
Subject: [railML2] Adding a new element mediaResources to infrastructure subschema

Posted by [Milan Wölke](#) on Sun, 18 Jul 2021 18:57:37 GMT

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Hi,

once more I want to suggest to extend the infrastructure subschema for railML 2.5 with an idea coming from the timetable community. Again it is related to passenger information which is one of the major points of extension in the timetable subschema in railML 2.5.

In order to provide passenger information in a structured and consistent way for a whole railway network usually special text and announcements are specified including elements that are to be considered placeholders. When actually using a special text or announcement these need to be replaced with appropriate data. Let me make an example to make it more clear.

A special text in a passenger information system usually takes the form of sth like this:

Arrival of the train to <destination> via <via-locations> on track <current-track>.

Upon actual usage of this special text <destination>, <via-locations> as well as <current-track> will get replaced by the actual text resources that represent the destination station, the via-stations and the track the train actually is arriving on. We have been talking to several suppliers of passenger information systems, and this is the common ground we found. This basic principle works for texts as well as for announcements. There may be more sophisticated methods of varying a special text or announcement in those systems (like conditional parts that depend on certain scenarios), but the general requirement is, that parts of those special texts or announcements get replaced by resources that are connected to among other things infrastructural entities. In particular ocp, tracks and platforms.

To be clear, we do not want to standardize the kind of placeholders and text templates used by passenger information systems. The above is just an example meant to introduce those of you who are not familiar with this kind of use case. The above is usually specified outside of railML and very much specific to the system in question. Our aim is to provide the necessary data to allow for placeholder replacements.

In order to support our community members in exchanging this kind of passenger information related data via railML which we aimed for in railML 2.5, we came up with the following idea on how to extend infrastructure.

Basically we want to introduce a small substructure called mediaResources to the //ocp/propOther, //tracks/track and //track/trackElements/platformEdges/platformEdge. This substructure is supposed to carry or reference the text and audio resources necessary for the described replacements.

Below please find a drawing of the intended structure:

mediaResources is split into textFragments and audioFragments. Text fragments can be provided in different languages as well as in varying verbosity. To make an example we were thinking of sth like this:

DE+verbose: Wien Hauptbahnhof
DE+normal: Wien Hbf.
DE+reduced: Wien
EN+verbose: Vienna main station
EN+normal: Vienna main
EN+reduced: Vienna

In our suggestion the text would be provided as the inner text of the element.

For audio fragments we want to allow for specification of audio resources by the means of code. This could be a reference to an audio file that is transferred along with the railML or a reference to a resources that already exists in the importing system. Additionally we wanted to allow for text to speech templates as a modern way of exchanging audio resources. Verboseness was not targeted with audio resources as there was no such requirement from the community.

Please let me know what you think of this.

Best regards, Milan

File Attachments

1) [design.png](#), downloaded 279 times

Subject: Re: [railML2] Adding a new element mediaResources to infrastructure subschema

Posted by [christian.rahmig](#) on Mon, 02 Aug 2021 12:31:25 GMT

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Dear Milan,

thank you for the input and very detailed solution proposal. I concluded a new Trac ticket #477 [1] from your posting. Please review and let know if you wish further adaptations in the intended railML 2.5 solution.

[1] <https://trac.railml.org/ticket/477>

Best regards
Christian
