
Subject: Timetable updates

Posted by [tobias](#) on Thu, 08 Apr 2004 12:38:31 GMT

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I have a question on updates of existing timetables. Given that a file with a complete timetable (especially in a format like RailML) is very large it is in practice often desirable to be able to send updates when something changes as opposed to recreate and send the entire file. Is this something that has been considered?

Tobias Bende

Subject: Re: Timetable updates

Posted by [Joachim.Rubröder](#) on Thu, 08 Apr 2004 13:10:30 GMT

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This case is not especially treated in the schema. But you are free to put a whole big timetable with thousand trains in a file, or to send just a few update-trains. I think this is a task for the receiving program to identify the trains as new or known ones.

There is the <date> attribute in <train> which could be used as date of the last change and I thought about adding another optional attribute <status> in the <train> element (as used within SBB) wich could have values like "new", "changed", "omitted", ...

Would this be helpful?

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Subject: Re: Timetable updates

Posted by [thomas.kauer](#) on Tue, 13 Apr 2004 12:57:58 GMT

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In respect to possible future use of the timetable-schema as an interface

for programs that treat with actual trains and not only with longtime planning it should support the possibility to give delta-informations for existing timetable data. So it would be useful to add the proposed attribute <status>.

The <date> of the last change would be used in this respect to decide for multiple changes which one is the last, that is to say which one is valid.

Joachim Rubröder wrote:

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Subject: Re: Timetable updates

Posted by [tobias](#) on Tue, 13 Apr 2004 15:26:16 GMT

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An example where one would definitely need delta-information is a day-of-operation system for railway companies. In such a system there would be several updates per second.

It has to be asked if the <status> attribute is adequate for indicating changes. It could be if there existed some identity for each train, but an artificial identity (like train number + date) is not enough. For example, how would I send the information that train number 4711 is now called 4712?

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Subject: Re: Timetable updates
Posted by [Joachim.Rubröder](#) on Wed, 14 Apr 2004 07:29:39 GMT
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I agree that a trainID like "4712" is not enough to identify a train.

For german DB we use a combination of line number, train number, operating period and the timetable period as trainID and there are still some identification problems to solve.

What about:

<trainID> technical ID to identify a train, used by the programs (most often based on the train number)

<trainNumber> new element for the train number, as used by railways like "4712"

<status> as suggested below, like "changed"

<date> with new ISO8601-format xsd:dateTime instead of xsd:date (a date with optional time, fractional seconds up to nanoseconds are possible like "19941105T08:15:00301")

best regards,
Joachim Rubröder

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Subject: Re: Timetable updates
Posted by [thomas.kauer](#) on Wed, 14 Apr 2004 09:15:52 GMT
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I agree that we need a technical trainID that is independent of the "outside" used train number.
On european level there is a project in work to follow international trains between NL and I passing the alps (Europtirails). For this there

will be introduced a global trainID over all the way the train runs (over all companies and countries) to which the locally used train numbers have to be associated.

Actually the idea is to use a combination of:

- the train number at the beginning of the train
- the departure station
- the departure day/time (important since such trains can run for more than 24h)

but there is no final format defined yet as far as I know.

The <status> would be needed not to identify the train but as additional information.

By the way, I see at least two kinds/groups of informations that could be treated as status:

- information about the train (running, canceled, planned, ...)
- information about the data (as suggested below: new data/train, changed data for an existing train, ...)

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Joachim Rubröder wrote:

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- > like "4712"

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- > <date> with new ISO8601-format xsd:dateTime instead of
- > xsd:date (a date with optional time, fractional seconds up to
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Subject: Re: Timetable updates
Posted by [Joachim.Rubröder](#) on Thu, 22 Apr 2004 12:31:06 GMT
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So I suggest to form a new group of attributes for the train:

<dataSource> the former <source>
<dateTime> the former <date>, now with expanded type "dateTime"
<dataStatus> new data, changed data, deleted data, ...

in addition there will be the two new attributes

<trainNumber> the train number (not unique)
<trainStatus> planned train, canceled train, ...

I think this should solve the problems about "Timetable updates"?
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Thomas Kauer schrieb:

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Posted by [thomas.kauer](#) on Fri, 23 Apr 2004 06:35:04 GMT
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