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Subject: [railML3.1] Modelling of a double slip switch  
Posted by [Jörg von Lingen](#) on Fri, 03 Apr 2020 04:05:05 GMT  
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Dear all,

there seems to be a general issue when transforming a track plan into railML:

1) For an 'ordinarySwitch' we have in IS the elements 'leftBranch' and 'rightBranch'. Just from the netRelations it seems not really possible to decide which is one of the both branches. How would you solve the issue?

2) For a 'doubleSwitchCrossing' we have in IS the elements 'straightBranch' and 'turningBranch' but in IL we need to split into two normal switches which again have 'leftBranch' and 'rightBranch'. Could this be solved just from the topology information? How would you do this trick?

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Regards,  
Jörg von Lingen - Interlocking Coordinator

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Subject: Re: [railML3.1] Modelling of a double slip switch  
Posted by [Jörg von Lingen](#) on Mon, 01 Jun 2020 13:37:34 GMT  
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Dear all,

in-between I had a discussion about this topic with some users and want to add the outcome here for your info.

The attached pictures show the 3 steps of evolution from simple switches to a double slip crossing if you go into interlocking domain.  
step01: For a simple switch one needs to do a geometrical check in order to find out what's right and left of the deviating branches,  
step02: This is more an intermediate state for illustration. The two switches are a bit superimposed (not yet a real double slip but to show the evolution). Here the determination right/left shall be the same as in step01.  
step03: The third step is the final superimposition but if you think of two simple switches making the picture then the decision for right/left shall be under the same rule.

The picture "switches01" shows the net plan for an example of double slip switch (SLIP SWITCH Dsw02):

1) select from straightBranch one with starting netElement

nr\_ne5ne12\_dsw7 -> ne5  
2) connection straight -> ne12  
3) connection turning -> ne6  
4) geometrical check: ne6 is right of ne12  
rightBranch=ne6, leftBranch=ne12  
5) select the other end of the straightBranch -> ne12  
6) connection straight -> ne5  
leftBranch=ne5 (due to symmetry)  
7) connection turning -> ne2  
rightBranch=ne2

similar procedure for SLIP SWITCH Dsw04:

1) nr\_ne9ne11\_dsw10 -> ne9  
2) straight -> ne11  
3) turning -> ne6  
4) geometrical check: leftBranch=ne6, rightBranch=ne11  
5) ne11  
6) straight -> ne9, rightBranch=ne11  
7) turning -> ne10, leftBranch=ne10

Best regards,

Joerg v. Lingen - Interlocking Coordinator

Am 03.04.2020 um 06:05 schrieb Joerg von Lingen:

> Dear all,

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> there seems to be a general issue when transforming a track plan into railML:

>

> 1) For an 'ordinarySwitch' we have in IS the elements 'leftBranch' and 'rightBranch'. Just from the netRelations it

> seems not really possible to decide which is one of the both branches. How would you solve the issue?

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> split into two normal switches which again have 'leftBranch' and 'rightBranch'. Could this be solved just from the

> topology information? How would you do this trick?

>

## File Attachments

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1) [step01.jpg](#), downloaded 304 times  
2) [step02.jpg](#), downloaded 301 times  
3) [step03.jpg](#), downloaded 302 times  
4) [switches01.png](#), downloaded 307 times

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