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Subject: Re: railML 2.3 infrastructure extension proposal tunnel resistance factor  
Posted by [Torben Brand](#) on Fri, 24 Feb 2017 15:01:11 GMT

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My answer to Christian Rahmig and Dirk Bräuer:

The correct way would of course be to calculate from the parameters you both describe (but not exhaustively). But all our tools use a simpler approach for calculating runtimes use the described much simpler approach. Thus we need to cater to these tools as we need to fulfill the capacity planning use case in railML. The formula used is the same in all tools used by the Norwegian railway directorate (Opentrack, TRENO, LUKS). But other (more complex) formulas exist. So it's important to uniquely identify the factors and specify for which formula the factor is used. Since we are the first we chose the factor "A". Further factors "B" and so on. This must of course be described in the Wiki. The tunnel resistance factor "A" is used in a formula the forms an additional tunnel resistance to the air resistance. This according to:

[http://e-collection.library.ethz.ch/eserv/eth:24236/eth-2423\\_6-02.pdf](http://e-collection.library.ethz.ch/eserv/eth:24236/eth-2423_6-02.pdf) page 55 and 56.

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