Dear all

Based on the issues discovered during the recent certifications of railML3 data and the "new" initiative of railML.org defining best practices for splitting and merging railML3 file, railML.org suggests to introduce new semantic constrains. Please review the suggested semantic constrains IS:006 and IS:014 and provide your comments.

Suggested semantic IS:006 constraint for railML3
each railway line with own mileage should always be associated with its own <linearPositioningSystem>, i.e. Advanced example of railML has three lines with their own mileages, thus should have thee <linearPositioningSystem>s.

Suggested semantic IS:014 constraint for railML3
@startMeasure and @endMeasure are start and end values of a railway <IS:line> associated with <RTM:linearPositioningSystem> not max and min values of a current file with e.g. line section

See the all semantic constraint on the Wiki
https://wiki3.railml.org/index.php?title=Dev:Semantic_Constr aints

Thanks in advance.

Sincerely,

Dear Larissa,
dear all,

Thank you for proposing the new semantic constraints IS:006 and IS:014 for railML3. At Bahnkonzept, we specialize in railway infrastructure surveys, often of only partial lines, and face challenges with the current constraint IS:014. It assumes definitive start and end values (@startMeasure and @endMeasure) for a railway line, which isn't always possible in our operations.

We suggest either providing an alternative to indicate uncertainty in these measures or considering the removal of this constraint while retaining IS:006. This adjustment would better support the real-world scenarios of data providers like us and ensure broader applicability and accuracy of railML3 data.

We appreciate your attention to this matter and look forward to a productive discussion.

Best regards,
--
Michael Gruschwitz
Bahnkonzept Dresden/Germany

Am 10.04.2024 um 16:59 schrieb Larysa Zhuchyi:
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>
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> certifications of railML3 data and the "new" initiative of
> railML.org defining best practices for splitting and merging
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> Thanks in advance.
>
> Sincerely,
 > --
 > Larissa Zhuchyi – Ontology Researcher
 > railML.org (Registry of Associations: VR 5750)

Subject: Re: [railML3] Restricting IS:line and RTM:linearPositioningSystem
Posted by Larissa Zhuchyi on Mon, 29 Apr 2024 14:24:10 GMT
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The idea of IS:014 was to try to avoid postprocessing of split file when merging them together issued by either:

- multiple partial linear positioning systems in the merged file or
- one linear positioning system with multiple e.g. @endMeasure attributes.

From what I understand merging may happen even in your use case of surveys. As conceptually what you produce, partitioned files, can be considered as equivalent to split ones. Please correct me if I'm wrong.

How would you handle it if you made incremental surveys and the data would belong to the same railway line?
- introduce one linear positioning system with persistent identifier only in the first measurement trip and then replace @endMeasure every time new data come from the next measurement trip or
- introduce new linear positioning systems every time new data come. Then the railway line will be associated with more then one linear positioning systems.

Subject: Re: [railML3] Restricting IS:line and RTM:linearPositioningSystem
Posted by David Lichti on Thu, 13 Jun 2024 05:11:42 GMT
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I share Michael's concerns. As a data provider, we could only provide these values for the @startMeasure and @endMeasure attribute by calculating the minimum and maximum of all known linear positions associated to a linear positioning system.

This would not only be computationally quite expensive. The accuracy of these results would also depend on the available infrastructure data covering both end points of the linear positioning system. This is something we have no control over. In our (Hacon/TPS) infrastructure model, linear positioning systems are nothing but a label to specify linear positions. On data import, we do not use explicit value ranges. And on export, we cannot give any reliable and meaningful values.

I, therefore, suggest to make these two attributes optional. This would get around the need to update linear positioning system data when merging data from partial surveys at Bahnkonzept. And it would allow us to use the native linear positioning systems for the POMA use case.

Best regards

David

Subject: Re: [railML3] Restricting IS:line and RTM:linearPositioningSystem
Posted by christian.rahmig on Fri, 21 Jun 2024 10:22:13 GMT
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Dear David and Michael,

thank you for sharing your thoughts/feedback on the proposed semantic constraints.

Looking from a standpoint of unambiguous identification and location, I support the proposal by Larissa. Making the attributes @startMeasure and @endMeasure of a linearPositioningSystem optional is weakening the standard. It is also infecting the RTM where the positioning concept is derived from. So, I would vote for keeping these linearPositioningSystem parameters mandatory, but I am looking forward to receiving more feedback from the community...

Best regards
Christian