Subject: [railML3] Need for modelling Lineside Electronic Unit
Posted by christian.rahmig on Thu, 06 Jun 2024 08:52:11 GMT
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Dear community,

within the railML use case developer group "ETCS" [1] we are going for enhancing railML3 data model to be able to deal with ETCS level 1 projects. In that context, the need for modelling Lineside Electronic Units (LEU) was discussed. In particular, the following requirements have been collected:

1) An infrastructure element for the LEU is needed.
2) A LEU should be able to connect with one or more signals.
3) A LEU should be able to connect with one or more balise groups.
4) A LEU should be able to connect with one or more balises.
5) A LEU should be able to connect with one or more euroloops.
6) The signal aspects to be evaluated by the LEU should be provided.
7) For each signal aspect to be evaluated by the LEU, the relevant route should be provided
  * target signal of the movement authority
  * required position of passed switches
  * signals between start and target signal of the route (optional)

Dear community, if you have any comments on this request, please let us know by your feedback here in the forum.

[1] https://wiki3.railml.org/wiki/UC:IS:ETCS_track_net

Thank you very much and best regards
Christian

Subject: Re: [railML3] Need for modelling Lineside Electronic Unit
Posted by christian.rahmig on Mon, 09 Sep 2024 09:30:57 GMT
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Dear all,

christian.rahmig wrote on Thu, 06 June 2024 10:52
1) An infrastructure element for the LEU is needed.
2) A LEU should be able to connect with one or more signals.
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  * target signal of the movement authority
  * required position of passed switches
  * signals between start and target signal of the route (optional)

based on the above-mentioned requirements, I propose the following modelling:

a) Introduce a new functional infrastructure element \\linesideElectronicUnitIS.
b) Define repeatable child element \\linesideElectronicUnitIS\connectedToSignal with attribute @ref to link from LEU to signal.
c) Define repeatable child element \\linesideElectronicUnitIS\connectedToBaliseGroup with attribute @ref to link from LEU to balise group.
d) Define repeatable child element \\linesideElectronicUnitIS\connectedToBalise with attribute @ref to link from LEU to (single) balise.
e) Define repeatable child element \\linesideElectronicUnitIS\connectedToEuroloop with attribute @ref to link from LEU to euroloop.
f) Introduce a new interlocking element \\linesideElectronicUnitIL with attribute @refersToIS to link \\linesideElectronicUnitIS.
g) Define repeatable child element \\linesideElectronicUnitIL\evaluatesSignalAspect with attribute @ref to link a signal aspect that shall be evaluated by the LEU.

Is this model complete from your perspective?

Best regards
Christian

Subject: Re: [railML3] Need for modelling Lineside Electronic Unit
Posted by christian.rahmig on Mon, 09 Sep 2024 09:32:23 GMT
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Dear all,

the related Gitlab issue for this topic is #548 [1]

[1] https://development.railml.org/railml/version3/-/issues/548

Best regards
Christian
