Subject: Minimal content of a timetable file
Posted by Daniel Huerlimann on Wed, 15 Jul 2015 07:17:27 GMT
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ENGLISH

Dear railML-community

Since the beginning of the railML development our community discussed about the minimum requirements of a railML compatible timetable file, in other words, which information has to be available, that the file is accepted as a (valid) timetable file in railML and that "our" tools can import and display the data.

During the development of the RailVIVID tool the discussion of this topic again came up. With my contribution I would like to remember to our discussions and decisions in the past.

It should be possible to define a timetable file which contains no infrastructure data (with the exception of the list of operationalControlPoints), that means completely without trackIDs, lineIDs, trackRef, sectionTT etc.

Since the beginning such a "minimal" example was (see the corresponding railML data below): Zurich Main Station, Departure: 08.01, Zurich Airport, Arrival: 08.13

It should be possible to import a timetable of this kind into every of our tools and to display the information in a tabular format and preferable also as (simplified) train graph.

Best regards

Dani Huerlimann

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DEUTSCH

Liebe railML-Community

Seit dem Beginn der railML-Entwicklung haben wir uns immer wieder darüber unterhalten, was denn die "mindestnotwendigen Voraussetzungen" für einen Fahrplan sind, d.h. welche Informationen im Minimum vorliegen müssen, damit wir in railML von einem Fahrplan reden können und die railML-kompatiblen Tools fähig sein müssen, diesen Fahrplan einzulesen und darstellen zu können.

Im Zusammenhang mit der Entwicklung von RailVIVID ist diese Frage wieder aktuell geworden und ich möchte mit meinem Beitrag nur kurz an vergangene Diskussionen und Entscheide erinnern.

Es sollte möglich sein, einen Fahrplan ganz ohne Infrastrukturdaten (mit Ausnahme der Liste der operationalControlPoints) in railML zu beschreiben, d.h. ohne trackIDs, lineIDs, trackRef, sectionTT etc.

Schon früher war das Minimalbeispiel (siehe auch entsprechendes railML-Beispiel unten) : Zürich HB ab: 08.01, Zürich Flughafen an: 08.13

Es muss möglich sein, dass ein Fahrplan dieser Art in "unseren" Tools eingelesen und dargestellt werden können, im Minimum als Tabellenfahrplan, idealerweise auch als (vereinfachter) Bildfahrplan.

Viele Grüsse

Dani Hürlimann

_____

railML 2.2:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<railml version="2.2" xmlns="http://www.railml.org/schemas/2013"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.railml.org/schemas/2013
http://schemas.railml.org/2013/railML-2.2/railML.xsd">
 <metadata xmlns:dc="http://purl.org/dc/elements/1.1/">
  <dc:source>OpenTrack (http://www.opentrack.ch)</dc:source>
  <dc:date>Tue Jul 14 19:48:21 2015</dc:date>
 </metadata>
 <infrastructure id="infrastructure-OTRT" version="2.2">
  <operationControlPoints>
   <ocp id="ocp-ZFH" abbrevation="ZFH" code="ZFH" name="Zurich Airport"
description="Z&#252;rich Flughafen"/>
   <ocp id="ocp-ZUE" abbrevation="ZUE" code="ZUE" name="Zurich Main
Station" description="Z&#252;rich HB"/>
  </operationControlPoints>
 </infrastructure>
 <rollingstock id="rollingstock-OTRT" version="2.2">
  <formations>
   <formation id="fo-IC_460_mit_14_EW_IV" name="IC 460 + 14 EW IV"
length="368" weight="830"/>
  </formations>
 </rollingstock>
 <timetable id="timetable-OTRT" version="2.2">
```

```xml
  <trainParts>
   <trainPart id="tp-IR_2624" trainNumber="IR 2624"
additionalTrainNumber="IR 2624" processStatus="planned">
     <formationTT formationRef="fo-IC_460_mit_14_EW_IV"/>
    <ocpsTT>
     <ocpTT ocpRef="ocp-ZUE" trackInfo="5" ocpType="pass">
      <times scope="scheduled" departure="08:01:00.0"/>
      <stopDescription>
       <stopTimes minimalTime="PT120S"/>
      </stopDescription>
     </ocpTT>
     <ocpTT ocpRef="ocp-ZFH" trackInfo="2" ocpType="stop">
      <times scope="scheduled" arrival="08:13:00.0"/>
      <stopDescription>
       <stopTimes minimalTime="PT120S"/>
      </stopDescription>
     </ocpTT>
    </ocpsTT>
   </trainPart>
  </trainParts>
  <trains>
   <train id="tr-IR_2624" type="operational" trainNumber="IR 2624"
additionalTrainNumber="IR 2624">
    <trainPartSequence sequence="1">
     <trainPartRef ref="tp-IR_2624"/>
    </trainPartSequence>
   </train>
  </trains>
 </timetable>
</railml>
```

Subject: Re: Minimal content of a timetable file
Posted by Susanne Wunsch railML on Tue, 21 Jul 2015 13:48:12 GMT

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Hello to all,

as often announced at railML conferences and the railML website, we
(Chair of Traffic Control Systems and Process Automation at TU Dresden)
develop railVIVID, The railML viewer and validator - powered by UIC:
<http://railml.org//index.php/railvivid_en.html>

Dani, thank you for providing this really minimal sample file for a
timetable use case.

When opening this file in railVIVID, a tabular timetable is shown with
both stations but only a time at the destination Zurich Airport.

Therefore we wondered, why the departure time at Zurich Main station was missing. Until we discovered, that this departure is marked as ocpType="pass", which means, that the train runs through without a stop. These times are not shown in the tabular timetable of railVIVID, but in the graphical timetable, if distances between the stations are provided.

railVIVID may handle this file and show the expected tabular timetable, if the ocpType is changed into "stop" or "begin".

How about other tools? What are they doing with this minimal file?

If there will be consensus, I would welcome this sample file in the official railML "examples" folder - in the proposed slightly changed way. ;-)

Kind regards...
Susanne

--
Dipl.-Ing. Susanne Wunsch

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Subject: Re: Minimal content of a timetable file
Posted by Burkhard Franke on Wed, 22 Jul 2015 19:19:28 GMT

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Am 21.07.2015 um 15:48 schrieb Susanne Wunsch:
> Hello to all,
>
.....
>
> How about other tools? What are they doing with this minimal file?
>

Dear all

I just came across this issue - I guess we are one of the "other tools" addressed by Susanne.
railOscope uses the (very few) information given in the file and displays this for instance in a GTT: see the screenshot attached.

Best regards
Burkhard

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Burkhard Franke

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Validation and Visualization of railML data: www.railoscope.com

File Attachments

Subject: Re: Minimal content of a timetable file
Posted by   on Mon, 17 Aug 2015 13:46:10 GMT
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Dear Susanne, dear Daniel and all others,

> How about other tools? What are they doing with this minimal file?

I want to answer your questions for iRFP/FBS and my remembrance of
earlier discussions mentioned by Daniel.

>> It should be possible to define a timetable file which contains no
infrastructure data (with the exception of the list of
operationalControlPoints), that means completely without trackIDs,
lineIDs, trackRef, sectionTT etc.

I totally agree with Daniel, I also think that this is an important
point for us "<timetable>rs".

> It should be possible to import a timetable of this kind into every of our tools and to display the
information in a tabular format and preferable also as (simplified) train graph.

I also agree.

> Since the beginning such a "minimal" example was (see the corresponding railML data below): Zurich Main Station, Departure: 08.01, Zurich Airport, Arrival: 08.13

No objection. But as Susanne wrote: The example seems to contain "pass" but not "departure" at the first <ocp>.

Despite a train of course cannot start "passing", I think we cannot exclude this "initial running through" from railML files. For some reasons, railML files may contain only an excerpt from a greater network. This can either mean that the software where the railML comes from has no information on all stations of a train's route or that it (its user) does not want to export (=publish) this information.

An example may be a border of two Infrastructure Managers (IM). Such borders often lay on the open line between two stations, possibly at international borders. For the sake of "exact demarcation" (often de jure), an offer of one IM is only allowed to contain the route for the infrastructure of this IM. So, the railML file containing such an offer may start with "pass" at the fist (or last) <ocp>.

To answer Susannes question quoted at the start of my message:

We would handle such files, meaning we can import (or adjust) a train starting with "pass" and we can also export such files in special circumstances.

> These times are not shown in the tabular timetable of railVIVID...

As I stated earlier, it would be good (not only for this purpose) if railVIVID could display passing times (optionally, may be with a CheckBox "Show run-through times").

Best regards,
Dirk.