufacturerNotificatio)} != =TRUENULL) Name = {ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestManufacturer Notification.SHORT-NAME)}		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76491: [PduR] Remove forwarding of ChangeParameter API from PduR

  Problem description:

The ChangeParameter API is TP specific and there is no use case to call this API through the PduR (CDD or integration code that requires a change in the TP parameter will call the API directly in the TP module)

Agreed solution:

PDUR_SWS
Remove references from ch. 5 "Dependencies to other modules"
Remove ch. 8.4. "Change transport protocol parameter"

BSW_Model
set API PduR_<User:Up>ChangeParameter [SWS_PduR_00482] to obsolete
set optional interface from [SWS_PduR_00424] to obsolete

ECUC model
set [ECUC_PduR_00326] PduRChangeParameterApi to obsolete
remove reference in description from [ECUC_PduR_00319] PduRUseTag
–Last change on issue 76491 comment 12–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.235 Specification Item SWS_Dcm_01042

Trace References:

none

Content:

Name	ServiceRequestSupplierNotification_{Name}Dcm.ServiceRequestSupplierNotification		
Kind	RequiredPort	Interface	ServiceRequestNo
Description	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestSupplierNotificationEna =TRUENULL) Name = {ecuc(Dcm/DcmConfigSet/DcmDsd/DcmDsdServiceRequestSupplier Notification.SHORT-NAME)}		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1: none

1.236 Specification Item SWS_Dcm_01043

Trace References:

SRS_Diag_04010

Content:

In case E_NOT_OK is returned by Dem_SetDTCFilter(), the Dcm module shall send a negative response with NRC 0x31 (requestOutOfRange).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.237 Specification Item SWS_Dcm_01060

Trace References:

SRS_Diag_04010

Content:

In case Dem_ClearDTC() returns DEM_CLEAR_MEMORY_ERROR, the Dcm shall trigger a negative response with NRC 0x72 (generalProgrammingFailure).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.238 Specification Item SWS_Dcm_01061

Trace References:

SRS_Diag_04010

Content:

If Dem_DcmGetDTCOfOBDFreezeFrame returns E_NOT_OK, the Dcm shall answer positively with $0000 (indicates no stored freeze frame data).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.

There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.239 Specification Item SWS_Dcm_01062

Trace References:

none

Content:

The call to Dcm_ResetToDefaultSession allows the application to reset the current session to Default session and invokes the mode switch of the ModeDeclarationGroupPrototype DcmDiagnosticSessionControl by calling SchM_Switch_<bsnp>_DcmDiagnosticSession Control(RTE_MODE_DcmDiagnostic SessionControl_DCM_DEFAULT_SESSION).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77368: Inconsistent ModeDeclaration Group for Sessions

  Problem description:

  SWS_Dcm_91019 defines the literals with "DCM_" prefix while in:
  - SWS_Dcm_01062 the example
  - SWS_Dcm_CONSTR_6001

are provided without this prefix.

Agreed solution:

Add "DCM_" prefix to literals of MDG DSC in
- SWS_Dcm_01062
- SWS_Dcm_CONSTR_6001:

[SWS_Dcm_01062] d The call to Dcm_ResetToDefaultSession allows the application to reset the current session to Default session and invokes the mode switch of the ModeDeclarationGroupPrototype DcmDiagnosticSessionControl by calling SchM_Switch_<bsnp>_DcmDiagnosticSessionControl(RTE_MODE_DcmDiagnosticSessionControl_DCM_DEFAULT_SESSION). (SRS_Diag_04138)

[SWS_Dcm_CONSTR_6001] Provide standardized names for ISO standardized
diagnostic sessions dThe following values of DcmDspSessionLevel which represent ISO defined diagnostic sessions shall be used for the shortname of DcmDspSessionRow:
1 DCM_DEFAULT_SESSION
2 DCM_PROGRAMMING_SESSION
3 DCM_EXTENDED_DIAGNOSTIC_SESSION
4 DCM_SAFETY_SYSTEM_DIAGNOSTIC_SESSION
(SRS_Diag_04138)

To ensure consistent namings between MDGs and Dcm_SesCtrlType, the note below SWS_Dcm_00978 shall be deleted and SWS_Dcm_CONSTR_6000 shall renamed to:

[SWS_Dcm_CONSTR_6000] Harmonize the naming between interfaces and modes d The shortname of DcmDspSessionRow shall match names of Dcm_SesCtrlType and of the mode declarations of DcmDiagnosticSessionControl. The "DCM_" prefix is mandatory for all shortnames. c()
–Last change on issue 77368 comment 3–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.240 Specification Item SWS_Dcm_01063

Trace References:

SRS_Diag_04115

Content:

On reception of the UDS Service 0x85 with subfunction 0x01 (DTCSettingType "ON"and the optional parameter DTCSettingControlOptionRecord is present in the request message), the Dcm module shall call Dem_EnableDTCSetting(DTCGroup, DTCKind) with DTCGroup) with ClientId = DTCSettingControlOptionRecord of the request message and DTCKind = DEM_DTC_KIND_ALL_DTCSClient Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClientRef).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76395: Restore DEXT DiagnosticControlDTCSettings.controlOptionRecordPresent

  Problem description:

  Within RfC # 71838 the DiagnosticControlDTCSettings.controlOptionRecordPresent was removed (obosoleted) from DEXT, see comment 28, 55 and 56.
  In the Dcm ECUC_Dcm_00965 DcmSupportDTCSettingControlOptionRecord was also removed.

  This is wrong, as the Dcm still supports this parameter (see SWS_Dcm_01399). The restriction of # 71838 is that DTCSettingControlOptionRecord only allows values of 0xFFFFFF.

  The 4.2.2 Dcm had after SWS_Dcm_01063 and SWS_Dcm_00406 the following sentence: "This requirement is only valid if DcmSupportDTCSettingControlOptionRecord is set to true (see [SWS_Dcm_00829] and [SWS_Dcm_00852])".
  We or have to restore this information or better structure and change the chapter for 0x85 in a way that it is clear, that after the length check, no further processing is done and the requirements for processing do not apply.
  –Last change on issue 76395 comment 14–

  Agreed solution:

  DEXT:
  Remove tagged value atp.Status=removed from DiagnosticControlDTCSettings.controlOptionRecordPresent.

  Dcm:

1) Restore Dcm ECUC_Dcm_00965 from 4.2.2
2) Move editorial text between SWS_Dcm_01399 and SWS_Dcm_00304 to top of chapter "7.5.2.23 Service 0x85 - ControlDTCSetting"
3) Restore SWS_Dcm_00829 ans SWS_Dcm_00852 from 4.2.2:
[SWS_Dcm_00829] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to true and the length of DTCSettingControlOptionRecord in the request is different from 3 bytes, the Dcm shall return NRC 0x13 (Incorrect message length or invalid format).
[SWS_Dcm_00852] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to false and the request contains any data after the subfunction, the DCM shall return NRC 0x13 (Incorrect message length or invalid format).
4)Update the following requirements:

Change SWS_Dcm_01063 to :
On reception of UDS Service 0x85 with subfunction 0x01 (DTCSettingType "ON"), the Dcm shall call Dem_EnableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

Change SWS_Dcm_00406 to :
On reception of UDS Service 0x85 with subfunction 0x02 (DTCSettingType "OFF"), the Dcm shall call Dem_DisableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

5) New changes needed and detected during implementation (agreed with cm):
Remove the following requirements:
SWS_Dcm_00304
SWS_Dcm_01064
SWS_Dcm_00830
–Last change on issue 76395 comment 23–

BW-C-Level:

Application	Specification	Bus
1	3	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.241 Specification Item SWS_Dcm_01064

Trace References:

SRS_Diag_04010

Content:

On reception of the UDS Service 0x85 with sub-function 0x02 (DTCSettingType "OFF") and the optional parameter DTCSettingControlOptionRecord is NOT present in the request message, the Dcm module shall call Dem_DisableDTCSetting() with the following parameter:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76395: Restore DEXT DiagnosticControlDTCSettings.controlOptionRecordPresent

  Problem description:

  Within RfC # 71838 the DiagnosticControlDTCSettings.controlOptionRecordPresent was removed (obosoleted) from DEXT, see comment 28, 55 and 56.
  In the Dcm ECUC_Dcm_00965 DcmSupportDTCSettingControlOptionRecord was also removed.

  This is wrong, as the Dcm still supports this parameter (see SWS_Dcm_01399). The restriction of # 71838 is that DTCSettingControlOptionRecord only allows values of 0xFFFFFF.

  The 4.2.2 Dcm had after SWS_Dcm_01063 and SWS_Dcm_00406 the following sentence: "This requirement is only valid if DcmSupportDTCSettingControlOption-Record is set to true (see [SWS_Dcm_00829] and [SWS_Dcm_00852])".
  We or have to restore this information or better structure and change the chapter for 0x85 in a way that it is clear, that after the length check, no further processing is done and the requirements for processing do not apply.
  –Last change on issue 76395 comment 14–

  Agreed solution:

  DEXT:
  Remove tagged value atp.Status=removed from DiagnosticControlDTCSettings.controlOptionRecordPresent.

  Dcm:
  1) Restore Dcm ECUC_Dcm_00965 from 4.2.2
  2) Move editorial text between SWS_Dcm_01399 and SWS_Dcm_00304 to top of chapter "7.5.2.23 Service 0x85 - ControlDTCSetting"
  3) Restore SWS_Dcm_00829 ans SWS_Dcm_00852 from 4.2.2:
  [SWS_Dcm_00829] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to true and the length of DTCSettingControlOptionRecord in the request is different from 3 bytes, the Dcm shall return NRC 0x13 (Incorrect message length or invalid format).
  [SWS_Dcm_00852] If the configuration parameter DcmSupportDTCSettingControlOptionRecord is set to false and the request contains any data after the subfunction, the DCM shall return NRC 0x13 (Incorrect message length or invalid

format).
4)Update the following requirements:

Change SWS_Dcm_01063 to :
On reception of UDS Service 0x85 with subfunction 0x01 (DTCSettingType "ON"), the Dcm shall call Dem_EnableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

Change SWS_Dcm_00406 to :
On reception of UDS Service 0x85 with subfunction 0x02 (DTCSettingType "OFF"), the Dcm shall call Dem_DisableDTCSetting() with ClientId = Client Id for this Dcm instance (see DcmDemClientRef).(SRS_Diag_04010, SRS_Diag_04115)

5) New changes needed and detected during implementation (agreed with cm):
Remove the following requirements:
SWS_Dcm_00304
SWS_Dcm_01064
SWS_Dcm_00830
–Last change on issue 76395 comment 23–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.242 Specification Item SWS_Dcm_01067

Trace References:

SRS_Diag_04010

Content:

In case Dem_ClearDTC() returns DEM_CLEAR_MEMORY_ERROR, the Dcm module shall send a negative response 0x22 (ConditionNotCorrect).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.243 Specification Item SWS_Dcm_01093

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A), the Dcm module shall check the request minimum length. If length of the request is wrong, the Dcm module shall send a NRC 0x13 (Incorrect message length or invalid format).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

  2)Add new requirements below SWS_Dcm_01100:

  SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

  3) Add new requirements below SWS_Dcm_01100:
  SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier

(0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]

[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.244 Specification Item SWS_Dcm_01094

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier(0x2A), the Dcm module shall check if the transmissionMode is supported, otherwise the Dcm module shall send a NRC 0x31(Request out of range).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]

[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.245 Specification Item SWS_Dcm_01095

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A), for every requested periodicDIDs, the Dcm module shall check if the periodicDID is supported (see configuration parameter DcmDspDid). If none of the periodicDIDs are supported, the Dcm module shall send NRC 0x31 (Request out of range).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

  2)Add new requirements below SWS_Dcm_01100:

  SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

  3) Add new requirements below SWS_Dcm_01100:
  SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

  SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier

is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
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[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
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[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
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[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.246 Specification Item SWS_Dcm_01096

Trace References:

SRS_Diag_04215

Content:

If a DID is set as unused (DcmDspDid.DcmDspDidUsed set to FALSE), the Dcm shall consider the DID as not supported.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
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[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]

[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.247 Specification Item SWS_Dcm_01097

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A), if verification has been successfully done (SWS_Dcm_00721, SWS_Dcm_00722 and SWS_Dcm_00820), and if the request contains one or more dynamically defined DID(s), the Dcm module shall do the session, security and mode dependencies checks for all source data in case the configuration parameter DcmDsp.DcmDspDDDIDcheckPerSourceDID is set to TRUE.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

1) SWS_Dcm_01100 deals with :

a) checks for transmissionmode 01/02/03
b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

-> Both are distinct topics and shall not appear in the same requirement.

2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
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[SWS_Dcm_01105]
[SWS_Dcm_01106]
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[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.248 Specification Item SWS_Dcm_01098

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A), for every requested periodicDIDs, the Dcm module shall invoke the ConditionCheckRead operation (or the respective C-Function) if configured. In case of a negative result, the returned Error Code shall be used as final negative response code.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
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[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
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[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.249 Specification Item SWS_Dcm_01099

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A), for every requested periodicDIDs, with a configured dynamic length the Dcm module shall invoke the ReadDataLength operation (or the respective C-Function) to retrieve the length of the periodicDID. This length is valid for each ReadData operation till the periodicDID is removed from the scheduler or updated via a new request. This length shall further be used to check against the UUDT size.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

-> Both are distinct topics and shall not appear in the same requirement.

2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]

[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
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[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.250 Specification Item SWS_Dcm_01100

Trace References:

SRS_Diag_04215

Content:

The verification for session, security and mode rule will be made only for requests On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending. Requests with transmissionMode stopSending may not contain any DIDs, the Dcm shall do the verification for session, security and mode rule.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]

[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.251 Specification Item SWS_Dcm_01101

Trace References:

SRS_Diag_04215

Content:

All periodic responses (scheduled responses, not the initial response) will use dedicated IF-PDU's and transmission will be done through PduR. Each time PduR_DcmTransmit is called the data pointer shall be valid.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmis-

sionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]

[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.252 Specification Item SWS_Dcm_01102

Trace References:

SRS_Diag_04215

Content:

After triggering the transmission request to the PduR the corresponding periodicDID counter shall be reloaded.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

  2)Add new requirements below SWS_Dcm_01100:

  SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

  3) Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]

[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.253 Specification Item SWS_Dcm_01103

Trace References:

SRS_Diag_04215

Content:

The Dcm shall not trigger a transmission request to the PduR unless the transmit confirmation for the previously transmitted periodic response is received.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]

[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
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[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.254 Specification Item SWS_Dcm_01104

Trace References:

SRS_Diag_04215

Content:

In case of multiple configured UUDT messages, the Dcm shall use always the same order of periodicDIDs per client. Transmission errors shall not influence this order, the Dcm shall continue to retry the transmission. The Dcm shall consider the priority inversion of message transmission as well.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

  2)Add new requirements below SWS_Dcm_01100:

  SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

  3) Add new requirements below SWS_Dcm_01100:
  SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

  SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier

is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.255 Specification Item SWS_Dcm_01105

Trace References:

SRS_Diag_04215

Content:

After the periodicDIDs are started, initial request was responded positively, no negative response will be sent for those periodicDID's (when periodically triggered).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]

[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.256 Specification Item SWS_Dcm_01106

Trace References:

SRS_Diag_04215

Content:

Each time the counter of a periodicDataIdentifiers elapses, the Dcm shall retrieve the data via the ReadData operation (or respective C-Function) without validating the other conditions (i.e. session, security, mode dependencies, ConditionCheckRead and Read DataLength).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

a) checks for transmissionmode 01/02/03
b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

-> Both are distinct topics and shall not appear in the same requirement.

2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]

[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.257 Specification Item SWS_Dcm_01107

Trace References:

SRS_Diag_04215

Content:

When the diagnostic session changes to DefaultSession, any scheduled periodic DID shall be stopped (see SWS_Dcm_01113, SWS_Dcm_01114, SWS_Dcm_01115, SWS_Dcm_01116, SWS_Dcm_01117 and SWS_Dcm_01118).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

  2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]

[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.258 Specification Item SWS_Dcm_01108

Trace References:

SRS_Diag_04215

Content:

When the diagnostic session changes to a non-defaultSession, any scheduled periodic DID that was restricted by security access shall be stopped (see SWS_Dcm_01113, SWS_Dcm_01114, SWS_Dcm_01115, SWS_Dcm_01116, SWS_Dcm_01117 and SWS_Dcm_01118).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmis-

sionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]

[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.259 Specification Item SWS_Dcm_01109

Trace References:

SRS_Diag_04215

Content:

When the diagnostic session changes to a non-defaultSession, any scheduled periodic DID that is not supported in the new session shall be stopped (see SWS_Dcm_01113, SWS_Dcm_01114, SWS_Dcm_01115, SWS_Dcm_01116, SWS_Dcm_01117 and SWS_Dcm_01118).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

  2)Add new requirements below SWS_Dcm_01100:

  SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]

[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.260 Specification Item SWS_Dcm_01110

Trace References:

SRS_Diag_04215

Content:

On any security level change, the Dcm shall stop any scheduled periodic DID (see SWS_Dcm_01113, SWS_Dcm_01114, SWS_Dcm_01115, SWS_Dcm_01116, SWS_Dcm_01117 and SWS_Dcm_01118), that was restricted by security access, but not supported by the new security level anymore.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]

[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.261 Specification Item SWS_Dcm_01111

Trace References:

SRS_Diag_04215

Content:

On any Session change, the Dcm shall stop any scheduled periodic DDDID (see SWS_Dcm_01114, SWS_Dcm_01116, SWS_Dcm_01117 and SWS_Dcm_01118), that contains source data, not supported in the current session or requires security access, in

case the configuration parameter DcmDsp.DcmDspDDDIDcheckPerSourceDID is set to TRUE

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

  2)Add new requirements below SWS_Dcm_01100:

  SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

  3) Add new requirements below SWS_Dcm_01100:
  SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in

the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]

[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.262 Specification Item SWS_Dcm_01112

Trace References:

SRS_Diag_04215

Content:

On any security level change, the Dcm shall stop any scheduled periodic DDDID (see SWS_Dcm_01114, SWS_Dcm_01116, SWS_Dcm_01117 and SWS_Dcm_01118), that contains source data, not supported in the current security level, in case the configuration parameter DcmDsp.DcmDspDDDIDcheckPerSourceDID is set to TRUE.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]

[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.263 Specification Item SWS_Dcm_01113

Trace References:

SRS_Diag_04215

Content:

On a static periodic DID stop event, the Dcm shall no longer call the "ReadData" function of this DID's data (i.e. periodic DID is removed from scheduler).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

Problem description:

1) SWS_Dcm_01100 deals with :

a) checks for transmissionmode 01/02/03
b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

-> Both are distinct topics and shall not appear in the same requirement.

2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all

requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.264 Specification Item SWS_Dcm_01114

Trace References:

SRS_Diag_04215

Content:

On a dynamically defined periodic DID stop event, the Dcm shall no longer call any source data "ReadMemory" or "ReadData" function of the periodic DDDID (i.e. periodic DDDID is removed from scheduler).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier

(0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]

[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.265 Specification Item SWS_Dcm_01115

Trace References:

SRS_Diag_04215

Content:

On a static periodic DID stop event, after the asynchronous call of its data service port has already been initiated (i.e. its "ReadData" port operation already returned E_PENDING), the corresponding service port shall be immediately aborted by signaling OpStatus=Dcm_OpStatusType.DCM_CANCEL.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

-> Both are distinct topics and shall not appear in the same requirement.

2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]

[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.266 Specification Item SWS_Dcm_01116

Trace References:

SRS_Diag_04215

Content:

On a dynamically defined periodic DID stop event, after the asynchronous call of its source data service port/callout has already been initiated (e.g. a "ReadMemory" callout already returned DCM_READ_PENDING), the corresponding service port/callout shall be immediately aborted by signaling OpStatus=Dcm_OpStatusType.DCM_CANCEL.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]

[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.267 Specification Item SWS_Dcm_01117

Trace References:

SRS_Diag_04215

Content:

On a periodic DID stop event, all its data in a Dcm queue (waiting to be transmitted) is cleared.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this

in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]

[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
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[SWS_Dcm_01096]
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[SWS_Dcm_01104]
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[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.268 Specification Item SWS_Dcm_01118

Trace References:

SRS_Diag_04215

Content:

On a periodic DID stop event, Dcm will NOT try to cancel any data transmission already initiated by the call of PduR_DcmTransmit.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

  2)Add new requirements below SWS_Dcm_01100:

  SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

  3) Add new requirements below SWS_Dcm_01100:
  SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in

the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
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[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]

[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.269 Specification Item SWS_Dcm_01121

Trace References:

none

Content:

Name	Dcm_DataArrayTypeUint8_{Data}TypeDcm_DataArrayTypeUint8		
Kind	Array	Element type	uint8
Size	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataByteSize)}) || ({ecuc ConfigSet/DcmDsp/DcmDspPid/DcmDspPidData.DcmDspPidDataByteSize)}))		
Description	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataType)} == UINT8_N ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataType)} == UINT8_DY ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspPid/DcmDspPidData/DcmDspPidServic DspPidDataType)} == UINT8_N) || ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspPid/D Data/DcmDspPidService01.DcmDspPidDataType)} == UINT8_DYN)) Data = ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME)}) || ({ecuc(ConfigSet/DcmDsp/DcmDspPid/DcmDspPidData.SHORT-NAME)})		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74438: [DCM]: Clarification on DcmDspPIDDataType configured as UINT8_DYN.

  Problem description:

  If DcmDspPIDDataType is configured as UINT8_DYN, DCM SWS 4.2.1 does not specify any API (Xxx_ReadDataLength) to fetch the length before reading the data.

  Agreed solution:

  Set UINT8_DYN in the DcmDspPidDataType ECUC_Dcm_01018 to obsolete.

  Remove the overall variation part in :
  SWS_Dcm_01121 : variation part =>) "||(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspPid/DcmDsp

== UINT8_DYN"

Remove "or UINT8_DYN." in SWS_Dcm_CONSTR_6042, in SWS_Dcm_CONSTR_6012 and in SWS_Dcm_CONSTR_6043.
–Last change on issue 74438 comment 11–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.270 Specification Item SWS_Dcm_01127

Trace References:

SRS_Diag_04010

Content:

The Dcm module shall retrieve the DTCSeverityAvailabilityMask by using the function Dem_GetDTCSeverityAvailabilityMask()

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be

released with R431 with the current status the document has got none high quality. This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.271 Specification Item SWS_Dcm_01128

Trace References:

SRS_Diag_04010

Content:

The Dcm shall reject request messages for subFunction 0x42 with FunctionalGroupIdentifier unequal to 0x33 by returning NRC 0x31 (requestOutOfRange)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.272 Specification Item SWS_Dcm_01129

Trace References:

SRS_Diag_04010

Content:

When sending a positive response to UDS Service 0x19 with subfunction 0x42, the Dcm module shall use the data in the response message according to Table [REF tab_3a_subfunction_0x42_Response_Values].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.273 Specification Item SWS_Dcm_01130

Trace References:

SRS_Diag_04010

Content:

When responding to UDS Service 0x19 with subfunction 0x42, the Dcm module shall obtain the DTCAndSeverityRecords by repeatedly calling Dem_GetNextFilteredDTCAnd Severity() after having configured the filter with Dem_SetDTCFilter() using the parameter values according to Table [REF tab_3a_Dem_GetNextFilteredDTCAndSeverity_param_values_for_Sub_0x42].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.274 Specification Item SWS_Dcm_01131

Trace References:

SRS_Diag_04010

Content:

The return values of Dem_GetNextFilteredDTCAndSeverity shall be filled according to Table [REF tab_3a_Dem_GetNextFilteredDTCAndSeverity_return_values].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example:

SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.275 Specification Item SWS_Dcm_01147

Trace References:

SRS_Diag_04010, SRS_Diag_04058

Content:

When responding to UDS Service 0x19 with subfunction 0x18, the Dcm module shall obtain the status of the DTC by first calling Dem_GetStatusOfDTC() with the following parameters:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref
- DTC: DTC from the request
- DTCOrigin: Memory Selection from request + 0x0100

and then Dem_GetStatusOfDTC() with ClientId = DcmDslProtocolRow.DcmDemClientRef

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and

DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.276 Specification Item SWS_Dcm_01148

Trace References:

SRS_Diag_04010, SRS_Diag_04058

Content:

Upon reception of UDS Service 0x019 with subfunction 0x18 and DTCSnapshotRecord Number not 0xff, Dcm module shall obtain the "DTCSnapshotRecordNumberOfIdentifiers" and the FreezeFrame by calling Dem_GetNextFreezeFrameData() with the following parameter values:

- DTC: DTCMaskRecord from the request in UDS format
- DTCOrigin: Memory Selection from request + 0x0100
- RecordNumber: DTCSnapshotRecordNumber from the request

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77867: [Dcm] ReDesign Dem/Dcm interface of AR4.3: conflict with Dem_GetNextFreezeFrameData() parameter usage

  Problem description:

  DCM spec says:

  SWS_Dcm_00384] d Upon reception of UDS Service 0x019 with subfunction 0x04 and DTCSnapshotRecordNumber not 0xff, Dcm module shall obtain the "DTCSnapshotRecordNumberOfIdentifiers" and the FreezeFrame by calling Dem_GetNextFreezeFrameData() with the following parameter values:
  - DTC: DTCMaskRecord from the request in UDS format
  - DTCOrigin: DEM_DTC_ORIGIN_PRIMARY_MEMORY
  - RecordNumber: DTCSnapshotRecordNumber from the request

  However in Dem SWS Dem_GetNextFreezeFrameData() function prototype is defines as

  Std_ReturnType Dem_GetNextFreezeFrameData(
  uint8 ClientId,
  uint8* DestBuffer,
  uint16* BufSize
)

  The parameters do not match. It sees that the Dcm specification is not updated to the new AR 4.3 access methods with Filter and following reading based on a client id.
  For Dcm the requirement should be to first set the filter via Dem_SelectFreezeFrameData(), then to disable the DTC record Update, then call Dem_GetNextFreezeFrameData() to read the snapshot data and finally to release the DTCRecordUpdate.

  The same issue also detected for
  - SWS_Dcm_01148
  - SWS_Dcm_00385
  - SWS_Dcm_01149

  Agreed solution:

  Update SWS_Dcm_00384:

  [SWS_Dcm_00384] [Upon reception of UDS Service 0x019 with subfunction

0x04 or 0x18 the Dcm shall retrieve from the Dem the stored snapshot records for the requested DTC and origin.](SRS_Diag_04010, SRS_Diag_04058)

Remove the following requirements:
- SWS_Dcm_01148
- SWS_Dcm_00385
- SWS_Dcm_01149
–Last change on issue 77867 comment 5–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.277 Specification Item SWS_Dcm_01149

Trace References:

SRS_Diag_04010, SRS_Diag_04058

Content:

Upon reception of UDS Service 0x19 with subfunction 0x18 and DTCSnapshotRecord Number 0xff, the Dcm module shall cycle through all FreezeFrame numbers from 0x00 to 0xfe and obtain the corresponding "DTCSnapshotRecordNumberOfIdentifiers" and FreezeFrame by calling Dem_GetNextFreezeFrameData() with the following parameter values:

- DTC: DTCMaskRecord from the request in UDS format
- DTCOrigin: Memory Selection from request + 0x0100
- RecordNumber: value from 0x00 -> 0xFE

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77867: [Dcm] ReDesign Dem/Dcm interface of AR4.3: conflict with Dem_GetNextFreezeFrameData() parameter usage

  Problem description:

  DCM spec says:

  SWS_Dcm_00384] d Upon reception of UDS Service 0x019 with subfunction 0x04 and DTCSnapshotRecordNumber not 0xff, Dcm module shall obtain the "DTCSnapshotRecordNumberOfIdentifiers" and the FreezeFrame by calling

Dem_GetNextFreezeFrameData() with the following parameter values:
- DTC: DTCMaskRecord from the request in UDS format
- DTCOrigin: DEM_DTC_ORIGIN_PRIMARY_MEMORY
- RecordNumber: DTCSnapshotRecordNumber from the request

However in Dem SWS Dem_GetNextFreezeFrameData() function prototype is defines as

```
Std_ReturnType Dem_GetNextFreezeFrameData(
uint8 ClientId,
uint8* DestBuffer,
uint16* BufSize
)
```

The parameters do not match. It sees that the Dcm specification is not updated to the new AR 4.3 access methods with Filter and following reading based on a client id.
For Dcm the requirement should be to first set the filter via Dem_SelectFreezeFrameData(), then to disable the DTC record Update, then call Dem_GetNextFreezeFrameData() to read the snapshot data and finally to release the DTCRecordUpdate.

The same issue also detected for
- SWS_Dcm_01148
- SWS_Dcm_00385
- SWS_Dcm_01149

Agreed solution:

Update SWS_Dcm_00384:

[SWS_Dcm_00384] [Upon reception of UDS Service 0x019 with subfunction 0x04 or 0x18 the Dcm shall retrieve from the Dem the stored snapshot records for the requested DTC and origin.](SRS_Diag_04010, SRS_Diag_04058)

Remove the following requirements:
- SWS_Dcm_01148
- SWS_Dcm_00385
- SWS_Dcm_01149
–Last change on issue 77867 comment 5–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.278 Specification Item SWS_Dcm_01152

Trace References:

none

Content:

Service name:	Xxx_GetSecurityAttemptCounterXxx_GetSecurityAttemptCounter	
Syntax:	Std_ReturnType Xxx_GetSecurityAttemptCounter(Dcm_OpStatusType OpStatus, uint8* AttemptCounter)	
Service ID[hex]:	0x59	
Sync/Async:	Asynchronous	
Reentrancy:	Non Reentrant	
Parameters (in):	OpStatusXxx_GetSecurityAttempt Counter.OpStatus	DCM_INITIAL DCM_PENDING DCM_CANCEL DCM_FORCE_RCRRP_OK
Parameters (inout):	None	
Parameters (out):	AttemptCounterXxx_GetSecurityAttempt Counter.AttemptCounter	The attempt counter for this security level
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful. DCM_E_PENDING: Request is not yet finished. Further call(s) required to finish.
Description:	Read the attempt counter for a specific security level from the application	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74707: [DCM]Security access service with no return value, for Opstatus DCM_FORCE_RCRRP_OK

  Problem description:

  Name: KPIT
  Phone:
  Role:

  Description:
  Requirement SWS_Dcm_01152 in DCM_SWS version 422,

Xxx_GetSecurityAttemptCounter has no corressponding return value for Opstatus "DCM_FORCE_RCRRP_OK"

Similarly is for the below requirement

SWS_Dcm_01152 in DCM_SWS version 422,
Xxx_SetSecurityAttemptCounter has no corressponding return value for Opstatus "DCM_FORCE_RCRRP_OK"

Do update the requirements with relevant ReturnType or remove the Opstatus "DCM_FORCE_RCRRP_OK"

Was there already a decision?No

Agreed solution:

Remove opStatus DCM_FORCE_RCRRP_OK in SWS_Dcm_01152 Xxx_GetSecurityAttemptCounter
Remove opStatus DCM_FORCE_RCRRP_OK in SWS_Dcm_01153 Xxx_SetSecurityAttemptCounter

Blueprint :
Move the DCM_FORCE_RCRRP_OK to Data constraint.
–Last change on issue 74707 comment 10–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.279 Specification Item SWS_Dcm_01153

Trace References:

none

Content:

Service name:	Xxx_SetSecurityAttemptCounterXxx_SetSecurityAttemptCounter
Syntax:	Std_ReturnType Xxx_SetSecurityAttemptCounter(Dcm_OpStatusType OpStatus, uint8 AttemptCounter)

Service ID[hex]:	0x5a	
Sync/Async:	Asynchronous	
Reentrancy:	Non Reentrant	
Parameters (in):	OpStatusXxx_SetSecurityAttempt Counter.OpStatus	DCM_INITIAL DCM_PENDING DCM_CANCEL DCM_FORCE_RCRRP_OK
	AttemptCounterXxx_SetSecurityAttempt Counter.AttemptCounter	The attempt counter for this security level
Parameters (inout):	None	
Parameters (out):	None	
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful. DCM_E_PENDING: Request is not yet finished. Further call(s) required to finish.
Description:	Set the attempt counter for a specific security level in the application	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74707: [DCM]Security access service with no return value, for Opstatus DCM_FORCE_RCRRP_OK

  Problem description:

  Name: KPIT
  Phone:
  Role:

  Description:
  Requirement SWS_Dcm_01152 in DCM_SWS version 422, Xxx_GetSecurityAttemptCounter has no corressponding return value for Opstatus "DCM_FORCE_RCRRP_OK"

  Similarly is for the below requirement

  SWS_Dcm_01152 in DCM_SWS version 422,
  Xxx_SetSecurityAttemptCounter has no corressponding return value for Opstatus "DCM_FORCE_RCRRP_OK"

  Do update the requirements with relevant ReturnType or remove the Opstatus "DCM_FORCE_RCRRP_OK"

  Was there already a decision?No

Agreed solution:

Remove opStatus DCM_FORCE_RCRRP_OK in SWS_Dcm_01152 Xxx_GetSecurityAttemptCounter
Remove opStatus DCM_FORCE_RCRRP_OK in SWS_Dcm_01153 Xxx_SetSecurityAttemptCounter

Blueprint :
Move the DCM_FORCE_RCRRP_OK to Data constraint.
–Last change on issue 74707 comment 10–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.280 Specification Item SWS_Dcm_01174

Trace References:

none

Content:

If DcmGeneral.DcmVinRef is configured then the VIN shall be fetched once by the Dcm during startup by calling Dcm_GetVin.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #73805: Make Dcm document compliant with Autosar Template

  Problem description:

  Autosar provides a template for SWS documents. In some parts the Dcm does not follow this template. Within the scope of this RfC the Dcm document owner shall verify the template and update the document by moving text from one chapter to another one.

  some topics for this task:
  - add chapter 4 (about limitations and constrains)
  - move all requirements below chapter 8 APIs to chapter 7
  - ...

@CM: This RfC is editorial only, and probably does not require an WP-A4 expert discussion, but the acceptance of Rachid (no content changed in the Dcm)

Agreed solution:

- Move SWS_Dcm_00334 and the note below in a new sub-chapter 7.1 : Startup behavior
- Change the SWS_Dcm_01174] to "If DcmVinRef is configured then the VIN shall be fetched once by the Dcm during startup by calling Dcm_GetVin ()
and move it and the note below in a new sub-chapter 7.1 : Startup behavior
- Move all requirements and notes from chap 8.4.1 Dcm_StartOfReception, chap 8.4.2 Dcm_CopyRxData, chap 8.4.3 Dcm_TpRxIndication into chap 7.3.4.2 Forward requests from the PduR module to the DSD submodule.
- Move all requirements and notes from chap 8.4.4 Dcm_CopyTxData and chap 8.4.5 Dcm_TpTxConfirmation to chap 7.3.4.4 Forward responses from the DSD submodule to the PduR module.
- Move all requirements and notes from chap 8.4.7 Dcm_ComM_NoComModeEntered to chap 7.3.4.17.1 No Communication
- Move all requirements and notes from chap 8.4.8 Dcm_ComM_SilentComModeEntered to chap 7.3.4.17.2 Silent Communication
- Move all requirements and notes from chap 8.4.9 Dcm_ComM_FullComModeEntered to chap 7.3.4.17.3 Full Communication
- Create a new chapter 7.5.1.8 Callouts handling in chapter 7.5.1 General and
- Move all requirements and notes from chap 8.5.1 Dcm_ReadMemory to chap 7.5.1.8.1 Dcm_ReadMemory
- Move all requirements and notes from chap 8.5.2 Dcm_WriteMemory to chap 7.5.1.8.2 Dcm_WriteMemory
- Move all requirements and notes from chap 8.5.5 Dcm_ProcessRequestTransferExit to chap 7.5.1.8.3 Dcm_ProcessRequestTransferExit
- Move all requirements and notes from chap 8.5.6 Dcm_ProcessRequestUpload to chap 7.5.1.8.4 Dcm_ProcessRequestUpload
- Move all requirements and notes from chap 8.5.7 Dcm_ProcessRequestDownload to chap 7.5.1.8.5 Dcm_ProcessRequestDownload
- Move all requirements and notes from chap 8.8.1.1 Dcm_OpStatusType to chap 7.8 Synchronous and Asynchronous implementation
- remove SWS_Dcm_00941 as not needed
- Move all requirements and notes from chap 8.8.3.5 RoutineServices_RoutineNameto chap 7.5.2.13 Service 0x31 - RoutineControl
- Move all requirements and notes from chap 8.8.3.8 ServiceRequestNotification to chap 7.4.4.7 Initiate transmission
- Move all requirements and notes from chap 8.9.1 <Module>_<DiagnosticService> to chap 7.4.3 Interaction of the DSD with other modules after the last bullet point.

-
–Last change on issue 73805 comment 2–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.281 Specification Item SWS_Dcm_01177

Trace References:

SRS_Diag_04098

Content:

If the jump to bootloader is requested (see SWS_Dcm_00532, SWS_Dcm_00592, the configuration parameter DcmDslProtocolRow.DcmSendRespPendOnTransToBootRestart is set to TRUE (see SWS_Dcm_00654), and the configuration parameter DcmDspSessionRow.DcmDspSessionForBoot is set to DCM_OEM_BOOT_RESPAPP or DCM_SYS_BOOT_RESPAPP, the Dcm shall initiate the final response after a successful transmission of NRC 0x78 (Response pending).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77811: Clarify response after reset

  Problem description:

  I)
  The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

  1) 10 02
  2) 11 01
  3) 11 02
  4) 11 03
  5) 11 xx ?

  For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

  There are OEM use cases having a different response behaviour on different 0x11 SFs.

II)
Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

Agreed solution:

I)

Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuReset
Description This container contains the configuration for DcmDspEcuReset service.

Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuResetRow
Description This container contains the configuration for each DcmDspEcuReset subservice.

Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset

Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)
Make OBSOLETE DcmSendRespPendOnTransToBoot
Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.
Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOnRestart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.282 Specification Item SWS_Dcm_01178

Trace References:

none

Content:

In case the ModeDeclarationGroupPrototype DcmEcuReset is switched to mode JUMPTOBOOTLOADER or JUMPTOSYSSUPPLIERBOOTLOADER, the configuration parameter DcmDslProtocolRow.DcmSendRespPendOnTransToBoot Restart is set to FALSE and the configuration parameter DcmDspSessionRow.DcmDspSessionForBoot is set to

DCM_OEM_BOOT_RESPAPP or DCM_SYS_BOOT_RESPAPP , the Dcm shall initiate the final response

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77811: Clarify response after reset

  Problem description:

  I)
  The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

  1) 10 02
  2) 11 01
  3) 11 02
  4) 11 03
  5) 11 xx ?

  For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

  There are OEM use cases having a different response behaviour on different 0x11 SFs.

  II)
  Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

  Agreed solution:

  I)

  Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

  SWS Item [ECUC_Dcm_0xxxx]
  Container Name DcmDspEcuReset
  Description This container contains the configuration for DcmDspEcuReset service.

  Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

  SWS Item [ECUC_Dcm_0xxxx]
  Container Name DcmDspEcuResetRow
  Description This container contains the configuration for each DcmDspEcuReset subservice.

Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)
Make OBSOLETE DcmSendRespPendOnTransToBoot
Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.
Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOn-Restart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.283 Specification Item SWS_Dcm_01193

Trace References:

SRS_Diag_04010

Content:

When responding to UDS Service 0x19 with subfunction 0x05 and DTCStoredDataRecord Number is 0x00, the Dcm shall call Dem_DcmGetDTCOfOBDFreezeFrame() with Frame Number 0x00 and DTCFormat DEM_DTC_FORMAT_UDS to retrieve the DTC of the provided FreezeFrame.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.

There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.284 Specification Item SWS_Dcm_01222

Trace References:

none

Content:

If Dem_GetNextFreezeFrameData() returns DEM_NO_SUCH_ELEMENT and if a single Extended Data Record is requested, the Dcm shall send a NRC 0x31 (RequestOutOf Range).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #79153: [Dem][Dcm] inconsistency of getNextFreezeFrameData and Dem_GetNextExtendedDataRecord functions

  Problem description:

  As already mentioned in RfC # 79148 the DEM/DCM specs are inconsistent for describing the behavior of Dem_GetNextFreezeFrameData and Dem_GetNextExtendedDataRecord.
  Small corrections should be done in 4.3.1 as it is not working as described.

This request is supposed to do the minimal changes required to at least fix the inconsistencies between DCM and DEM.

Agreed solution:

in Dem:

- in SWS_Dem_00236: change description of DEM_NO_SUCH_ELEMENT:
"Found no (further) element matching the filter criteria"

- in SWS_Dem_00239: change description of DEM_NO_SUCH_ELEMENT:
"Found no (further) element matching the filter criteria"

in Dcm:

- remove requirement Dcm_01223
[SWS_Dcm_01223] If Dem_GetNextFreezeFrameData() returns
DEM_NO_SUCH_ELEMENT and if multiple Extended Data Record is requested, the
Dcm shall proceed with the next record. c()

- remove requirement Dcm_01222
[SWS_Dcm_01222] If Dem_GetNextFreezeFrameData() returns
DEM_NO_SUCH_ELEMENT and if a single Extended Data Record is requested,
the Dcm shall send a NRC 0x31 (RequestOutOfRange). c()

- introduce new requirement before SWS_Dcm_01224
[SWS_Dcm_xxx01] When responding to UDS Service 0x19 with subfunction 0x04,
or 0x18, the Dcm module shall collect the freeze frame data by first
calling Dem_SelectFreezeFrameData()
and then call Dem_GetNextFreezeFrameData() repeatedly until
DEM_NO_SUCH_ELEMENT is returned.c()

- change SWS_Dcm_01224 from
[SWS_Dcm_01224] If at least one of the requested extended data is supported,
the Dcm shall send a positive response. Otherwise the Dcm shall send a NRC 0x31
(RequestOutOfRange). c()
to
[SWS_Dcm_01224] If at least one of the requested freeze frame data is supported,
the Dcm shall send a positive response. Otherwise the Dcm shall send a NRC 0x31
(RequestOutOfRange). c()
–Last change on issue 79153 comment 9–

BW-C-Level:

Application	Specification	Bus
1	4	4

1.285 Specification Item SWS_Dcm_01223

Trace References:

none

Content:

If Dem_GetNextFreezeFrameData() returns DEM_NO_SUCH_ELEMENT and if multiple Extended Data Record is requested, the Dcm shall proceed with the next record.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #79153: [Dem][Dcm] inconsistency of getNextFreezeFrameData and Dem_GetNextExtendedDataRecord functions

  Problem description:

  As already mentioned in RfC # 79148 the DEM/DCM specs are inconsistent for describing the behavior of Dem_GetNextFreezeFrameData and Dem_GetNextExtendedDataRecord.
  Small corrections should be done in 4.3.1 as it is not working as described.

  This request is supposed to do the minimal changes required to at least fix the inconsistencies between DCM and DEM.

  Agreed solution:

  in Dem:

  - in SWS_Dem_00236: change description of DEM_NO_SUCH_ELEMENT:
  "Found no (further) element matching the filter criteria"

  - in SWS_Dem_00239: change description of DEM_NO_SUCH_ELEMENT:
  "Found no (further) element matching the filter criteria"

  in Dcm:

  - remove requirement Dcm_01223

[SWS_Dcm_01223] If Dem_GetNextFreezeFrameData() returns
DEM_NO_SUCH_ELEMENT and if multiple Extended Data Record is requested, the
Dcm shall proceed with the next record. c()

- remove requirement Dcm_01222
[SWS_Dcm_01222] If Dem_GetNextFreezeFrameData() returns
DEM_NO_SUCH_ELEMENT and if a single Extended Data Record is requested,
the Dcm shall send a NRC 0x31 (RequestOutOfRange). c()

- introduce new requirement before SWS_Dcm_01224
[SWS_Dcm_xxx01] When responding to UDS Service 0x19 with subfunction 0x04,
or 0x18, the Dcm module shall collect the freeze frame data by first
calling Dem_SelectFreezeFrameData()
and then call Dem_GetNextFreezeFrameData() repeatedly until
DEM_NO_SUCH_ELEMENT is returned.c()

- change SWS_Dcm_01224 from
[SWS_Dcm_01224] If at least one of the requested extended data is supported,
the Dcm shall send a positive response. Otherwise the Dcm shall send a NRC 0x31
(RequestOutOfRange). c()
to
[SWS_Dcm_01224] If at least one of the requested freeze frame data is supported,
the Dcm shall send a positive response. Otherwise the Dcm shall send a NRC 0x31
(RequestOutOfRange). c()
–Last change on issue 79153 comment 9–

BW-C-Level:

Application	Specification	Bus
1	4	4

1.286 Specification Item SWS_Dcm_01224

Trace References:

none

Content:

If at least one of the requested extended freeze frame data is supported, the Dcm shall send a positive response. Otherwise the Dcm shall send a NRC 0x31 (RequestOutOf Range).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #79153: [Dem][Dcm] inconsistency of getNextFreezeFrameData and Dem_GetNextExtendedDataRecord functions

  Problem description:

  As already mentioned in RfC # 79148 the DEM/DCM specs are inconsistent for describing the behavior of Dem_GetNextFreezeFrameData and Dem_GetNextExtendedDataRecord.
  Small corrections should be done in 4.3.1 as it is not working as described.

  This request is supposed to do the minimal changes required to at least fix the inconsistencies between DCM and DEM.

  Agreed solution:

  in Dem:

  - in SWS_Dem_00236: change description of DEM_NO_SUCH_ELEMENT:
  "Found no (further) element matching the filter criteria"

  - in SWS_Dem_00239: change description of DEM_NO_SUCH_ELEMENT:
  "Found no (further) element matching the filter criteria"

  in Dcm:

  - remove requirement Dcm_01223
  [SWS_Dcm_01223] If Dem_GetNextFreezeFrameData() returns
  DEM_NO_SUCH_ELEMENT and if multiple Extended Data Record is requested, the
  Dcm shall proceed with the next record. c()

  - remove requirement Dcm_01222
  [SWS_Dcm_01222] If Dem_GetNextFreezeFrameData() returns
  DEM_NO_SUCH_ELEMENT and if a single Extended Data Record is requested,
  the Dcm shall send a NRC 0x31 (RequestOutOfRange). c()

  - introduce new requirement before SWS_Dcm_01224
  [SWS_Dcm_xxx01] When responding to UDS Service 0x19 with subfunction 0x04,
  or 0x18, the Dcm module shall collect the freeze frame data by first
  calling Dem_SelectFreezeFrameData()
  and then call Dem_GetNextFreezeFrameData() repeatedly until
  DEM_NO_SUCH_ELEMENT is returned.c()

- change SWS_Dcm_01224 from
[SWS_Dcm_01224] If at least one of the requested extended data is supported, the Dcm shall send a positive response. Otherwise the Dcm shall send a NRC 0x31 (RequestOutOfRange). c()
to
[SWS_Dcm_01224] If at least one of the requested freeze frame data is supported, the Dcm shall send a positive response. Otherwise the Dcm shall send a NRC 0x31 (RequestOutOfRange). c()
–Last change on issue 79153 comment 9–

BW-C-Level:

Application	Specification	Bus
1	4	4

1.287 Specification Item SWS_Dcm_01225

Trace References:

none

Content:

If Dem_GetNextFreezeFrameData() returns E_PENDING, the Dcm shall call again Dem_GetNextFreezeFrameData() API in next Dcm_MainFunction call.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

  The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behavior on DEM_PENDING.
  The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

  Agreed solution:

  Add new sub-chapter 7.5.1.8 Asynchronous call behavior
  Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
  SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned.

(SRS_Diag_04010)

Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
-SWS_Dcm_00120
-SWS_Dcm_00527
-SWS_Dcm_00528
-SWS_Dcm_00529
-SWS_Dcm_00530
-SWS_Dcm_01184
-SWS_Dcm_00760

Convert the note below SWS_Dcm_00530 to:
SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.288 Specification Item SWS_Dcm_01226

Trace References:

SRS_Diag_04010

Content:

If Dem_GetFunctionalUnitOfDTC() returns DEM_WRONG_DTC or DEM_WRONG_DTCORIGIN, the Dcm shall send a NRC 0x31 (requestOutOfRange).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.289 Specification Item SWS_Dcm_01231

Trace References:

none

Content:

If Dem_GetNextFilteredDTC() returns DEM_PENDING, the Dcm shall call again Dem_Get NextFilteredDTC() API in next Dcm_MainFunction call.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

  The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behavior on DEM_PENDING.
  The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

  Agreed solution:

  Add new sub-chapter 7.5.1.8 Asynchronous call behavior
  Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
  SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned. (SRS_Diag_04010)

  Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
  -SWS_Dcm_00120
  -SWS_Dcm_00527
  -SWS_Dcm_00528
  -SWS_Dcm_00529
  -SWS_Dcm_00530
  -SWS_Dcm_01184
  -SWS_Dcm_00760

  Convert the note below SWS_Dcm_00530 to:
  SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.290 Specification Item SWS_Dcm_01236

Trace References:

none

Content:

If Dem_GetNextFilteredDTCAndSeverity() returns DEM_PENDING, the Dcm shall call again Dem_GetNextFilteredDTCAndSeverity() API in next Dcm_MainFunction call.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

  The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behavior on DEM_PENDING.
  The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

  Agreed solution:

Add new sub-chapter 7.5.1.8 Asynchronous call behavior
Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned. (SRS_Diag_04010)

Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
-SWS_Dcm_00120
-SWS_Dcm_00527
-SWS_Dcm_00528
-SWS_Dcm_00529
-SWS_Dcm_00530
-SWS_Dcm_01184
-SWS_Dcm_00760

Convert the note below SWS_Dcm_00530 to:
SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.291 Specification Item SWS_Dcm_01237

Trace References:

SRS_Diag_04010

Content:

If Dem_GetNextFilteredRecord() returns DEM_NO_SUCH_ELEMENT and at least one matching element could be retrieved before, the Dcm shall send a positive response including these data elements.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.292 Specification Item SWS_Dcm_01238

Trace References:

SRS_Diag_04010

Content:

If Dem_GetNextFilteredRecord() returns DEM_NO_SUCH_ELEMENT and no matching element could be retrieved before, the Dcm shall send a positive response only for service and subservice.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize

the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.293 Specification Item SWS_Dcm_01239

Trace References:

none

Content:

If Dem_GetNumberOfFilteredDTC() returns DEM_PENDING, the Dcm shall call again Dem_GetNumberOfFilteredDTC() API in next Dcm_MainFunction call

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

  The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behavior on DEM_PENDING.
  The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

  Agreed solution:

  Add new sub-chapter 7.5.1.8 Asynchronous call behavior
  Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
  SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned.

(SRS_Diag_04010)

Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
-SWS_Dcm_00120
-SWS_Dcm_00527
-SWS_Dcm_00528
-SWS_Dcm_00529
-SWS_Dcm_00530
-SWS_Dcm_01184
-SWS_Dcm_00760

Convert the note below SWS_Dcm_00530 to:
SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.294 Specification Item SWS_Dcm_01240

Trace References:

SRS_Diag_04010

Content:

If Dem_GetSeverityOfDTC() returns DEM_WRONG_DTC, the Dcm shall send a NRC 0x31 (requestOutOfRange)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.295 Specification Item SWS_Dcm_01241

Trace References:

none

Content:

If Dem_GetSeverityOfDTC() returns DEM_PENDING, the Dcm shall call again Dem_Get SeverityOfDTC() API in next Dcm_MainFunction call.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

  The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behavior on DEM_PENDING.
  The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

  Agreed solution:

  Add new sub-chapter 7.5.1.8 Asynchronous call behavior
  Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
  SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned. (SRS_Diag_04010)

  Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
  -SWS_Dcm_00120
  -SWS_Dcm_00527
  -SWS_Dcm_00528
  -SWS_Dcm_00529
  -SWS_Dcm_00530
  -SWS_Dcm_01184
  -SWS_Dcm_00760

  Convert the note below SWS_Dcm_00530 to:
  SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.296 Specification Item SWS_Dcm_01245

Trace References:

none

Content:

If Dem_GetSizeOfExtendedDataRecordSelection() returns E_PENDING, the Dcm shall call again Dem_GetSizeOfExtendedDataRecordSelection() API in next Dcm_MainFunction call.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

  The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behavior on DEM_PENDING.
  The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

  Agreed solution:

Add new sub-chapter 7.5.1.8 Asynchronous call behavior
Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned. (SRS_Diag_04010)

Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
-SWS_Dcm_00120
-SWS_Dcm_00527
-SWS_Dcm_00528
-SWS_Dcm_00529
-SWS_Dcm_00530
-SWS_Dcm_01184
-SWS_Dcm_00760

Convert the note below SWS_Dcm_00530 to:
SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.297 Specification Item SWS_Dcm_01249

Trace References:

none

Content:

If Dem_GetSizeOfFreezeFrameSelection() returns E_PENDING, the Dcm shall call again Dem_GetSizeOfFreezeFrameSelection() API in next Dcm_MainFunction call

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

  The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behavior on DEM_PENDING.
  The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

  Agreed solution:

  Add new sub-chapter 7.5.1.8 Asynchronous call behavior
  Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
  SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned. (SRS_Diag_04010)

  Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
  -SWS_Dcm_00120
  -SWS_Dcm_00527
  -SWS_Dcm_00528
  -SWS_Dcm_00529
  -SWS_Dcm_00530
  -SWS_Dcm_01184
  -SWS_Dcm_00760

  Convert the note below SWS_Dcm_00530 to:
  SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.298 Specification Item SWS_Dcm_01252

Trace References:

SRS_Diag_04010

Content:

If Dem_DcmReadDataOfOBDFreezeFrame() returns E_NOT_OK and a single PID is requested, the Dcm shall not provide any answer.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no

added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.299 Specification Item SWS_Dcm_01253

Trace References:

SRS_Diag_04010

Content:

If Dem_DcmReadDataOfOBDFreezeFrame() returns E_NOT_OK and all PIDs from the requested multiple PID(s) are not supported, the Dcm shall not provide any answer.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.300 Specification Item SWS_Dcm_01254

Trace References:

SRS_Diag_04010

Content:

If Dem_DcmReadDataOfOBDFreezeFrame() returns E_NOT_OK and at least one PID from the requested multiple PID(s) is supported, the Dcm shall send a positive response including the data of the supported PID(s).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.301 Specification Item SWS_Dcm_01256

Trace References:

SRS_Diag_04010

Content:

If Dem_SetFreezeFrameRecordFilter() returns E_NOT_OK, the Dcm shall send a NRC 0x31 (RequestOutOfRange).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.302 Specification Item SWS_Dcm_01263

Trace References:

SRS_Diag_04010, SRS_Diag_04058 , SRS_Diag_04065

Content:

Upon reception of a UDS Service ClearDiagnosticInformation (0x14) request with parameter groupOfDTC, the Dcm module shall call the API Dem_SelectDTC() with the following parameter values:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref)
- DTC: groupOfDTC from the service request
- DTCFormat: DEM_DTC_FORMAT_UDS
- DTCOrigin: DEM_DTC_ORIGIN_PRIMARY_MEMORY

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:

Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update. There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.303 Specification Item SWS_Dcm_01264

Trace References:

SRS_Diag_04010

Content:

In case Dem_GetDTCSelectionResult() returns DEM_PENDING, the Dcm shall invoke Dem_GetDTCSelectionResult() on next Dcm_MainFunction call again. It is up to the Dcm to send NRC 0x78 (Response Pending) to respect the response behaviour.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

  The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behavior on DEM_PENDING.

The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

Agreed solution:

Add new sub-chapter 7.5.1.8 Asynchronous call behavior
Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned. (SRS_Diag_04010)

Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
-SWS_Dcm_00120
-SWS_Dcm_00527
-SWS_Dcm_00528
-SWS_Dcm_00529
-SWS_Dcm_00530
-SWS_Dcm_01184
-SWS_Dcm_00760

Convert the note below SWS_Dcm_00530 to:
SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.304 Specification Item SWS_Dcm_01265

Trace References:

SRS_Diag_04010

Content:

In case Dem_GetDTCSelectionResult() returns DEM_WRONG_DTC, the Dcm shall send a NRC 0x31 (RequestOutOfRange).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.305 Specification Item SWS_Dcm_01268

Trace References:

SRS_Diag_04010

Content:

In case Dem_GetDTCSelectionResult() returns E_OK, the Dcm module shall check if application allows to clear the DTC (according to the configuration parameter DcmDsp ClearDTC.DcmDspClearDTCCheckFnc). If not, the Dcm module shall send a negative response with NRC set to value from the parameter "ErrorCode".

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.

This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.306 Specification Item SWS_Dcm_01269

Trace References:

SRS_Diag_04010

Content:

In case application allows to clear the DTC, the Dcm module shall check if the DTC can be cleared in the current mode condition (according to the configuration parameter Dcm DspClearDTC.DcmDspClearDTCModeRuleRef). If not, the Dcm module shall send the calculated negative response code of the referenced DcmModeRule.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and

DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.307 Specification Item SWS_Dcm_01275

Trace References:

SRS_Diag_04010

Content:

On reception of a request for UDS Service InputOutputControlByIdentifier (0x2F) with InputOutputControlParameter equal to returnControlToEcu, if all verifications have been successfully done (see SWS_Dcm_00563, SWS_Dcm_00565, SWS_Dcm_00566, SWS_Dcm_00567), if parameter DcmDspData.DcmDspDataUsePort set to DcmDsp Data.DcmDspDataUsePort.USE_DATA_SENDER_RECEIVER or to DcmDspData.Dcm DspDataUsePort.USE_DATA_SENDER_RECEIVER_AS_SERVICE, the Dcm module shall update the IOOperationRequest command with inputOutputControlParameter = 0x00, the controlEnableMask = controlEnableMaskRecord of the request message and the IOOperationResponse with 0xFF (Idle).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.308 Specification Item SWS_Dcm_01276

Trace References:

SRS_Diag_04010

Content:

On reception of a request for UDS Service InputOutputControlByIdentifier (0x2F) with InputOutputControlParameter equal to resetToDefault or freezeCurrentState, if all verifications have been successfully done (see SWS_Dcm_00563, SWS_Dcm_00565, SWS_Dcm_00566, SWS_Dcm_00567), if parameter DcmDspData.DcmDspDataUsePort set to DcmDspData.DcmDspDataUsePort.USE_DATA_SENDER_RECEIVER or to DcmDspData.DcmDspDataUsePort.USE_DATA_SENDER_RECEIVER_AS_SERVICE, the Dcm module shall update the IOOperationRequest command with inputOutputControlParameter = InputOutputControlParameter of the request message, the controlEnableMask = controlEnableMaskRecord of the request message and the IOOperationResponse with 0xFF (Idle).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example:

SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.309 Specification Item SWS_Dcm_01277

Trace References:

SRS_Diag_04010

Content:

On reception of a request for UDS Service InputOutputControlByIdentifier (0x2F) with InputOutputControlParameter equal to shortTermAdjustment, if all verifications have been successfully done (see SWS_Dcm_00563, SWS_Dcm_00565, SWS_Dcm_00566, SWS_Dcm_00567), if parameter DcmDspData.DcmDspDataUsePort set to DcmDsp Data.DcmDspDataUsePort.USE_DATA_SENDER_RECEIVER or to DcmDspData.Dcm DspDataUsePort.USE_DATA_SENDER_RECEIVER_AS_SERVICE, the Dcm module shall

1. Update the data element controlState in the corresponding port IOControlRequest_{Data} with controlState of the request message.
2. Update the data element IOOperationRequest in the corresponding port IOControl Request_{Data} with inputOutputControlParameter = InputOutputControlParameter of the request message, controlEnableMask = controlEnableMaskRecord of the request message and the IOOperationResponse with 0xFF (Idle).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.310 Specification Item SWS_Dcm_01278

Trace References:

SRS_Diag_04010

Content:

While a command is processed in the application (inputOutputControlParameter different from 0xFF), the Dcm shall poll the data element IOOperationResponse in the corresponding port IOControlResponse_{Data} until a final state is reached (IOOperationResponse having other value than 0x78 and 0xFF).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.311 Specification Item SWS_Dcm_01280

Trace References:

SRS_Diag_04000 04218

Content:

For FreezeCurrentState, ShortTermAdjustment and ResetToDefault, after the final response message (of SWS_Dcm_01278) is triggered, the data element IOOperationRequest in the corresponding port IOControlRequest_{Data} shall be updated with inputOutputControlParameter = 0xFF (Idle) to reset the command interface and the positive bits of the current controlEnableMask shall be added to underControl.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.312 Specification Item SWS_Dcm_01281

Trace References:

none

Content:

If ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == (DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC || DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC || DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR) && {ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidFreezeCurrentState)} == TRUE) || ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidResetToDefault)} == TRUE) || ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidShortTermAdjustment)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef -> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

Replace

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311

SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData

SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735

SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.313 Specification Item SWS_Dcm_01285

Trace References:

none

Content:

Service name:	Xxx_ReturnControlToECUXxx_ReturnControlToECU1	
Syntax:	Std_ReturnType Xxx_ReturnControlToECU([Dcm_ControlMask_{Data}Type controlMask,] Dcm_NegativeResponseCodeType* ErrorCode)	
Service ID[hex]:	0x4f	
Sync/Async:	Synchronous	
Reentrancy:	Non Reentrant	
Variation:	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUsePort)}== (USE_DATA_SYNCH_FNC || USE_DATA_ASYNCH_FNC ||USE_DATA_ASYNCH_FNC_ERROR) && {ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidFreezeCurrentState)} == TRUE) || ({ecuc(Dcm/Dc	
Parameters (in):	controlMaskXxx_ReturnControlToECU1.controlMask	– Variation: ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUsePort)} == (USE_DATA_SYNCH_FNC || USE_DATA_ASYNCH_FNC ||USE_DATA_ASYNCH_FNC_ERROR) && {ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidFreezeCurrentState)} == TRUE)|| ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidResetToDefault)} == TRUE) || ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment)}== TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTERNAL)

Parameters (inout):	None	
Parameters (out):	ErrorCodeXxx_ReturnControlTo ECU1.ErrorCode	If the operation Xxx_ReturnControlTo ECU returns value E_NOT_OK, the DCM module shall send a negative response with NRC code equal to the parameter ErrorCode parameter value.
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful.
Description:	This function requests to the application to return control to ECU of an IOControl.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75180: Move requirements to chapter7

  Problem description:

  All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

  e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

  Agreed solution:

  SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
  SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

  Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
  SWS_Dcm_00444
  SWS_Dcm_00788
  SWS_Dcm_00789
  SWS_Dcm_00790
  SWS_Dcm_00557
  SWS_Dcm_01145
  SWS_Dcm_01146
  SWS_Dcm_00642
  SWS_Dcm_00655
  SWS_Dcm_00656
  SWS_Dcm_00833

  Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
  SWS_Dcm_00443
  SWS_Dcm_00996

SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644

SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the di-

agnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.314 Specification Item SWS_Dcm_01286

Trace References:

none

Content:

Service name:	Xxx_ResetToDefaultXxx_ResetToDefault1	
Syntax:	Std_ReturnType Xxx_ResetToDefault([Dcm_ControlMask_{Data}Type controlMask,] Dcm_NegativeResponseCodeType* ErrorCode)	
Service ID[hex]:	0x4d	
Sync/Async:	Synchronous	
Reentrancy:	Non Reentrant	
Parameters (in):	controlMaskXxx_ResetTo Default1.controlMask	– Variation: ({ecuc(Dcm/DcmConfigSet/Dcm Dsp/DcmDspData.DcmDspDataUse Port)} == (USE_DATA_SYNCH_FNC)) && ({ecuc(Dcm/DcmConfigSet/Dcm Dsp/DcmDspDidInfo/DcmDspDid Control/DcmDspDidResetToDefault)} == TRUE) && ({ecuc(Dcm/DcmConfig Set/DcmDsp/DcmDspDid/DcmDspDid InfoRef-> DcmDspDidInfo/DcmDspDid Control/DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTERNAL)
Parameters (inout):	None	
Parameters (out):	ErrorCodeXxx_ResetToDefault1.Error Code	If the operation Xxx_ResetToDefault returns value E_NOT_OK, the DCM module shall send a negative response with NRC code equal to the parameter ErrorCode parameter value.
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful.

Description:	This function requests to the application to reset an IOControl to default value.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75180: Move requirements to chapter7

  Problem description:

  All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

  e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

  Agreed solution:

  SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
  SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

  Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
  SWS_Dcm_00444
  SWS_Dcm_00788
  SWS_Dcm_00789
  SWS_Dcm_00790
  SWS_Dcm_00557
  SWS_Dcm_01145
  SWS_Dcm_01146
  SWS_Dcm_00642
  SWS_Dcm_00655
  SWS_Dcm_00656
  SWS_Dcm_00833

  Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
  SWS_Dcm_00443
  SWS_Dcm_00996
  SWS_Dcm_00831

  Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
  SWS_Dcm_00344
  SWS_Dcm_00345

  Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData

SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837

SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802

SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.315 Specification Item SWS_Dcm_01287

Trace References:

none

Content:

if ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == (DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC)) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidResetToDefault)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef-

>DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350

SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.316 Specification Item SWS_Dcm_01288

Trace References:

none

Content:

if ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == (DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC || DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR)) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidResetToDefault)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} != DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True)

Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True)
Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350

SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.317 Specification Item SWS_Dcm_01289

Trace References:

none

Content:

if ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == (DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC || DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR)) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidResetToDefault)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True)

Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True)
Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350

SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.318 Specification Item SWS_Dcm_01290

Trace References:

none

Content:

Service name:	Xxx_FreezeCurrentStateXxx_FreezeCurrentState1	
Syntax:	Std_ReturnType Xxx_FreezeCurrentState([Dcm_ControlMask_{Data}Type controlMask,] Dcm_NegativeResponseCodeType* ErrorCode)	
Service ID[hex]:	0x4a	
Sync/Async:	Synchronous	
Reentrancy:	Non Reentrant	
Parameters (in):	controlMaskXxx_FreezeCurrent State1.controlMask	– Variation: ({ecuc(Dcm/DcmConfigSet/Dcm Dsp/DcmDspData.DcmDspDataUse Port)} == USE_DATA_SYNCH_FNC)&& ({ecuc(Dcm/DcmConfigSet/Dcm Dsp/DcmDspDidInfo/DcmDspDid Control/DcmDspDidFreezeCurrent State)} == TRUE) && ({ecuc(Dcm/Dcm ConfigSet/DcmDsp/DcmDspDid/Dcm DspDidInfoRef -> DcmDspDidInfo/Dcm DspDidControl/DcmDspDidControl Mask)} == DCM_CONTROLMASK_EXTERNAL)
Parameters (inout):	None	
Parameters (out):	ErrorCodeXxx_FreezeCurrent State1.ErrorCode	If the operation Xxx_FreezeCurrentState returns value E_NOT_OK, the DCM module shall send a negative response with NRC code equal to the parameter ErrorCode parameter value.
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful.
Description:	This function requests to the application to freeze the current state of an IOControl.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75180: Move requirements to chapter7

  Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload

SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - Request-Download
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299

SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.319 Specification Item SWS_Dcm_01291

Trace References:

none

Content:

if ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidFreezeCurrentState)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  By

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

  Problem description:

  All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7

and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148

SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - Request-Download
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.320 Specification Item SWS_Dcm_01292

Trace References:

none

Content:

if ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == (DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC || DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR)) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidFreezeCurrentState)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef -> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} != DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  By

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

  Problem description:

  All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7

and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148

SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - Request-Download
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.321 Specification Item SWS_Dcm_01293

Trace References:

none

Content:

if ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == (DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC || DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR)) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidFreezeCurrentState)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef -> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  By

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

  Problem description:

  All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7

and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148

SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - Request-Download
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.322 Specification Item SWS_Dcm_01295

Trace References:

none

Content:

If ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidShortTermAdjustment)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataType} != UINT8_DYN) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  By

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

  Problem description:

  All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7

and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148

SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - Request-Download
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.323 Specification Item SWS_Dcm_01296

Trace References:

none

Content:

If ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == (DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC || DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR)) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidShortTermAdjustment)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataType} != UINT8_DYN) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} != DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  By

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload

SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - Request-Download
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299

SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.324 Specification Item SWS_Dcm_01297

Trace References:

none

Content:

If ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == (DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC || DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR)) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidShortTermAdjustment)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataType} != UINT8_DYN) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  By

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

  Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload

SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - Request-Download
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299

SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.325 Specification Item SWS_Dcm_01298

Trace References:

none

Content:

If ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidShortTermAdjustment)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataType} == UINT8_DYN) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} != DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  By

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload

SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - Request-Download
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299

SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.326 Specification Item SWS_Dcm_01299

Trace References:

none

Content:

If ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidShortTermAdjustment)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataType} == UINT8_DYN) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  By

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload

SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - Request-Download
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299

SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.327 Specification Item SWS_Dcm_01300

Trace References:

none

Content:

If ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == (DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC || DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR)) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidShortTermAdjustment)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataType} == UINT8_DYN) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} != DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  By

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

  Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload

SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - Request-Download
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299

SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.328 Specification Item SWS_Dcm_01301

Trace References:

none

Content:

If ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == (DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC || DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR)) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidShortTermAdjustment)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataType} == UINT8_DYN) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

  By

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

  Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload

SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - Request-Download
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299

SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.329 Specification Item SWS_Dcm_01306

Trace References:

none

Content:

Name	Dcm_IOOperationRequest_{Data}TypeDcm_IOOperationRequestType		
Kind	Structure		
Elements	inputOutputControlParameter Dcm_IOOperationRequest Type.inputOutputControl Parameter	Dcm_InputOutputControl ParameterType	–
	controlEnableMask Dcm_IOOperationRequest Type.controlEnableMask	Dcm_ControlMask_8Type	–
	Variation		({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/D DataUsePort)} == USE_DATA_SENDER_RECEIVE USE_DATA_SENDER_RECEIVER_AS_SERVICE) ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataD DspDataDidInfoRef->DcmDspDidInfo/DcmDspDidC DspDidControlMaskSize)} == 0x01)
	controlEnableMask Dcm_IOOperationRequest Type.controlEnableMask	Dcm_ControlMask_16Type	–
	Variation		({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/D DataUsePort)} == USE_DATA_SENDER_RECEIVE USE_DATA_SENDER_RECEIVER_AS_SERVICE) ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataD DspDataDidInfoRef->DcmDspDidInfo/DcmDspDidC DspDidControlMaskSize)} == 0x02)
	controlEnableMask Dcm_IOOperationRequest Type.controlEnableMask	Dcm_ControlMask_32Type	–
	Variation		({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/D DataUsePort)} == USE_DATA_SENDER_RECEIVE USE_DATA_SENDER_RECEIVER_AS_SERVICE) ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataD DspDataDidInfoRef->DcmDspDidInfo/DcmDspDidC DspDidControlMaskSize)} >= 0x03)
Description	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataUsePort)} == USE_DATA_SENDER_RECEIVER || USE_DATA_SENDER_RECEIVER_AS_SERVIC ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->Dcm Info/DcmDspDidControl)} != NULL) Data = ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME)})		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

Agreed solution:

Replace

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288

SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.330 Specification Item SWS_Dcm_01308

Trace References:

none

Content:

Name	IOControlRequest_{Data}IOControlRequest_{Data}
Comment	Attention: controlState is only valid in case of IOOperationRequest is set to shortTerm Adjustment. The DCM provides a byte stream which could be transformed via transformer into an complex type.
IsService	true
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataUsePort)} == USE_DATA_SENDER_RECEIVER || USE_DATA_SENDER_RECEIVER_AS_SERVICE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->DcmDspDid Info/DcmDspDidControl)} != NULL) Data = ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME)})

Name	IOControlRequest_{Data}IOControlRequest_{Data}	
Data Elements	underControlIOControlRequest_{Data}.underControl	
	Type	Dcm_ControlMask_8Type
	Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDsp DataUsePort)} == USE_DATA_SENDER_RECEIVER || USE_DATA_SENDER_RECEIVER_AS_SERVICE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/Dcm DspDataDidInfoRef->DcmDspDidInfo/DcmDspDidControl/Dcm DspDidControlMaskSize)} == 0x01)
	underControlIOControlRequest_{Data}.underControl	
	Type	Dcm_ControlMask_16Type
	Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDsp DataUsePort)} == USE_DATA_SENDER_RECEIVER || USE_DATA_SENDER_RECEIVER_AS_SERVICE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/Dcm DspDataDidInfoRef->DcmDspDidInfo/DcmDspDidControl/Dcm DspDidControlMaskSize)} == 0x02)
	underControlIOControlRequest_{Data}.underControl	
	Type	Dcm_ControlMask_32Type
	Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDsp DataUsePort)} == USE_DATA_SENDER_RECEIVER || USE_DATA_SENDER_RECEIVER_AS_SERVICE) &&({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/Dcm DspDataDidInfoRef->DcmDspDidInfo/DcmDspDidControl/Dcm DspDidControlMaskSize)} >= 0x03)
	IOOperationRequestIOControlRequest_{Data}.IOOperationRequest	
	Type	Dcm_IOOperationRequest_{Data}Type
	Variation	Data = ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDsp Data.SHORT-NAME)})
	controlStateIOControlRequest_{Data}.controlState	
	Type	Dcm_DataArrayTypeUint8_{Data}Type
	Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/Dcm DspDataDidInfoRef->DcmDspDidInfo/DcmDspDidControl/Dcm DspDidShortTermAdjustment)} == True) Data = ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDsp Data.SHORT-NAME)})

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True)

Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

Agreed solution:

Replace

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293

SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.331 Specification Item SWS_Dcm_01309

Trace References:

none

Content:

Name	IOControlResponseIOControlResponse	
Comment	–	
IsService	true	
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataUsePort)} == USE_DATA_SENDER_RECEIVER || USE_DATA_SENDER_RECEIVER_AS_SERVICE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->DcmDspDid Info/DcmDspDidControl)} != NULL)	
Data Elements	IOOperationResponseIOControlResponse.IOOperationResponse	
	Type	Dcm_IOOperationResponseType
	Variation	–

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

Agreed solution:

Replace

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288

SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.332 Specification Item SWS_Dcm_01310

Trace References:

none

Content:

Name	DataServices_{Data}Dcm.DataServicesRPort		
Kind	RequiredPort	Interface	DataServices_{Da
Description	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataUsePort)} == (USE_DATA_SENDER_RECEIVER || USE_DATA_SENDER_RECEIVER_AS_SERVI ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->Dcm Info/DcmDspDidWrite)} == NULL) && (({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDsp DataDid/DcmDspDataDidInfoRef->DcmDspDidInfo/DcmDspDidRead)} != NULL) || ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->Dcm Info/DcmDspDidControl)} != NULL)) Data = {ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME)}		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

Agreed solution:

Replace

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312

SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.333 Specification Item SWS_Dcm_01311

Trace References:

none

Content:

Name	DataServices_{Data}Dcm.DataServicesPRPort		
Kind	ProvidedRequiredPort	Interface	DataServices_{Da
Description	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataUsePort)} == (USE_DATA_SENDER_RECEIVER || USE_DATA_SENDER_RECEIVER_AS_SERVI ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->Dcm Info/DcmDspDidWrite)} != NULL) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDa DspDataDidInfoRef->DcmDspDidInfo/DcmDspDidRead)} != NULL) Data = {ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME)}		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

Problem description:

In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

Agreed solution:

Replace

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031

SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.334 Specification Item SWS_Dcm_01312

Trace References:

none

Content:

Name	IOControlRequest_{Data}Dcm.IOControlRequest		
Kind	ProvidedPort	Interface	IOControlRequest_
Description	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataUsePort)} == USE_DATA_SENDER_RECEIVER || USE_DATA_SENDER_RECEIVER_AS_SERVIC ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->Dcm Info/DcmDspDidControl)} != NULL) Data = ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME)})		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

Problem description:

In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

Agreed solution:

Replace

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031

SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.335 Specification Item SWS_Dcm_01313

Trace References:

none

Content:

Name	IOControlResponse_{Data}Dcm.IOControlResponse		
Kind	ProvidedRequiredPort	Interface	IOControlRespons
Description	–		
Variation	({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataUsePort)} == USE_DATA_SENDER_RECEIVER || USE_DATA_SENDER_RECEIVER_AS_SERVIC ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDataDid/DcmDspDataDidInfoRef->Dcm Info/DcmDspDidControl)} != NULL) Data = ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME)})		

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

Problem description:

In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

Agreed solution:

Replace

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031

SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.336 Specification Item SWS_Dcm_01314

Trace References:

none

Content:

Service name:	Xxx_ResetToDefaultXxx_ResetToDefault2
Syntax:	Std_ReturnType Xxx_ResetToDefault(Dcm_OpStatusType OpStatus, [Dcm_ControlMask_{Data}Type controlMask,] Dcm_NegativeResponseCodeType* ErrorCode)
Service ID[hex]:	0x3c
Sync/Async:	Asynchronous
Reentrancy:	Non Reentrant

Parameters (in):	OpStatusXxx_ResetToDefault2.OpStatus	Status of the current operation
	controlMaskXxx_ResetToDefault2.controlMask	–
		Variation:
		({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUsePort)} == (USE_DATA_ASYNCH_FNC || USE_DATA_ASYNCH_FNC_ERROR))&& ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidResetToDefault)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef -> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTERNAL)
Parameters (inout):	None	
Parameters (out):	ErrorCodeXxx_ResetToDefault2.ErrorCode	If the operation Xxx_ResetToDefault returns value E_NOT_OK, the DCM module shall send a negative response with NRC code equal to the parameter ErrorCode parameter value.
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful. DCM_E_PENDING: Request is not yet finished. Further call(s) required to finish.
Description:	This function requests to the application to reset an IOControl to default value.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75180: Move requirements to chapter7

  Problem description:

  All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

  e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

  Agreed solution:

  SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
  SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

  Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
  SWS_Dcm_00444
  SWS_Dcm_00788

SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800

SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.337 Specification Item SWS_Dcm_01315

Trace References:

none

Content:

Service name:	Xxx_FreezeCurrentStateXxx_FreezeCurrentState2
Syntax:	Std_ReturnType Xxx_FreezeCurrentState(Dcm_OpStatusType OpStatus, [Dcm_ControlMask_{Data}Type controlMask,] Dcm_NegativeResponseCodeType* ErrorCode)
Service ID[hex]:	0x3a
Sync/Async:	Asynchronous
Reentrancy:	Non Reentrant

Parameters (in):	OpStatusXxx_FreezeCurrentState2.OpStatus	Status of the current operation
	controlMaskXxx_FreezeCurrentState2.controlMask	–
		Variation:
		({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspDataUsePort)} == (USE_DATA_ASYNCH_FNC || USE_DATA_ASYNCH_FNC_ERROR)) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidFreezeCurrentState)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef -> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControlMask)} == DCM_CONTROLMASK_EXTERNAL)
Parameters (inout):	None	
Parameters (out):	ErrorCodeXxx_FreezeCurrentState2.ErrorCode	If the operation Xxx_FreezeCurrentState returns value E_NOT_OK, the DCM module shall send a negative response with NRC code equal to the parameter ErrorCode parameter value.
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful. DCM_E_PENDING: Request is not yet finished. Further call(s) required to finish.
Description:	This function requests to the application to freeze the current state of an IOControl.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75180: Move requirements to chapter7

  Problem description:

  All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

  e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

  Agreed solution:

  SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
  SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

  Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
  SWS_Dcm_00444

SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156

SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286

SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.338 Specification Item SWS_Dcm_01316

Trace References:

none

Content:

Service name:	Xxx_ShortTermAdjustmentXxx_ShortTermAdjAsynchNonFixed
Syntax:	Std_ReturnType Xxx_ShortTermAdjustment(const uint8* ControlStateInfo, uint16 DataLength, Dcm_OpStatusType OpStatus, [Dcm_ControlMask_{Data}Type controlMask,] Dcm_NegativeResponseCodeType* ErrorCode)
Service ID[hex]:	0x55
Sync/Async:	Asynchronous
Reentrancy:	Non Reentrant

Parameters (in):	ControlStateInfoXxx_ShortTermAdj AsynchNonFixed.ControlStateInfo	ControlState information contained in the ControlOptionRecord parameter of the InputOutputControlByIdentifier diagnostic request
	DataLengthXxx_ShortTermAdjAsynch NonFixed.DataLength	Length in byte of the data to be written
	OpStatusXxx_ShortTermAdjAsynchNon Fixed.OpStatus	Status of the current operation
	controlMaskXxx_ShortTermAdjAsynch NonFixed.controlMask	–
		Variation:
		({ecuc(Dcm/DcmConfigSet/Dcm Dsp/DcmDspData.DcmDspDataUse Port)} == (USE_DATA_ASYNCH_FNC || USE_DATA_ASYNCH_FNC_ERROR))&& ({ecuc(Dcm/DcmConfigSet/Dcm Dsp/DcmDspDidInfo/DcmDspDid Control/DcmDspDidShortTerm Adjustment)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/Dcm Dsp/DcmDspData.DcmDspDataType} == UINT8_DYN) && ({ecuc(Dcm/Dcm ConfigSet/DcmDsp/DcmDspDid/Dcm DspDidInfoRef -> DcmDspDidInfo/Dcm DspDidControl/DcmDspDidControl Mask)} == DCM_CONTROLMASK_EXTERNAL)
Parameters (inout):	None	
Parameters (out):	ErrorCodeXxx_ShortTermAdjAsynch NonFixed.ErrorCode	NRC to be sent in the negative response in case of failure (E_NOT_OK)
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful. DCM_E_PENDING: Request is not yet finished. Further call(s) required to finish.
Description:	This function requests to the application to adjust the IO signal.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75180: Move requirements to chapter7

  Problem description:

  All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

  e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

  Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350
SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285

SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528

SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.339 Specification Item SWS_Dcm_01323

Trace References:

SRS_Diag_04000

Content:

Likewise, when responding to the reportActivatedEvents (0x04) subfunction of the ResponseOnEvent (0x86) service, preconfigured events shall have the storageState bit set within the corresponding eventTypeOfActiveEvent byte.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.340 Specification Item SWS_Dcm_01324

Trace References:

SRS_Diag_04138

Content:

In case Dcm_ComM_NoComModeEntered is called with a NetworkId for a ComM channel not referenced within the Dcm (see configuration parameter DcmDslMainConnection.Dcm DslProtocolComMChannelRef), the Dcm shall return without performing any further action.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.341 Specification Item SWS_Dcm_01325

Trace References:

SRS_Diag_04138

Content:

In case Dcm_ComM_SilentComModeEntered is called with a NetworkId for a ComM channel not referenced within the Dcm (see configuration parameter DcmDslMainConnection.DcmDslProtocolComMChannelRef), the Dcm shall return without performing any further action.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:

1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.342 Specification Item SWS_Dcm_01326

Trace References:

SRS_Diag_04138

Content:

In case Dcm_ComM_FullComModeEntered is called with a NetworkId for a ComM channel not referenced within the Dcm (see configuration parameter DcmDslMainConnection.DcmDslProtocolComMChannelRef), the Dcm shall return without performing any further action.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.

There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.343 Specification Item SWS_Dcm_01330

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

If DcmDsp.DcmDspEnableObdMirror is set to true, an explicitly configured RID inside the OBD range (E000-E0FF) shall use the UDS interface.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.344 Specification Item SWS_Dcm_01331

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

If DcmDsp.DcmDspEnableObdMirror is set to false, all requests within the OBDRID range shall use the UDS interface.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.345 Specification Item SWS_Dcm_01332

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

On reception of the UDS Service RoutineControl (0x31), for every requested RID inside the OBD range (E000-E0FF), the Dcm module shall handle the RID as defined for OBD Service $08 (see SWS_Dcm_00418, SWS_Dcm_00947, SWS_Dcm_00419, SWS_Dcm_00420, SWS_Dcm_00948, SWS_Dcm_01192) if DcmDsp.DcmDspEnable ObdMirror is set to true and RID not explicitly configured.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.346 Specification Item SWS_Dcm_01333

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

On reception of the UDS Service RoutineControl (0x31), for every requested RID inside the OBD range (E000-E0FF) and usage of OBD interface, the Dcm shall use the routine Info byte value from the configuration (see ECUC_Dcm_01078) in the response to the tester.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:

1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.347 Specification Item SWS_Dcm_01334

Trace References:

SRS_Diag_04010

Content:

For all sub-functions addressing user defined fault memory, before calling the appropriate Dem API, the Dcm shall add the value 0x0100 to the received selection request parameter MemorySelection in order to match the Dem_DTCOriginType.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update. There are too many "No description" shown in the documents -

~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.348 Specification Item SWS_Dcm_01336

Trace References:

SRS_Diag_04082

Content:

The Dcm shall create for each configured element DcmDspPidService01 having a sender/receiver interface (if parameter DcmDspPidService01.DcmDspPidDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_SENDER_RECEIVER or Dcm DspData.DcmDspDataUsePort.USE_DATA_SENDER_RECEIVER_AS_SERVICE) a corresponding R-Port DataInterface with one data element having an ImplementationData Type of type DcmDspPidService01.DcmDspPidDataType.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.349 Specification Item SWS_Dcm_01337

Trace References:

SRS_Diag_04000 04218

Content:

For ReturnControlToECU, after the final response message (of SWS_Dcm_01278) is triggered, the data element IOOperationRequest in the corresponding port IOControlRequest_{Data} shall be updated with inputOutputControlParameter = 0xFF (Idle) to reset

the command interface and the positive bits of the current controlEnableMask shall be removed from underControl.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.350 Specification Item SWS_Dcm_01338

Trace References:

SRS_Diag_04000

Content:

Service name:	Xxx_RequestControlXxx_RequestControl	
Syntax:	Std_ReturnType Xxx_RequestControl(uint8* OutBuffer, const uint8* InBuffer)	
Service ID[hex]:	0x63	
Sync/Async:	Synchronous	
Reentrancy:	Non Reentrant	
Parameters (in):	None	
Parameters (inout):	OutBufferXxx_RequestControl.Out Buffer	Output buffer in which the Request Control function can store its result
	InBufferXxx_RequestControl.InBuffer	Input buffer containing the data of the OBD Service 0x08 request
Parameters (out):	None	
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful.
Description:	Invokes a TID-specific function taking a configured number of bytes as input and returing a fixed number of bytes as output. This is typically used to implement OBD Service $08	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78385: [Dcm][Dem] SRS_Diag harmonization

  Problem description:

  After the agreed changes of FO RfC 78083 are implemented, the references in Dcm and Dem need to be adapted.

  Agreed solution:

  Adapt the references in Dcm and Dem according to https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/049_SRS_Harmonisation/Proposed Changes.docx

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.351 Specification Item SWS_Dcm_01339

Trace References:

SRS_Diag_04000

Content:

Service name:	Xxx_StartProtocolXxx_StartProtocol	
Syntax:	Std_ReturnType Xxx_StartProtocol(Dcm_ProtocolType ProtocolID Type, uint16 TesterSourceAddress, uint16 ConnectionId)	
Service ID[hex]:	0x67	
Sync/Async:	Synchronous	
Reentrancy:	Non Reentrant	
Parameters (in):	ProtocolIDXxxTypeXxx_Start Protocol.ProtocolID Type	Id Type of the protocol to be started
	TesterSourceAddressXxx_Start Protocol.TesterSourceAddress	source address of the tester
	ConnectionIdXxx_Start Protocol.ConnectionId	Unique connection identifier
Parameters (inout):	None	
Parameters (out):	None	
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful. E_PROTOCOL_NOT_ALLOWED: Protocol not allowed
Description:	This function allows the application to examine the environment conditions and enable/disable further processing of the protocol.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

b)
interface to application

There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

c)
DcmDslProtocolRxConnectionId

"Unique identifier of the tester which uses this connection for diagnostic communication."

Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

In the DEXT, I found this is mapped to:
SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.

But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData

In case of normal connection -> taken from the configuration parameter DcmDsl-ProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol

Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #78385: [Dcm][Dem] SRS_Diag harmonization

  Problem description:

  After the agreed changes of FO RfC 78083 are implemented, the references in Dcm and Dem need to be adapted.

  Agreed solution:

  Adapt the references in Dcm and Dem according to https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/049_SRS_Harmonisation/Proposed Changes.docx

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.352 Specification Item SWS_Dcm_01340

Trace References:

SRS_Diag_04000

Content:

Service name:	Xxx_StopProtocolXxx_StopProtocol	
Syntax:	Std_ReturnType Xxx_StopProtocol(Dcm_ProtocolType ProtocolType, uint16 TesterSourceAddress, uint16 ConnectionId)	
Service ID[hex]:	0x64	
Sync/Async:	Synchronous	
Reentrancy:	Non Reentrant	
Parameters (in):	ProtocolIdTypeXxx_Stop Protocol.ProtocolId Type	Id Type of the protocol to be stopped
	TesterSourceAddressXxx_Stop Protocol.TesterSourceAddress	source address of the tester
	ConnectionIdXxx_Stop Protocol.ConnectionId	Unique connection identifier
Parameters (inout):	None	
Parameters (out):	None	

Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful.
Description:	This function informs the application of the protocol stop.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

  Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

  b)
  interface to application

  There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
  In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

  c)
  DcmDslProtocolRxConnectionId

  "Unique identifier of the tester which uses this connection for diagnostic communication."

  Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

In the DEXT, I found this is mapped to:
SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.

The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDslProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)

Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #78385: [Dcm][Dem] SRS_Diag harmonization

Problem description:

After the agreed changes of FO RfC 78083 are implemented, the references in Dcm and Dem need to be adapted.

Agreed solution:

Adapt the references in Dcm and Dem according to
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/049_SRS_Harmonisation/Proposed Changes.docx

BW-C-Level:

Application	Specification	Bus
1	1	1

1.353 Specification Item SWS_Dcm_01341

Trace References:

SRS_Diag_04000

Content:

Service name:	Xxx_IndicationXxx_Indication	
Syntax:	Std_ReturnType Xxx_Indication(uint8 SID, const uint8* RequestData, uint16 DataSize, uint8 ReqType, uint16 ConnectionId, Dcm_NegativeResponseCodeType* ErrorCode, Dcm_ProtocolType ProtocolType, uint16 TesterSourceAddress)	
Service ID[hex]:	0x65	
Sync/Async:	Synchronous	
Reentrancy:	Non Reentrant	
Parameters (in):	SIDXxx_Indication.SID	–
	RequestDataXxx_Indication.Request Data	Complete request data (diagnostic buffer), except the service ID
	DataSizeXxx_Indication.DataSize	Number of valid bytes in the Request Data parameter
	ReqTypeXxx_Indication.ReqType	Addressing type of the request(0=physical request,1=functional request)
	ConnectionIdXxx_Indication.Connection Id	Unique connection identifier
	ProtocolTypeXxx_Indication.Protocol Type	Type of the protocol to be indicated
	TesterSourceAddress Xxx_Indication.TesterSourceAddress	source address of the tester
Parameters (inout):	None	
Parameters (out):	ErrorCodeXxx_Indication.ErrorCode	If the operation Xxx_Indication re- turns value E_NOT_OK, the Dcm module shall send a negative response with NRC code equal to the parameter Error Code parameter value
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful. E_REQUEST_NOT_ACCEPTED : Request not accepted
Description:	This function indicates to the application that a service is about to be executed and allows the application to reject the execution of the service request	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

  Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

  b)
  interface to application

  There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
  In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

  c)
  DcmDslProtocolRxConnectionId

  "Unique identifier of the tester which uses this connection for diagnostic communication."

  Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

  In the DEXT, I found this is mapped to:
  SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
  Is this now the tester address or more the ECU address?

  d)
  GetActiveProtocol() / Dcm_GetActiveProtocol()
  Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDslProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant

Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #78385: [Dcm][Dem] SRS_Diag harmonization

Problem description:

After the agreed changes of FO RfC 78083 are implemented, the references in Dcm and Dem need to be adapted.

Agreed solution:

Adapt the references in Dcm and Dem according to
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/049_SRS_Harmonisation/Proposed Changes.docx

BW-C-Level:

Application	Specification	Bus
1	1	1

1.354 Specification Item SWS_Dcm_01342

Trace References:

SRS_Diag_04000

Content:

Service name:	Xxx_ConfirmationXxx_Confirmation

Syntax:	Std_ReturnType Xxx_Confirmation(uint8 SID, uint8 ReqType, uint16 ConnectionId, Dcm_ConfirmationStatusType ConfirmationStatus, Dcm_ProtocolType ProtocolType, uint16 TesterSourceAddress)	
Service ID[hex]:	0x66	
Sync/Async:	Synchronous	
Reentrancy:	Non Reentrant	
Parameters (in):	SIDXxx_Confirmation.SID	Value of service identifier
	ReqTypeXxx_Confirmation.ReqType	Addressing type of the request(0=physical request,1=functional request)
	ConnectionId Xxx_Confirmation.ConnectionId	Unique connection identifier
	ConfirmationStatus Xxx_Confirmation.ConfirmationStatus	Confirmation of a successful transmission or a transmission error of a diagnostic service.
	ProtocolTypeXxx_Confirmation.Protocol Type	Type of Dcm Protocol
	TesterSourceAddress Xxx_Confirmation.TesterSourceAddress	source address of the tester
Parameters (inout):	None	
Parameters (out):	None	
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful.
Description:	This function confirms to the application the successful transmission or a transmission error of a diagnostic service.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

b)
interface to application

There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

c)
DcmDslProtocolRxConnectionId

"Unique identifier of the tester which uses this connection for diagnostic communication."

Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

In the DEXT, I found this is mapped to:
SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
Is this now the tester address or more the ECU address?

d)
GetActiveProtocol() / Dcm_GetActiveProtocol()
Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.

But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData

In case of normal connection -> taken from the configuration parameter DcmDsl-ProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant
Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol

Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #78385: [Dcm][Dem] SRS_Diag harmonization

  Problem description:

  After the agreed changes of FO RfC 78083 are implemented, the references in Dcm and Dem need to be adapted.

  Agreed solution:

  Adapt the references in Dcm and Dem according to https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/049_SRS_Harmonisation/Proposed Changes.docx

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.355 Specification Item SWS_Dcm_01343

Trace References:

SRS_Diag_04141

Content:

The Dcm shall only process request messages for sub-function 0x55 with Functional GroupIdentifier equal to 0x33.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no

added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.356 Specification Item SWS_Dcm_01344

Trace References:

SRS_Diag_04141

Content:

The Dcm shall reject request messages for sub-function 0x55 with FunctionalGroupIdentifier unequal to 0x33 by returning NRC 0x31 (RequestOutOfRange).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.357 Specification Item SWS_Dcm_01345

Trace References:

SRS_Diag_04141

Content:

When sending a positive response to UDS Service 0x19 with sub-function 0x55, the Dcm module shall use the following data in the response message according to Table [REF tab_3a_subfunction_0x55_Response_Values].

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.358 Specification Item SWS_Dcm_01346

Trace References:

SRS_Diag_04141

Content:

When responding to UDS Service 0x19 with sub-function 0x55 and Dem_GetTranslationType returns a Dem_DTCTranslationFormatType different to 0x02 (DEM_DTC_TRANSLATION_SAEJ1939_73) or 0x04 (DEM_DTC_TRANSLATION_J2012DA_FORMAT_04), the Dcm module shall return NRC 0x10 (generalReject).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204

3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.359 Specification Item SWS_Dcm_01360

Trace References:

SRS_Diag_04000

Content:

For each configured routine input signal in DcmDspStartRoutineInSignal or DcmDspStop RoutineInSignal with a signal type unequal to VARIABLE_LENGTH, the optional parameter 'DcmDspRoutineSignalType dataIn_n' shall be provided in the corresponding operations in SWS_Dcm_01203 or SWS_Dcm_01204.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were

replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality. This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.360 Specification Item SWS_Dcm_01361

Trace References:

SRS_Diag_04000

Content:

For a configured routine input signal in DcmDspStartRoutineInSignal or DcmDspStopRoutineInSignal with a signal type equal to VARIABLE_LENGTH the optional parameter const 'uint8 * dataInVar' shall be provided in the corresponding operations in SWS_Dcm_01203 or SWS_Dcm_01204.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update. There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.361 Specification Item SWS_Dcm_01362

Trace References:

SRS_Diag_04000

Content:

For each configured routine output signal in DcmDspStartRoutineOutSignal, DcmDsp StopRoutineOutSignal or DcmDspRequestRoutineResultsOutSignal with a signal type unequal to VARIABLE_LENGTH the optional parameter 'DcmDspRoutineSignalType dataOut_n' shall be provided in the corresponding operations in SWS_Dcm_01203, SWS_Dcm_01204 or SWS_Dcm_91013.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.362 Specification Item SWS_Dcm_01363

Trace References:

SRS_Diag_04000

Content:

For a configured routine output signal in DcmDspStartRoutineOutSignal, DcmDspStop RoutineOutSignal or DcmDspRequestRoutineResultsOutSignal with a signal type equal to VARIABLE_LENGTH the optional parameter const 'uint8 * dataOutVar' shall be provided in the corresponding operations in SWS_Dcm_01203, SWS_Dcm_01204 or SWS_Dcm_91013.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.363 Specification Item SWS_Dcm_01364

Trace References:

SRS_Diag_04000

Content:

The optional in/out parameter variableDataLength in SWS_Dcm_01203, SWS_Dcm_01204 or SWS_Dcm_91013 is always present if at least one of the routine input signal data or routine output signal data have a signal with routine type 'VARIABLE_LENGTH'.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:

1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.364 Specification Item SWS_Dcm_01379

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

On reception of an UDS Service ReadDataByIdentifier (0x22) request with only ”availability OBDDataIdentifier” as parameter, the Dcm shall respond with the corresponding supported (=configured) DIDs in the OBD range (F400-F4FF).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update. There are too many "No description" shown in the documents -

~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.365 Specification Item SWS_Dcm_01380

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

On reception of an UDS Service ReadDataByIdentifier (0x22) request with only OBDData Identifier that are not ”availability OBDDataIdentifier”, the Dcm shall obtain the current value of these OBDDataIdentifier by invoking the configured Xxx_ReadData() functions for every data of the OBDDataIdentifier and shall return these values as response to Service 0x22.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.366 Specification Item SWS_Dcm_01381

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

On reception of an UDS Service ReadDataByIdentifier (0x22) request with a mixture of ”availability OBDDataIdentifier” and not ”availability OBDDataIdentifier”, this request shall be ignored by the Dcm.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.367 Specification Item SWS_Dcm_01382

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

If an OBDDataIdentifier contains support information (presence of DcmDspDidDataSupportInfo container), the Dcm shall add the support information in the diagnostic response.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.368 Specification Item SWS_Dcm_01383

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

If an OBDDataIdentifier contains support information (presence of DcmDspDidDataSupportInfo container), the Dcm shall calculate the support information value according to the available data for this DID: for every DcmDspData container existing for this DID, the associated support information bits, referenced in DcmDspDidDataSupportInfo, shall be set to one.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.369 Specification Item SWS_Dcm_01384

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

When responding to UDS Service ReadDataByIdentifier (0x22) with OBDDataIdentifier, the Dcm shall put fill-bytes between DcmDspData in the OBDDataIdentifier whenever content bytes are missing, in order to fit to the DID size (see configuration parameter DcmDsp Did.DcmDspDidSize).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:

Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update. There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.370 Specification Item SWS_Dcm_01385

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

The Dcm shall set the fill bytes to 0x00.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update. There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.371 Specification Item SWS_Dcm_01386

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

To serialize the required AUTOSAR data types (signed and unsigned integer) into the response message of ReadDataByIdentifier (0x22) OBDDataIdentifier responses the target endianness configured in DcmDspData.DcmDspDataEndianness shall be considered for DcmDspData elements having DcmDspData.DcmDspDataUsePort set to {DcmDspData.DcmDspDataUsePort.USE_DATA_SENDER_RECEIVER, DcmDspData.DcmDspDataUsePort.USE_DATA_SENDER_RECEIVER_AS_SERVICE, DcmDsp

Data.DcmDspDataUsePort.USE_ECU_SIGNAL}. In case DcmDspData.DcmDspDataEndianness is not present, the DcmDsp.DcmDspDataDefaultEndianness shall be used instead.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.372 Specification Item SWS_Dcm_01387

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

On reception of an UDS Service ReadDataByIdentifier (0x22) request with one or more ”availability OBDInfoTypeDataIdentifier” as parameter, the Dcm module shall respond with the corresponding supported (=configured) DIDs in the OBD range (F800-F8FF).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.373 Specification Item SWS_Dcm_01388

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

On reception of an UDS Service ReadDataByIdentifier (0x22) request with ”availability OBDInfoTypeDataIdentifier” together with other OBDInfoTypeDataIdentifier as parameter, the Dcm module shall ignore the request.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize

the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.374 Specification Item SWS_Dcm_01389

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

On reception of an UDS Service ReadDataByIdentifier (0x22) request with an OBDInfo TypeDataIdentifier that is not an ”availability OBDInfoTypeDataIdentifier”, the Dcm module shall obtain the value of this OBDInfoTypeDataIdentifier by invoking all the configured Xxx_ReadData() function for every data of this OBDInfoTypeDataIdentifier and shall return the value as response to Service 0x22.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and

DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.375 Specification Item SWS_Dcm_01390

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

On reception of an UDS Service RoutineControl (0x31) request with one or more ”availability OBDTestIds” as parameter, the Dcm module shall respond with the corresponding supported (=configured) RIDs.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.376 Specification Item SWS_Dcm_01391

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

On reception of an UDS Service RoutineControl (0x31) request ”availability OBDTestIds” together with other OBDTestIds as parameter, the Dcm module shall ignore the request.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.377 Specification Item SWS_Dcm_01392

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

On reception of an UDS Service RoutineControl (0x31) request with a OBDTestIds that is not an ”availability OBDTestIds”, the Dcm module shall invoke the configured Xxx_Start() function.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.378 Specification Item SWS_Dcm_01393

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

As specified in SAE_2d_J1979, unused data bytes shall be filled with $00.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.379 Specification Item SWS_Dcm_01394

Trace References:

SRS_Diag_04010, SRS_Diag_04141

Content:

If Xxx_Start() doesn't return E_OK, the Dcm shall return NRC 0x22.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.

The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality. This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.380 Specification Item SWS_Dcm_01399

Trace References:

SRS_Diag_04000 04159

Content:

If the Dcm receives a ControlDTCSetting (0x85) service with DTCSettingControlOption Record != 0xFFFFFF, the Dcm shall send a NRC 0x31 (RequestOutOfRange).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no

added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.381 Specification Item SWS_Dcm_01400

Trace References:

SRS_Diag_04010

Content:

After call of Dem_SelectDTC() the Dcm shall call Dem_GetDTCSelectionResult() with the following parameter value:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.382 Specification Item SWS_Dcm_01401

Trace References:

SRS_Diag_04010

Content:

After calling Dem_SelectDTC, the Dcm shall call the interface Dem_ClearDTC() with the following parameter value:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.383 Specification Item SWS_Dcm_01402

Trace References:

SRS_Diag_04010

Content:

To select the DTC, the Dcm module shall call the API Dem_SelectDTC() with the following parameter values:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref)
- DTC: DTC from the service request
- DTCFormat: DEM_DTC_FORMAT_UDS
- DTCOrigin: DEM_DTC_ORIGIN_PRIMARY_MEMORY

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be

released with R431 with the current status the document has got none high quality. This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.384 Specification Item SWS_Dcm_01403

Trace References:

SRS_Diag_04010

Content:

To retrieve the DTCSeverityMask of the selected DTC, the Dcm shall call Dem_GetSeverityOfDTC() with the following parameter value:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClientRef)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.385 Specification Item SWS_Dcm_01404

Trace References:

SRS_Diag_04010

Content:

To retrieve the DTCFunctionalUnit of the selected DTC, the Dcm shall call Dem_GetFunctionalUnitOfDTC() with the following parameter value:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.386 Specification Item SWS_Dcm_01405

Trace References:

SRS_Diag_04010

Content:

To retrieve the statusOfDTC of the selected DTC, the Dcm shall call Dem_GetStatusOf DTC() with the following parameter value:

- ClientId: Client Id for this Dcm instance (see DcmDslProtocolRow.DcmDemClient Ref)

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.387 Specification Item SWS_Dcm_01406

Trace References:

SRS_Diag_04010

Content:

If Dem_GetStatusOfDTC() returns DEM_WRONG_DTC or DEM_WRONG_DTCORIGIN, the Dcm shall send a NRC 0x31 (requestOutOfRange).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example:

SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.388 Specification Item SWS_Dcm_01407

Trace References:

SRS_Diag_04010

Content:

If Dem_GetStatusOfDTC() returns DEM_PENDING, the Dcm shall call again Dem_Get StatusOfDTC() API in context of the Dcm_MainFunction.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

  The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behavior on DEM_PENDING.
  The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

  Agreed solution:

  Add new sub-chapter 7.5.1.8 Asynchronous call behavior
  Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
  SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned. (SRS_Diag_04010)

  Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
  -SWS_Dcm_00120

-SWS_Dcm_00527
-SWS_Dcm_00528
-SWS_Dcm_00529
-SWS_Dcm_00530
-SWS_Dcm_01184
-SWS_Dcm_00760

Convert the note below SWS_Dcm_00530 to:
SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.389 Specification Item SWS_Dcm_01408

Trace References:

SRS_Diag_04010

Content:

In case Dem_ClearDTC() returns DEM_WRONG_DTCORIGIN, the Dcm shall trigger a negative response 0x31 (requestOutOfRange).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.390 Specification Item SWS_Dcm_01410

Trace References:

SRS_Diag_04010

Content:

In case a request to clear the EventMemory is processed, the Dcm shall ignore the callback Dcm_DemTriggerOnDTCStatus.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.391 Specification Item SWS_Dcm_01411

Trace References:

none

Content:

If DcmDsdSubService is configured for a DcmDsdService, the Dcm shall support the sub-function configured in DcmDsdSubService.DcmDsdSubServiceId with SPRMIB set to 0 or 1.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76640: [Dcm] Clarification for DcmDsdSubServiceId

  Problem description:

  DcmDsdSubServiceId is having the range 0..255.
  According ISO 14229-1:2013 (table 11) Bit 7 (MSB) is the suppressPosRspMsgIndicationBit.
  It is expected to configure for a subfunction the representation of SPRMIB.

  When I check with the DEXT, there the SPRMIB is not configured in the available "categories".

  Shall we change the range of DcmDsdSubServiceId to 0..127 ?

  Agreed solution:

  ===DCM===
  In chapter 7.4.4.4 "Check format and subfunction support" add a new requirement

  SWS_Dcm_XXXX :
  If DcmDsdSubService is configured for a DcmDsdService, the Dcm shall support the sub-function configured in DcmDsdSubServiceId with SPRMIB set to 0 or 1.

  Rephrase SWS_Dcm_00273 to: "General sub-function supported NRC check" The DSD shall send the negative response NRC 0x12 (sub-functionNotSupported), if for the processed service no configured DcmDsdSubService exists with the DcmDsdSubServiceId of the processed service. This NRC check shall not be done for UDS Service 0x31 (RoutineControl). (SRS_Diag_04010)

  ===ECUC XML===

Update ECUC_Dcm_00803

Name DcmDsdSubServiceId [ECUC_Dcm_00803]
Description Identifier of the subservice.
The possible subservice identifiers are defined in ISO 14229-1 and ISO 15031-5.
Multiplicity 1
Type EcucIntegerParamDef
Range 0 .. 127
Default Value
Post-Build Variant
Value
false
Value Configuration Class
Pre-compile time X
VARIANT-PRE-COMPILE,
VARIANT-POST-BUILD
Link time X
VARIANT-LINK-TIME
Post-build time
Scope / Dependency scope: ECU
–Last change on issue 76640 comment 8–

BW-C-Level:

Application	Specification	Bus
1	3	1

1.392 Specification Item SWS_Dcm_01412

Trace References:

none

Content:

If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behavior on DEM_PENDING.
The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

Agreed solution:

Add new sub-chapter 7.5.1.8 Asynchronous call behavior
Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned. (SRS_Diag_04010)

Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
-SWS_Dcm_00120
-SWS_Dcm_00527
-SWS_Dcm_00528
-SWS_Dcm_00529
-SWS_Dcm_00530
-SWS_Dcm_01184
-SWS_Dcm_00760

Convert the note below SWS_Dcm_00530 to:
SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.393 Specification Item SWS_Dcm_01413

Trace References:

none

Content:

The return values of interfaces called with an OpStatus equal to Dcm_OpStatusType.DCM_CANCEL shall be ignored

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76290: Provide one single chapter for asynchronous behavior handling

  Problem description:

  The Dcm mentions on various APIs the behavior if the Dem return DEM_PENDING. This is redundant and shall be replaced by one single chapter, explaining the behavior on DEM_PENDING.
  The existing Dcm requirements have often the text " on next Dcm_MainFunction call again" This shall be removed from the requirement and be given as note.

  Agreed solution:

  Add new sub-chapter 7.5.1.8 Asynchronous call behavior
  Add the following requirement in the new chapter "7.5.1.8 Asynchronous call behavior"
  SWS_Dcm_01xxx If a Dem function returns DEM_PENDING, the Dcm shall call this function again at a later point in time as long as DEM_PENDING is returned. (SRS_Diag_04010)

  Move the following requirements to the new sub-chapter 7.5.1.8 Asynchronous call behavior
  -SWS_Dcm_00120
  -SWS_Dcm_00527
  -SWS_Dcm_00528
  -SWS_Dcm_00529
  -SWS_Dcm_00530
  -SWS_Dcm_01184
  -SWS_Dcm_00760

  Convert the note below SWS_Dcm_00530 to:
  SWS_Dcm_01xxx The return values of interfaces called with an OpStatus equal to DCM_CANCEL shall be ignored (SRS_Diag_04010)

Remove the following requirements:
-SWS_Dcm_01231
-SWS_Dcm_01236
-SWS_Dcm_01239
-SWS_Dcm_01245
-SWS_Dcm_01264
-SWS_Dcm_00706
-SWS_Dcm_00739
-SWS_Dcm_00740
-SWS_Dcm_01241
-SWS_Dcm_01407
-SWS_Dcm_01225
-SWS_Dcm_01249
–Last change on issue 76290 comment 13–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.394 Specification Item SWS_Dcm_01414

Trace References:

none

Content:

If the Dcm calls an external application by any of the APIs having the out parameter Dcm_NegativeResponseCodeType ErrorCode, the Dcm shall accept only values in the range 0x01-0xFF in case the return value is E_NOT_OK.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77039: Support 0x00 in Dcm_NegativeResponseCodeType SWS_Dcm_00980

  Problem description:

  Dcm_NegativeResponseCodeType SWS_Dcm_00980 supports currently only values 01-FF. Many Dcm application interfaces uses this type to allow the application setting the NRC value of an operation. In case the application call is successful (and thus no NRC but pos. response is send), the Dcm_NegativeResponseCodeType parameter is not evaluated by the Dcm. However, for application developpers the out parameter always needs to be initialised and thus the question is, which value out of the allowed range to use.

  It is recommended to extend this type to allow 0x00 - this is internally used as pos return value indication.

  Agreed solution:

Extend Dcm_NegativeResponseCodeType SWS_Dcm_00980 by
0x00 "DCM_POS_RESP" "PR"

Change the title of 7.5.1.3 Additional Negative Response Codes (NRCs) to 7.5.1.3 Negative Response Codes handling.
Add the following requirement in this chapter after SWS_Dcm_00271:
[SWS_Dcm_xxxx1] Accepted range of Dcm_NegativeResponseCodeType for negative responses
If the Dcm calls an external application by any of the APIs having the out parameter NegativeResponseCodeType ErrorCode, the Dcm shall accept only values in the range 0x01-0xFF in case the return value is E_NOT_OK. [SRS_Diag_04207]
[SWS_Dcm_xxxx2] Behavior on application returning unexpected return code
If the Dcm calls an API with the out parameter Dcm_NegativeResponseCodeType ErrorCode and the application sets this parameter to DCM_POS_RESP and E_NOT_OK is returned, the Dcm shall report the runtime error DCM_E_INVALID_VALUE. [SRS_Diag_04207]

Change the SWS_Dcm_00044 by putting it in the upper chapter 7.1 Error Classification :
The error values shall be the unique for all error types. The Dcm shall use only the values given in this chapter. c(SRS_BSW_00369)

Add a new requirement in chapter 7.1.2 Run time errors
[SWS_Dcm_xxxx4] Runtime Error Types The errors and exceptions described in Table xx shall be detectable by the Dcm module depending on its build version (development/production mode) (SRS_BSW_00452)

Add a new runtime error table in chapter 7.1.2 (Table xx) Runtime Errors :
Type of error: The Dcm is getting called with an invalid input parameter value or the Dcm has called an function and this function returns an invalid out parameter or return value. Related error code: DCM_E_INVALID_VALUE Value [hex]: 0x010
–Last change on issue 77039 comment 25–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.395 Specification Item SWS_Dcm_01415

Trace References:

none

Content:

If the Dcm calls an API with the out parameter Dcm_NegativeResponseCodeType ErrorCode and the application sets this parameter to Dcm_NegativeResponseCode Type.DCM_POS_RESP and E_NOT_OK is returned, the Dcm shall report the runtime error DCM_E_INVALID_VALUE.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77039: Support 0x00 in Dcm_NegativeResponseCodeType SWS_Dcm_00980

  Problem description:

  Dcm_NegativeResponseCodeType SWS_Dcm_00980 supports currently only values 01-FF. Many Dcm application interfaces uses this type to allow the application setting the NRC value of an operation. In case the application call is successful (and thus no NRC but pos. response is send), the Dcm_NegativeResponseCodeType parameter is not evaluated by the Dcm. However, for application developpers the out parameter always needs to be initialised and thus the question is, which value out of the allowed range to use.

  It is recommended to extend this type to allow 0x00 - this is internally used as pos return value indication.

  Agreed solution:

  Extend Dcm_NegativeResponseCodeType SWS_Dcm_00980 by
  0x00 "DCM_POS_RESP" "PR"

  Change the title of 7.5.1.3 Additional Negative Response Codes (NRCs) to 7.5.1.3 Negative Response Codes handling.
  Add the following requirement in this chapter after SWS_Dcm_00271:
  [SWS_Dcm_xxxx1] Accepted range of Dcm_NegativeResponseCodeType for negative responses
  If the Dcm calls an external application by any of the APIs having the out parameter NegativeResponseCodeType ErrorCode, the Dcm shall accept only values in the range 0x01-0xFF in case the return value is E_NOT_OK. [SRS_Diag_04207]
  [SWS_Dcm_xxxx2] Behavior on application returning unexpected return code
  If the Dcm calls an API with the out parameter Dcm_NegativeResponseCodeType ErrorCode and the application sets this parameter to DCM_POS_RESP and E_NOT_OK is returned, the Dcm shall report the runtime error DCM_E_INVALID_VALUE. [SRS_Diag_04207]

  Change the SWS_Dcm_00044 by putting it in the upper chapter 7.1 Error Classification :
  The error values shall be the unique for all error types. The Dcm shall use only the values given in this chapter. c(SRS_BSW_00369)

  Add a new requirement in chapter 7.1.2 Run time errors
  [SWS_Dcm_xxxx4] Runtime Error Types The errors and exceptions described in Table xx shall be detectable by the Dcm module depending on its build version

(development/production mode) (SRS_BSW_00452)

Add a new runtime error table in chapter 7.1.2 (Table xx) Runtime Errors :
Type of error: The Dcm is getting called with an invalid input parameter value or the Dcm has called an function and this function returns an invalid out parameter or return value. Related error code: DCM_E_INVALID_VALUE Value [hex]: 0x010
–Last change on issue 77039 comment 25–

BW-C-Level:

Application	Specification	Bus
1	1	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572]

[SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.396 Specification Item SWS_Dcm_01416

Trace References:

SRS_BSW_00452

Content:

The errors and exceptions described in Table [REF tab_3a_Dcm_Runtime_errors] shall be detectable by the Dcm module depending on its build version (development/production mode).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77039: Support 0x00 in Dcm_NegativeResponseCodeType SWS_Dcm_00980

  Problem description:

  Dcm_NegativeResponseCodeType SWS_Dcm_00980 supports currently only values 01-FF. Many Dcm application interfaces uses this type to allow the application setting the NRC value of an operation. In case the application call is successful (and thus no NRC but pos. response is send), the Dcm_NegativeResponseCodeType parameter is not evaluated by the Dcm. However, for application developpers the out parameter always needs to be initialised and thus the question is, which value out of the allowed range to use.

  It is recommended to extend this type to allow 0x00 - this is internally used as pos return value indication.

  Agreed solution:

  Extend Dcm_NegativeResponseCodeType SWS_Dcm_00980 by
  0x00 "DCM_POS_RESP" "PR"

  Change the title of 7.5.1.3 Additional Negative Response Codes (NRCs) to 7.5.1.3 Negative Response Codes handling.
  Add the following requirement in this chapter after SWS_Dcm_00271:

[SWS_Dcm_xxxx1] Accepted range of Dcm_NegativeResponseCodeType for negative responses
If the Dcm calls an external application by any of the APIs having the out parameter NegativeResponseCodeType ErrorCode, the Dcm shall accept only values in the range 0x01-0xFF in case the return value is E_NOT_OK. [SRS_Diag_04207]
[SWS_Dcm_xxxx2] Behavior on application returning unexpected return code
If the Dcm calls an API with the out parameter Dcm_NegativeResponseCodeType ErrorCode and the application sets this parameter to DCM_POS_RESP and E_NOT_OK is returned, the Dcm shall report the runtime error DCM_E_INVALID_VALUE. [SRS_Diag_04207]

Change the SWS_Dcm_00044 by putting it in the upper chapter 7.1 Error Classification :
The error values shall be the unique for all error types. The Dcm shall use only the values given in this chapter. c(SRS_BSW_00369)

Add a new requirement in chapter 7.1.2 Run time errors
[SWS_Dcm_xxxx4] Runtime Error Types The errors and exceptions described in Table xx shall be detectable by the Dcm module depending on its build version (development/production mode) (SRS_BSW_00452)

Add a new runtime error table in chapter 7.1.2 (Table xx) Runtime Errors :
Type of error: The Dcm is getting called with an invalid input parameter value or the Dcm has called an function and this function returns an invalid out parameter or return value. Related error code: DCM_E_INVALID_VALUE Value [hex]: 0x010
–Last change on issue 77039 comment 25–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.397 Specification Item SWS_Dcm_01417

Trace References:

SRS_Diag_04033

Content:

Upon calling Dcm_ProcessRequestDownload, the Dcm shall write the maximum possible buffer size into the Dcm_ProcessRequestDownload.BlockLength parameter.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77624: Increase stability of maxNumberOfBlockLength

  Problem description:

  Dcm_ProcessRequestUpload SWS_Dcm_00756
  Dcm_ProcessRequestDownload SWS_Dcm_00754

  have both the in param BlockLength. Applications could not know the maximum size of the Dcm buffer and thus provide a blockLengthh larger than the supported Dcm buffer.

  Agreed solution:

  Change blockLength parameter to in/out in SWS_Dcm_00756 and SWS_Dcm_00754.

  Add new requirement SWS_Dcm_xxxx1:
  Upon calling Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload, the Dcm shall write the maximum possible buffer size into the blockLength parameter.

  Add a new requirement SWS_Dcm_xxxx2:
  If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length larger than the supported buffer length of the current protocol connection, the Dcm shall report the DET DCM_E_INTERFACE_BUFFER_OVERFLOW.

  Add a new requirement SWS_Dcm_xxxx3:
  If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length smaller or equal than the supported buffer length of the current protocol connection, the Dcm shall return the blockLength value within the maxNumberOfBlockLength parameter of the positive response.
  –Last change on issue 77624 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	4	1

1.398 Specification Item SWS_Dcm_01418

Trace References:

SRS_Diag_04033

Content:

If the function call Dcm_ProcessRequestDownload returns a requested buffer length larger than the supported buffer length of the current protocol connection, the Dcm shall report the Det error DCM_E_INTERFACE_BUFFER_OVERFLOW.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77624: Increase stability of maxNumberOfBlockLength

  Problem description:

  Dcm_ProcessRequestUpload SWS_Dcm_00756
  Dcm_ProcessRequestDownload SWS_Dcm_00754

  have both the in param BlockLength. Applications could not know the maximum size of the Dcm buffer and thus provide a blockLengthh larger than the supported Dcm buffer.

  Agreed solution:

  Change blockLength parameter to in/out in SWS_Dcm_00756 and SWS_Dcm_00754.

  Add new requirement SWS_Dcm_xxxx1:
  Upon calling Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload, the Dcm shall write the maximum possible buffer size into the blockLength parameter.

  Add a new requirement SWS_Dcm_xxxx2:
  If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length larger than the supported buffer length of the current protocol connection, the Dcm shall report the DET DCM_E_INTERFACE_BUFFER_OVERFLOW.

  Add a new requirement SWS_Dcm_xxxx3:
  If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length smaller or equal than the supported buffer length of the current protocol connection, the Dcm shall return the blockLength value within the maxNumberOfBlockLength parameter of the positive response.
  –Last change on issue 77624 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	4	1

1.399 Specification Item SWS_Dcm_01419

Trace References:

SRS_Diag_04033

Content:

If the function call Dcm_ProcessRequestDownload returns a requested buffer length smaller or equal than the supported buffer length of the current protocol connection, the Dcm shall return the Dcm_ProcessRequestDownload.BlockLength value within the max NumberOfBlockLength parameter of the positive response.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77624: Increase stability of maxNumberOfBlockLength

  Problem description:

  Dcm_ProcessRequestUpload SWS_Dcm_00756
  Dcm_ProcessRequestDownload SWS_Dcm_00754

  have both the in param BlockLength. Applications could not know the maximum size of the Dcm buffer and thus provide a blockLengthh larger than the supported Dcm buffer.

  Agreed solution:

  Change blockLength parameter to in/out in SWS_Dcm_00756 and SWS_Dcm_00754.

  Add new requirement SWS_Dcm_xxxx1:
  Upon calling Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload, the Dcm shall write the maximum possible buffer size into the blockLength parameter.

  Add a new requirement SWS_Dcm_xxxx2:
  If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length larger than the supported buffer length of the current protocol connection, the Dcm shall report the DET DCM_E_INTERFACE_BUFFER_OVERFLOW.

  Add a new requirement SWS_Dcm_xxxx3:
  If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length smaller or equal than the supported buffer length of the current protocol connection, the Dcm shall return the blockLength value within

the maxNumberOfBlockLength parameter of the positive response.
–Last change on issue 77624 comment 6–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.400 Specification Item SWS_Dcm_01420

Trace References:

SRS_Diag_04033

Content:

Upon calling Dcm_ProcessRequestUpload, the Dcm shall write the maximum possible buffer size into the Dcm_ProcessRequestUpload.BlockLength parameter.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77624: Increase stability of maxNumberOfBlockLength

  Problem description:

  Dcm_ProcessRequestUpload SWS_Dcm_00756
  Dcm_ProcessRequestDownload SWS_Dcm_00754

  have both the in param BlockLength. Applications could not know the maximum size of the Dcm buffer and thus provide a blockLengthh larger than the supported Dcm buffer.

  Agreed solution:

  Change blockLength parameter to in/out in SWS_Dcm_00756 and SWS_Dcm_00754.

  Add new requirement SWS_Dcm_xxxx1:
  Upon calling Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload, the Dcm shall write the maximum possible buffer size into the blockLength parameter.

  Add a new requirement SWS_Dcm_xxxx2:
  If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length larger than the supported buffer length of the current protocol connection, the Dcm shall report the DET DCM_E_INTERFACE_BUFFER_OVERFLOW.

Add a new requirement SWS_Dcm_xxxx3:
If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length smaller or equal than the supported buffer length of the current protocol connection, the Dcm shall return the blockLength value within the maxNumberOfBlockLength parameter of the positive response.
–Last change on issue 77624 comment 6–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.401 Specification Item SWS_Dcm_01421

Trace References:

SRS_Diag_04033

Content:

If the function call Dcm_ProcessRequestUpload returns a requested buffer length larger than the supported buffer length of the current protocol connection, the Dcm shall report the Det error DCM_E_INTERFACE_BUFFER_OVERFLOW.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77624: Increase stability of maxNumberOfBlockLength

  Problem description:

  Dcm_ProcessRequestUpload SWS_Dcm_00756
  Dcm_ProcessRequestDownload SWS_Dcm_00754

  have both the in param BlockLength. Applications could not know the maximum size of the Dcm buffer and thus provide a blockLengthh larger than the supported Dcm buffer.

  Agreed solution:

  Change blockLength parameter to in/out in SWS_Dcm_00756 and SWS_Dcm_00754.

  Add new requirement SWS_Dcm_xxxx1:
  Upon calling Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload, the Dcm shall write the maximum possible buffer size into the blockLength parameter.

Add a new requirement SWS_Dcm_xxxx2:
If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length larger than the supported buffer length of the current protocol connection, the Dcm shall report the DET DCM_E_INTERFACE_BUFFER_OVERFLOW.

Add a new requirement SWS_Dcm_xxxx3:
If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length smaller or equal than the supported buffer length of the current protocol connection, the Dcm shall return the blockLength value within the maxNumberOfBlockLength parameter of the positive response.
–Last change on issue 77624 comment 6–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.402 Specification Item SWS_Dcm_01422

Trace References:

SRS_Diag_04033

Content:

If the function call Dcm_ProcessRequestUpload returns a requested buffer length smaller or equal than the supported buffer length of the current protocol connection, the Dcm shall return the Dcm_ProcessRequestUpload.BlockLength value within the maxNumber OfBlockLength parameter of the positive response.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77624: Increase stability of maxNumberOfBlockLength

  Problem description:

  Dcm_ProcessRequestUpload SWS_Dcm_00756
  Dcm_ProcessRequestDownload SWS_Dcm_00754

  have both the in param BlockLength. Applications could not know the maximum size of the Dcm buffer and thus provide a blockLengthh larger than the supported Dcm buffer.

Agreed solution:

Change blockLength parameter to in/out in SWS_Dcm_00756 and SWS_Dcm_00754.

Add new requirement SWS_Dcm_xxxx1:
Upon calling Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload, the Dcm shall write the maximum possible buffer size into the blockLength parameter.

Add a new requirement SWS_Dcm_xxxx2:
If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length larger than the supported buffer length of the current protocol connection, the Dcm shall report the DET DCM_E_INTERFACE_BUFFER_OVERFLOW.

Add a new requirement SWS_Dcm_xxxx3:
If the function call Dcm_ProcessRequestUpload or Dcm_ProcessRequestDownload returns a requested buffer length smaller or equal than the supported buffer length of the current protocol connection, the Dcm shall return the blockLength value within the maxNumberOfBlockLength parameter of the positive response.
–Last change on issue 77624 comment 6–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.403 Specification Item SWS_Dcm_01423

Trace References:

SRS_Diag_04098

Content:

On reception of an ECUReset Service 0x11 request, if DcmDspEcuResetRow.DcmResponseToEcuReset is set to DcmDspEcuResetRow.DcmResponseToEcuReset.AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.404 Specification Item SWS_Dcm_01424

Trace References:

SRS_Diag_04098

Content:

On reception of an ECUReset Service 0x11 request, if DcmDspEcuResetRow.DcmResponseToEcuReset is set to DcmDspEcuResetRow.DcmResponseToEcuReset.BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.405 Specification Item SWS_Dcm_01425

Trace References:

SRS_Diag_04098

Content:

If the Dcm intiates a reset and DcmDslProtocolRow.DcmSendRespPendOnRestart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 (Response pending) before the reset.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77811: Clarify response after reset

  Problem description:

  I)
  The current behavior when to send an response after reset is not specified in all restart situations. Possible restart situations:

  1) 10 02
  2) 11 01
  3) 11 02
  4) 11 03
  5) 11 xx ?

  For 1) the DcmDspSessionForBoot covers this configuration. For 2)-5) the behaviour is globally set via: DcmResponseToEcuReset.

  There are OEM use cases having a different response behaviour on different 0x11 SFs.

  II)
  Furthermore the DcmDslProtocolRow.DcmSendRespPendOnTransToBoot config parameter only affects 1). It shall be extended to reset services as well.

  Agreed solution:

  I)

  Ia) Create new container DcmDspEcuReset on DcmDsp (0..1):

  SWS Item [ECUC_Dcm_0xxxx]
  Container Name DcmDspEcuReset

Description This container contains the configuration for DcmDspEcuReset service.

Ib) Add new containers DcmDspEcuResetRow to DcmDspEcuReset (1..*)

SWS Item [ECUC_Dcm_0xxxx]
Container Name DcmDspEcuResetRow
Description This container contains the configuration for each DcmDspEcuReset subservice.

Ic) Move DcmResponseToEcuReset from DcmDsp to DcmDspEcuResetRow

Id) Add a new configuration parameter DcmDspEcuResetId to DcmDspResetRow:

Name DcmDspEcuResetId [ECUC_Dcm_0xxxx]
Description "Defines the subfunction ID"
Multiplicity 1
Type EcucIntegerParamDef
Range 0..127

Ie)Add requirements: for each supported reset SF, one DcmDspEcuResetRow container required:

[SWS_Dcm_CONSTR_6xxx] DcmDspEcuResetRow container configuration [One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).](SRS_Diag_04098)

If) Define DcmResponseToEcuReset behavior:

Add 2 requirements in chapter 7.5.4.2 Jump due to ECUReset:

[SWS_Dcm_01xx1] Answer to ECUReset request [On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to AFTER_RESET, the Dcm shall answer to EcuReset service after the reset.](SRS_Diag_04098)

[SWS_Dcm_01xx2] Answer to ECUReset request[On reception of an ECUReset Service 0x11 request, if the configuration parameter DcmResponseToEcuReset is set to BEFORE_RESET, the Dcm shall answer to EcuReset service before the reset.](SRS_Diag_04098)

II)

Make OBSOLETE DcmSendRespPendOnTransToBoot
Create the parameter DcmSendRespPendOnRestart in replacement of DcmSendRespPendOnTransToBoot in chapter 10.3.4.6 DcmDslProtocolRow with the following description :
If set to TRUE, the Dcm will send a NRC 0x78 before a transition to bootloader or performing an ECU reset. If set to False, no 0x78 is send in this case.
Exchange the name in SWS_Dcm_00654, SWS_Dcm_01178, SWS_Dcm_00535, SWS_Dcm_01177, SWS_Dcm_00720.

Add new requirement to chapter chapter '7.5.4.2 Jump due to ECUReset':
[SWS_Dcm_00XXX] d If the Dcm intiates a reset and DcmSendRespPendOnRestart is set to TRUE, the Dcm shall trigger transmission of NRC 0x78 - RCR-RP before the reset.
(SRS_Diag_04098)
–Last change on issue 77811 comment 11–

BW-C-Level:

Application	Specification	Bus
1	3	1

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

Problem description:

Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

Agreed solution:

Traceability cleanup on Dem/Dcm

To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

Motivation:
Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
There are too many "No description" shown in the documents -
~ 30 entries with ~ 60 referenced requirements into Dem.
The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

Proposal:
1) search for "No description"
2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
–Last change on issue 78539 comment 6–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.406 Specification Item SWS_Dcm_01426

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmission Mode = stopSending, the Dcm shall skip the verification for security and mode rule.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier#

in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

-> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]

[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.407 Specification Item SWS_Dcm_01427

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmission Mode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I believe as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

  Agreed solution:

  1) Change SWS_Dcm_01100 to:
  [SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

  2)Add new requirements below SWS_Dcm_01100:

  SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

  3) Add new requirements below SWS_Dcm_01100:
  SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.408 Specification Item SWS_Dcm_01428

Trace References:

SRS_Diag_04215

Content:

On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmission Mode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77016: Cleanup definition of RDBPI with stopSending

  Problem description:

  1) SWS_Dcm_01100 deals with :

  a) checks for transmissionmode 01/02/03
  b) mentions that there might be no periodicDataIdentifier in the 2A 04 request

  -> Both are distinct topics and shall not appear in the same requirement.

  2) The Dcm leaves open, if the checks (see 1a) shall be done for transmissionMode = stopSending. It is very likely that author of SWS_Dcm_01100 had this in mind and it matches to ISO 14229 and diagnostic use cases. I propose to add a further requirement herefore!

  3) There is no requirement dealing with the parameter periodicDataIdentifier# in a 2A 04 request. I propose to write requirements expressing the Dcm behavior.

  -> As there is no SRS_Diag requirement for 0x2A, we shall add one. I be-

lieve as SRS_Diag is no in foundation, we need a new RfC for this and link it to this one? Tbd by WP-A4.

Agreed solution:

1) Change SWS_Dcm_01100 to:
[SWS_Dcm_01100] On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode different than stopSending, the Dcm shall do the verification for session, security and mode rule.(SRS_xxxx1)

2)Add new requirements below SWS_Dcm_01100:

SWS_Dcm_xxxxx1: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending, the Dcm shall skip the verification for security and mode rule.(SRS_xxxx1)

3) Add new requirements below SWS_Dcm_01100:
SWS_Dcm_xxxxx2: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and no periodicDataIdentifier in the request, the Dcm shall stop all scheduled periodicDataIdentifier transmissions.(SRS_xxxx1)

SWS_Dcm_xxxxx3: On reception of the UDS Service ReadDataByPeriodicIdentifier (0x2A) with transmissionMode = stopSending and at least one periodicDataIdentifier is in the request, the Dcm shall stop the scheduled periodic data transmissions for all requested and in the current session supported periodicDataIdentifiers.(SRS_xxxx1)

Trace SRS_xxxx1 ID with the following requirements:
[SWS_Dcm_00254]
[SWS_Dcm_01093]
[SWS_Dcm_00721]
[SWS_Dcm_00722]
[SWS_Dcm_00820]
[SWS_Dcm_01097]
[SWS_Dcm_00722]
[SWS_Dcm_01098]
[SWS_Dcm_01099]
[SWS_Dcm_00716]
[SWS_Dcm_00843]
[SWS_Dcm_01094]
[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01094]

[SWS_Dcm_01095]
[SWS_Dcm_01096]
[SWS_Dcm_00851]
[SWS_Dcm_01103]
[SWS_Dcm_01104]
[SWS_Dcm_01105]
[SWS_Dcm_01106]
[SWS_Dcm_01107]
[SWS_Dcm_01108]
[SWS_Dcm_01109]
[SWS_Dcm_01110]
[SWS_Dcm_01111]
[SWS_Dcm_01112]
[SWS_Dcm_01113]
[SWS_Dcm_01114]
[SWS_Dcm_01115]
[SWS_Dcm_01116]
[SWS_Dcm_01117]
[SWS_Dcm_01118]

the SRS_Diag_04215 upper is defined in RFC# 78224
–Last change on issue 77016 comment 27–

BW-C-Level:

Application	Specification	Bus
1	4	1

1.409 Specification Item SWS_Dcm_01429

Trace References:

none

Content:

The source address of diagnostic requests received via a generic connection shall be provided in the parameter Xxx_StartProtocol.TesterSourceAddress to the application SWS_Dcm_01339, SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76641: [Dcm] Clarification on Protocol configuration / interface: usecase for external / OnBoard tester

  Problem description:

  The following issues are observed with the protocol configuration / interface to application.
  This in reference to support two protocols on the same media (e.g. CAN) with different priority: one for vehicle external tester and one for vehicle internal tester

  a)
  DcmDslProtocolID

  Is this configuration parameter unique for all the DcmDslProtocolRows? Means is it an identifier or a type? According to the parameter name it is an ID. But according to the reference it is type. This is inconsistent.

  b)
  interface to application

  There exists several interfaces towards application to inform about a protocol start / stop. Or about request rx indication / response tx confirmation.
  In these interfaces at some places a "ProtocolID" is used in other places a "ConnectionId". This looks inconsistent and complex for an application

  c)
  DcmDslProtocolRxConnectionId

  "Unique identifier of the tester which uses this connection for diagnostic communication."

  Is this now an identifier or the tester address? How does the application knows, what this Id stands for?

  In the DEXT, I found this is mapped to:
  SystemTemplate::Fibex::FibexCore::CoreTopology::EcuInstance.diagnosticAddress
  Is this now the tester address or more the ECU address?

  d)
  GetActiveProtocol() / Dcm_GetActiveProtocol()
  Better to use the connection information?

to a) to support the above usecase of two protocols on the same media with different priority we require this as type.

to b and d) better to use the connectionId in all the places. Maybe in combination with the protocol type

to c) maybe better to use here the tester source address.
But this tester source address has to be unique.

DEXT: generation of the OBD protocol types are missing

Agreed solution:

===ECUC XML===
a)
1.a) Make DcmDslProtocolID obselete
1.b) Create a new parameter DcmDslProtocolType: (content of the table shall be the copy of ECUC_Dcm_00696)

As dependencies will be removed with RfC # 75045, no other ECUC requirement is impacted.
RfC is linked to keep it in mind if new constraints are created and we need to use the new name.

2.) Introduce back the configuration parameter DcmDslProtocolRxTesterSourceAddr in the container DcmDslMainConnection
Description: Source address of the tester which uses this connection for diagnostic communication.
The parameter is not required for generic connections, where the MetaDataLength of a PDU is greater than or equal to 1.
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 65535

3.) DcmDslProtocolRxConnectionId ECUC_Dcm_00826

Include: Symbolic Name generated for this parameter

b) Harmonization of dependent application interface

Provide the three parameters (Dcm_ProtocolType ProtocolType / uint16 TesterSourceAddress / uint16 ConnectionId) in the interface to application: StartProtocol / StopProtocol / Indication / Confirmation

TesterSourceAddress:
In case of generic connection -> taken from the MetaData
In case of normal connection -> taken from the configuration parameter DcmDslProtocolRxTesterSourceAddr

Figure 9.1. to be updated due to new arguments for StartProtocol.
Figure 9.6. to be updated due to new arguments for StopProtocol.

===BSW UML===
SWS_Dcm_01339
SWS_Dcm_01340
SWS_Dcm_01341
SWS_Dcm_01342

==Service Interfaces===
SWS_Dcm_00692
SWS_Dcm_00694

c) clarified: we will have now the both parameters (DcmDslProtocolRxConnectionId and DcmDslProtocolRxTesterSourceAddr) per connection

d)
Change SWS_Dcm_00340 by
Service name: Dcm_GetActiveProtocol
Syntax: Std_ReturnType Dcm_GetActiveProtocol(Dcm_ProtocolType * ActiveProtocolType, uint16* ConnectionId, uint16* TesterSourceAddress
)
Service ID[hex]: 0x0f
Sync/Async: Synchronous
Reentrancy: Reentrant

Parameters (in): None
Parameters (inout): None
Parameters (out): ActiveProtocolType Active protocol type value
ConnectionId Unique connection identifier
TesterSourceAddress: source address of the tester
Return value: Std_ReturnType E_OK: this value is always returned.
Description: This function returns the active UDS protocol details

Change SWS_Dcm_00698 by

Operations
GetActiveProtocol
Comments
Variation
Parameters ActiveProtocolType Comment
Type Dcm_ProtocolType
Variation
Direction OUT

ConnectionId
Comments
Variation
Parameters ConnectionID Comment
Type Uint16
Variation
Direction OUT

TesterSourceAddress
Comments
Variation
Parameters TesterSourceAddress Comment
Type Uint16
Variation
Direction OUT

Possible Errors E_OK Operation successful

e) chapter 7.3.4.5 Generic Connection Handling

add the following new requirement below [SWS_Dcm_00849]

[SWS_Dcm_xxxxx] The source address of diagnostic requests received via a generic connection shall be provided in the parameter TesterSourceAddress to the application (SWS_Dcm_01339
SWS_Dcm_01340, SWS_Dcm_01341, SWS_Dcm_01342, SWS_Dcm_00692, SWS_Dcm_00694, SWS_Dcm_00340, SWS_Dcm_00698).

f) Dcm_ProgConditionsType, SWS_Dcm_00988
TesterAddress:
Source address of the received request if meta data is enabled, otherwise the value as configured in DcmDslProtocolRxTesterSourceAddr
–Last change on issue 76641 comment 17–

BW-C-Level:

Application	Specification	Bus
4	4	1

1.410 Specification Item SWS_Dcm_01430

Trace References:

none

Content:

When responding to UDS Service 0x19 with subfunction 0x04, or 0x18, the Dcm shall collect the freeze frame data by first calling Dem_SelectFreezeFrameData() and then call Dem_GetNextFreezeFrameData() repeatedly until DEM_NO_SUCH_ELEMENT is returned.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #79153: [Dem][Dcm] inconsistency of getNextFreezeFrameData and Dem_GetNextExtendedDataRecord functions

  Problem description:

  As already mentioned in RfC # 79148 the DEM/DCM specs are inconsistent for describing the behavior of Dem_GetNextFreezeFrameData and Dem_GetNextExtendedDataRecord.
  Small corrections should be done in 4.3.1 as it is not working as described.

  This request is supposed to do the minimal changes required to at least fix the inconsistencies between DCM and DEM.

Agreed solution:

in Dem:

- in SWS_Dem_00236: change description of DEM_NO_SUCH_ELEMENT:
"Found no (further) element matching the filter criteria"

- in SWS_Dem_00239: change description of DEM_NO_SUCH_ELEMENT:
"Found no (further) element matching the filter criteria"

in Dcm:

- remove requirement Dcm_01223
[SWS_Dcm_01223] If Dem_GetNextFreezeFrameData() returns
DEM_NO_SUCH_ELEMENT and if multiple Extended Data Record is requested, the
Dcm shall proceed with the next record. c()

- remove requirement Dcm_01222
[SWS_Dcm_01222] If Dem_GetNextFreezeFrameData() returns
DEM_NO_SUCH_ELEMENT and if a single Extended Data Record is requested,
the Dcm shall send a NRC 0x31 (RequestOutOfRange). c()

- introduce new requirement before SWS_Dcm_01224
[SWS_Dcm_xxx01] When responding to UDS Service 0x19 with subfunction 0x04,
or 0x18, the Dcm module shall collect the freeze frame data by first
calling Dem_SelectFreezeFrameData()
and then call Dem_GetNextFreezeFrameData() repeatedly until
DEM_NO_SUCH_ELEMENT is returned.c()

- change SWS_Dcm_01224 from
[SWS_Dcm_01224] If at least one of the requested extended data is supported,
the Dcm shall send a positive response. Otherwise the Dcm shall send a NRC 0x31
(RequestOutOfRange). c()
to
[SWS_Dcm_01224] If at least one of the requested freeze frame data is supported,
the Dcm shall send a positive response. Otherwise the Dcm shall send a NRC 0x31
(RequestOutOfRange). c()
–Last change on issue 79153 comment 9–

BW-C-Level:

Application	Specification	Bus
1	4	4

1.411 Specification Item SWS_Dcm_01802

Trace References:

none

Content:

If ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataUsePort)} == DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidShortTermAdjustment)} == TRUE) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.DcmDspData.DcmDspDataType} != UINT8_DYN) && ({ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspData.DcmDspDataInfoRef –> DcmDspDidInfo/DcmDspDidControl/DcmDspDidControl.DcmDspDidControlMask)} != DCM_CONTROLMASK_EXTERNAL), the following definition shall be used:

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74561: Variation condition for IOControlRequest_Data and IOControlResponse

  Problem description:

  In the definition of IOControlRequest_Data and IOControlResponse, the following expression can be found:

  (ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True) Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))

  This expression implies that DcmDspDataInfoRef refers to DcmDspDidInfo. This, however, is not correct. In the current model, DcmDspDataInfoRef (somewhat unsurprisingly) references DcmDspDataInfo rather than DcmDspDidInfo. However, this contradiction factually breaks the expression and makes it unusable.

  Agreed solution:

  Replace

  "(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData/DcmDspDataInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True)

Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

By

"(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspDid/DcmDspDidInfoRef->DcmDspDidInfo/DcmDspDidControl/DcmDspDidShortTermAdjustment) == True)
Data =(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspData.SHORT-NAME))"

in the following requirements

SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01309
SWS_Dcm_01031
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
SWS_Dcm_01288
SWS_Dcm_01289
SWS_Dcm_01292
SWS_Dcm_01293
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01301
SWS_Dcm_01306
SWS_Dcm_01308
SWS_Dcm_01311
SWS_Dcm_01312
SWS_Dcm_01313
–Last change on issue 74561 comment 6–

BW-C-Level:

Application	Specification	Bus
4	4	1

- RfC #75180: Move requirements to chapter7

Problem description:

All text requirements in chapter 8, shall be moved to corresponding places in chapter 7. Requirements about the same functionality are often spread out over chapter 7 and chapter 8.

e.g. SWS_Dcm_00444 shall be in chapter "7.3.4.2 Forward requests from the PduR module to the DSD submodule"

Agreed solution:

SWS_Dcm_00334 shall be in a new chapter for the startup "7.x Startup behavior"
SWS_Dcm_01174 shall be in chapter "7.9 DID configuration"

Move the following requirements to new chapter 7.3.4.2.1 Dcm_StartOfReception
SWS_Dcm_00444
SWS_Dcm_00788
SWS_Dcm_00789
SWS_Dcm_00790
SWS_Dcm_00557
SWS_Dcm_01145
SWS_Dcm_01146
SWS_Dcm_00642
SWS_Dcm_00655
SWS_Dcm_00656
SWS_Dcm_00833

Move the following requirements to new chapter 7.3.4.2.2 Dcm_CopyRxData
SWS_Dcm_00443
SWS_Dcm_00996
SWS_Dcm_00831

Move the following requirements to new chapter 7.3.4.2.3 Dcm_TpRxIndication
SWS_Dcm_00344
SWS_Dcm_00345

Move the following requirements to new chapter 7.3.4.4.1 Dcm_CopyTxData
SWS_Dcm_00346
SWS_Dcm_00350

SWS_Dcm_00832

Move the following requirements to new chapter 7.3.4.4.2 Dcm_TpTxConfirmation
SWS_Dcm_00352
SWS_Dcm_00353
SWS_Dcm_00354

Move the following requirements to chapter 7.3.4.17.1 No Communication
SWS_Dcm_00148
SWS_Dcm_00149
SWS_Dcm_00150
SWS_Dcm_00151
SWS_Dcm_00152
SWS_Dcm_01324

Move the following requirements to chapter 7.3.4.17.2 Silent Communication
SWS_Dcm_00153
SWS_Dcm_00154
SWS_Dcm_00155
SWS_Dcm_00156
SWS_Dcm_01325

Move the following requirements to chapter 7.3.4.17 Communication Mode Handling
SWS_Dcm_00157
SWS_Dcm_00159
SWS_Dcm_00160
SWS_Dcm_00161
SWS_Dcm_00162
SWS_Dcm_01326

Move the following requirements to chapter 7.5.2.17 Service 0x23 - ReadMemoryByAddress
SWS_Dcm_00644
SWS_Dcm_00839
SWS_Dcm_00840

Move the following requirements to chapter 7.5.2.20 Service 0x36 - TransferData
SWS_Dcm_00643
SWS_Dcm_00837
SWS_Dcm_00838

Move the following requirement to chapter 7.5.2.21 Service 0x37 - RequestTransferExit
SWS_Dcm_00759

Move the following requirement to chapter 7.5.2.19 Service 0x35 - RequestUpload
SWS_Dcm_00758

Move the following requirement to chapter 7.5.2.18 Service 0x34 - RequestDownload
SWS_Dcm_00757

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01285
SWS_Dcm_00799
SWS_Dcm_01281

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01286
SWS_Dcm_00800
SWS_Dcm_01287

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01314
SWS_Dcm_01288
SWS_Dcm_01289

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01290
SWS_Dcm_00801
SWS_Dcm_01291

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01315
SWS_Dcm_01292
SWS_Dcm_01293

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_00802
SWS_Dcm_01802
SWS_Dcm_01295

Remove the following requirements and include its content in the variation field of API table SWS_Dcm_01316
SWS_Dcm_01296
SWS_Dcm_01297
SWS_Dcm_01298
SWS_Dcm_01299
SWS_Dcm_01300
SWS_Dcm_01301

Rename chapter 7.2.4 from "Data types" to "Types"
Move chapter "Data types" to chapter 7.2.4 "Types"
Move the following requirements to chapter 7.2.4.1 Dcm_OpStatusType
SWS_Dcm_00527
SWS_Dcm_00528
SWS_Dcm_00529
SWS_Dcm_00530

Move the following requirements to chapter 7.2.4.2 Dcm_SesCtrlType
SWS_Dcm_00941

Move the following requirements to chapter 7.5.2.14 Service 0x31 - RoutineControl
SWS_Dcm_00668
SWS_Dcm_00669
SWS_Dcm_00670
SWS_Dcm_00671
SWS_Dcm_00672
SWS_Dcm_00673

Move the following requirements to chapter 7.4.4.7 Initiate transmission
SWS_Dcm_00677
SWS_Dcm_00678

Move the following requirements to chapter 7.4.4.1 Support checking the diagnostic service identifier and adapting the diagnostic message
SWS_Dcm_00732
SWS_Dcm_00733
SWS_Dcm_00735
SWS_Dcm_00760
–Last change on issue 75180 comment 8–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.412 Specification Item SWS_Dcm_91002

Trace References:

none

Content:

API function	Description
BswM_Dcm_ApplicationUpdated	This function is called by the DCM in order to report an updated application.
BswM_Dcm_CommunicationMode_CurrentState	Function called by DCM to inform the BswM about the current state of the communication mode.
Dem_ClearDTC	Clears single DTCs, as well as groups of DTCs.
Dem_DcmGetAvailableOBDMIDs	Reports the value of a requested "availability-OBDMID" to the DCM upon a Service $06 request. Derived from that the tester displays the supported tests a mechanic can select from. API is needed in OBD-relevant ECUs only. API Availability: This API will be available only if ({ecuc(Dem/DemGeneral.DemOBDSupport)} != DEM_OBD_NO_OBD_SUPPORT)
Dem_DcmGetDTCOfOBDFreezeFrame	Gets DTC by freeze frame record number. API is needed in OBD-relevant ECUs only. API Availability: This API will be available only if ({ecuc(Dem/DemGeneral.DemOBDSupport)} != DEM_OBD_NO_OBD_SUPPORT)
Dem_DcmGetDTRData	Reports a DTR data along with TID-value, UaSID, test result with lower and upper limit. API is needed in OBD-relevant ECUs only. API Availability: This API will be available only if ({ecuc(Dem/DemGeneral.DemOBDSupport)} != DEM_OBD_NO_OBD_SUPPORT)
Dem_DcmGetNumTIDsOfOBDMID	Gets the number of TIDs per (functional) OBDMID. This can be used by the DCM to iteratively request for OBD/TID result data within a loop from 0....numberOfTIDs-1 API is needed in OBD-relevant ECUs only. API Availability: This API will be available only if ({ecuc(Dem/DemGeneral.DemOBDSupport)} != DEM_OBD_NO_OBD_SUPPORT)
Dem_DcmReadDataOfOBDFreezeFrame	Gets data element per PID and index of the most important freeze frame being selected for the output of service $02. The function stores the data in the provided DestBuffer. API is needed in OBD-relevant ECUs only. API Availability: This API will be available only if ({ecuc(Dem/DemGeneral.Dem OBDSupport)} != DEM_OBD_NO_OBD_SUPPORT)
Dem_DisableDTCRecordUpdate	Disables the event memory update of a specific DTC (only one at one time).
Dem_DisableDTCSetting	Disables the DTC setting for a DTC groupall DTCs assigned to the DemEventMemorySet of the addressed client.
Dem_EnableDTCRecordUpdate	Enables the event memory update of the DTC disabled by Dem_DisableDTCRecordUpdate() before.

API function	Description
Dem_EnableDTCSetting	Enables (Re)-Enables the DTC setting for a DTC group. This API is intended for the Dcm. It can only be used through the RTE (due to work-around described below SWS_Dem_00035), and therefore no declaration is exported via Dem_Dcm. h. all DTCs assigned to the DemEventMemorySet of the addressed client.
Dem_GetDTCByOccurrenceTime	Gets the DTC by occurrence time. There is no explicit parameter for the DTC-origin as the origin always is DEM_DTC_ORIGIN_PRIMARY_MEMORY.
Dem_GetDTCSeverityAvailabilityMask	Gets the DTC Severity availability mask.
Dem_GetDTCStatusAvailabilityMask	Gets the DTC Status availability mask.
Dem_GetFunctionalUnitOfDTC	Gets the functional unit of the requested DTC.
Dem_GetNextExtendedDataRecord	Gets extended data record for the DTC selected by Dem_SelectExtendedDataRecord. The function stores the data in the provided DestBuffer.
Dem_GetNextFilteredDTC	Gets the next filtered DTC matching the filter criteria. For UDS services, the interface has an asynchronous behavior, because a large number of DTCs has to be processed.
Dem_GetNextFilteredDTCAndFDC	Gets the next filtered DTC and its associated Fault Detection Counter (FDC) matching the filter criteria. The interface has an asynchronous behavior, because a large number of DTCs has to be processed and the FDC might be received asynchronously from a SW-C, too.
Dem_GetNextFilteredDTCAndSeverity	Gets the next filtered DTC and its associated Severity matching the filter criteria. The interface has an asynchronous behavior, because a large number of DTCs has to be processed.
Dem_GetNextFilteredRecord	Gets the next freeze frame record number and its associated DTC stored in the event memory. The interface has an asynchronous behavior, because NvRAM access might be required.
Dem_GetNextFreezeFrameData	Gets freeze frame data by the DTC selected by Dem_Select FreezeFrameData. The function stores the data in the provided DestBuffer.
Dem_GetNumberOfFilteredDTC	Gets the number of a filtered DTC.
Dem_GetSeverityOfDTC	Gets the severity of the requested DTC. For large configurations and DTC-calibration, the interface behavior can be asynchronous (splitting the DTC-search into segments).
Dem_GetSizeOfExtendedDataRecordSelection	Gets the size of Extended Data Record by DTC selected by the call of Dem_SelectExtendedDataRecord.
Dem_GetSizeOfFreezeFrameSelection	Gets the size of freeze frame data by DTC selected by the call of Dem_SelectFreezeFrameData.
Dem_GetStatusOfDTC	Gets the status of a DTC. For large configurations and DTC-calibration, the interface behavior can be asynchronous (splitting the DTC-search into segments). The DTCs of OBD Events Suppression shall be reported as Dem_WRONG_DTC.
Dem_GetTranslationType	Gets the supported DTC formats of the ECU.The supported formats are configured via DemTypeOfDTCSupported.

API function	Description
Dem_SetDTCFilter	Sets the DTC Filter. The server shall perform a bit-wise logical AND-ing operation between the parameter DTCStatusMask and the current UDS status in the server. In addition to the DTCStatusAvailabilityMask, the server shall return all DTCs for which the result of the AND-ing operation is non-zero [i.e. (statusOfDTC & DTCStatusMask) != 0]. The server shall process only the DTC Status bits that it is supporting. OBD Events Suppression shall be ignored for this computation. If no DTCs within the server match the masking criteria specified in the client's request, no DTC or status information shall be provided following the DTCStatusAvailabilityMask byte in the positive response message (((statusOfDTC & DTCStatus Mask) != 0) && ((severity & DTCSeverityMask) != 0)) == TRUE
Dem_SetFreezeFrameRecordFilter	Sets a freeze frame record filter.
Det_ReportError	Service to report development errors.
IoHwAb_Dcm_<EcuSignalName>	This function provides control access to a certain ECU Signal to the DCM module (<EcuSignalname> is the symbolic name of an ECU Signal). The ECU signal can be locked and unlocked by this function. Locking 'freezes' the ECU signal to the current value, the configured default value or a value given by the parameter 'signal'.
IoHwAb_Dcm_Read<EcuSignalName>	This function provides read access to a certain ECU Signal to the DCM module (<EcuSignalname> is the symbolic name of an ECU Signal).
NvM_ReadBlock	Service to copy the data of the NV block to its corresponding RAM block.
NvM_SetBlockLockStatus	Service for setting the lock status of a permanent RAM block or of the explicit synchronization of a NVRAM block.
NvM_SetRamBlockStatus	Service for setting the RAM block status of a permanent RAM block or the status of the explicit synchronization of a NVRAM block.
NvM_WriteBlock	Service to copy the data of the RAM block to its corresponding NV block.
PduR_DcmCancelReceive	Requests cancellation of an ongoing reception of a PDU in a lower layer transport protocol module.
PduR_DcmCancelTransmit	Requests cancellation of an ongoing transmission of a PDU in a lower layer communication module.
PduR_DcmChangeParameter(obsolete)	Request to change a specific transport protocol parameter (e.g. block size).
SchM_ActMainFunction_Dcm	Invokes the SchM_ActMainFunction function to trigger the activation of a corresponding main processing function.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76404: [Det] Clarifications on runtime errors

  Problem description:

  There are several uncertainties/problems in the SWS DET:
  1. According to SWS_Det_00180, the callouts should have the same signatures as the corresponding DET functions, but they are void(void) (SWS_Det_00181, SWS_Det_00184, SWS_Det_00187).

2. Section 8.2.3.1 does not describe how the instance ID is passed to DET.
3. Configuration of header files for all three error type callouts are missing.
4. Why does the development error callout reside in DetNotification, while the other two callouts reside in DetGeneral?
5. The limitation in section 4.1 regarding "supervisor mode" does not really make sense. It is assumed that the DET is ignorant regarding the call context, and the software receiving DET callbacks (like DLT or the implementers of the callouts) need to take care of resolving the calling context, if necessary (e.g. in multi-core environments).
6. SWS_Det_00302 defines several runtime errors. But apart from DET_E_CANNOT_REPORT, it is unclear in which situation these errors could be reported by DET: For errors reported by BSW, the DET has no means to validate anything that could lead to such an error. And for SWCs, the modeling already takes care that DET_E_WRONG_MODULE and DET_E_WRONG_INSTANCE cannot occur, while the other two errors can also not be checked by DET without further configuration.
7. Det_ReportTransientFault (SWS_Det_01003) shall return the return value of a configured callout. But what shall happen if more than one callout exisits, and the return different values?
8. SWS_Det_00052: The only API that can result in DET_E_PARAM_POINTER is Det_GetVersionInfo (as the error description mentions correctly). Please reformulate this requirement and move it to section 8.1.3.6 "Det_GetVersionInfo".
–Last change on issue 76404 comment 13–

Agreed solution:

1.
~change SWS_Det_00181/184/187 such that signatures match the APIs
~Figures 3,5, and 7 to be corrected (return missing)
5. remove from 4.1. the sentence: "It is assumed that the whole Basic Software runs in supervisor mode or the switch to supervisor mode is done by a system call within the error reporting function of the DET module."
6. remove SWS_Det_00302 and SWS_Det_00303 and all included errors
7. change SWS_Det_01003 (Return Value-Part only): "Std_ReturnType" If no callout exists it shall return E_OK, otherwise it shall return the value of the configured callout. In case several callouts are configured the logical or (sum) of the callout return values shall be returned. Rationale: since E_OK=0, E_OK will be only returned if all are E_OK, and for multiple error codes there is a good chance to detect several of them.
8. change SWS_Det_00052 from "in case a null pointer error occurs." to "in case a null pointer error occurs in Det_GetVersionInfo." Do not move the requirement, since otherwise the section 7.7 would be empty, but add the following sentence to 8.1.3.6: "In case a null pointer is passed, DET_E_PARAM_POINTER is returned,

see SWS_Det_00052."
–Last change on issue 76404 comment 30–

BW-C-Level:

Application	Specification	Bus
1	4	1

- RfC #76491: [PduR] Remove forwarding of ChangeParameter API from PduR

  Problem description:

  The ChangeParameter API is TP specific and there is no use case to call this API through the PduR (CDD or integration code that requires a change in the TP parameter will call the API directly in the TP module)

  Agreed solution:

  PDUR_SWS
  Remove references from ch. 5 "Dependencies to other modules"
  Remove ch. 8.4. "Change transport protocol parameter"

  BSW_Model
  set API PduR_<User:Up>ChangeParameter [SWS_PduR_00482] to obsolete
  set optional interface from [SWS_PduR_00424] to obsolete

  ECUC model
  set [ECUC_PduR_00326] PduRChangeParameterApi to obsolete
  remove reference in description from [ECUC_PduR_00319] PduRUseTag
  –Last change on issue 76491 comment 12–

  BW-C-Level:

Application	Specification	Bus
1	4	1

- RfC #77857: Fix description of Dem_EnableDTCSetting and Dem_DisableDTCSetting

  Problem description:

  The Dem_EnableDTCSetting and Dem_DisableDTCSetting have been changed in 4.3.0, but the descriptions where not updated to the new behavior. The current description is partly wrong.

  Agreed solution:

  Change description of Dem_DisableDTCSetting[SWS_Dem_00242] to:
  Disables the DTC setting for all DTCs assigned to the DemEventMemorySet of the

addressed client.

Change description of Dem_EnableDTCSetting[SWS_Dem_00243] to:
(Re)-Enables the DTC setting for all DTCs assigned to the DemEventMemorySet of the addressed client.

BW-C-Level:

Application	Specification	Bus
1	1	1

1.413 Specification Item SWS_Dcm_91014

Trace References:

SRS_Diag_04082

Content:

Service name:	Xxx_GetInfotypeValueDataXxx_GetInfotypeValueData	
Syntax:	Std_ReturnType Xxx_GetInfotypeValueData(Dcm_OpStatusType OpStatus, uint8* DataValueBuffer, uint8* DataValueBufferSize)	
Service ID[hex]:	0x60	
Sync/Async:	Asynchronous	
Reentrancy:	Non Reentrant	
Parameters (in):	OpStatusXxx_GetInfotypeValueData.OpStatus	Status of the current operation
Parameters (inout):	DataValueBufferSizeXxx_GetInfotypeValueData.DataValueBufferSize	When the function is called this parameter contains the maximum number of data bytes that can be written to the buffer. The callee fills in the number of written data bytes in Data ValueBuffer.
Parameters (out):	DataValueBufferXxx_GetInfotypeValueData.DataValueBuffer	Buffer containing the Infotype information
Return value:	Std_ReturnType	E_OK: Request was successful. E_NOT_OK: Request was not successful. DCM_E_PENDING: Request is not yet finished. Further call(s) required to finish.
Description:	The function provides the data related to the requested Infotype.	

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78385: [Dcm][Dem] SRS_Diag harmonization

Problem description:

After the agreed changes of FO RfC 78083 are implemented, the references in Dcm and Dem need to be adapted.

Agreed solution:

Adapt the references in Dcm and Dem according to
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/049_SRS_Harmonisation/Proposed Changes.docx

BW-C-Level:

Application	Specification	Bus
1	1	1

1.414 Specification Item SWS_Dcm_CONSTR_6000

Trace References:

none

Content:

The shortname of DcmDspSessionRow shall match names of Dcm_SesCtrlType and of the mode declarations of DcmDiagnosticSessionControl(excluding AR-defined prefixes). The "DCM_" prefix is mandatory for all shortnames.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77368: Inconsistent ModeDeclaration Group for Sessions

  Problem description:

  SWS_Dcm_91019 defines the literals with "DCM_" prefix while in:
  - SWS_Dcm_01062 the example
  - SWS_Dcm_CONSTR_6001

  are provided without this prefix.

  Agreed solution:

  Add "DCM_" prefix to literals of MDG DSC in
  - SWS_Dcm_01062
  - SWS_Dcm_CONSTR_6001:

  [SWS_Dcm_01062] d The call to Dcm_ResetToDefaultSession allows the appli-

cation to reset the current session to Default session and invokes the mode switch of the ModeDeclarationGroupPrototype DcmDiagnosticSessionControl by calling SchM_Switch_<bsnp>_DcmDiagnosticSessionControl(RTE_MODE_DcmDiagnostic SessionControl_DCM_DEFAULT_SESSION). (SRS_Diag_04138)

[SWS_Dcm_CONSTR_6001] Provide standardized names for ISO standard-ized
diagnostic sessions dThe following values of DcmDspSessionLevel which repre-sent ISO defined diagnostic sessions shall be used for the shortname of DcmDspSes-
sionRow:
1 DCM_DEFAULT_SESSION
2 DCM_PROGRAMMING_SESSION
3 DCM_EXTENDED_DIAGNOSTIC_SESSION
4 DCM_SAFETY_SYSTEM_DIAGNOSTIC_SESSION
(SRS_Diag_04138)

To ensure consistent namings between MDGs and Dcm_SesCtrlType, the note below SWS_Dcm_00978 shall be deleted and SWS_Dcm_CONSTR_6000 shall renamed to:

[SWS_Dcm_CONSTR_6000] Harmonize the naming between interfaces and modes d The shortname of DcmDspSessionRow shall match names of Dcm_SesCtrlType and of the mode declarations of DcmDiagnosticSessionControl. The "DCM_" prefix is mandatory for all shortnames. c()
–Last change on issue 77368 comment 3–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.415 Specification Item SWS_Dcm_CONSTR_6001

Trace References:

none

Content:

The following values of DcmDspSessionRow.DcmDspSessionLevel which represent ISO defined diagnostic sessions shall be used for the shortname of DcmDspSessionRow:
1 DCM_DEFAULT_SESSION
2 DCM_PROGRAMMING_SESSION

3 DCM_EXTENDED_DIAGNOSTIC_SESSION
4 DCM_SAFETY_SYSTEM_DIAGNOSTIC_SESSION

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #77368: Inconsistent ModeDeclaration Group for Sessions

  Problem description:

  SWS_Dcm_91019 defines the literals with "DCM_" prefix while in:
  - SWS_Dcm_01062 the example
  - SWS_Dcm_CONSTR_6001

  are provided without this prefix.

  Agreed solution:

  Add "DCM_" prefix to literals of MDG DSC in
  - SWS_Dcm_01062
  - SWS_Dcm_CONSTR_6001:

  [SWS_Dcm_01062] d The call to Dcm_ResetToDefaultSession allows the application to reset the current session to Default session and invokes the mode switch of the ModeDeclarationGroupPrototype DcmDiagnosticSessionControl by calling SchM_Switch_<bsnp>_DcmDiagnosticSessionControl(RTE_MODE_DcmDiagnosticSessionControl_DCM_DEFAULT_SESSION). (SRS_Diag_04138)

  [SWS_Dcm_CONSTR_6001] Provide standardized names for ISO standardized
  diagnostic sessions dThe following values of DcmDspSessionLevel which represent ISO defined diagnostic sessions shall be used for the shortname of DcmDspSessionRow:
  1 DCM_DEFAULT_SESSION
  2 DCM_PROGRAMMING_SESSION
  3 DCM_EXTENDED_DIAGNOSTIC_SESSION
  4 DCM_SAFETY_SYSTEM_DIAGNOSTIC_SESSION
  (SRS_Diag_04138)

  To ensure consistent namings between MDGs and Dcm_SesCtrlType, the note below SWS_Dcm_00978 shall be deleted and SWS_Dcm_CONSTR_6000 shall renamed to:

  [SWS_Dcm_CONSTR_6000] Harmonize the naming between interfaces and modes

d The shortname of DcmDspSessionRow shall match names of Dcm_SesCtrlType and of the mode declarations of DcmDiagnosticSessionControl. The "DCM_" prefix is mandatory for all shortnames. c()
–Last change on issue 77368 comment 3–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.416 Specification Item SWS_Dcm_CONSTR_6012

Trace References:

none

Content:

DcmDspPidData.DcmDspPidDataByteSize shall be present if DcmDspPidService01.Dcm DspPidDataType is set to: UINT8_N, SINT8_N, UINT16_N, SINT16_N, UINT32_N , or SINT32_Nor UINT8_DYN.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74438: [DCM]: Clarification on DcmDspPIDDataType configured as UINT8_DYN.

  Problem description:

  If DcmDspPIDDataType is configured as UINT8_DYN, DCM SWS 4.2.1 does not specify any API (Xxx_ReadDataLength) to fetch the length before reading the data.

  Agreed solution:

  Set UINT8_DYN in the DcmDspPidDataType ECUC_Dcm_01018 to obsolete.

  Remove the overall variation part in :
  SWS_Dcm_01121 : variation part =>) "||(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspPid/DcmDsp
  == UINT8_DYN"

  Remove "or UINT8_DYN." in SWS_Dcm_CONSTR_6042, in SWS_Dcm_CONSTR_6012 and in SWS_Dcm_CONSTR_6043.
  –Last change on issue 74438 comment 11–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.417 Specification Item SWS_Dcm_CONSTR_6042

Trace References:

none

Content:

In case DcmDspPidService01.DcmDspPidDataUsePort parameter is set to DcmDspPid Service01.DcmDspPidDataUsePort.USE_DATA_SYNCH_CLIENT_SERVER, DcmDsp PIDDataType shall use UINT8_Nor UINT8_DYN .

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74438: [DCM]: Clarification on DcmDspPIDDataType configured as UINT8_DYN.

  Problem description:

  If DcmDspPIDDataType is configured as UINT8_DYN, DCM SWS 4.2.1 does not specify any API (Xxx_ReadDataLength) to fetch the length before reading the data.

  Agreed solution:

  Set UINT8_DYN in the DcmDspPidDataType ECUC_Dcm_01018 to obsolete.

  Remove the overall variation part in :
  SWS_Dcm_01121 : variation part =>) "||(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspPid/DcmDsp
  == UINT8_DYN"

  Remove "or UINT8_DYN." in SWS_Dcm_CONSTR_6042, in SWS_Dcm_CONSTR_6012 and in SWS_Dcm_CONSTR_6043.
  –Last change on issue 74438 comment 11–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.418 Specification Item SWS_Dcm_CONSTR_6043

Trace References:

none

Content:

DcmDspPIDDataType shall be UINT8_N or UINT8_DYN, in case DcmDspPidService01.DcmDspPidDataUsePort is equal to DcmDspPidService01.DcmDspPidDataUsePort.USE_DATA_SYNCH_FNC.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #74438: [DCM]: Clarification on DcmDspPIDDataType configured as UINT8_DYN.

  Problem description:

  If DcmDspPIDDataType is configured as UINT8_DYN, DCM SWS 4.2.1 does not specify any API (Xxx_ReadDataLength) to fetch the length before reading the data.

  Agreed solution:

  Set UINT8_DYN in the DcmDspPidDataType ECUC_Dcm_01018 to obsolete.

  Remove the overall variation part in :
  SWS_Dcm_01121 : variation part =>) "||(ecuc(Dcm/DcmConfigSet/DcmDsp/DcmDspPid/DcmDsp
  == UINT8_DYN"

  Remove "or UINT8_DYN." in SWS_Dcm_CONSTR_6042, in SWS_Dcm_CONSTR_6012 and in SWS_Dcm_CONSTR_6043.
  –Last change on issue 74438 comment 11–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.419 Specification Item SWS_Dcm_CONSTR_6051

Trace References:

none

Content:

The configuration parameter DcmDspDidControl.DcmDspDidControlMaskSize shall be only present if DcmDspDidControl.DcmDspDidControlMask is equal to DcmDspDidControl.DcmDspDidControlMask.DCM_CONTROLMASK_EXTERNAL or DcmDspDidControl.DcmDspDidControlMask.DCM_CONTROLMASK_INTERNAL.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75088: [DCM]IOControl service, configuraiton parameter DcmDspDidControlMaskSize

  Problem description:

  ———————————————

  Name: KPIT
  Phone:
  Role:

  ———————————————

  Description:
  Range of DcmDspDidControlMaskSize should be 1 to 4 and not 0 to 4.Refer requirement ECUC_Dcm_01060 of SWS DCM Version 422. If not, what is the use case of range"0"?

  ———————————————

  Was there already a decision?No

  ———————————————

  Agreed solution:

  Change in DcmDspDidControlMaskSize [ECUC_Dcm_01060]:
  range of parameter DcmDspDidControlMaskSize : 1 - 4

  Add a constraint SWS_Dcm_CONSTR_011 : The configuration parameter DcmDspDidControlMaskSize [ECUC_Dcm_01060] shall be only present if DcmDspDidControlMask is equal to
  DCM_CONTROLMASK_EXTERNAL or DCM_CONTROLMASK_INTERNAL.
  –Last change on issue 75088 comment 8–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.420 Specification Item SWS_Dcm_CONSTR_6054

Trace References:

none

Content:

DcmDspRoeOnDTCStatusChange.DcmDspRoeDTCStatusMask shall be present if Dcm DspRoeEvent.DcmDspRoeInitialEventStatus is set to DcmDspRoeEvent.DcmDspRoeInitialEventStatus.DCM_ROE_STOPPED.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76721: [Dcm] Clarifications for ROE

  Problem description:

  Some clarification for ROE transmission is required:

  1) DcmDspRoeStorageState
  For this parameter the following description is given:
  If this parameter is set to TRUE the StorageStateBit will be evaluated if this EventWindowTime is requested

  What exactly is the use of this parameter?
  What e.g in case this parameter is set to FALSE for the EventWindowTime CurrentCycle, will then the SWS_Dcm_01076 not done?

  [SWS_Dcm_01076] d If the Roe request has a storageState equal to storeEvent and contains an EventWindowTime that is not infinite, the Dcm shall reject the request with a negative response with the NRC 0x31 (RequestOutOfRange). c()

  2) Pre-configured setup for DcmDspRoeOnDTCStatusChange

  DcmDspRoeInitialEventStatus allows to bring the status directly to the state DCM_ROE_STOPPED.
  So the ROE event will be init by configuration instead by ROE setup request.
  But it looks like, that for DcmDspRoeOnDTCStatusChange the pre-configuration of dtcStatusMask (in container DcmDspRoeOnDTCStatusChange)is missing.

  As ISO 14229-1:2013 gives for DcmDspRoeOnDTCStatusChange:
  This eventType requires the specification of the DTCStatusMask in the request message (eventTypeParameter# 1).

Agreed solution:

to 1)
set the parameter DcmDspRoeStorageState as obsolete and remove the table : DcmDspRoeStorageState [ECUC_Dcm_00983]

to 2)

2.1) Dcm SWS
2.1.1) Remove in the description of container DcmDspRoeOnDTCStatusChange, ECUC_Dcm_00974
Please note that currently are no additional parameters for DcmDspRoeOnDTCStatusChange are defined. Therefore the existence of the container denotes the choice.

2.1.2) Add a new parameter in the container DcmDspRoeOnDTCStatusChange, ECUC_Dcm_00974

Name: DcmDspRoeDTCStatusMask
Description: value of the relevant DTCStatusMask
Multiplicity: 0..1
Type: EcucIntegerParamDef
Range: 0 .. 255
Post-Build Variant Value: false
Value Configuration Class: Pre-compile time: All Variants
Scope / Dependency: scope: local

2.1.3) Add a new constraint in chapter 7.3.4.8.5.1 ROE event-trigger onDTCStatusChange (0x01)

[SWS_Dcm_CONSTR_xxxx] Existence of DTCStatusMask
DcmDspRoeDTCStatusMask shall be present if DcmDspRoeInitialEventStatus is set to DCM_ROE_STOPPED

2.1.4) update requirement SWS_Dcm_00954 as follow:

[SWS_Dcm_00954] Pre-configuraton of ROE events [If DcmDspRoeInitialEventStatus is set to DCM_ROE_STOPPED, the Dcm shall behave according RoeEvent set-up :
* StorageState set to StoreEvent
* EventWindowTime set to 'infinity' and
* DTCStatusMask set to value configured in DcmDspRoeDTCStatusMask in case

of onDTCStatusChange
* DID set to the vale given with DcmDspRoeDidRef in case of onChangeOf-DataIdentifier
[SRS_Diag_04010]

2.2) DEXT TPS

Add new attribute DiagnosticDtcChangeTrigger.dtcStatusMask, type: PositivieInteger, description: "this attribute represents the ability to define a status mask for the triggering of an ROE response on the change of a DTC.", multiplicity: 0..1
Add upstream mapping DcmDspRoeDTCStatusMask –> DiagnosticDtcChangeTrigger.dtcStatusMask (full, 1:1, TPS_DEXT)
–Last change on issue 76721 comment 24–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.421 Specification Item SWS_Dcm_CONSTR_6055

Trace References:

none

Content:

DcmDslProtocolRow.DcmDslProtocolMaximumResponseSize shall be only present if DcmPageBufferCfg.DcmPagedBufferEnabled is set to TRUE.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.422 Specification Item SWS_Dcm_CONSTR_6056

Trace References:

none

Content:

DcmDslProtocolRow.DcmDslProtocolTransType shall be only present if the Dcm_ProtocolType is configured to Dcm_ProtocolType.DCM_ROE_ON_CAN or Dcm_ProtocolType.DCM_ROE_ON_FLEXRAY or Dcm_ProtocolType.DCM_ROE_ON_IP.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]

FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.423 Specification Item SWS_Dcm_CONSTR_6057

Trace References:

none

Content:

DcmDspData.DcmDspDataEcuSignal shall be only present if DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_ECU_SIGNAL.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-
  see file under svn.:
  https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

  DCM
  —-

See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.424 Specification Item SWS_Dcm_CONSTR_6058

Trace References:

none

Content:

In case DcmDspData.DcmDspDataEndianness is not configured, the DcmDsp.DcmDsp DataDefaultEndianness shall be used instead.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.425 Specification Item SWS_Dcm_CONSTR_6059

Trace References:

none

Content:

DcmDspData.DcmDspDataFreezeCurrentStateFnc shall be only present if:

- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]

FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.426 Specification Item SWS_Dcm_CONSTR_6060

Trace References:

none

Content:

DcmDspData.DcmDspDataGetScalingInfoFnc shall be only present if:

- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.427 Specification Item SWS_Dcm_CONSTR_6061

Trace References:

none

Content:

DcmDspData.DcmDspDataReadDataLengthFnc shall be only present if:

- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-
  see file under svn.:
  https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

  DCM
  —-

See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.428 Specification Item SWS_Dcm_CONSTR_6062

Trace References:

none

Content:

DcmDspData.DcmDspDataReadFnc shall be only present if:

- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.429 Specification Item SWS_Dcm_CONSTR_6063

Trace References:

none

Content:

DcmDspData.DcmDspDataResetToDefaultFnc shall be only present if:

- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-

Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.430 Specification Item SWS_Dcm_CONSTR_6064

Trace References:

none

Content:

DcmDspDidControl.DcmDspDidControlMaskSize shall be only present if DcmDspDidControl.DcmDspDidControlMask is equal to DcmDspDidControl.DcmDspDidControlMask.DCM_CONTROLMASK_EXTERNAL or DcmDspDidControl.DcmDspDidControlMask.DCM_CONTROLMASK_INTERNAL.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.431 Specification Item SWS_Dcm_CONSTR_6065

Trace References:

none

Content:

DcmDspData.DcmDspDataReturnControlToEcuFnc shall be only present if:

- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-
  see file under svn.:
  https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

  DCM
  —-

See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.432 Specification Item SWS_Dcm_CONSTR_6066

Trace References:

none

Content:

DcmDspData.DcmDspDataShortTermAdjustmentFnc shall be only present if:

- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.433 Specification Item SWS_Dcm_CONSTR_6067

Trace References:

none

Content:

DcmDspData.DcmDspDataBlockIdRef shall be only present if DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_BLOCK_ID.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]

FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.434 Specification Item SWS_Dcm_CONSTR_6068

Trace References:

none

Content:

In case DcmDspPidService01.DcmDspPidDataEndianness is not present, the Dcm Dsp.DcmDspDataDefaultEndianness shall be used instead.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-
  see file under svn.:
  https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.435 Specification Item SWS_Dcm_CONSTR_6069

Trace References:

none

Content:

DcmDspPidService01.DcmDspPidDataReadFnc shall be only present if DcmDspPidService01.DcmDspPidDataUsePort is set to DcmDspPidService01.DcmDspPidDataUsePort.USE_DATA_SYNCH_FNC.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.436 Specification Item SWS_Dcm_CONSTR_6070

Trace References:

none

Content:

In case DcmDspData.DcmDspDataEndianness is not present, the DcmDsp.DcmDspData DefaultEndianness shall be used instead.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at

least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.437 Specification Item SWS_Dcm_CONSTR_6071

Trace References:

none

Content:

The following configuration parameters shall only be present if DcmDspRoutine.DcmDspRoutineUsePort is set to FALSE.

- DcmDspStartRoutine.DcmDspStartRoutineFnc
- DcmDspStopRoutine.DcmDspStopRoutineFnc
- DcmDspRequestRoutineResults.DcmDspRequestRoutineResultsFnc
- DcmDspStartRoutine.DcmDspStartRoutineConfirmationFnc

- DcmDspStopRoutine.DcmDspStopRoutineConfirmationFnc

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM
  —-
  see file under svn.:
  https://svn.autosar.org/repos/work/09_WorkPackages/WP-

A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.438 Specification Item SWS_Dcm_CONSTR_6072

Trace References:

none

Content:

In case DcmDspStartRoutineInSignal.DcmDspRoutineSignalEndianness is not present, the DcmDsp.DcmDspDataDefaultEndianness shall be used instead.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.439 Specification Item SWS_Dcm_CONSTR_6073

Trace References:

none

Content:

DcmDspData.DcmDspDataWriteFnc shall be only present if:

- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_SYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC or
- DcmDspData.DcmDspDataUsePort is set to DcmDspData.DcmDspDataUsePort.USE_DATA_ASYNCH_FNC_ERROR

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the

following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.440 Specification Item SWS_Dcm_CONSTR_6074

Trace References:

none

Content:

DcmDspSecurity.DcmDspSecurityMaxAttemptCounterReadoutTime shall be a multiple and at minimum equal to DcmGeneral.DcmTaskTime.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

  DEM

—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.441 Specification Item SWS_Dcm_CONSTR_6075

Trace References:

none

Content:

DcmDspSecurityRow.DcmDspSecurityCompareKeyFnc shall be configured only if DcmDspSecurityRow.DcmDspSecurityUsePort is set to DcmDspSecurityRow.DcmDspSecurityUsePort.USE_ASYNCH_FNC.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same names-

pace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevEr-

rorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.442 Specification Item SWS_Dcm_CONSTR_6076

Trace References:

none

Content:

DcmDspSecurityRow.DcmDspSecurityGetAttemptCounterFnc shall be present only if DcmDspSecurityRow.DcmDspSecurityUsePort is set to DcmDspSecurityRow.DcmDspSecurityUsePort.USE_ASYNCH_FNC and DcmDspSecurityRow.DcmDspSecurityAttemptCounterEnabled is set to TRUE.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEven-

tRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.443 Specification Item SWS_Dcm_CONSTR_6077

Trace References:

none

Content:

DcmDspSecurityRow.DcmDspSecurityGetSeedFnc shall be present only if DcmDspSecurityRow.DcmDspSecurityUsePort is set to DcmDspSecurityRow.DcmDspSecurityUsePort.USE_ASYNCH_FNC.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.444 Specification Item SWS_Dcm_CONSTR_6078

Trace References:

none

Content:

DcmDspSecurityRow.DcmDspSecuritySetAttemptCounterFnc shall be present only if DcmDspSecurityRow.DcmDspSecurityUsePort is set to DcmDspSecurityRow.DcmDspSecurityUsePort.USE_ASYNCH_FNC and the DcmDspSecurityRow.DcmDspSecurityAttemptCounterEnabled set to TRUE.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other

hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

Agreed solution:

Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

When all SWS specifications are cleaned up the dependency field can be removed from the database

FIM
—-
Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-

RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true. –Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.445 Specification Item SWS_Dcm_CONSTR_6079

Trace References:

none

Content:

DcmModeCondition.DcmSwcSRDataElementValueRef shall be present only if DcmMode Condition.DcmSwcSRDataElementRef is configured.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or

FiMInhComponentRef needs to be configured." :

FiMInhEventRef [ECUC_FiM_00100]
FiMInhSumRef [ECUC_FiM_00102]
FiMInhComponentRef [ECUC_FiM_00605]

Create chapter 7.4 Configuration Constraints
Add new constraints :
SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.446 Specification Item SWS_Dcm_CONSTR_6080

Trace References:

SRS_Diag_04098

Content:

One container DcmDspEcuResetRow shall be configured for each DcmDsdSubService configured for the UDS service ECUReset (0x11).

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

  Agreed solution:

  Traceability cleanup on Dem/Dcm

  To provide a copy& paste ready solution the effort is too high and has got no added value. So, an example shall show what is to do to clean up the DEM and DCM.

  Motivation:
  Due to the clean up of SRS_Diag in FO R120 the traceability needs also an update.
  There are too many "No description" shown in the documents -
  ~ 30 entries with ~ 60 referenced requirements into Dem.
  The reason for that is that the requirements have got new numbers since they were replaced or merged with the SRS_Diag harmonization. If Dem and Dcm will be released with R431 with the current status the document has got none high quality.
  This RfC is a formal change only to clean up the document for R431 and harmonize the document with the SRS-Diag (FO R130).

  Proposal:
  1) search for "No description"
  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
  3) clean up the traceability of the detected requirement under 1) for example: SRS_Diag_04069: [SWS_Dem_00570] [SWS_Dem_00571],[SWS_Dem_00572] [SWS_Dem_00573],[SWS_Dem_00661],[SWS_Dem_00664],[SWS_Dem_01057],[SWS_Dem_0
  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1

1.447 Specification Item SWS_Dcm_CONSTR_6081

Trace References:

none

Content:

The value configured for DcmDspDidControlEnableMask.DcmDspDidControlMaskBitPosition shall be lower than DcmDspDidControl.DcmDspDidControlMaskSize * 8.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #75045: [Cleanup] Cleanup Constraint Handling in SWS items: Rollout replacement of dependencies by constraints

  Problem description:

  AUTOSAR specified in the field "Dependency" in the chapter 10 description in an informal way dependencies between different configuration parameters. On the other hand some constraints are created in single BSW modules with the same namespace as the metamodel constraints. This should be cleaned up (see presentation in the attachment).

  Agreed solution:

  Rollout to replace in each SWS the dependencies by constraints (could be done step by step, not mandatory in one release)

  When all SWS specifications are cleaned up the dependency field can be removed from the database

  FIM
  —-
  Remove dependency and in the following configuration parameters and remove the following text from the description field "At least one FiMInhSumRef or FiMInhEventRef or
  FiMInhComponentRef needs to be configured." :

  FiMInhEventRef [ECUC_FiM_00100]
  FiMInhSumRef [ECUC_FiM_00102]
  FiMInhComponentRef [ECUC_FiM_00605]

  Create chapter 7.4 Configuration Constraints
  Add new constraints :
  SWS_FIM_CONSTR_XXX1 : For each configured FiMInhibitionConfiguration, at

least one of FiMInhSumRef or FiMInhEventRef or FiMInhComponentRef shall be configured.

DEM
—-
see file under svn.:
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

DCM
—-
See file under svn :
https://svn.autosar.org/repos/work/09_WorkPackages/WP-A4/70_InternalDocuments/048_Dependency_Removal/DCM_Dem_Dependency_Removal.xlsx

Rte
—-
RteDevErrorDetectUninit: SWS_RTE_CONSTR_XXX1: In case that RteDevErrorDetectUninit is configured to true, RteDevErrorDetect shall be configured to true.
–Last change on issue 75045 comment 21–

BW-C-Level:

Application	Specification	Bus
1	1	1

1.448 Specification Item SWS_Dcm_NA_00999

Trace References:

SRS_BSW_00005, SRS_BSW_00006, SRS_BSW_00007, SRS_BSW_00009, SRS_BSW_00010, SRS_BSW_00158, SRS_BSW_00159, SRS_BSW_00160, SRS_BSW_00161, SRS_BSW_00162, SRS_BSW_00164, SRS_BSW_00167, SRS_BSW_00168, SRS_BSW_00170, SRS_BSW_00171, SRS_BSW_00172, SRS_BSW_00300, SRS_BSW_00301, SRS_BSW_00304, SRS_BSW_00305, SRS_BSW_00306, SRS_BSW_00307, SRS_BSW_00308, SRS_BSW_00309, SRS_BSW_00310, SRS_BSW_00312, SRS_BSW_00314, SRS_BSW_00318, SRS_BSW_00321, SRS_BSW_00323, SRS_BSW_00325, SRS_BSW_00327, SRS_BSW_00328, SRS_BSW_00330, SRS_BSW_00331, SRS_BSW_00333, SRS_BSW_00334, SRS_BSW_00335, SRS_BSW_00336, SRS_BSW_00339, SRS_BSW_00341, SRS_BSW_00342, SRS_BSW_00343, SRS_BSW_00344, SRS_BSW_00345, SRS_BSW_00346, SRS_BSW_00347, SRS_BSW_00350,

SRS_BSW_00351, SRS_BSW_00353, SRS_BSW_00357, SRS_BSW_00358, SRS_BSW_00359, SRS_BSW_00360, SRS_BSW_00361, SRS_BSW_00371, SRS_BSW_00374, SRS_BSW_00375, SRS_BSW_00377, SRS_BSW_00378, SRS_BSW_00379, SRS_BSW_00380, SRS_BSW_00383, SRS_BSW_00384, SRS_BSW_00385, SRS_BSW_00386, SRS_BSW_00388, SRS_BSW_00389, SRS_BSW_00390, SRS_BSW_00392, SRS_BSW_00393, SRS_BSW_00394, SRS_BSW_00395, SRS_BSW_00396, SRS_BSW_00397, SRS_BSW_00398, SRS_BSW_00399, SRS_BSW_00400, SRS_BSW_00401, SRS_BSW_00402, SRS_BSW_00403, SRS_BSW_00404, SRS_BSW_00405, SRS_BSW_00406, SRS_BSW_00408, SRS_BSW_00409, SRS_BSW_00410, SRS_BSW_00411, SRS_BSW_00413, SRS_BSW_00414, SRS_BSW_00415, SRS_BSW_00416, SRS_BSW_00417, SRS_BSW_00419, SRS_BSW_00422, SRS_BSW_00423, SRS_BSW_00425, SRS_BSW_00426, SRS_BSW_00427, SRS_BSW_00428, SRS_BSW_00429, SRS_BSW_00432, SRS_BSW_00433, SRS_BSW_00437, SRS_BSW_00439, SRS_BSW_00440, SRS_BSW_00441, SRS_BSW_00447, SRS_BSW_00448, SRS_BSW_00449, SRS_BSW_00450, SRS_BSW_00451, SRS_BSW_00452, SRS_BSW_00453, SRS_BSW_00454, SRS_BSW_00456, SRS_BSW_00457, SRS_BSW_00458, SRS_BSW_00459, SRS_BSW_00460, SRS_BSW_00461, SRS_BSW_00462, SRS_BSW_00463, SRS_BSW_00464, SRS_BSW_00465, SRS_BSW_00466, SRS_BSW_00467, SRS_BSW_00469, SRS_BSW_00470, SRS_BSW_00471, SRS_BSW_00472, SRS_BSW_00473, SRS_BSW_00477, SRS_BSW_00478, SRS_BSW_00479, SRS_BSW_00480, SRS_BSW_00481, SRS_Diag_04002, SRS_Diag_04007, SRS_Diag_04019, SRS_Diag_04024, SRS_Diag_04030, SRS_Diag_04031, SRS_Diag_04032, SRS_Diag_04036, SRS_Diag_04057, SRS_Diag_04059, SRS_Diag_04061, SRS_Diag_04063, SRS_Diag_04064, SRS_Diag_04066, SRS_Diag_04068, SRS_Diag_04069, SRS_Diag_04070, SRS_Diag_04071, SRS_Diag_04072, SRS_Diag_04073, SRS_Diag_04074, SRS_Diag_04075, SRS_Diag_04076, SRS_Diag_04077, SRS_Diag_04078, SRS_Diag_04085, SRS_Diag_04086, SRS_Diag_04087, SRS_Diag_04089, SRS_Diag_04090, SRS_Diag_04091, SRS_Diag_04092, SRS_Diag_04093, SRS_Diag_04095, SRS_Diag_04097, SRS_Diag_04099, SRS_Diag_04100, SRS_Diag_04101, SRS_Diag_04102, SRS_Diag_04104, SRS_Diag_04105, SRS_Diag_04107, SRS_Diag_04109, SRS_Diag_04110, SRS_Diag_04111, SRS_Diag_04112, SRS_Diag_04113, SRS_Diag_04115, SRS_Diag_04117, SRS_Diag_04118, SRS_Diag_04119, SRS_Diag_04120, SRS_Diag_04121, SRS_Diag_04122, SRS_Diag_04123, SRS_Diag_04124, SRS_Diag_04125, SRS_Diag_04126, SRS_Diag_04127, SRS_Diag_04128, SRS_Diag_04129, SRS_Diag_04130, SRS_Diag_04131, SRS_Diag_04133, SRS_Diag_04134, SRS_Diag_04135, SRS_Diag_04136, SRS_Diag_04137, SRS_Diag_04139, SRS_Diag_04140, SRS_Diag_04142, SRS_Diag_04143, SRS_Diag_04144, SRS_Diag_04145, SRS_Diag_04146, SRS_Diag_04148, SRS_Diag_04149, SRS_Diag_04150, SRS_Diag_04151 , SRS_Diag_04152

Content:

These requirements are not applicable to this specification.

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #78539: Traceability cleanup due to new FO_SRS_Diag

  Problem description:

  Traceability cleanup due to new FO_SRS_Diag with new SRS and /or merged of existing SRS. The traceability table on Dcm/Dem needs to be reviewed. If SRS is missing we should propose new SRS for next FO release.

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  Traceability cleanup on Dem/Dcm

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  2) replaces the current requirement number with the old one: example: SRS_Diag_04069 -> SRS_Diag_04204
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  –Last change on issue 78539 comment 6–

  BW-C-Level:

Application	Specification	Bus
1	1	1