Subject: railml 2.3 Export only updated data from a data source
Posted by Morten Johansen on Mon, 20 Feb 2017 13:01:38 GMT
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Dear RailML infrastructure forum

My name is Morten Johansen and I am working with the Norwegian Infrastructure Manager, Bane NOR, as an enterprise architect. I have a master degree in computer science and have for some years been part of the Rail Topo Model Expert Group. I am now facilitating a RailML 2.2/2.3-project for the first time.

My project has the intention of using RailML to export or synchronise IS-information from our IS-master data system (asset management/infrastructure maintenance system) to other consuming systems (route planning system, document management system for technical documentation etc.).

Since only a small percent of the IS-data will have been changed each time the IS-master data system is updated and there is a need to make an export to the consuming systems we would like to transfer only the data changed since the last update.

Are there any best practices or does anybody have any experience on how this best can be handled when using RailML 2.2/2.3?

Best regards
Morten Johansen

Subject: Re: railml 2.3 Export only updated data from a data source
Posted by christian.rahmig on Fri, 24 Feb 2017 14:31:09 GMT
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Dear Morten,

welcome to the railML forum!

Am 20.02.2017 um 14:01 schrieb Morten Johansen:
> [...]
> Since only a small percent of the IS-data will have been
> changed each time the IS-master data system is updated and
> there is a need to make an export to the consuming systems
> we would like to transfer only the data changed since the
> last update.
> Are there any best practices or does anybody have any
> experience on how this best can be handled when using RailML
> 2.2/2.3?
> Best regards
> Morten Johansen

>

Your task clearly addresses the topic of time management and versioning.
So far, railML is not able to explicitly model changes of infrastructure
or timetable or any other information. A railML file usually contains a
"snapshot" of the situation without any time restrictions. We are going
to change this with the new major version railML v3. We will then
introduce basic concepts of time validity that allow to distinguish
between different states of infrastructure.

However, I consider the main factor for your problem being the exporting
software. The exporter shall produce a railML file and it shall follow
defined rules what to export. This means: It shall be a functionality of
the exporting tool to specify an export being an "incremental export".
However, the current implementation of railML does not really support
this approach of "incremental exports" as the railML file structure is
quite fixed and it is not possible to export only single components of
the infrastructure, e.g. only the new equipment of a level crossing,
without the underlaying track and its connected topology.

Question to all: are you missing such a functionality in railML, too?
How do you solve the issue nowadays? Any comments appreciated...

Best regards
Christian

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