Subject: Re: railML 2.3 infrastructure extension proposal tunnel resistance factor
Posted by christian.rahmig on Mon, 16 Nov 2020 14:11:50 GMT
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Dear all,

let me come back to the topic of tunnel restistance factors in order to decide whether they shall be implemented with railML 2.5:

I had a look at Dr. Hürlimann's PhD thesis, page 55f mentioned by Torben [1]. The tunnel resistance factor shall be used to calculate an additional resistance due to the tunnel parameters based on the equation $R(tun)=A*v^2$ where v describes the speed of the train in [m/s] and R(tun) is given in [N]ewton. Consequently, the tunnel resistance factor A shall be given in [kg/m]. As described in [1], for a train travelling outside of a tunnel, R(tun)=0 applies.

So, considering that we will put all the required background information (as mentionned in [1]) into the railML wiki, do you have any doubts to add a new attributes <tunnel>@resistanceFactorPassenger and <tunnel>@resistanceFactorFreight? A Trac ticket #426 [2] has been filed for solving the issue. Your feedback is very much appreciated.

[1] http://e-collection.library.ethz.ch/eserv/eth:24236/eth-2423 6-02.pdf
[2] https://trac.railml.org/ticket/426

Best regards
Christian