Subject: Re: new attribute on the vehicle element
Posted by Susanne Wunsch railML on Tue, 17 Sep 2013 22:46:52 GMT
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Hello Horst,

I move the request to the rollingstock group. The 'vehicle' element is
part of the rollingstock sub-schema. I'm sure, Jörg (RS coordinator)
will provide some feedback. He already worked on parts of the UIC wagon
classification.

horst.naujoks@qnamic.com (Horst Naujoks) writes:

> Dear all,
>
> I'm a developer at Qnamic AG
> (http://http://www.railml.org//index.php/entwickler.html?show =35) and
> we using RailML in different contexts in our products.
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> I'd like to submit the following extension to the railMl
> infrastructure schema:
>
> The element <vehicle> should be completed by an new optional attribute
> 'uicVehicleNumber'. The whole purpose of this number is documented
> here: http://en.wikipedia.org/wiki/UIC_wagon_numbers. The new
> attribute supposed as an explicit supplement to the existing
> id/code/name attribute facility. It should support a better data
> exchange in systems which share this number.
>
> Today, we already employ this attribute by the usage of a schema
> extension (as an 'any' attribute) and of course we'd like to replace
> this construct by an explicitly specified attribute.
>
> Kind Regards,
>
> Horst Naujoks

Crosspost & Followup-To: railML.rollingstock

Kind regards...
Susanne

--
Susanne Wunsch
Schema Coordinator: railML.common

Subject: Re: new attribute on the vehicle element
Posted by Joerg von Lingen on Mon, 23 Sep 2013 11:07:11 GMT
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Dear all,

we had already discussed the issue of UIC numbers for vehicles. The major point of discussion was whether the number
will stay with the vehicle during its entire lifetime or changes with the owner/operator. There we couldn't reach
clarification.

This question was of importance as to where storing the UIC-number in the tree. I would prefer to place it under
Classification/Operator because we then have a clear information of the time period the number is assigned to that
vehicle. At the moment the string element <operatorClass> can be used in that sense. However, I woul go for a more
stringent definition which shall be then cover all types of vehicles (wagons and loco).

I will try to provide a proposal on this within the next weeks.

Best Jörg.

Susanne Wunsch wrote the following on 18.09.2013 00:46:
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> Kind regards...
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Subject: Re: new attribute on the vehicle element
Posted by Joerg von Lingen on Fri, 04 Oct 2013 07:42:22 GMT
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Dear all,

wrt UIC numbers I would propose to add an attribute <uicVehicleNumber> for the <operator>-element of a vehicle:

```
<xs:simpleType name="tUicVehicleNumber">
  <xs:restriction base="xs:string">
    <xs:pattern
value=" [1-9][0-9]-[1-9][0-9]-[1-9][0-9][1-9][0-9]-[1-9][0-9][1-9]-[ 0-9] " />
    </xs:restriction>
  </xs:simpleType>
```

This shall allow numbers with the following meaning:
The complete vehicle number comprises 12 digits. The individual digits have the following meaning:
Digits 1-2: Type of vehicle and indication of the interoperability capacity (on multiple units, type)
Digits 3-4: Country Code (Owner before 2006)
Digits 5-8: Vehicle type information
Digits 9-11: Individual running number (serial number)
Digit 12: Self-check digit

Best Jörg.

On 23.09.2013 13:07, Joerg von Lingen wrote:
> Dear all,
>
> we had already discussed the issue of UIC numbers for vehicles. The major point of discussion

was whether the number
> will stay with the vehicle during its entire lifetime or changes with the owner/operator. There we couldn't reach
> clarification.
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> This question was of importance as to where storing the UIC-number in the tree. I would prefer to place it under
> Classification/Operator because we then have a clear information of the time period the number is assigned to that
> vehicle. At the moment the string element <operatorClass> can be used in that sense. However, I woul go for a more
> stringent definition which shall be then cover all types of vehicles (wagons and loco).
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>>
>> Crosspost & Followup-To: railML.rollingstock
>>
>> Kind regards...
>> Susanne
>>
>

--
Best regards,
Joerg v. Lingen

Rollingstock Coordinator

Subject: Re: new attribute on the vehicle element
Posted by Joerg von Lingen on Fri, 04 Oct 2013 07:46:26 GMT
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Sorry, must be (all digits 0-9 allowed)
<xs:pattern
 value=" [0-9][0-9]-[0-9][0-9]-[0-9][0-9][0-9][0-9]-[0-9][0-9][0-9]-[0-9] " />

On 04.10.2013 09:42, Joerg von Lingen wrote:
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> <operator>-element of a vehicle:
>
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>   <xs:pattern
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>>> Crosspost & Followup-To: railML.rollingstock
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>>> Kind regards...
>>> Susanne
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>>
>
>

--
Best regards,
Joerg v. Lingen

Rollingstock Coordinator

Subject: Re: new attribute on the vehicle element
Posted by Susanne Wunsch railML on Sun, 06 Oct 2013 21:09:45 GMT
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Joerg von Lingen <coord@rollingstock.railml.org> writes:

> Sorry, must be (all digits 0-9 allowed)
> <xs:pattern
> value=" [0-9][0-9]-[0-9][0-9]-[0-9][0-9][0-9][0-9]-[0-9][0-9][0-9]-[0-9] " />

Maybe, it's easier to read with use of the "quantity expression":

> <xs:pattern
> value="[0-9]{2}-[0-9]{2}-[0-9]{4}-[0-9]{3}-[0-9]" />

:-)

Kind regards...
Susanne

--

Susanne Wunsch
Schema Coordinator: railML.common

Subject: Re: new attribute on the vehicle element
Posted by on Tue, 19 Nov 2013 17:53:46 GMT
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Dear Jörg,

thank you for posting this topic on UIC vehicle numbers. In general, I would welcome such a possibility because there is hope that this simplifies "finding the right vehicle series" when exchanging data between different software programs.

To explain the problem behind it for the "along-reader": For the timetable we normally have to refer to engine series. Engine series are not named nor numbered uniquely throughout most countries. For instance, a German "series 772" is something much different (and smaller) than a Czech "series 772". To make it more difficult, not all countries or operators have series numbers. And in most countries, "sub-series" are necessary to describe a vehicle series exactly.

To clarify: From the view of timetables, we do not want to address certain vehicles - always vehicle series. It is a much easier task to address a certain vehicle (e. g. by its UIC number) than a series...

Well, there is hope that UIC numbers may help in future. But therefore - and additionally to your suggestion - I think that it will be necessary to distinguish between the "constant" and the "variable" part of the UIC number:

The constant part does not change in a series. The variable part changes from unit to unit of a series.

So it would be easy if the constant and variable part would always be the same set of digits in all UIC numbers throughout the UIC world. But: This is not the case. So we need a possibility to "mark" the constant and variable parts of a UIC number of a certain series such as:
(a) 92 80 0232 xxx-x D-xxx
(b) 94 80 0428 1xx-x D-xxx
where xxx mean the variable parts of a series.

It seams that (a) or (b) is the "series mask" for German vehicles. It would also fit for some other countries but unfortunately not for all. One of the more strange examples (in my opinion) is Sweden. Here are some Swedish examples of UIC numbers:

92 74 0000 221-2 S-IBAB (Swedish class T43)
92 74 0000 001-8 S-MTAB (Swedish class T46)
92 74 000 0376-4 S-GC (Swedish class Td)
91 74 106 1390-0 S-SJ (Swedish class Rc6)
94 74 4620 004-2 S-ABTR (Swedish class X62)

So what is the "series mask" for Swedish engines? It seams that Swedish UIC numbers are only unique throughout one operator (S-....). So, for a Swedish mask, S-xxx would not be variable.

So for RailML, we should be aware that
- we cannot skip the "letter part" ("S-IBAB" a.s.o.) despite one could think that "74" and "S-" are redundant! In Sweden (and other countries), there are several engines "74 0000 001-8". They differ only in the letters behind "S-".

And we should ask ourselves
- Can we provide a kind of "series mask" to describe which UIC vehicle numbers are members of a vehicle series?
- Which parts of UIC numbers are necessary for uniqueness? Which are constant or variable in this meaning?

Best regards,
Dirk.

P.S.: Before somebody asks, here some German number examples of different operators:
92 80 0232 204-0 D-LEG
95 80 0303 001-1 D-DEV
94 80 0427 005-4 D-DB
94 80 0428 120-0 D-ERB
90 80 1001 003-5 D-ALS
93 80 5411 062-3 D-DB
91 80 6143 967-8 D-DB

By the way, it is even not clear whether to write the letters (D-DB, S-MTAB) in front or behind the actual UIC no. Here, I have always written it behind but in practice you'll find both solutions. So much for European standardisation!