Posted by Matthias Hengartner on Wed, 04 May 2005 11:45:08 GMT

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Hello,

> I wish to use the infrastructure scheme to describe something very simple,
> namely a set of stations and lines between these stations. Suppose I have
> four stations like in the figure below:
>
> A ------- B ------ C
>   /
> D -----
>
> I want it to be clear from the description that a train going from A to D
> have to reverse in B, while a train from A to C doesn't.
>
> After studying the nifty example file (DemoNet), it is clear that this
> scheme can describe very complex things, but I am unsure how to describe
> this simple case. This is how far I have got:
>
> - Stations need to be entered as operationControlPoints (ocps).
> - The only way to reference an ocp is through the crossSection element.
> - The crossSection element has an attribute called "dir" which is
> described as "Direction validity of element". I don't understand this, but
> it is the only way I have found to specify in which "end" of the station
> the line starts or stops.

hmm, AFAIK the "dir"-attribute of <crossSection> has no meaning (please
correct me if I'm wrong). I think that <crossSection> is "only" used for the
assignment of a <track> to an <ocp>.

Below I have a possible way to describe your case. Please note that there is
no explicit description of how to get e.g. from A to D, but it can be
figured out (computed) implicitly by means of <crossSection>-, <switch>- and
<connection>-element and their attributes (in particular "orientation" of
<switch>).
[This information is kind of a higher-level topology-information, which has
to be computed out of the detailed topology-information. Perhaps it makes
sense to discuss about a possibility to integrate such higher-level
information about the topology in a future version of the schema].

Best regards,
Matthias Hengartner

(see also the graphical representation of this topology:

http://matthias.theband.ch/railml/crossSections.jpg)

```xml
<infrastructure>
 <lines>
  <line lineID="line1">
   <tracks>
    <track trackID="track1">
     <trackTopology>
      <trackBegin>
       <bufferStop pos="0.0" elemID="startTrack1"/>
      </trackBegin>
      <trackEnd>
       <bufferStop pos="3.0" elemID="endTrack1"/>
      </trackEnd>
      <connections>
       <switch pos="1.0" elemID="switch1">
        <connection orientation="incoming" connectionID="con1"
branchIDRef="con2" branchTrackIDRef="track2"/>
       </switch>
      </connections>
      <crossSections>
       <crossSection pos="0.5" ocpIDRef="A"/>
       <crossSection pos="1.5" ocpIDRef="B"/>
       <crossSection pos="2.5" ocpIDRef="C"/>
      </crossSections>
     </trackTopology>
    </track>
    <track trackID="track2">
     <trackTopology>
      <trackBegin>
       <simpleConnection pos="0" elemID="startTrack2">
        <connection connectionID="con2" branchIDRef="con1"
branchTrackIDRef="track1"/>
       </simpleConnection>
      </trackBegin>
      <trackEnd>
       <bufferStop pos="1.0" elemID="endTrack2"/>
      </trackEnd>
      <crossSections>
       <crossSection pos="0.5" ocpIDRef="D"/>
      </crossSections>
     </trackTopology>
    </track>
   </tracks>
  </line>
 </lines>
 <operationControlPoints>
  <ocp ocpID="A"/>
```

```
  <ocp ocpID="B"/>
  <ocp ocpID="C"/>
  <ocp ocpID="D"/>
 </operationControlPoints>
</infrastructure>
```

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Matthias Hengartner

hengartner@ivt.baug.ethz.ch
++ 41 44 633 68 16
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