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Subject: crossing of 2 continuous tracks

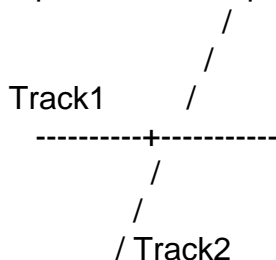
Posted by [Matthias Hengartner](#) on Thu, 03 Feb 2005 15:39:34 GMT

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Hello,

Now that we have a "stable" version 1.00, I'd like to come up with an old topic: How to map the following topology on railML:



(2 continuous, tracks which cross each other).

I copy-paste here my ideas from older postings and supplement them with some new considerations:

Given the picture above and assuming that Track1 goes from the left to the right and Track2 from bottom (left) up (right)

So we could have the following implementations in railML:

\*\*\* 1 \*\*\*

One <crossing> in each <track>, each of them have two <connection>s referring to a <connection> of the other <crossing>.

---> railML:

in Track1:

```
<crossing>
  <connection connectionID="C1a" branchIDRef="C2b"
branchTrackIDRef="Track2" orientation="outgoing"/>
  <connection connectionID="C1b" branchIDRef="C2a"
branchTrackIDRef="Track2" orientation="incoming"/>
</crossing>
```

in Track2:

```
<crossing>
  <connection connectionID="C2a" branchIDRef="C1b"
branchTrackIDRef="Track1" orientation="outgoing"/>
  <connection connectionID="C2b" branchIDRef="C1a"
```

```
branchTrackIDRef="Track1" orientation="incoming"/>
</crossing>
```

When the crossing is a right-angled "simpleCrossing", the orientation would be "rightAngled", of course.

Advantage of this solution:

- 1) There is a <crossing>-element in both tracks, so it's "symmetric" and both track are treated equally.
- 2) The current schema could hasn't to be changed

Disadvantages:

- 1) There are 2 <crossing>-elements for 1 (physical) crossing

\*\*\* 2 \*\*\*

Only one <crossing> in one <track>. The other Tracks has 2 "internal connections". These refer to the 2 <connection>s of the <crossing>.

Just outlined:

```
<track1>
<crossing>
<connection ID="a1" refID="b1">
<connection ID="a2" refID="b2">
```

```
<track2>
<internalConnection ID="b1" refID="a1">
<internalConnection ID="b2" refID="a2">
```

Advantage of this solution:

- 1) Exactly 1 <crossing>-element for 1 (physical) crossing

Disadvantages:

- 1) "asymmetric", since the 2 tracks are treated differently
- 2) The current schema could has to be changed

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At the moment, I'd prefer the first solution.  
Other opinions? Questions? Ideas?

Best regards  
Matthias Hengartner

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