Subject: [railML2] adding new element <area> for the mapping of track sections
Posted by Torben Brand on Fri, 12 Mar 2021 15:42:29 GMT
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The Norwegian railway sector has the need to transfer information about the track sections/track vacancy detection areas/track vehicle detection sections formed by track circuit borders or train detectors (axle counters).

As the track section is not always a linear object but can form an area (around switches). We made a generic <area> element in the Bane NOR and Jernbanedirektoratet extension currently used. This as we also had a need for other types of areas in our extension, like a project area (more on this in a separate posting), a local interlocking area and a safe work area provided by the interlocking. The areas are part of the schematic track plan for signalling (SCTP) UC.

For more details see document "railML2.4nor Infrastructure Documentation" (https://www.jernbanedirektoratet.no/railML), version 1.4, 17.12.2020, point 4.9.

Jernbanedirektoratet and Bane NOR are suggesting adding the used nor: extension into railML2.5 as
new <areas> element as child of <infrastructure> with sub element <area> with the following attributes in addition to the common attributes (id, pos, absPos, code, name, description):

@type [xs:enumeration] "Defines the type of area" with values:
"trackSection "Used to describe track sections"
"project" Used to describe the spatial extent of a project area (See separate project posting)
"local" Used to describe a locally operated area in the interlocking
"work" Used to describe work areas in the interlocking
"other:"

@controllerRef [rail:tGenericRef] "Reference to the controller a track section, work or local area belongs to. This attribute is not relevant for project areas."

With sub element <isLimitedBy> with attribute @ref [rail:tGenericRef] "References the borders of the area. The borders of a track section can consist of the following elements: <trainDetector>, <trackCircuitBorder>, <bufferStop> or <openEnd>,. For local and work areas preferably, interlocking elements shall be referenced. The project area is referenced to <border>
In addition, the common <state> sub-element should be included.

Code example:
<areas>
<area description="desc" id="id21" name="Example" type="trackSection">
<isLimitedBy ref="id15" >
<isLimitedBy ref="id16" >
<isLimitedBy ref="id71" >
</area>
</areas>

What does the community think about this suggestion?