

Dear group,
we have some problems with the standard when mapping our model to railML trains.

1. If I read the standard correctly, trainPartRefs within a trainPart sequence model coupled trains. The wiki formulation

" Therefore all referenced elements trainPart of a trainPartSequence should have the same starting point and end point"

hints to that but is not really strict enough. The formulation should be changed to

"The <ocpsTT> of all <trainPart>s within a <trainPartSequence> should contain the same sequence of <ocp>s with the same arrival and departure times."

We could discuss what variation between the ocpsTT should be acceptable. For instance, <stopDescription/onOff> could vary.

2. What variation of the trainPartSequences is allowed within one train?
The case

train x runs daily from A to B, and mon-fr a trainPart is added with position 2, and a trainPartSequence from B to C

is apparently intended to be legal, while

train y runs daily from A to B, and mo, tue, wed it continues to C but thu, fr, sat to D

is not.

If this is so, I suggest adding the following -hopefully clarifying- text to the documentation:

"For any <train>, there is a sequence of ocpTT without locational or temporal breaks, such that

- for any <trainPartSequence>, there is a section of that sequence such that the ocpTTs of all referred trainParts of that trainPartSequence correspond with that section
- the sections of subsequent trainPartSequences are subsequent to each other
- for any operatingPeriod, the trainPartSequences spanned by the trainParts effective on that operatingPeriod has no gaps."

3. The scope construct is intended to model variations in the path of a train on different days. The wiki states the constraint

"The compound of the attributes trainNumber, additionalTrainNumber and scope has to be unique for all <train> elements. If some of these attributes is absent the others have to be unique. The code attribute is used for some unique string identifying the train regardless of the unique attribute triple."

So a variation of a train path at an intermediate section should be modelled with scope "secondaryInner" - but what if you have `_two_` variations on different days? Also, the differentiation between "secondaryStart / secondaryEnd / secondaryInner" is redundant with the train path.

The constraint should be relaxed to allow variation of the train path on disjoint operatingPeriods. If a designated "primary" path is needed, the constraint should at least be relaxed to allow multiple trains with scope secondaryXXX. In that case, I also propose to introduce a new scope value "secondary" and to mark secondaryStart / secondaryEnd / secondaryInner as deprecated.

--Andreas.
