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Subject: [railML2/3] <trainDetector> for manually operated stations

Posted by [Torben Brand](#) on Sat, 21 Nov 2020 17:13:13 GMT

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Dear railML-community,

In the Norwegian railway sector we have the need to map "simple entry" (no:"enkelt innkjør") type stations. These are stations where the local dispatcher is the controller.

He has the following assets to his disposal:

1. Simple entry signals
2. Flags to signal pass, halt or departure operations
3. A white/black pole to indicate the clearance point at the switches.
4. A phone to relay telegrams to the neighbouring stations.

We have mapped this in railML2.4 in the following way:

1. Simple entry signals signal with signal@function="home" and @virtual="false"
2. Flags to signal pass, halt or departure operations with a virtual exit signal with signal@function="exit" and @virtual="true"

What we have forgotten is to model the "train detector" in the local dispatcher. We could solve this in multiple ways, in railML2 (and equivalent in railML3):

1. Introduce the attribute @virtual to <trainDetector>
2. Use <trainDetector@medium. There is a value "optical", but I assume this would be used for an optical sensor not the local dispatchers eyes. So we suggest "other:manual" here.
3. Use the white/black pole that indicates the clearance point, where the trainDetector would have been placed at the switches, with signal and the applicable rulecode.

We would prefer the solution with <trainDetector@medium="other:manual">. This has the advantage that it would require no extensions, just a wiki page update.

See also "Rognan" station as an example in NorRailView:

<https://railoscope.com/tickets/JJzpl9Qv1W67GEuk?modelId=5d1df4a872b32b08683bc7fb&selectId=28>

The UC here is that this "human" way of working works not very good with computer models, in for instance simulation tools. We need to map the intended functions to the applicable locations. This is done with the virtual exit signal and we need to achieve the same with some sort of train detector elements at the clearance. Else the simulations tools create a deadlock.

What does the community think about this topic? Any feedback is highly appreciated.

Kind regards

Torben Brand  
Jernbanedirektoratet

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