Subject: Re: Maximum train current - Proposal for extension of infrastructure scheme in railML 2.4
Posted by christian.rahmig on Mon, 29 Jan 2018 09:34:14 GMT
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Dear Mr. Frenzke,

thank you for bringing up the topic of maximum train currents that I would like to comment on from railML.org side:

Am 28.01.2018 um 23:13 schrieb Dr. Thorsten Frenzke:
> Dear all,
>
> on some line sections with electric traction system the maximum
> allowable current and power of a train is limited by the electrification
> (see also EN 50388).
> This may have influence on acceleration, running times and energy
> consumption, especially of high speed trains and multiple unit formations.
>
> Up to now there is no railML-element or attribute for considering such
> limitations.

That is correct for railML 2.x. In railML 3.1 beta that had been released on October 31, 2018, a first version of the maximum train current topic has already been implemented.

An example based on this implementation in the infrastructure scheme looks like this:

```
<electrification>
  <energyCatenary maxPantoCurrentStandstill="800"
maxTrainCurrentDriving="3000"/>
</electrification>
```

The values are given in Amperes [A].

> Sometimes, e.g. in Germany, there are different maximum allowable
> currents for passenger and freight trains.

In order to allow for train category specific maximum train currents, a modification of the schema has been discussed. The adapted example would look like this:

```
<electrification>
  <energyCatenary maxPantoCurrentStandstill="800">
    <maxTrainCurrentDriving maxCurrent="3000" trainType="passenger"/>
    <maxTrainCurrentDriving maxCurrent="1200" trainType="freight"/>
  </energyCatenary>
```

</electrification>

> Maybe it makes sense to add other optional attributes for this.

I would like to direct this question to the infrastructure managers and electrification experts:
Are there any further parameters that are relevant for the maximum train current? Any feedback is appreciated...

Best regards
Christian

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