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Subject: Definition of is::track type attribute

Posted by [Thomas Langkamm](#) on Fri, 20 Dec 2019 11:53:03 GMT

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Hello all,

another fallout of recent railML discussions regarding tracks is that the type attribute could use a more precise definition for the possible values. This could go into the new wiki, similar to the railML 2 one (<https://wiki2.railml.org/index.php?title=IS:track:wink:>). Here is my proposal.

The definition is slightly altered to "The track usage type defines for which purposes the track is typically used."

"type" may refer to a number of typisations, in the sense of technical properties (gauge, electrification) or logical properties (usage, owner). The railML2 description of trackType refers to a usage (for example "mainTrack" as a track that is used for trains in commercial operation transporting passengers). The new definition reflects this a bit more.

The possible values are documented in the wiki as follows:

"mainTrack":

"A main track is either an open track between operational points or the extension of an open track within an operational point. It typically connects stations and is used for planned train journeys (trains in commercial operation or trains being moved between operational points)."

"secondaryTrack":

"A secondary track is a track used for planned train journeys running in commercial operation or trains being moved between operational points, but it is not an open track between operational points or the extension of an open track. "

Best practices: "A double track between stations may extend to 4 tracks in a station, with 2 tracks being the extensions of the open tracks and 2 additional tracks. The extensions would typically be defined as mainTrack while the additional tracks are defined as secondaryTrack."

"sidingTrack":

"Siding tracks are tracks that are not used for planned train journeys, except at the start and end of a train journey if the train is shunted to or from a parking spot."

"connectingTrack":

"Connecting tracks are tracks that do not fall into any of the above categories. They are typically very short and connect other tracks. Examples are short track sections connecting two tracks where switches allow to move from one track to the other."

Comments?

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Subject: Re: Definition of is::track type attribute

Posted by [Thomas Nygreen](#) on Fri, 20 Dec 2019 13:20:12 GMT

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Hello,

Just a quick note: it does not look like the current documentation of @type under track attributes in the wiki, where it describes how a track is used, is in line with the current consensus from the previous forum discussion or the best practice section of the wiki page for IS:track, where it describes physical characteristics of the track, i.e. how it is possible to use the track.

Also, is "open track" used in the suggested way in the English railway sector?

Best regards,

Thomas Nygreen - Common schema coordinator, railML.org

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Subject: Re: Defintion of is::track type attribute

Posted by [christian.rahmig](#) on Mon, 06 Jan 2020 14:36:03 GMT

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Dear Thomas,

I am not sure if there is such a big difference between the different types of track (usage): In particular, for "sidingTrack" and "connectingTrack" the usage is the same like the possible usage. Major physical characteristics of the track are - so far - not modelled in railML.

What need to be clarified, is the question if "open track" is a common term in the English railway sector to describe a track outside of a station. Any comments from the (English speaking) railML community?

Thank you very much and best regards  
Christian

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Subject: Re: Defintion of is::track type attribute

Posted by [Thomas Nygreen](#) on Thu, 05 Mar 2020 14:02:30 GMT

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christian.rahmig wrote on Mon, 06 January 2020 15:36 I am not sure if there is such a big difference between the different types of track (usage): In particular, for "sidingTrack" and "connectingTrack" the usage is the same like the possible usage. Major physical characteristics of the track are - so far - not modelled in railML.

Let's compare the attribute descriptions in the wiki and the referenced forum thread. The best practice section in the wiki lists national usage of @type in line with the forum discussion. (Skipping connectingTrack, where there are no big differences.)

mainTrack

Wiki, attributes: This is a regular track a of line used for frequent passenger and freight transport.  
Wiki, best practice: NO: hovedtogspor/hovedspor, DE: Durchgehendes Hauptgleis, de-CH: Hauptgleis/Signalisiertes Gleis, fr-CH: Voie signalée, it-CH: Binario segnalato, NL: Hoofdspoorweg, CZ: Hlavní kolej  
Forum: Main tracks of the line and their continuation in the station.

#### secondaryTrack

Wiki, attributes: This is a track not frequently used (e. g. loops for overtaking and/or crossing in stations).  
Wiki, best practice: NO: togsport, DE: nicht-durchgehendes Hauptgleis, NL: Lokaalspoorweg, CZ: Spojovací kolej  
Forum: Other signalised tracks (with train routes).

#### sidingTrack

Wiki, attributes: This is a siding.  
Wiki, best practice: NO: øvrige spor/sidespor, DE: Nebengleis, de-CH: Nebengleis/Nicht-signalisiertes Gleis, fr-CH: Voie non-signalée, it-CH: Binario non segnalato,  
Forum: Non-signalised tracks (without train routes, but possibly shunting routes)

So the attribute descriptions in the wiki describes mainTrack and secondaryTrack using the frequency of use, and doesn't really explain sidingTrack. In contrast the forum consensus uses properties of the infrastructure that determine the possible use (signalised or not, straight or not).

Thomas' suggested descriptions are quite close to the previous forum consensus, but I think it is best to avoid the term "commercial" and use "signalised" or "routes" rather than "train journeys".

Best,  
Thomas

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Subject: Re: Defintion of is::track type attribute  
Posted by [christian.rahmig](#) on Mon, 09 Mar 2020 15:05:36 GMT  
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Dear Thomas & Thomas,  
dear railML community,

I summarized the track type issue in a Trac ticket #376 [1] using Thomas' proposed definitions as a starter.

As next step, please let's conclude, whether these track type definitions are suitable. As usual, any feedback from community is highly appreciated. Therefore, please have a look at [1] and leave your feedback here in the forum.

[1] <https://trac.railml.org/ticket/376>

Best regards  
Christian

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Subject: Re: Example of is::track type attribute  
Posted by [Vasco Paul Kolmorgen](#) on Mon, 30 Mar 2020 18:02:10 GMT  
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Dear all,

after discussion in the railML SCTP developers group an track type example based on railML's Advanced Example (V07; German layout) was defined and discussed. You may download it from [https://forum.railml.org/userfiles/2020-03-25\\_railml\\_railml3-advancedexample-tracktypes.pdf](https://forum.railml.org/userfiles/2020-03-25_railml_railml3-advancedexample-tracktypes.pdf) from now. Therefore the definition of "open track" was not needed anymore.

It is intended to sharpen the current definition for railML 2.x and to use the same definition for railML 3.x.  
What does the community think about? Who can contribute to a sharp and understandable definition to the track types?

Any comments are welcome.

Best regards,

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Vasco Paul Kolmorgen - Governance Coordinator  
railML.org (Registry of Associations: VR 5750)  
Phone railML.org: +49 351 47582911  
Altplauen 19h; 01187 Dresden; Germany [www.railML.org](http://www.railML.org)

Am 06.01.2020 um 15:36 schrieb Christian Rahmig:

- > I am not sure if there is such a big difference between the
- > different types of track (usage): In particular, for
- > "sidingTrack" and "connectingTrack" the usage is the same
- > like the possible usage. Major physical characteristics of
- > the track are - so far - not modelled in railML.
- >
- > What need to be clarified, is the question if "open track"
- > is a common term in the English railway sector to describe a
- > track outside of a station. Any comments from the (English
- > speaking) railML community?
- >
- > Thank you very much and best regards
- > Christian

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Subject: Re: Example of is::track type attribute  
Posted by [Vasco Paul Kolmorgen](#) on Wed, 01 Apr 2020 09:43:50 GMT  
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- Signal 69B1 should stay at the left side of the track?
- 69N1/N3 do not necessarily need a switchable Zs3 but possibly a Zs7, which 69N2 surely

needs.

- 69P1 would probably need a Zs2.
- In Kudowa, 3a should be the siding (Ladegleis) and the route to 3b should go through 1a to get a route-point in the middle of the station track ("echte Mittelweiche").
- I guess the sidings in Kudowa would need a Flakenschutz (5, 3a) and Spitzenschutz (W01) = de-railers (Gleissperren).
- In Kudowa, K06 would probably have a point number (W06ab/cd) and be numbered in consequence with the other's from left to right (between W02 and W03).
- If it shall be possible to enter Kudowa track 2 with trains, it should have an So8 as at the neighbouring track 1b.
- Sure that there would be a track circuit around Instersee W01? Why? The point can only be set by hand!
- Why is there an insulated rail joint at 69VWc and 70A?
- It is not possible to shunt, not even to run around with an engine in Cranz since there is no Ra10 and no insulated rail joint between any home signal and outer point.
- The speed boards at Arnau and Cranz should be at the face of the outer points. (Arnau: km 0,5 vs. 0,8 = 300 m too far outside - why?)
- If the speed restriction at the level crossing would be permanent - which we probably assume for it to be published in timetables - it would have to be signalled with Lf6/7 - not with Lf1/2. (We can probably make a compromise here.) But the level crossing should have no barriers to give a reason for the speed restriction of only 20 kph... and the speed restriction should be valid for head of train only (spitzenaufgelöst) to show how this is encoded in railML.
- In Arnau, please clarify in the drawing whether platform 1 belongs to track 1 and whether track 1 has one or two platform edges.

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I still miss a line without switchable signals and with self-restoring points as it was shown in the original draft for the Advanced Example. Such minor-railway operation is very common in many countries. In that, the stations of Kudowa and Grestin would have marker boards only instead of signals and Grestin would have self-restoring points, and Instersee would be an Anst. With that, it would be possible to show in the example files

- to encode speed profiles through different routes (Grestin),
- to encode stations without points where trains regularly turn around (Funera, Endhaltepunkt),
- to encode train crossings and train massages (Zuglaufmeldungen) in timetables (concerns stopDescription and possibly connections).

Dirk.

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Subject: Re: Example of is::track type attribute

Posted by [christian.rahmig](#) on Fri, 24 Apr 2020 07:59:52 GMT

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Dear Dirk,

thank you very much for your valuable input. I will go through your points and include them step by step for continuous improving of the Advanced Example. General issues and new items will be added to the related Trac ticket #351 in order not to forget about them.

Best regards  
Christian

track?

- 69N1/N3 do not necessarily need a switchable Zs3 but possibly a Zs7, which 69N2 surely needs.
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- to encode train crossings and train messages (Zuglaufmeldungen) in timetables (concerns stopDescription and possibly connections).

Dirk.

Subject: Re: Example of is::track type attribute

Posted by [Fabrizio Cosso](#) on Mon, 22 Jun 2020 08:18:27 GMT

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Dear all,

I would like to share my perspective related to trackTypes, especially in relation with the TMS use case for railMLv3.

Even if I know that station track became obsolete, the main information needed is to know if the track is within a station or outside of a station.

Thus I assume that one of the following options may be applied:

- to use belongsToParent (but I think this is not the purpose of the attribute)
- to use specific attributes for such purpose
- to infer it from location (even if this would not be the best option in terms of clearness of the model)

The definition of tracks, in my opinion, should address both meso and micro topological level of RTM: opentracks connects operational points at meso level.

Linked to track discussion there are two additional points:

- I would suggest to put a link between stopping places and tracks, besides the link with platformEdges.
- In case of long trains, a stoppingPlace may span across two different "station tracks".

Regards

Fabrizio

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