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Subject: [railML3|alpha] Modelling of track conditions  
Posted by [Martin Karlsson](#) on Mon, 31 Oct 2016 12:57:40 GMT  
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A number of track conditions (electrification, weightLimit, clearanceGauge etc.) are modelled in the "parameters" section of the infrastructure schema. A net element in the topology section (e.g. a track or a line) can then refer to the parameters which apply to it.

I would prefer if these track conditions were instead modelled in the "operation" section, as subclasses of OperationalEntity.

The most important reason for this is that almost all of these conditions can change anywhere, also in the middle of a track. As the OperationalEntity is derived from the LocatedNetEntity, it offers a much more flexible way of indicating the area where the condition applies, ranging from a small part of one track to the whole network. Since the ETCS language allows to communicate most of these conditions between arbitrary positions, I believe railML must support that too.

Another reason is that the direction of reference is inconsistent with the rest of the model. Assets and operational entities refer to their locations, but here it is the location which refers to its parameters. This also means that references to physical entities appear inside the topology section, which otherwise is a purely mathematical model.

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Subject: Re: [railML3|alpha] Modelling of track conditions  
Posted by [christian.rahmig](#) on Tue, 08 Nov 2016 04:57:01 GMT  
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Dear Martin,

Am 31.10.2016 um 13:57 schrieb Martin Karlsson:

> [...]  
> I would prefer if these track conditions were instead  
> modelled in the "operation" section, as subclasses of  
> OperationalEntity.

Thank you for your feedback on this part of the model. Based on your reasoning and the feedback I got in Paris from other users, I confirm that the current approach of track parameter modelling is not very useful although it is very similar to the "infraAttrGroups approach" of current railML v2.x. Therefore, the parameter groups will be moved to the asset and operational sections of the model and follow the generic approach of location referencing provided by the RailTopoModel base.

Best regards

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Christian Rahmig  
railML.infrastructure coordinator

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