
Subject: Re: How to mark the end of a speed restriction?
Posted by [Larissa Zhuchyi](#) on Fri, 20 Oct 2023 10:28:46 GMT
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Dear all

There is a suggestion to deprecate the "end" value of @maxSpeed os <speedSection> in railML3 as it seems to be redundant to linear locations of RailTopoModel. What do you think about this?

In the model of railML2 <speedChange> is a spot element which makes it hard to deal with considering that speed is valid from point A to point B. But then in railML3:
- modelling was improved with the introduction of linear locations of RailTopoModel, i.e. @maxSpeed can be explicitly defined from linearCoordinateBegin to linearCoordinateEnd, or intrinsic ones.
- there is a mechanism to link signals with the beginning and end of a speed section with a corresponding child <refersToBeginOfSpeedSection>

Furthermore, in railML2, this issue (end of a speed restriction) from 2014 seems to intersect with the need for a definition of speed at the beginning or end of a track from 2022 [1].

From what I can see, if the definition of speed change is mandatory at the beginning of a track (let's say not restricted one) and then restriction appears one can probably model an end of a restriction just by defining another change with a value equaling to the beginning. See the example code below.

```
<speedChange id="111" pos="0" dir="up" profileRef="all" vMax="80" signalised="false">
<speedChange id="222" pos="100" dir="up" profileRef="all" vMax="30" signalised="true"> <!--
begining of speed restriction -->
<speedChange id="333" pos="200" dir="up" profileRef="all" vMax="80" signalised="true"> <!--
end of speed restriction -->
```

[1] <https://development.railml.org/railml/version2/-/issues/425>
