Subject: Extension of railML's Advanced Example
Posted by Larissa Zhuchyi on Fri, 18 Aug 2023 17:17:33 GMT
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Dear all

railML.org would like to extend the next version of an "Advanced example" [1] (current version 11 from 2023-07-25; without XML code). The Advanced example is available for free to the whole community and shows common elements of railway operation that are used in data management and data exchange.

In this thread we want to collect your feedback on the proposed list and any other points to be added.

Additionally, it appeared to railML.org, that some of the elements are not usually present in the schematic track plan but in other diagrams. As such what is your opinion on extending an "Advanced example" by e.g. gradient profile?

List of proposed extensions:
1. parts of stations to exemplify @ocpParentRef usage
2. description of ETCS e.g. balises and level transitions
3. input data for the runtime calculation [1], e.g. gradient changes and speed changes

What do you think about the list? Do you have anything to add?

[1] https://www.railml.org/en/user/exampledata.html
[2] https://www.railml.org/forum/index.php?t=msg&th=906& start=0&

Sincerely,

Larissa Zhuchyi

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Larissa Zhuchyi Ontology Researcher
railML.org (Registry of Associations: VR 5750)
Altplauen 19h; 01187 Dresden; Germany

Subject: Re: Extension of railML's Advanced Example
Posted by Vasco Paul Kolmorgen on Mon, 21 Aug 2023 05:54:09 GMT
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Dear all,

I would like to point out that there has already been extensive advice from colleagues at the iRFP Dresden/Germany in 2020 on the Advanced Example (V07; as of 2020-03-25), which can perhaps

be incorporated into the discussion that is now restarting.
The suggestions can be found at https://www.railml.org/forum/index.php?t=msg&goto=2411 and are presented again below:
 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 Flankenschutz (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.

As the posting contains a lot of abbreviations of the German signal book, here are some explanations: Zs2: Direction indicator (Richtungsanzeiger)
 Zs3: Speed indicator (Geschwindigkeitsanzeiger)
 Zs7: substitute order as caution signal (Ersatzauftrag als Vorsichtsignal)
 Ra10: Shunting stop board (Rangierhalttafel)
 Lf 1/2: temporary speed change board (Langsamfahrtafel, vorübergehend)
 Lf 6/7: permanent speed change board (Geschwindigkeitstafel, ständig)

Hope this helps.

Best regards,
--
Vasco Paul Kolmorgen - Governance Coordinator
railML.org (Registry of Associations: VR 5750)
Phone railML.org: +49 351 47582911
Altplauen 19h; 01187 Dresden; Germany

Am 18.08.2023 um 19:17 schrieb Larissa Zhuchyi:
> Dear all

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> example" [1] (current version 11 from 2023-07-25; without XML code). The
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>
> Sincerely,
>
> Larissa Zhuchyi

Subject: Re: Extension of railML's Advanced Example
Posted by Torben Brand on Fri, 25 Aug 2023 14:47:51 GMT
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Dear all,
I think this is a really good idea to extend the advanced example and make a XML file for this. As
it would be to demanding to type this up manually, I have, with the blessing of trafIT, modelled the
version 11 of the advanced example in Railoscope. You can access the model through the open
access link:
 https://railoscope.com/tickets/Fyh1WAZliOQbgVmY?modelId=64d2 293fb1421a4b8096c580

You can export this model to railML2.4(nor) from Railoscope. The export is also attached. I
suggest to either delete the "nor" extensions and have an official railML2.4 xml example or
manually adapt the "nor" extensions into railML2.5. I would prefer the later.
Public export of railML3.2 is pending ongoing certification.

Please give me feedback if I have modelled something wrong according to version 11.

I would welcome all extension suggestions of the advanced example made here by both Larissa and Vasco on behalf of iRFP. Especially Larissa's suggestion to add a child operational point and to fulfil the RTCI-a use case by adding relevant elements such as speeds and gradients. I have made a branch "Proposals JDIR" for this in Railoscope. You can access this here.
 https://railoscope.com/tickets/Fyh1WAZliOQbgVmY?modelId=64d2
293fb1421a4b8096c580&branchId=64e34e23bd09d86eb8d80f15
I am currently adding proposals to this branch and will make a new posting describing these here once finished.

If other members of the railML community would like to visualise their proposals in Railoscope, I can easy make more branches and I could add those proposals (if not to many...). Approved branches can later be merged into the "trunk" of the model. Please let me know if this would be of interest.

Kind regards Torben

File Attachments
1) Advanced Example railML.org draft version 12 TORBRA 20230825.xml, downloaded 67 times

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Subject: Re: Extension of railML's Advanced Example
Posted by Torben Brand on Tue, 29 Aug 2023 12:18:23 GMT
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Dear all,

I would like to make some suggestions for changes in the existing version 11. There seems to be missing an explicit mileageChange and some mileages seem to be a bit off in relation to where they are drawn in the schematics in the PDF. As Railoscope places the objects automatic according to position on the track this becomes clearly apparent. Please see list below for details. Also as table attached for better formating.

Also, I would like to add some elements to fulfil the UC runtime calculation input data for infrastructure ("RTCI-a" currently under development in the railML.org "SCTP" working group). To limit the number of objects we could restrict adding those objects to the line "8176" (from Arnau to Eimber"). But having them in the complete advanced example is also fine for me, as this is simple to do in a graphical editor like Railoscope. See table below for suggested additional objects. Use the link for "Proposals JDIR" given in the earlier post here to visualise the proposals in Railoscope.

OCP:
  - Should we add geo coordinates? To remain fictitious, we could have geo coordinates

  - Station codes (designator@entry) are given. I used "railML" as designator@register.
  - Missing example for ocp@parentOCPref: Child OP Kudowa depot under Kudowa station with Km 52,15 and separate OP area as suggested in "proposal" branch in NorRailView

Reference point OP
Ok, but some positions should be adjusted/move crossSections for:
  - Cranz from 4,800 to 4,500 (center platforms)
  - Kudowa reference point is not at platform; suggest to move from Km 52,6 to 53,55

Stop marker
- Kudowa: stopPost not at platform or as shown in PDF. Assume typo. Suggest moving from Km 52,459 to Km 53,459. Suggest to add vaildForMovements@kind= "passengerTrains" and trainLength="200" m.
- Suggest to add also to Arnau, Cranz and Grestin as suggested in "proposal" branch in NorRailView

topology
- ok

Mileage change
- There is currently a "jump" between object at km 0,3 and next object at km 4,322 Suggest making explicit on entry Cranz between line 8176 and 8671 on Km 0,3|4,2 with mileage direction change. See suggested fixed in "proposal" branch in NorRailView

speed
Partially in example; See some additional suggested speeds in "proposal" branch in NorRailView

Deflecting speed
Partially in example; See som additional suggested values on remaining switches in "proposal" branch in NorRailView

Gradient
- missing; see suggested very simple gradient profile in "proposal" branch in NorRailView

Tunnel (resistance)
- Suggest to add a single track tunnel between Arnau and Cranz Km 3,067. Can then use original tunnel for double track tunnel case with portal. As suggested in "proposal" branch in NorRailView

(main)signal
Ok, but some questions:
- Should we have both signal type="combined" and combination of signals where main signal and distant signal are on the same post (same location/absPos)? I suggest to add both in the example as both are allowed in railML2
- Semaphore signals are not supported in NorRailView using regular signals without <sigSystem> or <ruleCode> and suggest to modify manually in XML

Route
missing; generic routes generated for tools that require routes for RTC Routes for line "8176" as suggested in "proposal" branch in NorRailView

TVD

Not required for RTCI, but TCB is not centred between switches as shown in PDF. Suggest to move from Km 52,338 to Km 53,388 (typo?)

Clearance (for placement of main signal if missing)
Missing, but have TVDs suggested clearance of "74" m examples for the two switches in Grestin station. See "proposal" branch in NorRailView.

Operational rules (limiting)
missing, ok for now?

electrificationChange
Ok, placed in trunk

trainProtectionSystemChange
Missing explicit. Added as suggested in "proposal" branch in NorRailView

Restriction sections/possesions
Missing/relevant for UC?

File Attachments
1) Note development advanced example v11 to v12 TOBR.pdf, downloaded 59 times

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Subject: Re: Extension of railML's Advanced Example
Posted by christian.rahmig on Mon, 04 Sep 2023 07:06:47 GMT
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Dear all,

thank you for your feedback on extending railML's Advanced Example. We will collect your ideas and document in the development ticket #351 [1] so that they are not forgotten in the development process...

[1] https://development.railml.org/railml/version3/-/issues/351

Best regards
Christian