
Subject: Extra attributes on signal in RailML2.3 norwegian extention

Posted by [Morten Johansen](#) on Mon, 30 Apr 2018 11:48:48 GMT

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Dear all

The Norwegian ERTMS project have a need for holding some extra information when engineering our ETCS solution. This extra information is connected to signals and we have the idea that our need best can be fulfilled by adding tree attributes to the signal element as Norwegian extensions.

What we have planned to do is to make these attributes as Norwegian extensions, all optional:

- signal@nor:lamps (positive string), to hold the number of lamps at the current signals
- signal@nor:side (enumeration: left/right/centre/other:), to hold the placement of the signal relative to the track and direction
- signal@nor:mounted (enumeration: pole/gantry/other:), to hold where a signal is mounted.

We in Norway have made a set of norwegian extensions to RailML2 based on the version RailML2.3, while waiting for the RailML3.1 to be released and sufficiently matured. Are any of the needs described above possible to express by some, to us unknown, elements or attributes in standard RailML2.3? Or is it an acceptable way to handle these needs by making these attributes as suggested?

Best regards

Morten Johansen

RailML coordinator in Bane NOR

Subject: Re: Extra attributes on signal in RailML2.3 norwegian extention

Posted by [christian.rahmig](#) on Mon, 30 Apr 2018 14:38:48 GMT

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Dear Morten,

Am 30.04.2018 um 13:48 schrieb Morten Johansen:

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- >
- > The Norwegian ERTMS project have a need for holding some
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at least the second point of your bullet list can already be handled with railML 3.1 beta: In order to locate an element (e.g. a signal) next to the railway track (and related NetElement), you can use the offset parameters @lateralOffset and @verticalOffset.

So, looking at the Simple Example, the home signal to "Bf Cstadt", named "69A" and standing right of the track, should be modelled like this:

```
<signal name="69A" id="sig04" type="main">
  <spotLocation id="sig04_sloc01" netElementRef="ne_b03"
intrinsicCoord="0" applicationDirection="normal">
    <linearCoordinate positioningSystemRef="lps01" measure="4300.0"
lateralOffset="2.2"/>
  </spotLocation>
</signal>
```

Regarding the other bullet points let me forward the question to the community: Are you interested in having information about lamps and mounting implemented in the railML 3 infrastructure schema?

Best regards
Christian

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Christian Rahmig - Infrastructure scheme coordinator
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Subject: Re: Extra attributes on signal in RailML2.3 norwegian extension
Posted by [Tobias Bregulla](#) on Wed, 02 May 2018 22:38:08 GMT
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Dear Morten, dear railML community!

Thanks for your posting, especially since we have a very similar problem to solve right now. My colleague is currently developing a PlanPro[1] to railML converter for the German infrastructure operator DB Netz. In this project, the installation side of the signal in relation to the track (right/left/above the track), the installation type (upright/hanging) and also the mounting type (mast/gantry/...) must also be transmitted. We planned to model our own extension of the railML 2.3 standard. If there were public documentation of the Norwegian railML 2.3 extension, we would base our modelling on it.

If there would be standardized modelling in railML 2.4, we could try to suggest this - in the long run surely better - way to our client.

The topic of "number of lamps forming a signal" is not directly comprehensible to us. Neither the practical relevance nor the concrete implementation have we observed here in our projects so far. Can you elaborate on this?

By the way: How many lamps does the signal 30ZU7 from the photo at https://commons.wikimedia.org/wiki/File:Bad_Vilbel_Ks_2_Zs_3_Zs_2.jpg (installed in a new signal box of DB Netz in Hesse) have? 11 or 69? (SNCR)

Best regards,

Tobias Bregulla and the whole Bahnkonzept team

[1] Further information is available in German at <http://www.dbnetze.com/planpro/>

Am 30.04.2018 um 13:48 schrieb Morten Johansen:

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 - > Best regards
 - > Morten Johansen
 - > RailML coordinator in Bane NOR
-

Subject: Re: Extra attributes on signal in RailML2.3 norwegian extention
Posted by [Morten Johansen](#) on Thu, 03 May 2018 08:16:23 GMT
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Thanks' Christian for your answer.

Hopefully RailM3.x will be a new and better world. But until then I have to solve our needs in the RailM2.x framework.

Digging into the task to extend the signal element of RailM2.3 to solve our needs for the extra attributes we need, this does not seem to be strait forward. It seems that the signal element is not extendable with more attribute as is.

We have insted defined a new sub ellement "nor:extendedSignalProperties" and defined the attributes as attributes to this sub element.

```
<signal ..... >  
  <nor:extendedSignalProperties side="left" mounted="pole" lamps="5"/>  
</signal>
```

Is this a proper way to solve our need? Or are there better ways to add the extra signal attributes?

Best regards
Morten Johansen

Subject: Re: Extra attributes on signal in RailML2.3 norwegian extention
Posted by [christian.rahmig](#) on Mon, 16 Nov 2020 12:18:59 GMT
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Dear Morten, dear all,

I summarized all aspects related to extending the <signal> element in railML 2.5 in Trac ticket #429 [1]. Please let us know in case you (also partially) don't agree with the proposal.

[1] <https://trac.railml.org/ticket/429>

Best regards
Christian
