

<b>Document Title</b>	TPS_XMLSchemaProductionRules: Complete Change Documentation 4.3.0 - 4.3.1
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# 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> &lt;xsd:group name="&lt;%=xmlName%&gt;"&gt;   &lt;xsd:sequence&gt;     for all properties { %&gt;       &lt;!--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       --&gt;     &lt;% } // end for   &lt;xsd:sequence&gt; &lt;/xsd:group&gt; </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> &lt;xsd:group name="IDENTIFIABLE"&gt;   &lt;xsd:sequence&gt;     &lt;!-- 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 --&gt;     &lt;xsd:element name="SHORT-NAME" type="AR:IDENTIFIER"     minOccurs="1" maxOccurs="1"&gt;     &lt;xsd:element name="LONG-NAME" type="xsd:string"     minOccurs="0" maxOccurs="1"&gt;     &lt;xsd:element name="CATEGORY" type="xsd:string"     minOccurs="0" maxOccurs="1"&gt;     &lt;!-- end property representations created by rules --&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:group&gt; </pre>
XML instance example	<pre> &lt;...&gt; &lt;SHORT-NAME&gt;theShortName&lt;/SHORT-NAME&gt; &lt;LONG-NAME&gt;theLongtName&lt;/LONG-NAME&gt; &lt;CATEGORY&gt;theCategory&lt;/ CATEGORY &gt; &lt;/...&gt; </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](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