Subject: Re: How to model 3 topology levels in rail.ML
Posted by Thomas Langkamm on Fri, 07 Jun 2019 08:44:27 GMT
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I guess part of my confusion came from the rail.ML simple tutorial, where there is no clear distinction between mesoscopic and macroscopic topology and two tracks belonging to different platform edges are grouped to one mesoscopic netElement. In my world, the mesoscopic topology is precisely the one where "timetable-relevant" netElements correspond 1:1 to the platform edges.

I guess if I switch meso to macro in the tutorial, then I understand how to model topologies in rail.ML :smile:

Maybe I should define more precisely what I mean with mesoscopic topology, to check that we are talking about the same thing. When grouping microscopic netElements to mesoscopic netElements, I would follow these rules:

 In open areas (outside of stations/operational points), the modelliung is up to the user. If we consider simple tracks between stations, we may have only one netElement for a single track and two netElements if we have double tracks. More elements if we have a more complex connectivity.
 Within stations we have to distinguish between tracks that have an associated platform edge, and the remaining tracks. All netElements incident to one platform edge will be grouped to one mesoscopic netElement, so we end up with exactly one mesoscopic netElement for every per track visible in a printed timetable.
 For parking tracks we'll have either one mesoscopic netElement for a group of parking tracks, or one mesoscopic netElement per track in the depot.
 Maintenance areas are handled similar to parking areas.
 For the remaining tracks, any modelling is feasible as long as it maintains the correct connectivity between the previously defined mesoscopic netElements.

As for 3 being enough, on that level of detail I think we're right. But there may be other topologies on top of macro, for example grouping operational points to areas (perhaps controlled by interlockings, perhaps belonging to different regions or countries).