
Subject: Use of lists in RailML to be commented

Posted by [Joerg von Lingen](#) on Thu, 12 Feb 2009 05:18:10 GMT

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Hi,

there is a question to user and XML experts about using lists within a attribute.

At the description of brake systems available we have the need to have a set, i.e. none or any out of a given list, additional brakes. Thus I tried to translate this into XML in order to have the information in one attribute but limit the allowable values in the list.

This is the enumeration for the possible values:

```
<xs:simpleType name="tBrkPos" final="restriction">
  <xs:restriction base="xs:string">
    <xs:enumeration value="H" />
    <xs:enumeration value="E" />
    <xs:enumeration value="Mg" />
    <xs:enumeration value="Wb" />
  </xs:restriction>
</xs:simpleType>
```

This is the attribute using the list:

```
<xs:simpleType name="tAuxBrakes">
  <xs:annotation>
    <xs:documentation>none, one or any of "H", "E", "Mg", "Wb"</xs:documentation>
  </xs:annotation>
  <xs:list itemType="tBrkPos" />
</xs:simpleType>
```

The alternative would be a child element

```
<xsd:sequence>
  <xsd:element name="auxiliaryBrakes" type="eAuxiliaryBrakes"
    minOccurs="0" />
</xsd:sequence>
```

with a group of single attributes one for each value

```
<xsd:complexType name="eAuxiliaryBrakes">
  <xsd:attributeGroup ref="aAuxiliaryBrakes" />
</xsd:complexType>
```

```
<xsd:attributeGroup name="aAuxiliaryBrakes">
  <xsd:attribute name="H" type="xsd:boolean" use="optional" default="false" />
  <xsd:attribute name="E" type="xsd:boolean" use="optional" default="false" />
  <xsd:attribute name="Mg" type="xsd:boolean" use="optional" default="false" />
  <xsd:attribute name="Wb" type="xsd:boolean" use="optional" default="false" />
  <xsd:attribute name="ep" type="xsd:boolean" use="optional" default="false" />
</xsd:attributeGroup>
```

Could anyone please comment on the use of lists or the alternative in general but also with respect to the best formulation in XML.

P.S.: Attribute and type names are not final.

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Mit freundlichen Grüßen/Best regards,

Jörg von Lingen
