Subject: How do I describe this simple case?
Posted by tobias on Thu, 28 Apr 2005 15:16:59 GMT
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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.

Given this, I defined the direction "up" to be to the right in my figure and tried the implementation below. I described each line as going from one ocp to another and consisting of a single track. I used the mainDir attribute to specify which way the trains can travel, although I am not certain this is the correct way to use this attribute. For the pos-attribute I said that a line starts at 0.0 and ends at 1.0.

Can someone please tell me if I am on the right track here (no pun intended).

```xml
<railml>
  <infrastructure>
   <operationControlPoints>
    <ocp ocpID="A"/>
    <ocp ocpID="B"/>
    <ocp ocpID="C"/>
    <ocp ocpID="D"/>
   </operationControlPoints>
   <lines>
    <line lineID="AB">
     <tracks>
       <track trackID="1" mainDir="both">
```

```xml
    <trackTopology>
     <trackBegin>
      <bufferStop elemID="StartTrack1" pos="0.0"/>
     </trackBegin>
     <trackEnd>
      <bufferStop elemID="EndTrack1" pos="1.0"/>
     </trackEnd>
     <crossSections>
      <crossSection pos="0.0" dir="up" ocpIDRef="A"/>
      <crossSection pos="1.0" dir="down" ocpIDRef="B"/>
     </crossSections>
    </trackTopology>
   </track>
  </tracks>
 </line>
 <line lineID="BC">
  <tracks>
   <track trackID="1" mainDir="both">
    <trackTopology>
     <trackBegin>
      <bufferStop elemID="StartTrack1" pos="0.0"/>
     </trackBegin>
     <trackEnd>
      <bufferStop elemID="EndTrack1" pos="1.0"/>
     </trackEnd>
     <crossSections>
      <crossSection pos="0.0" dir="up" ocpIDRef="B"/>
      <crossSection pos="1.0" dir="down" ocpIDRef="C"/>
     </crossSections>
    </trackTopology>
   </track>
  </tracks>
 </line>
 <line lineID="BD">
  <tracks>
   <track trackID="1" mainDir="both">
    <trackTopology>
     <trackBegin>
      <bufferStop elemID="StartTrack1" pos="0.0"/>
     </trackBegin>
     <trackEnd>
      <bufferStop elemID="EndTrack1" pos="1.0"/>
     </trackEnd>
     <crossSections>
      <crossSection pos="0.0" dir="down" ocpIDRef="B"/>
      <crossSection pos="1.0" dir="up" ocpIDRef="D"/>
     </crossSections>
    </trackTopology>
```

```xml
      </track>
    </tracks>
   </line>
  </lines>
 </infrastructure>
</railml>
```