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Subject: Haltezwecke / Stop descriptions

Posted by on Wed, 02 Nov 2016 12:26:38 GMT

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Hallo zusammen

Eine Frage bezüglich der Halte-Beschreibungen: Im RailML 2.3 kann mit dem Element <stopDescription> ein Halt beschrieben werden. Der effektive Haltezweck lässt sich nur grob mit dem Attribut „onOff“ definieren. Bei der SBB kennen wir aber aktuell über 80 Haltezwecke. Wo könnten diese abgebildet werden? Im Attribut „purpose“ oder sollte man ein neues Listen-Attribut definieren welches erweiterbar ist? Gibt es hier bereits andere Lösungen?

Eine Liste der SBB Haltezwecke ist angehängt.

Vielen Dank

Mico

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Dear all,

A question regarding the stop descriptions. In RailML 2.3, the element <stopDescription> is used to describe a stop. The effective purpose of the stop can only be defined roughly using the attribute "onOff". At the SBB, we have currently more than 80 different stop purposes. How can they be represented? With the attribute "purpose" or should there be defined a new list attribute which can be extended? Are there any other solutions?

A list of all SBB stop descriptions is attached.

Thanks!

Mico

SBB: Haltezwecke / Stop descriptions:

Abwarten Gleisfreigabe Bhf

Abwarten Streckenfreigabe

Abwarten Zugfolgezeit

Auf-/Absteigen Personal

Aufstellen

Beistellen D/V-Lok

Beistellen P-Lok

Beistellen Tfz

Diensthalt

Durchfahrt

Durchfahrt (mit Haltberechnung)

Durchfahrt (ohne Haltberechnung)

Ein-/Auslad

Ein-/Auslad bei Bedarf  
Ein-/Aussteigen  
Ein-/Aussteigen bei Bedarf  
Geschwindigkeitswechsel  
Intervention  
Kreuzung  
Lok-Personalwechsel  
Nur Abfuhr  
Nur Abfuhr bei Bedarf  
Nur Aussteigen  
Nur Aussteigen bei Bedarf  
Nur Einsteigen  
Nur Einsteigen bei Bedarf  
Nur Zufuhr  
Nur Zufuhr bei Bedarf  
Pause Lokpersonal  
Schwächen/Trennen  
Stärken/Vereinigen  
Systemwechsel  
Tfz-Wechsel  
Trassenwechsel  
Umfahren  
Umstellen  
Wagendurchlauf  
Wegstellen  
Wegstellen D/V-Lok  
Wegstellen P-Lok  
Wegstellen Tfz  
Wenden mit Tfz-Wechsel  
Wenden ohne Tfz-Wechsel  
Zu-/Abfuhr  
Zu-/Abfuhr bei Bedarf  
Zugfolgeänderung

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Subject: Re: Haltezwecke / Stop descriptions  
Posted by [Philip Wobst](#) on Tue, 08 Nov 2016 16:08:04 GMT  
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Hello Mico,

what you have described has been the solution for the TPS railML export - we have mapped our internal stop types to the railML attributes (e.g. commercial, stopOnRequest, onOff, etc.) and then we provide our internal description as the purpose and not as a separate enumeration.

Best regards,

Philip

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Subject: Re: Haltezwecke / Stop descriptions  
Posted by on Tue, 22 Nov 2016 07:33:54 GMT  
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Hello Philip,

thank you for the reply. I think this might be also the solution for us.

As discussed at the last telephone conference, the proposal by Vasco to refer to a list of stop descriptions provided by each IM would be also interesting. Do you already have ideas how this could be implemented in RailML?

Best regards,  
Mico

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Subject: Re: Haltezwecke / Stop descriptions  
Posted by [Philip Wobst](#) on Mon, 27 Mar 2017 07:49:43 GMT  
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Hello all,

following the discussion at the last TT developer meeting I would like to add that the TAF/TAP TSI already includes a so called train activity type. Adding the TAF/TAP train activity types might be used to support the actual list of standard and country specific activities. However, these shall be mapped to the corresponding railML attributes (mapping outstanding).

#### 12.14.7 Use of the Train Activity Type and Associated Trains

The list of Activity Type Codes is split into two types: Common European Codes that are available to be used by all countries and National/Company codes that are only relevant to a specific network and to be used in the RU / IM communication only for that network. In both cases the element size will be 4 alpha-numeric.

Common European Codes will have the structure as follows:

- 4 Digit Code (numeric) that represents the Code List values for the common activities

National Codes will have the structure as follows:

- The first two characters will represent the country of the network in ISO format e.g. UK
  - The remaining two characters (represented as a numeric) will represent a single unique activity within the network e.g. 01 = Stops shorter than 30 secs
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Subject: Re: Haltezwecke / Stop descriptions  
Posted by on Fri, 31 Mar 2017 12:42:31 GMT  
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Hello all,

as discussed at the last developer meeting I have created a mapping between the SBB stop descriptions and the railML tt:stopdescription attributes. The corresponding excel file is in the railML.org cloud: <https://cloud.railml.org/index.php/s/DXuwoVqlQSFQQ4w>

The stop descriptions ("Haltezweck") are probably not all understandable. I will try to clarify them in the next few days.

Question regarding the attribute "onOff":

The railML attribute onOff is an enum with the allowed values "BOTH", "ON" or "OFF". What value should be set for stops where e.g. the train crew changes (Haltezweck: "Auf-/Absteigen Personal")? This is a stop for BOTH but not for the passengers.

There are also stop descriptions where none of the enum values are suitable (e.g. for "Kreuzung"). My proposal is to create a new value "NONE". This would clearly define that neither ON nor OFF is possible.

Regards,  
Mico

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Subject: Re: Haltezwecke / Stop descriptions  
Posted by [Stefan Jugelt](#) on Fri, 31 Mar 2017 15:31:47 GMT  
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Hello all,

I want to contribute to this topic from the point of view of the TAF TSI. In the TAF TSI exists one element dealing with the activities of a train, the element TrainActivityType. The definition is as follows:

```
<xs:element name="TrainActivityType">
  <xs:annotation>
    <xs:documentation>Indicates certain treatments or operations required for a train. If national
codes are used, the first 2 position will be the ISO country code, followed by
00-99.</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="4"/>
      <xs:maxLength value="4"/>
    </xs:restriction>
  </xs:simpleType>
```

</xs:element>

The element defines the structure, but not the European codes to be exchanged for the train activity. For the time being there is no legally binding - through the TAF TSI - European code list available.

On the other hand the railway sector (railway undertakings, infrastructure managers) have a responsibility for those elements not defined in the TAF TSI. For the TrainActivity there is a sector supported documentation available at "[github.com/smagla/sector-xsd/blob/master/taf\\_cat\\_complete\\_sector.xsd](https://github.com/smagla/sector-xsd/blob/master/taf_cat_complete_sector.xsd)". In this file are the codes for the train activity defined as follows:

- 0001 Commercial stop RU Board/disembark passenger train, load/unload freight train
- 0002 Operational stop IM Stops needed by the IM (e.g. overpassing by another train)
- 0003 Service stop RU/IM Stops which are used for non-commercial activities (e.g. boarding of staff)
- 0004 System stop RU/IM allowing the RU to change a system (e.g. signalling system, safety system)
- 0005 Reversing stop RU/IM stop to enable train unit to run in the opposite direction (without change of engine)
- 0006 Stops for reversing move or driver change ends RU stop to enable train unit to run in the opposite direction (with using another engine at the other end of the train and change of driver)
- 0007 Stops for locomotive to run round train RU stop to enable train unit to run in the opposite direction (with using the same engine at the other end of the train)
- 0008 Technical check/inspection coaches/wagons RU/IM e.g. at origin or intermediate station: brake test, checking load
- 0009 Change gauge RU/IM continuation on a network with a different gauge with change of bogies or adaptation of the axles (F->E, SVE->FI)
- 0010 attach engine/unit RU Unit not previously in service
- 0011 detach engine/unit RU Unit no longer in service
- 0012 change engine RU
- 0013 attach coach/wagon RU
- 0014 detach coach/wagon RU
- 0015 attach and detach coach/wagon RU
- 0016 attach train Operational Train (in service)
- 0017 split train Operational Train (in service)
- 0018 Parking of vehicle RU e.g. need to park the train/composition midway for several hours
- 0019 Mail/parcel services RU
- 0020 shunting RU actual activity of shunting
- 0021 shunting service RU Request for shunting service (if offered by the IM or a third party)
- 0022 Terminal service (terminal in the meaning of final destination) RU Request for services at the end of a train run (if offered by the IM or a third party)
- 0023 Loco driver change RU
- 0024 Loco driver break RU legal issue, e.g. to respect working law
- 0025 Crew change RU different to loco driver change as for the change of the crew a platform will be needed
- 0026 Custom and passport facilities RU
- 0027 Other stop reason (miscellaneous) RU/IM

0028 Boarding only RU  
0029 Disembarking only RU  
0030 Stop on request RU  
0031 Departure equals to arrival time RU If in some stations only arrival times are published, this activity code may be used to indicate that the train cannot continue before the published arrival time in case of an early arrival.  
0032 Departure after disembarking RU mainly used at the end of train run, train may continue as soon as all passengers have disembarked  
0033 No waiting for connection RU  
0034 Watering RU Indicates the IM that a track with water access will be needed.  
0035 Heating Indicates the IM that a track with heating equipment will be needed.  
0036 Cleaning / disinfecting RU  
0037 Treatment on plants and live animals RU Watering, Foddering, Milking, Spraying, Closing ventilation flaps, Opening ventilation flaps  
0038 Treatment of perishable goods RU Checking the temperature, Re-icing, Heating, Checking the proper functioning of the mechanical refrigeration equipment, Refuelling machinery, Switching machinery on or off  
0039 Administrative operations RU Weighing, Re-forwarding, Submission to phytosanitary inspections  
0040 Run Through (Passing Time) IM  
0041 Photo run-by / Photo-stop  
0042 Train Waiting Waiting according to local rules  
0043 Train running with another train RU Where trains have been attached at a previous location on the schedule  
0044 Next working service RU Association where there is a need to define a relationship between a train and its next service. The same vehicle is used for the next train service. Also called "train-set turnover"  
0045 Previous working service RU Association where there is a need to define a relationship between a train and its previous service. The same vehicle is reused from the previous train service.

The list above is maintained by the sector and can be changed without consulting ERA.

Kind regards,

Stefan Jugelt

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Subject: Re: Haltezwecke / Stop descriptions  
Posted by [Philip Wobst](#) on Fri, 07 Apr 2017 10:59:56 GMT  
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Hello Stefan,

thank you very much for the feedback - the details regarding the responsibilities for the code values were not clear to me. Do you have any information on how good the different countries have actually adapted the standard codes instead of using just national codes and/or a

combination of both - i.e. are the national codes actually used only to supply activities that are not covered by the standard ones?

Best regards from Hanover,

Philip

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Subject: Re: Haltezwecke / Stop descriptions  
Posted by [Philip Wobst](#) on Fri, 07 Apr 2017 12:16:08 GMT  
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Hello Mico,

I have had a look at the data you have provided and have provided an updated file in the cloud (more details and some filters). I would like to suggest to switch to 'activities' instead of 'descriptions' because the activities at a stop are described and not the stop itself.

I see the following topics that need further review:

1. the current attributes do not allow a 1:1 mapping of the SBB stop activities
2. there are some ambiguities with regard to the attributes
  - an activity might be 'ordered' by the RU for a commercial stop
  - onOff is not clearly defined to be relevant to customers/goods only
  - no possibility to identify activities for the IM
3. in general I suspect that more than one 'activity' can be supplied for a stop - how shall 'conflicting' attributes be treated in such a case?

Best regards,

Philip

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Subject: Re: Haltezwecke / Stop descriptions  
Posted by \_\_\_\_\_ on Thu, 18 May 2017 10:28:17 GMT  
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Dear Philip, Mico and all "lurkers",

I can possibly clarify some issues raised by Philip. This concerns the current situation in railML, their current usage and the background behind former development; I do want to value the current situation as being sufficient or not.

- > 2. there are some ambiguities with regard to the attributes
- > - an activity might be 'ordered' by the RU for a commercial stop

To explain the intention behind the current situation: The term

"ordered" in the attribute /operationalStopOrdered/ refers to the contractual relationship between IM and TOC.

The term "commercial" of the attribute of the same title in railML traditionally refers to the contractual relationship between TOC and end-customer, not to the contractual relationship between IM and TOC.

> - onOff is not clearly defined to be relevant to customers/goods only

May be "not clearly defined", but the intention behind is of course: Only for commercial stops. Does not make sense for traditional operational stops (which are not ordered). Theoretical, having an operational stop for crew change, one could differ between on/off/both but so far, there was never a practical demand for that and it is very far-fetched just to raise or reduce the number of crew-members and fix this in a timetable.

The intention behind onOff was clearly: Passenger information.

I want to add concerning stopOnRequest: Intended for passenger usage only; makes no sense for "goods only" activities. The real background is to tell the passenger whether he has to signal his wish for a stop immediately before. For freight, a customer cannot signal a wish to stop "immediately before" (by hand or button). At least, he would have to phone or communicate in a more specialised way a special time period before.

From an operational view (concerning relationship between TOC and IM and inside TOC and IM), "goods only" activities are always "on request", so by default they can be omitted if there is no demand. The former "Bedarfszug" has been made obsolete therefore.

> 3. in general I suspect that more than one 'activity' can be  
> supplied for a stop - how shall 'conflicting' attributes be  
> treated in such a case?

Concerning this, it is documented:

"It is not intended to write different stop types at the same station.

Concerning the usualities of railway operation: If there are reasons for both a traffic stop and an operational stop, a traffic stop shall be declared. If an operational stop becomes necessary by IM as well as by TOC, it will be declared as an operational stop by TOC (ordered operational stop)."

I agree that if we will define an enumeration of additional stop informations (activities), this should be repeatable (several activities at one stop).

Best regards,



Dirk.

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Subject: Re: Haltezwecke / Stop descriptions  
Posted by on Thu, 18 May 2017 17:51:10 GMT  
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I have complemented the mapping between railML and SBB stop descriptions

\\timetable\railML 2.4\Haltegrund --> Gegenüberstellung Haltearten  
railML-SBB-ÖBB-DB.xls

Anybody who wants to contribute to the development having no access yet can surely apply for one.

Now, from my opinion, we could make the following next steps:

- Since a specification of stoppings in railML is needed, we should start with the stopping information common between the three (or two of the three) railways. These would be about 30 values (rows 28-64 of the Excel table). It could become a repeatable list of enumeration additional and optional to the basic stop types (railML: ocpType= und <stopDescription>).

If wanted, I can quickly create a suggestion for such an enumeration. It would cover 98% of the SBB's stop types. (All except two: Trassenwechsel and Intervention. These two would have to be implemented as "other:...".)

- We should use the term "stop description" rather than "reason" or such ("Haltezweck") since it is rather an additional information. It leads to all activities one can do during a stop without being necessarily reasons for the stop. (E. g. a "brake check" or "finishing train for departure" can hardly be reasons for a stop; also "intermediate parking" is rarely a reason for but rather a consequence of a stop.) Part of the very special "stop descriptions" should therefore, in my opinion, be deferred and be implemented later on demand at another place in railML.

- I personally wonder that we come as far as "stop for catering" (wherein at least 2/3 of the railways are united) but the security-relevant stops for (virtual) token exchange / train messages are not included so far. So, from a professional expertise, I suggest to count these stop descriptions here too. At least these operational stop descriptions should be distinguishable by operating days.

Hopefully this is a support for further development. Looking forward  
your replies,  
with best regards,  
Dirk.

P.S.:

- > Question regarding the attribute "onOff":
- > The railML attribute onOff is an enum with the allowed
- > values "BOTH", "ON" or "OFF". What value should be set for
- > stops where e.g. the train crew changes (Haltezweck:
- > "Auf-/Absteigen Personal")? This is a stop for BOTH but not
- > for the passengers.

"onOff" is intended for traffic stops (commercial, "public" stops) only.  
"Auf-/Absteigen Personal" is not a public stop therefore it shall be  
implemented as @commercial=false, @operationalStopOrdered=true or false.  
This is to be regarded as implicit by definition.

- > There are also stop descriptions where none of the enum values are suitable (e.g. for  
"Kreuzung").

Again same answer: "Kreuzung" (only) is not public. A stop which is both  
for passenger exchange and crossing, is (per definition) a public stop  
and therefore you can use @onOff=both/on/off. If you want to use "none",  
it is per definition a non-public stop with implicitly no on/off.

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Subject: Re: Haltezwecke / Stop descriptions

Posted by on Wed, 24 May 2017 17:46:17 GMT

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Dear all,

in preparation of the meeting on 1st June I quickly set up a suggestion for the extension of railML  
from version 2.4 with additional stopping information. It is based on the aforementioned  
comparison of SBB, ÖBB and DB and what is common between at least two of the three.

I suggest a tAdditionalStopInfo (simple type enumeration, see below) with the following values:

collect, drop, split, join, crewChg, crewBreak, reverse, runAround, engineChg, staple, occupation,  
block, crossing, station, power, wagonCheck, axleChange, borderCheck, photo, catering,  
movAuth, releaseLine, shuntPerm, misc, other:...

The full suggestion with explanations and notes is here:

\\timetable\railML 2.4\Haltegrund --> Vorschlag Erweiterung Halteinfo ab r2-4.pdf

Examples for usage:

1) Traffic stop for collecting and dropping wagons (freight train):

```
<stopDescription commercial='true' stopOnRequest='false'>
  <stopTimes minimalTime='PT30S' />
  <addStopInfo info='collect' />
  <addStopInfo info='drop' />
</stopDescription>
```

2) Operational stop for crew change (daily) and a crossing on Mon-Fri only:

```
<stopDescription commercial='false' operatingPeriodRef='op_Mon-Fri'>
  <addStopInfo info='crewChg' />
  <addStopInfo info='crossing' />
  <addStopInfo info='releaseLine' />
  <addStopInfo info='movAuth' />
</stopDescription>
<stopDescription commercial='false' operatingPeriodRef='op_Sat+Sun'>
  <addStopInfo info='crewChg' />
</stopDescription>
```

--> If several <stopDescription>s are given, they must have disjunctive @operatingPeriodRef.  
--> All @operatingPeriodRef must be subsets of the <operatingPeriodRef> of the <trainPart>.

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Definition of the enumeration type:

```
<xs:simpleType name="tAdditionalStopInfo">
  <xs:union>
    <xs:simpleType>
      <xs:restriction base="xs:string">
        <xs:enumeration value="collect" />
        <xs:enumeration value="drop" />
        <xs:enumeration value="split" />
        <xs:enumeration value="join" />
        ...
        <xs:enumeration value="misc" />
      </xs:restriction>
    </xs:simpleType>
    <xs:simpleType>
      <xs:restriction base="rail:tOtherEnumerationValue" />
    </xs:simpleType>
  </xs:union>
</xs:simpleType>
```

All names and titles may be regarded as working titles only.

Best regards,  
Dirk.

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