
Subject: Re: railML 2.3 infrastructure extension proposal line sections

Posted by [christian.rahmig](#) on Mon, 02 Jan 2017 16:29:00 GMT

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Dear Torben,

Am 20.12.2016 um 18:26 schrieb Torben Brand:

- > [...]
- > trackGroups
- > In Norway we segment a line into line sections. They consist
- > of either stations (defined from home to home signal) or
- > paths (sections between stations; DE:freie Strecke).
- > There is a need to define which line section a track belongs
- > to. The idea is to define a line section as a group of
- > tracks.
- > Thus I have added the new element <NO:lineSection> under
- > <trackGroups>.
- > <NO:LineSection> has the attributes: @trackRef and @type.
- > @Type [datatype: enumeration] is preset to "station" or
- > "path", but allows other values, too ("other:").

A line section (or section of line) is a structural unit that is used in other data models, e.g. RINF (see [1]), too. It can be seen as a component of a railway line and therefore represents some "meso level of detail" in the model of the railway network. If there is a need by several railML use cases (see [2]), I appreciate to integrate the line section into the railML data model, latest for version 3.

Your proposed structure

```
<trackGroups>
  <NO:lineSection>
  </NO:lineSection>
</trackGroups>
```

looks fine and reasonable. If the community agrees with me, I will hurry to open a Trac ticket for implementation with railML v3.

The attribute @type (enumeration with "station" and "path") makes sense as well in those countries that distinguish between station tracks and path tracks (de: "freie Strecke"). However, it should not be forgotten, that some countries like the United States of America do not know this differentiation. Therefore, the attribute @type must remain optional and allow for other values, too.

The reference to the contained tracks should not be done by an attribute, but by a sequence of child elements, similar to the current implementation of track references within the <line> element (see [3]).

This will allow to reference an arbitrary number of tracks. An example may look like this:

```
<trackGroups>
  <NO:lineSection type="path">
    <trackRef ref="tr01" />
    <trackRef ref="tr02" />
  </NO:lineSection>
</trackGroups>
```

Are there any further ideas or remarks regarding the usage of the line section entity? Any comments appreciated...

- [1] <http://www.era.europa.eu/Core-Activities/Interoperability/Pages/RINF.aspx>
- [2] http://wiki.railml.org/index.php?title=Dev:Use_cases
- [3] <https://www.railml.org/files/download/schemas/2016/railML-2.3/documentation/railML.html#Link2D3>

Best regards
Christian

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