
Subject: Re: Extension of tElementWithIDandDesignator and additional elementNumber

Posted by [Joerg von Lingen](#) on Fri, 31 May 2019 03:23:52 GMT

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Dear all,

the change for <designator> (0..*) as child of EntityIL will be in next version.

The question of <external> I see connected with the discussion in <https://www.railml.org/forum/index.php?t=msg&th=657&start=0&>

Motivated by the requests from Thales and the railML2.4nor extensions I shall extend the <TrackAsset> like this

```
<xs:complexType name="TrackAsset">
  <xs:complexContent>
    <xs:extension base="rail3:EntityIL">
      <xs:sequence>
        <xs:element name="assetName" type="rail3:Name" minOccurs="0"
maxOccurs="unbounded"/>
        <xs:element name="belongsToOcp" type="rail3:EntityILref" minOccurs="0" maxOccurs="1"/>
      </xs:sequence>
      <xs:attribute name="elementNumber" use="optional" type="xs:nonNegativeInteger"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

This will be the base type for <TvdSection>, <MovableElement>, <SignalIL>, <LevelCrossingIL>, <RestrictedArea>, <LogicalDevice> and <PermissionZone>

in addition there will be a new base type <RouteObjects> for <PartialRoute>, <Route>, <Overlap>, <RouteRelation>, <ConflictingRoute>, <CombinedRoute>

```
<xs:complexType name="RouteObject">
  <xs:complexContent>
    <xs:extension base="rail3:EntityIL">
      <xs:sequence>
        <xs:element name="objectName" type="rail3:Name" minOccurs="0"
maxOccurs="unbounded"/>
        <xs:element name="belongsToOcp" type="rail3:EntityILref" minOccurs="0"
maxOccurs="unbounded"/>
      </xs:sequence>
      <xs:attribute name="objectNumber" use="optional" type="xs:nonNegativeInteger"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Similar to the extensions of asset elements there shall be an extension to <SignalBox> adding

these child elements

```
<xs:element name="hasName" type="rail3:Name" minOccurs="0" maxOccurs="unbounded"/>  
<xs:element name="belongsToOcp" type="rail3:EntityILref" minOccurs="0"  
maxOccurs="unbounded"/>
```

Please give me your opinion on these extensions.

Regards,
Jörg von Lingen - Interlocking Coordinator

Heidrun Jost wrote on 29.05.2019 19:08:

- > Dear all,
 - >
 - > in the functional infrastructure a designator and an external element
 - > are defined within railML 3.
 - >
 - > Thales need this in the same way for the interlocking: The designator is
 - > already defined. We propose to change the maxOccurs to "unbounded" and
 - > to add the designator also with an unbounded occurrence.
 - >
 - > We are also need an elementNumber for interlocking elements defined at
 - > EntityIL. As discussed with the IL coordinator (Mr Jörg von Lingen) this
 - > should have the type nonNegativeInteger.
 - >
 - > Is it possible to extend the data model in that way?
 - >
 - > Best regards,
 - >
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