
Subject: Re: How to model transitions bends in railML 2.0?

Posted by [Joachim Rubröder railML](#) on Mon, 07 Feb 2011 10:43:06 GMT

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Hello Christian,

Christian Rahmig wrote:

- > and I am currently working on a
- > railML2.0-based representation of a geometrical map of a railway
- > network, where I am facing a problem regarding transition bends.

Nice. Who wants to use this map? Does it point to some phase of construction plans?

- > The radiusChange element, which is usually used for geometric modelling
- > of the track, is not able to transport all the information defining a
- > transition bend. Since there are different options to handle this
- > problem - with and without modifying the infrastructure scheme - I want
- > to ask everybody in this forum first:
- >
- > 1. Who else deals with the task of modelling transition bends in railML 2.0?

I must admit, there is currently no possibility to fully define the cant/superelevation profile in railML. There aren't any transition bends in railML (despite of the fixed superelevation in arcs).

- > 2. If any, what different approaches for transition bend modelling have
- > been developed so far?

You can mix railML with LandXML elements. LandXML offers all types of transition bends, like clothoids, BLOSS and others.

I append a quick and dirty hack, that doesn't fully meet the LandXML requirements, it lacks the definition of units of measurement at the start of the file. :-(

You have to correct the XSD pathes in lines 7 and 9 to get it validated.

```
<?xml version="1.0" encoding="UTF-8"?>
<rail:railml
  xmlns:rail="http://www.railml.org/schemas/2009"
  xmlns:land="http://www.landxml.org/schema/LandXML-1.2"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.railml.org/schemas/2009
  ../schema/railML.xsd
  http://www.landxml.org/schema/LandXML-1.2
  ../LandXML/LandXML-1.2.xsd ">
```

```
<rail:infrastructure id="i1">
  <rail:tracks>
    <rail:track id="t1">
      <rail:trackTopology>
        <rail:trackBegin pos="0" id="tb1">
          <rail:openEnd id="oe1"/>
        </rail:trackBegin>
        <rail:trackEnd pos="2000" id="te1">
          <rail:openEnd id="oe2"/>
        </rail:trackEnd>
      </rail:trackTopology>
      <land:CantStation station="1234.56" appliedCant="10"
        transitionType="clothoid" curvature="cw"/>
    </rail:track>
  </rail:tracks>
</rail:infrastructure>
</rail:railml>
```

Please, let us know, if this approach fulfils your requirements.

Which other approaches did you find out?

Any comments are appreciated.

Kind regards...
Susanne

PS: Couldn't we listen to your project at the next meeting in Innsbruck?
I'm very interested in your work and hope my idea helps out.

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Susanne Wunsch
Schema Coordinator: railML.common

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----- posted via PHP Headliner -----
