Subject: Re: [railml3] Signal types and functions
Posted by Torben Brand on Mon, 18 Feb 2019 10:26:54 GMT
View Forum Message <> Reply to Message

I would like to suggest an extension to the signal model in railML3.

It is good that we have the sub element designator with the register + entry attributes. Thus, we can always uniquely define a national signal.

But the generic signal model seems to be very underwhelming. Leaving everything undefined for international interoperability. I would suggest grouping all signal in standard sub elements. These can of course be extended. Based on a quick analysis of the Norwegian signals viewed in a generic manner I would suggest 14 groups of signals. 4 of those are already defined in RC2. I suggest adding the following sub elements (bold are existing). See the following link (https://forum.railml.org/userfiles/2019-02-18_jbd_signal-mod el-suggestion.pdf) for full value table for the types.

I also suggest adding the @system attribute. Then the signal sub elements and their types are truly generic. They can then be interchangeable for different types of signalling systems (ATC, CTC, ETCS, Conventional/optical). See example for border.

Suggested signal sub elements (groups of signals):
• Announcement: Announcement by the train of its presence. Can be with different signals. Usually blowing the whistle (boolean value). Can be defined for one or multiple purpose (boolean: levelCrossing, halt, etc.)
• Border: Indicating a level transition. Type start/end. The system attribute defines the type of level transition (ATC,CTC, ETCS, Conventional/optical).
• catenary
• danger: grouping all types of warning signals: avalanche, wind, frost gate, bridge, etc.
• gradient: indicating falling/rising gradient and other info.
• Info: general design info. Like arrows, invalid boards, and info panels.
• level crossing
• main: all route related signals
• movement: all signals giving an indication of the movement that are not main or shunting signals (line signals, derailers, switch and crossing indicators)
• plow: orders for handling the equipment on the train. Here the plow.
• Position: mileposts and distance signals (f.i. to level crossings)
• Shunting: shunting related signals
• Speed
• stop post

It would be interesting to see how other nations signal models would map to this. This would bring us closer to a unified solution. My suggestion is only a simple attempt on a unified mapping.