
Subject: [railML3.1] TrainDetectionElement and TrainDetectionElementSection
Posted by [Fabrizio Cosso](#) on Tue, 09 Oct 2018 09:17:47 GMT

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Dear all,

I need some clarifications on TrainDetectionElements representation.

What's the meaning of TrainDetectionElementSection?

In particular, I'm interested in modeling trackCircuits:

it is not clear to me what is the difference between a trainDetectionElement of type trackCircuit and a TrainDetectionElementSection of type trackCircuit.

My understanding looking at the model was to use arealocation to describe which part of topology were covered by track circuits but probably you are describing them a differently.

May you help me understanding?

The example is:

I have 3 networkElements with a switch in the middle. The trackCircuit extension is indicated by the === symbol.

It spreads over ne1, ne2 and ne3. How to represent it?

```
      ne2
    //=====----->
ne1 //   ne3
----->----->
```

Thanks

BR

Fabrizio

Subject: Re: [railML3.1] TrainDetectionElement and TrainDetectionElementSection
Posted by [christian.rahmig](#) on Mon, 15 Oct 2018 10:56:58 GMT

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Dear Fabrizio,
dear all,

the original idea behind this separation was:

TrainDetectionElement

.... is exactly one element, e.g. one track circuit, covering a certain area.

TrainDetectionElementSection

.... describes an area, where a specific train detection system has been installed, e.g. track circuits, without mentioning a number of elements.

In your special case, I would choose the TrainDetectionElement, because you describe one single track circuit, right?

If you think, that such a separation is not needed for the model, we may think about adapting the model. Please keep in mind, that the IL schema needs a train detection element (axle counter or track circuit border) as element with explicit position.

@all: any comment is highly appreciated...

Best regards
Christian

--

Christian Rahmig - Infrastructure scheme coordinator
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Am 09.10.2018 um 11:17 schrieb Fabrizio Cosso:

- > Dear all,
- > I need some clarifications on TrainDetectionElements
- > representation.
- > What's the meaning of TrainDetectionElementSection?
- > In particular, I'm interested in modeling trackCircuits:
- > it is not clear to me what is the difference between a
- > trainDetectionElement of type trackCircuit and a
- > TrainDetectionElementSection of type trackCircuit. My understanding
- > looking at the model was to use
- > areallocation to describe which part of topology were covered
- > by track circuits but probably you are describing them a
- > differently. May you help me understanding?
- > The example is:
- > I have 3 networkElements with a switch in the middle. The
- > trackCircuit extension is indicated by the === symbol.
- > How to represent it?
- > ne2
- > //=====----->
- > ne1 // ne3
- > ----->----->
- >
- > Thanks
- >
- > BR
- >
- > Fabrizio

Subject: Re: [railML3.1] TrainDetectionElement and TrainDetectionElementSection
Posted by [Joerg von Lingen](#) on Sat, 20 Oct 2018 03:41:50 GMT
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Dear all,

please note the view from interlocking side:

<TrainDetectionElement>

It is an element on the track with a definitive position but without length. It can be a axle counter detection point, a wheel sensor or an insulated rail joint. It is NOT an entire track circuit.

<TrainDetectionElementSection>

First it seems to be a duplicate to the functional item <TvdSection> we have in the interlocking part.

A TVD section is a part of a track (with length) used to detect whether there is any rail vehicle in it. It is clearly delimited by detection elements or end of tracks (buffer stop).

Best regards,
Joerg v. Lingen

Interlocking Coordinator

On 15.10.2018 12:56, Christian Rahmig wrote:

- > Dear Fabrizio,
- > dear all,
- >
- > the original idea behind this separation was:
- >
- > TrainDetectionElement
- > ... is exactly one element, e.g. one track circuit, covering a certain area.
- >
- > TrainDetectionElementSection
- > ... describes an area, where a specific train detection system has been
- > installed, e.g. track circuits, without mentioning a number of elements.
- >
- > In your special case, I would choose the TrainDetectionElement, because you
- > describe one single track circuit, right?
- >
- > If you think, that such a separation is not needed for the model, we may think
- > about adapting the model. Please keep in mind, that the IL schema needs a train
- > detection element (axle counter or track circuit border) as element with
- > explicit position.
- >
- > @all: any comment is highly appreciated...
- >
- > Best regards

> Christian
>

Subject: Re: [railML3.1] TrainDetectionElement and TrainDetectionElementSection
Posted by [christian.rahmig](#) on Mon, 22 Oct 2018 17:14:50 GMT
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Dear Joerg,
dear all,

Am 20.10.2018 um 05:41 schrieb Joerg von Lingen:

> [...]
> <TrainDetectionElementSection>
> First it seems to be a duplicate to the functional item <TvdSection> we have in
> the interlocking part.
> A TVD section is a part of a track (with length) used to detect whether there is
> any rail vehicle in it. It is clearly delimited by detection elements or end of
> tracks (buffer stop).

I conclude that the <trainDetectionElementSection> is redundant to the interlocking based <tvdSection>. Therefore, I removed it from railML 3.1 infrastructure model. Train detection elements / train detectors can be modelled using the <trainDetectionElement> element.

Best regards
Christian

--

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