
Subject: Semantic Constraints for Train Section

Posted by [David Lichti](#) on Mon, 30 Jan 2023 07:22:02 GMT

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Dear TT-Community,

There currently are two proposals for semantic constraints on operational and commercial train sections, and their relation to itineraries. The goal of these constraints is prohibit overlaps and gaps in the way sections cover their parent variant's itinerary.

Disjoint Sections

Semantic constraints TT:004 and TT:006 are about pairwise overlaps of train sections in their itinerary. The itinerary is defined by the parent train variant. But it may be subdivided into several sections. These sections must not overlap.

I suggest the following wording:

TT:004.

The itinerary sections of an `operationalTrainVariant`, defined by the `operationalTrainSections` and their respective ranges, must be pairwise disjoint, except for their respective first and last `baseItineraryPoints`.

(Replace `operational` by `commercial` for commercial train sections.)

Itinerary Coverage

These constraints are complemented by TT:005 and TT:007, which are about the coverage completeness of these sections. While the constraint above prohibits overlaps between sections, the following constraint prohibits gaps in the coverage of the variant's itinerary.

I suggest the following wording:

TT:005.

The first(last) `baseItineraryPoint` of each `operationalTrainSection` within an `operationalTrainVariant` must either be the referenced itinerary's first(last) base point, or coincide with another section's last(first) base point.

(Replace `operational` by `commercial` for commercial train sections.)

Best Regards

David Lichti
