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Subject: [railML3] Modelling of bridges

Posted by [Thomas Langkamm](#) on Thu, 09 Jun 2022 09:56:53 GMT

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Dear all,

I'm rather confused how rail bridges (2 tracks crossing each other via a bridge, like here: <https://www.google.de/maps/@52.4875682,13.4580887,673m/data=!3m1!1e3>) are modelled. (I apologize if I missed something obvious, but after browsing through the forum and wiki for half an hour I gave up and thought I'll ask here.)

overCrossing/underCrossing appear to be designed for something other than a rail that crosses/is crossed, however, it allows the type "railway" for is:crossesElement (<https://wiki3.railml.org/wiki/IS:crossesElement#3.2>). Since we don't have a "bridge" element anymore, it seems that we should use one of these two?

If this is incorrect, what is the correct modelling?

If this is correct, then this leads to some questions:

Say tracks A crosses over B. Would we have 2 elements, one overCrossing for B and one underCrossing for A? If so, would either have 2 elements "networkLocation" to reference the netElements? In this case we can't seem to distinguish which one is at the top and which one is at the bottom.

Or do we have just one element? If so, which one? IS:crossing appears to be out, as I read "A crossing is a place where two railway tracks intersect[...]" as that there is a physical connection between the tracks.

How would the netElement structure be? If we choose to separate netElements at the crossing point, we would have netElements A1/A2 with a netRelation A1\_A2 and B1/B2 with netRelation B1\_B2. But would we have a netRelation between A1\_B1, A1\_B2, A2\_B1 and A2\_B2 (navigability=none)?

Best, Thomas