
Subject: [railML2.5] Current train locations
Posted by [Stefan Blaser](#) on Tue, 26 Jan 2021 06:00:08 GMT
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Dear railML community,

we need to exchange current train locations between our TMS and other systems and are interested in doing this with railML 2.5.

By current train locations, we mean the positions of trains on the rail network as soon as they are running. So it is about informing another system almost in real time where the trains are at the moment. This information can be periodic (e.g. if the track kilometrage is used as the position of the trains) or it can be provided each time a train moves from one infrastructure element (e.g. track section, route, station, train number field, timetable element) to the next.

For example, one use case is a TMS that provides the current (dispatching) timetable and train locations to a customer information system (CIS). The customer information system needs the current train locations to provide output (e.g. announcing an arriving train on a platform) at the correct time.

We use a separate topology layer for the train locations, consisting of so called 'train number fields'. A 'train number field' is always placed between two consecutive main signals. When a train location is reported for a 'train number field', it means that the train is currently on that route (within the two delimiting main signals). When the train passes the signal at the end of the 'train number field', the train location is stepped to the next 'train number field'. In addition to the exchange of train locations, it should also be possible to exchange the information when a route is set for a train (path reservation). This is also done with 'train number fields', a train location or a path reservation can be reported. When a 'train number field' is no longer occupied by a train (train location or path reservation), the 'train number field' is reported as cleared again.

This is our specific approach for train locations. To make it usable for us, this should be covered by railML 2.5, but in a generic way (e.g. train locations for infrastructure elements that differ from our 'train number fields', path reservation information optional, etc.), so that it is also usable for other systems.

Best regards,
Stefan Blaser
Siemens Mobility AG

Subject: Re: [railML2] Current train locations
Posted by [Heidrun Jost](#) on Wed, 27 Jan 2021 21:10:57 GMT
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Dear Stefan,

my name is Heidrun Jost, I am working at Thales on a TMS project for Norway.

Am 26.01.2021 um 07:00 schrieb Stefan Blaser:

- > we need to exchange current train locations between our TMS
- > and other systems and are interested in doing this with
- > railML 2.5.

We also need these train number description fields in the railML exchange format. However, we will use railML 3.2 in our projects and therefore need the elements and attributes in the upcoming railML 3.2 schema. I had written a forum post on this in the Interlocking section (see <https://www.railml.org/forum/index.php?t=msg&th=795>).

However, we would appreciate it if the development between railML 2.5 and railML 3.2 would be coordinated. What do the community and the responsible scheme coordinators think about this?

Best regards,

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Heidrun Jost
Data Manager
Transportation Systems
Thales Deutschland GmbH

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Subject: Re: [railML2] Current train locations
Posted by [Thomas Yeo](#) on Mon, 19 Apr 2021 00:57:40 GMT
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Just to support the need for Train location to be added.

Adding to what Stefan mentioned above. In Sydney, Australia, we have a ETCS Level 2 program and will implement the Siemens TMS.

I would second the need for Train Location in version 3.2 . Whether it requires both versions is a question.

Thomas yeo
Transport for NSW

Subject: Re: [railML2] Current train locations
Posted by [Stefan Blaser](#) on Tue, 25 May 2021 05:34:44 GMT
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Implementing the train locations in railML 3.2 is adequate, the extension of railML 2.5 is not necessary for our project.

Stefan Blaser
Siemens Mobility AG

Subject: Re: [railML2.5] Current train locations
Posted by [Thomas Langkamm](#) on Wed, 26 May 2021 13:26:04 GMT
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This sounds very similar to Torbens requirement for track sections/areas?
[https:// www.railml.org/forum/index.php?t=msg&th=804&start=0& amp;](https://www.railml.org/forum/index.php?t=msg&th=804&start=0& amp;)

Subject: Re: [railML2.5] Current train locations
Posted by [christian.rahmig](#) on Fri, 25 Jun 2021 13:49:39 GMT
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Dear Thomas², Heidrun and Stefan,

thank you for your input and feature request. Indeed, I also see some similarities and synergies with Torben's idea of introducing an "area element". Therefore, I would like to make you aware of the solution proposal documented in Trac ticket #393 [1].

So, what are your specific requirements for this area / track section from your applications point of view: which attributes / child elements do you need?

Do you have any other ideas and comments on the area approach? As usual, any comment from the railML community is highly appreciated...

[1] <https://trac.railml.org/ticket/393>

Best regards
Christian
