

Document Title	TPS_XMLSchemaProductionRules: 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	TPS_XMLSchemaProductionRules	3
1.1	Specification Item TPS_XMLSPR_00001	3

1 TPS_XMLSchemaProductionRules

1.1 Specification Item TPS_XMLSPR_00001

Trace References:

none

Content:

Applies to	Class
Precondition	None (classes without properties with xml.attribute=false will result in empty groups).
Target pattern	<pre> <xsd:group name="<%=xmlName%>"> <xsd:sequence> for all properties { %> <!--call rule TPS_XMLSPR_00008 TPS_XMLSPR_00009 TPS_XMLSPR_00023 TPS_XMLSPR_00022 TPS_XMLSPR_00010 TPS_XMLSPR_00011 TPS_XMLSPR_00012 TPS_XMLSPR_00013 TPS_XMLSPR_00014 TPS_XMLSPR_00015 TPS_XMLSPR_00016 --> <% } // end for <xsd:sequence> </xsd:group> </pre>
Description	<p>If the class owns at least one property with 'xml.attribute=false', then a xsd:group is created. The name of the xsd:group maps to the XML-name of the class. The XML elements nested in the xsd:sequence are ordered as defined in section [REF].</p> <p>If the tagged value 'xml.ordered=true' is set then the contents are listed in an xsd:sequence. Otherwise they are listed within an xsd:choice. If there are no child elements of the class (i.e. all children have 'xml.attribute=false' or are «atpAbstract» or «atpDerived»), an empty xsd:sequence is generated.</p> <p>The XML-elements representing the properties are created by rules TPS_XMLSPR_00008, TPS_XMLSPR_00009, TPS_XMLSPR_00023, TPS_XMLSPR_00022, TPS_XMLSPR_00010, TPS_XMLSPR_00011, TPS_XMLSPR_00012, TPS_XMLSPR_00013, TPS_XMLSPR_00014, TPS_XMLSPR_00015, TPS_XMLSPR_00016</p>
UML example	

XML schema example	<pre> <xsd:group name="IDENTIFIABLE"> <xsd:sequence> <!-- property representations created by rules TPS_XMLSPR_00008, TPS_XMLSPR_00009, TPS_XMLSPR_00023, TPS_XMLSPR_00022, TPS_XMLSPR_00010, TPS_XMLSPR_00011, TPS_XMLSPR_00012, TPS_XMLSPR_00013, TPS_XMLSPR_00014, TPS_XMLSPR_00015, TPS_XMLSPR_00016 --> <xsd:element name="SHORT-NAME" type="AR:IDENTIFIER" minOccurs="1" maxOccurs="1"> <xsd:element name="LONG-NAME" type="xsd:string" minOccurs="0" maxOccurs="1"> <xsd:element name="CATEGORY" type="xsd:string" minOccurs="0" maxOccurs="1"> <!-- end property representations created by rules --> </xsd:sequence> </xsd:group> </pre>
XML instance example	<pre> <...> <SHORT-NAME>theShortName</SHORT-NAME> <LONG-NAME>theLongtName</LONG-NAME> <CATEGORY>theCategory</ CATEGORY > </...> </pre>

RfCs affecting this spec item between releases 4.3.0 and 4.3.1:

- RfC #76335: clarify AtpMixed in XMLSchemaProduction Rules

Problem description:

This is a followup to https://www.autosar.org/bugzilla/show_bug.cgi?id=74676

in this we change behavior of mmt such that it does not create xsd:choices which result in empty elements.

As a followup we need to update CP_TPS_XMLSchemaProductionRule

1. Adjust the traceables such that they do not have tables
2. [TPS_XMLSPR_00018] XML Schema production rule: The implementation by means of templates has been replaced by a model transformation according to [TPS_GST_00351]
3. [TPS_XMLSPR_00001] shall ensure that xsd:group is created only if it

contains elements which are not abstract, derived or xmlattributes
 –Last change on issue 76335 comment 5–

Agreed solution:

== CP_TPS_XMLSchemaProductionRule ==

w.r.t. 1.: The Word2ARXML converter can handle tables within traceables.
 Do not remove tables from traceables.

w.r.t. 2.: add a remark after [TR_APRXML_00018]: "If the transformations specified in [TPS_GST_00351] are applied, this pattern will not occur."

w.r.t. 3.: [TPS_XMLSPR_00001]: change the "Precondition" row of the table to:
 | Precondition | Class has properties that result in child elements (i.e. that do not have xml.attribute=false and are not «atpAbstract» and are not «atpDerived»).

== CP_Tool_MMT ==

Adapt the implementation according to the specification:

w.r.t. 2.: no change required

w.r.t. 3.: omit xsd:sequence elements that are empty

move the Tables out of the traceables
 –Last change on issue 76335 comment 7–

BW-C-Level:

Application	Specification	Bus
1	1	1