Subject: Re: [railML 3] railway signal modeling
Posted by Torben Brand on Fri, 23 Feb 2024 08:59:33 GMT
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Jernbanedirektoratet and Bane NOR has the need to specify the most important group of physical signal types in railML3. This is solved and in use today in railML2 (with the signal@type values). Our list of the "most important" signal types are covered by the existing railML3 model with the suggested extension (5) and (6) in Larissas post 14.6.2023 here. Most important is the addition of the attribute value isTrainMovementSignal@type="main".

Is there a ticket created for this? We do however have three improvement suggestions:

I. We do not see any suggestion for a definition of the proposed signal type values (main, shunting, distant, repeater) in the forum post. I suggest using the existing ones in signalIL@function and adapt to a physical representation. I propose that a draft could be produced in the SCTP working group and be published for approval in this forum post.

II. Is it necessary to have @isShunting as a separate attribute? For instance @isShunting="true" in combination with type="main" (or "distant") does not seem logical. Would it not be better to have "shunting" as part of the isTrainMovementSignal@type enumeration?

III. Is the separation of ETCS signals in signalIS<isEtcsSignal> and optical signals in signalIS<isTrainMovementSignal> the right way to go?
The most important group of ETCS signal types listed in Norway's signal book [1] are (mapped to signalIS):
- Markerboards (are movement/"main" signals)
- Level crossing (existing sub-element: <isLevelCrossingSignal>)
- Level transition (missing sub-element? Should be extended also for optical systems? We also have for instance ATC level transition boards)
- Danger (avalanche and frostgate; existing sub-element: <isDangerSignal>)
- Speed signals (existing sub-element: <isSpeedSignal>)

To map those, we need to either:

A. Keep the separation and add isEtcsSignal@type="main" and "levelCrossing". In addition the sub elements <isLevelCrossingSignal>, <isDangerSignal> and <isSpeedSignal> must be duplicated under <isEtcsSignal>.

B. Change the definition of signalIS<isTrainMovementSignal> to be system independent. Then, if using both <isEtcsSignal> and <isTrainmovementSignal>@type="main" this will indicate a markerboard. Only using <isTrainmovementSignal>@type="main" will indicate a signal for transmitting a command from traffic control to the train driver by optical means for stopping or proceeding.

C. A combination of the two above? For instance, have a flagg isEtcsSignal@isMarkerBoard (aka "main") and use the other sub-elements in addition to defining an empty <isEtcsSignal> without the flagg?

[1] https://orv.banenor.no/orv/doku.php?id=tjn:Kapittel_8#vi_sae
rlige_skilt_pa_strekning_med_ertms