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Subject: Re: More detailed 'speed change' definitions  
Posted by [Carsten Weber](#) on Tue, 20 Dec 2011 22:53:35 GMT  
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Dear Christian,

I have prepared a suggestion to bring in (most) of the required changes as described in ticket #41.

Here is "my" source code to be filled in:

changes in infrastructure.xsd:

```
<xs:complexType name="eSpeedProfile">
  <xs:sequence>
    <xs:element name="speedProfile" type="rail:tSpeedProfile"
maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
<xs:complexType name="tSpeedProfile">
  <xs:sequence>
    <xs:element name="id"/>
    <xs:element name="name" minOccurs="0" maxOccurs="1"/>
    <xs:element name="direction">
      <xs:annotation>
        <xs:documentation>enumeration: inTrackDirection;
oppositeTrackDirection; bothDirections look at
tDirValidity</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="influence" minOccurs="0" maxOccurs="1">
      <xs:annotation>
        <xs:documentation>enumeration: increase; decrease</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="axleLoad" minOccurs="0" maxOccurs="1">
      <xs:annotation>
        <xs:documentation>If any vehicle at the trains has a load at an axle
higher than this value this speed limit has to be used.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="weightPerLength" minOccurs="0" maxOccurs="1">
      <xs:annotation>
        <xs:documentation>Maybe it has to be defined which length unit is
meant.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="operatingPeriodRef" minOccurs="0" maxOccurs="1">
      <xs:annotation>
```

```

    <xs:documentation>Reference to an operating periode which has to be
defined in timetable element.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="tiltingAngle" minOccurs="0" maxOccurs="1">
  <xs:annotation>
    <xs:documentation>Tilting parameters for which this speed profile is
calculated.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="tiltingSpeed" minOccurs="0" maxOccurs="1">
  <xs:annotation>
    <xs:documentation>Tilting parameters for which this speed profile is
calculated.</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="monitoringSystems" type="rail:eMonitoringSystems"
minOccurs="0">
  <xs:annotation>
    <xs:documentation>One of the listed monitoring systems has to be used
by the trainPartSequence to use this speed profile.</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:sequence>
</xs:complexType>
<xs:complexType name="eMonitoringSystems">
  <xs:sequence>
    <xs:element name="MonitoringSystem" type="rail:tNationalSytemsType"
minOccurs="1" maxOccurs="unbounded">
      <xs:annotation>
        <xs:documentation>type = tNationalSystemsType; Maybe it should be
changed to a reference to a new base element monitoring system which would
be referenced by vehicles, trainPartSequences, speedProfiles and
trackElements. But also the defined types can be used as a
key.</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>

```

and the changes in infrastructureTypes.xsd would be as follows:

```

<xs:attributeGroup name="aSpeed">
  <xs:attribute name="trainCategory" type="rail:tTrainCategory">
    <xs:annotation>
      <xs:documentation>deprecated</xs:documentation>
    </xs:annotation>
  </xs:attribute>
  <xs:attribute name="status" type="xs:string">

```

```

<xs:annotation>
  <xs:documentation>deprecated</xs:documentation>
</xs:annotation>
</xs:attribute>
<xs:attribute name="profileRef">
  <xs:annotation>
    <xs:documentation>Refernce to the speed profile.</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="trainRelation" use="optional">
  <xs:annotation>
    <xs:documentation>enumeration: headOfTrain; midOfTrain;
endOfTrain</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="obligationalStop" use="optional" default="false">
  <xs:annotation>
    <xs:documentation>trainRelation defines the position of the train which
has to stop here. default="false"</xs:documentation>
  </xs:annotation>
</xs:attribute>
<xs:attribute name="vMax" type="rail:tSpeedKmPerHour" use="required"/>
</xs:attributeGroup>

```

To be used we need an option to do references from the trainPartSequence(s) to these speed lists(!).

To be discussed ...

Best regards.

Carsten

"Christian Rahmig" <coord@infrastructure.railml.org> schrieb im Newsbeitrag news:jcoa0e\$jh1\$1@sifa.ivi.fhg.de...

> Hello Susanne,

>

> thank you for bringing up the topic of the improved train speed

> classification. Indeed, the proposal described in the Trac ticket #41 is

> already very detailed and well structured. Therefore we should implement

> it with version 2.2. Due to compatibility, this is only possible if the

> speedProfiles are optional elements and speedChanges do not necessarily

> have to refer to these speedProfiles. The attribute "maxSpeed" that is

> used in the Trac ticket description needs to be replaced by the already

> existing "vMax", which is a required attribute. The current attribute

> "trainCategory" will be marked as deprecated.

>

- > Further comments appreciated.
  - >
  - > Kind regards
  - >
  - > ---
  - > Christian Rahmig
  - > railML.infrastructure coordinator
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