

Hello all,

when adding a code attribute to the <ocp> element, we have to define what real world information shall become the code and what the abbreviation. According to the "Technical Specifications for Interoperability" (TSI) of the UIC (I'm referring to Annex B.9 of TAP TSI: Standard numerical coding of locations) a railway location is identified by

- a primary code that consists of
  - numerical country code (2 digits)
  - railway location number (5 digits)
  - check digit (1 digit)
- a unique official location name
- optional additional shortened names

Furthermore we have the letter or letter/number codes known in Germany as "Betriebsstellenkürzel" that are not only in Germany widely used.

To avoid confusion we should clearly document which railML-attribute is intended to be used for which identifier. Otherwise we will see in the railML code attribute letter codes, and 5-, 6-, 7- and 8-digit number codes, depending on who sent the data.

My view of the issue is that when I hear "code" I immediately think of the uic code.

So I would map

uic_primary_code (all 8 digits)	-> ocp.code
Ortskürzel	-> ocp.abbreviation
location name	-> ocp.name

Defining the code as the uic code including the county code would make ticket #112 (attribute for uic country code) redundant.

Two interface partners could still agree on sending only 5 or 6 digits for national implementations though I wouldn't recommend this (I spent whole days at one of my old jobs to transform 5-digit interfaces files into 6-digit ones).

Best wishes from Berlin

Simon Heller

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Subject: Fwd: Mapping of code and abbreviation for ocps  
Posted by [Simon Heller](#) on Thu, 17 Mar 2011 12:19:37 GMT  
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.... I accidently posted this infrastructure message in the timetable forum.

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---- Weitergeleitete Usenet-Nachricht ----  
Von: "Simon Heller" <sih@ivu.de>  
Newsgroups: railML.timetable  
Betreff: Mapping of code and abbreviation for ocps  
Datum: Thu, 17 Mar 2011 11:03:40 +0100  
URL: news://<op.vshfkebqj84x31@sih-nb.ivu-ag.com>

Hello all,

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Subject: Re: Fwd: Mapping of code and abbreviation for ocps  
Posted by [Susanne Wunsch railML](#) on Mon, 21 Mar 2011 14:35:55 GMT  
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Hello Simon,

"Simon Heller" <sih@ivu.de> writes:

> ... I accidentally posted this infrastructure message in the timetable forum.

I don't think, it was a bad choice posting this issue to both timetable AND infrastructure forum. It is an aspect of infrastructure with high relevance for timetables.

I add a short reply from Joachim (by mail)

On Mon, Mar 21, 2011 at 11:45:09AM +0100, Joachim Rubröder wrote:

>

> Der Vorschlag von Simon, den UIC-Code am ocp zu berücksichtigen finde  
> ich sehr vernünftig. Da es dafür ja eine Beschreibung gibt, sollten  
> wir die auch möglichst 1:1 umsetzen:  
> - numerical country code (2 digits)  
> - railway location number (5 digits)  
> - check digit (1 digit)

- > -> neue eigene Felder speziell hierfür "uic-xy"
- >
- > "code" sehe ich für den Länder-intern bzw. System-intern üblichen
- > Schlüssel, also DS100 bzw. die mehrbuchstabile Abkürzung. Da können
- > wir in railML aber schwer eine verbindlichen Vorgabe über die Nutzung
- > machen. Viriato würde da wohl am ehesten den UICCode (2-digits) und
- > dann den vom Anwender vergebenen Schlüssel (also z.B. '85ZUE' für
- > Zürich) reinschreiben
- >
- > "name" ist dann wohl der Name des ocp (z.B. 'Zürich'), auch ohne
- > verbindliche Vorgaben für die Nutzung.

I translate this into the following (currently non-valid) XML fragments:

```
<xs:attribute name="tsiCountry" type="rail:tTwoDigits" />
<xs:attribute name="tsiLocation" type="rail:tFiveDigits" />
<xs:attribute name="tsiCheck" type="rail:tOneDigit" />
```

The newly introduced "code" attribute should be used for local location codes, like (RL100 in Germany). I would prefer using the "code" attribute with pure local (non-central) location codes (allowing letters, digits and whitespaces) but without additional country code prefixes, like Joachim suggested.

The "old" attributes "abbreviation" and "number" stay marked as "Deprecated" for next major release. see:

<http://trac2.assembla.com/railML/changeset/335>  
<http://trac2.assembla.com/railML/ticket/94>

Some example would be:

```
<ocp id="o12345"
  code="ZUE"
  name="Zürich"
  description="Zürich Hauptbahnhof"
  tsiCountry="85"
  tsiLocation="12345" <!-- ?? -->
  tsiCheck="3" />
```

Thank you Simon, for mentioning some official source.

Current file for download (as draft version):

[http://www.era.europa.eu/Document-Register/Documents/TAP-TSI-Technical\\_Document\\_TAP\\_B\\_9\\_v1.1.pdf](http://www.era.europa.eu/Document-Register/Documents/TAP-TSI-Technical_Document_TAP_B_9_v1.1.pdf)

(without according code lists, with some missing paragraphs and small

inconsistent explanations!)

There are some more definitions for location code lists that should be used in telematic applications for passenger railway services in future assumed this TSI is put into practice.

I resume the official code snippets for railML attributes:

tsiCountry (2 Digits) - country to which the location belongs in accordance to the Code List B.9.1

(currently missing!)

tsiLocation (5 Digits) - railway location number, the code shall be allocated by a national authority according to its own rules... Each Primary Code shall have an unambiguous and compulsory designation which shall be defined by the national authority.

tsiCheck (1 Digit) - check digit in accordance with the rules specified in Annex A.

tsiReservation (5 Digits) - seat reservation code are defined and allocated by each RU according to its own rules.

tsiType (1 Digit) - Type used to indicate the type of location [see code list B.9.2];

(currently missing!)

tsiInfrastructureBorder (3 Digits) - frontier and IM-transit point code used to identify the frontier and transit point concerned within the different "Type" categories. ...The allocating body tries to achieve agreement between the concerned parties and allocates the Subsidiary Code.

tsiRailwayA (4 Digits) - Company Code of RU A according ERA TAP TSI Technical Document B.8

tsiRailwayB (4 Digits) - Company Code of RU A according ERA TAP TSI Technical Document B.8

If we agree, implementing these attributes, I would prefer adding a new element, called "tsi" or "era" or "uic", cutting the attributes' prefixes.

just my 2 cents...

Susanne

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Susanne Wunsch

Schema Coordinator: railML.common

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Subject: Re: Fwd: Mapping of code and abbreviation for ocps  
Posted by [Susanne Wunsch railML](#) on Thu, 16 Jun 2011 20:31:17 GMT  
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Hello to all, who are interested,

In [391], [392] and [393] Christian (our new infrastrukt. coordinator) committed the addition of an 'tsi' element with currently three attributes for country code, location code and check digit. You can have a look at the ticket #112 for more information.

[391] <http://trac2.assembla.com/railML/changeset/391>

[392] <http://trac2.assembla.com/railML/changeset/392>

[393] <http://trac2.assembla.com/railML/changeset/393>

#112 <http://trac2.assembla.com/railML/ticket/112>

Susanne Wunsch <coord@common.railml.de> writes:

> Current file for download (as draft version):

>

> [http://www.era.europa.eu/Document-Register/Documents/TAP-TSI-Technical\\_Document\\_TAP\\_B\\_9\\_v1.1.pdf](http://www.era.europa.eu/Document-Register/Documents/TAP-TSI-Technical_Document_TAP_B_9_v1.1.pdf)

>

> (without according code lists, with some missing paragraphs and small  
> inconsistent explanations!)

Stefan Jugelt (Project Officer for Telematic Applications at ERA) pointed me to the officially released documents for the Commission Regulation (EU) No 454/2011 of 5 May 2011 on the technical specification for interoperability relating to the subsystem 'telematics applications for passenger services' of the trans-European rail system. [1]

The most interesting parts for us are

\* Directory of passenger code lists for the ERA technical documents used in TAP TSI (EN);

(especially following Code Lists  
B.9.1 Numeric Country Code  
B.9.2 Type of Border point  
B.9.3 Category of location  
B.9.4 Opening status of a location  
B.9.5 Utilisation status of a frontier point)

\* Standard numerical coding of locations – B.9 (EN);

(no important changes compared to the last draft version)

We will use this documents for further railML development and integrate some portions if required by the railML users.

Read you...  
Susanne

[1] <http://www.era.europa.eu/Document-Register/Pages/TAP-TSI.asp> x

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Susanne Wunsch  
Schema Coordinator: railML.common

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Subject: Re: Mapping of code and abbreviation for ocps  
Posted by on Mon, 26 Mar 2012 07:31:37 GMT  
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We discussed about some aspects of Simon's original post from one year ago again on last Monday, March 19th 2012.

There are normally several abbreviations and/or numbers for the same station, even in one country. So, the writing and reading software of a RailML file can have different external primary keys for the same station. During the evaluation process of the last year we got the new 'code' and 'tsi' as additional external primary keys but somehow we lost 'abbrev[i]ation' and 'number' as well. So where to put the abbreviations and EFA-numbers (needed in Germany) now? We cannot put both into 'code'.... So, we now have this certain amount of confusion which Simon did warn us against...

We now intend to allow a kind of enumeration of two-valued elements (elements with two attributes) per station. Each one can handle one external primary key of the station, which may be either a string (abbreviation) or a number.

I try to explain with a simple example (which is not valid RailML nor

agreed in any kind, so key words or syntax may differ later):

```
<ocp ... name='Passau Hbf.' ...>
  <externalPrimaryKeys>
    <externalPrimaryKey register='DS100' value='NPA'/>
    <externalPrimaryKey register='DB640' value='Pa'/>
    <externalPrimaryKey register='UIC:80' value='80.7.33.165.9059'/>
    <externalPrimaryKey register='UIC:81' value='81.4.1744'/>
    <externalPrimaryKey register='EFA' value='8000298'/>
  </externalPrimaryKeys>
</ocp>
```

The first attribute 'register' means something like catalogue, index, directory. It shall be an enumeration of predefined values but this would mean, if someone needs a new register, he would need to call the Scheme Coordinator first. So I guess we have to allow a free string there. But we should strongly recommend and agree that each new 'register' has to be 'registered' at the Scheme Coordinator...

The second attribute 'value' has also to be defined as a string but may contain a number also depending on the 'register'. (This means, some 'registers' require a number which is not forced by XML.)

With this principle, there is no need to use 'code' for the abbreviation and/or the number. 'Code' will still be there since it is inherited but (by recommendation) not specially to be used with OCPs.

I herewith apply for the following 'registers' to be defined from the very beginning:

- 'DS100' for the German "Betriebsstellenkürzel" (referring to the former "Dienstvorschrift"; I would not agree with "Richtlinie" since it is not a recommendation to use them but a directive!)
- 'DB640' which is the Austrian pendent to DS100 (DB="Dienstbehelf" - has nothing to do with Deutsche Bahn nor Dirk Bräuer).
- 'EFA' for the numbers used in some German public timetable databases and some RaiLML-reading programmes (EFA="elektronische Fahrplanauskunft" - or however they are called officially - Vasco know how).

The other values I used in the example above are really existing but we do not use them in RailML so far and I do not know the exact name of their origin.

It is intended to introduce the new principle with the first pre-launch RailML 2.2.

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Hello Dirk and others interested,

Dirk Bräuer <dirk.braeuer@irfp.de> writes:

- > We now intend to allow a kind of enumeration of two-valued elements
- > (elements with two attributes) per station. Each one can handle one
- > external primary key of the station, which may be either a string
- > (abbreviation) or a number.

```
<ocp id="" name="" code="" description="">  
  <additionalCode register="" value=""/>  
  ...  
</ocp>
```

Is there any globally unique code for any kind of railway locations?

This could be fixed for the general "code" attribute. Otherwise it would be better to leave this attribute absent and require the definition of the "register" together with the code "value".

UIC manages the ENEE database. [1]

I don't have any access to the UIC leaflet 920. Does these location codes serve as additional keys to the well-known country/company-specific ones? Or does the UIC offer a really unique code for each location?

The "register" values should be pre-defined by enumeration values. It may be extended without changing the XML schemas.

- > I herewith apply for the following 'registers' to be defined from the very beginning:
- > - 'DS100' for the German "Betriebsstellenkürzel" (referring to the former "Dienstvorschrift"; I would not agree with "Richtlinie" since it is not a recommendation to use them but a directive!)
- > - 'DB640' which is the Austrian pendent to DS100 (DB="Dienstbehelf" - has nothing to do with Deutsche Bahn nor Dirk Bräuer).
- > - 'EFA' for the numbers used in some German public timetable databases and some RailML-reading programmes (EFA="elektronische Fahrplanauskunft" - or however they are called officially - Vasco know how).

Good starting point. Thanks.

The "value" should be a pure xs:string, allowing letters, numbers,

spaces, underscores, slashes, dashes, points and so on.

[1] <http://www.uic.org/spip.php?article378>

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Kind regards...

Susanne

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Subject: Re: Mapping of code and abbreviation for ocps  
Posted by on Thu, 17 May 2012 10:49:30 GMT  
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Dear Susanne,

> Is there any globally unique code for any kind of railway locations?

No, surely not.

> This could be fixed for the general "code" attribute. Otherwise it  
> would be better to leave this attribute absent and require the  
> definition of the "register" together with the code "value".

I would prefer the latter, so leaving the attribute 'code' absent.

> UIC manages the ENEE database. [1]

ENEE should be one of the 'register' enumerations but not the 'code'.

> I don't have any access to the UIC leaflet 920. Does these location  
> codes serve as additional keys to the well-known  
> country/company-specific ones? Or does the UIC offer a really unique  
> code for each location?

Even if UIC would try to provide such a world-wide unique code (which they do not) we should not consider it as a general 'code' for reasons of universality. RailML shall be usable really universally by internal structure. Therefore, it should not be forced to UIC territory but also for Asia, Africa or America. But more important, if you consider that the following two aspects:

- What in detail will ever be assumed to be an OCP - the general 'stations' or also parts of a station or also block posts and may be also some virtual location spots?
- RailML shall be usable in any time-relation: Not only with the existing OCPs/stations but also with future ones (which nobody of UIC knows so far) and with abandoned ones.

I think that there cannot be a really unique 'code' for all of that and

therefor we should always define the 'register' together with the 'value'  
- which is the new principle.

- > The "register" values should be pre-defined by enumeration values. It
- > may be extended without changing the XML schemas.

Very good.

- > The "value" should be a pure xs:string, allowing letters, numbers,
- > spaces, underscores, slashes, dashes, points and so on.

Yes, I agree.

Best regards,  
Dirk.

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