
Subject: The correct use of trackRef under sectionTT
Posted by [Torben Brand](#) on Wed, 19 Feb 2020 14:42:40 GMT
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Dear TT community,

We would like to ask for an unambiguous definition of the path of a sectionTT with precise start and end points.

Jernbanedirektoratet would like to suggest the following, based on which aggregation level you are using in your TT/IS model:

Network

In the seldom case that there exist two lines between two OCP's with no intermediate OCP in between, use @lineRef or describe the path for human interpretation in @section and do not use <trackRef>.

Macroscopic

For a macroscopic model with only a main track with or without station tracks there is no alternate path to choose from. So, do not use <sectionTT> as it does not give any added value.

Microscopic

For a microscopic model use <trackRef> for all tracks forming the path from the start position of the current <OcpTT>

Microscopic without stop positions

Here the tracks containing the <crossSection> elements form the start (from and including) and end (to and including) tracks to be referenced.

In the illustrated example bellow the tracks to be referenced are:

OCPTT@ocpRef="A" with sectionTT/trackRef@ref to the tracks tr1,tr3,tr6 and tr8

OCPTT@ocpRef="B" with sectionTT/trackRef@ref to the tracks tr8,tr10,tr9,tr12 and tr14

Microscopic with stop positions

Here the tracks containing the referenced infrastrucutre object referenced from <stopDescription> forms the start (from and including) and end (to and including) tracks to be referenced.

In the illustrated example bellow the tracks to be referenced are:

OCPTT@ocpRef="A" with sectionTT/trackRef@ref to the tracks tr3,tr6, tr8, tr10 and tr9

OCPTT@ocpRef="B" with sectionTT/trackRef@ref to the tracks tr9,tr12, tr14 and tr16

Illustration

What does the community think?

PS. I've also linked to the PDF in case the image gets broken... (attachments are also not possible in the forum)

https://1drv.ms/b/s!Ar_YbBaAx1YzkUdsGhnkwrTXEWHR?e=pkNuQG

Dear Torben,

> For a macroscopic model with only a main track with or without station tracks there is no alternate path to choose from. So, do not use <sectionTT> as it does not give any added value.

I don't agree. We still use <sectionTT> in a macroscopic model

- to encode the line in case of parallel lines (attribute @lineRef),
 - to encode the line-side track in case of double-track lines (sub-element <trackRef>),
 - to encode the run times (sub-element <runTimes>),
 - to encode the run time supplement (attribute @percentageSupplement)
- and more.

- > In the seldom case that there exist two lines between two
- > OCP's with no intermediate OCP in between...

This is by far not a seldom case in Germany and other countries. How many examples should I describe...? ;-)

> ...unambiguous definition of the path of a sectionTT...

I am afraid I doubt that there will be an unambiguous definition by railML in general since we've learned the definition of what is a "station" is highly controversial. May be we can clarify it by some use cases of railML, ok.

For instance, in your example sketch, I see the following possibilities:

- a) No description of the route in station B in a macroscopic model (as you mentioned it),
- b) Station B is split into several (two) <ocp>s for timetabling,
- c) Encode the detailed way through station B by using a route identification at <ocpTT>.@trackInfo.

Solution (b) may sound strange, but this is a very common solution for that problem for instance in Germany and other countries.

I want to point out that, in my opinion,

- <sectionTT>.<trackRef> is only intended to encode the track between stations (<ocp>s) - not the tracks inside stations. That's why it is located at <sectionTT> - everything at <sectionTT> should concern the section between stations (<ocp>s).
- the route inside stations (<ocp>s) must be described, if necessary, by other attributes or elements - for instance <ocpTT>.@trackInfo or some more precise, standardised solution of future railML.

Best regards,
Dirk.
