
Subject: [railML3] Signalled braking distance of a line (de: Regelbremsweg einer Strecke)

Posted by [Michael Gruschwitz](#) on Wed, 30 Mar 2022 09:34:10 GMT

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Dear colleagues!

As part of the joint work in our BMDV funded research project "Indres" we at Bahnkonzept came across the requirement to exchange what in Germany is called "Regelbremsweg". It is usually the distance between the main signal and the matching distant signal. It is usually also referred to as the maximum braking distance of a train the lineside signaling is based on. An english expression for this braking distance the lineside signalling is based on could be "signalled braking distance" of a line.

We are aware that there are a lot of railways that do not follow the idea of a uniform standard braking distance set for a line, however we think that for those who do it should be possible to exchange this information via railML.

We are also aware that it is already very late in the process of preparing publishing of railML 3.2, nonetheless we would very much appreciate if this requirement could still be considered to be included this release.

What do you think? How could we support this?

Best regards,

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Michael Gruschwitz

Bahnkonzept Dresden/Germany

P.S. For railML 2.5 we will try to model too, but in an own extension of the standard.

Subject: Re: [railML3] Signalled braking distance of a line (de: Regelbremsweg einer Strecke)

Posted by [Jörg von Lingen](#) on Thu, 31 Mar 2022 05:25:20 GMT

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Dear all,

in case we add this information I would suggest to have an attribute in <linePerformance> similar as @maxSpeed.

Dr.-Ing. Jörg von Lingen - Interlocking scheme coordinator

Subject: Re: [railML3] Signalled braking distance of a line (de: Regelbremsweg einer Strecke)

Posted by [christian.rahmig](#) on Fri, 01 Apr 2022 09:25:50 GMT

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Dear all,

I suggest to name it `@standardBrakingDistance` and it should allow for positive integer values describing a distance in meters. Or do you prefer an enumeration of values ("700", "1000", ...)? The attribute should be located in element `<linePerformance>`.

I filed an issue for this topic: [1]

[1] <https://development.railml.org/railml/version3/-/issues/505>

Best regards
Christian

Subject: Re: [railML3] Signalled braking distance of a line (de: Regelbremsweg einer Strecke)

Posted by _____ on Fri, 01 Apr 2022 10:52:35 GMT

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Dear all,

I welcome this (optional) attribute in general but I want to suggest

- to name it understandably: It is not the standard braking distance - this is a misinterpretation of the old German term "Bremswegabstand" which was never a proper term. It is the default pre-signalling distance. The actual braking distances are (and should be, according to operating rules) usually longer or shorter. We should select a term which allows a deduction of the meaning for non-German speakers: `@defaultPresignallingDistance` or such.

- For annotations/Wiki: It has some pure theoretical and formal meaning in cases where someone must setup a "presignalling" on short-term notice: Place donators along the track in case of a broken rail, for instance... As I said: It's formal, not very practical nowadays. But due to this, it is needed to calculate the minimum necessary braking percentage of a line.

- Please be aware (and allow in the data model) that it depends on the direction and section of the line/track. I have examples where the default pre-signalling distance is different for both directions at the same section of line and where it changes several times on the same line.

- Please do not use an enumeration. There is no real technical/logical limitation of these values. On historical lines (mainly Schmalspurbahnen), we have exotic values and we would surely miss one.

Best regards,
Dirk.

Subject: Re: [railML3] Signalled braking distance of a line (de: Regelbremsweg einer Strecke)

Posted by [christian.rahmig](#) on Thu, 07 Apr 2022 11:59:09 GMT

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Dear Dirk, dear all,

thank you very much for your feedback and for the important issues that you pointed to.

With regards to the naming, I want to follow a feedback by Prof. Pachl who suggested "signalled braking distance". The attribute could be named @signalledBrakingDistance accordingly.

The remark that the signalled braking distance is direction-dependent and may vary along a railway line, is crucial. In particular, this means that the implementation cannot be based on an attribute only. Here, we need to look for other solutions.

Best regards
Christian
