Subject: [railML3] Modelling location of <overCrossing>, <underCrossing> in the network
Posted by Larissa Zhuchyi on Tue, 13 Aug 2024 09:23:17 GMT
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Dear all

Currently spot-, linear, <areaLocation> are optional children of all the functional IS entities. Even though the first step of restricting usage of RTM withing railML3 are present now in the Positioning approach [1], it is still not clear what are the preferred ways of modelling and how to interpret the spotLocation of functional IS entity with sure linear extent.

Therefore, taking an example of tunnel and bridges (overCrossing [2], underCrossing [3]) railML.org suggests for your consideration the following best practices of modelling.

General modelling principles:
1) <areaLocation> should not be used for modelling of <underCrossing> and <overCrossing>;
2) both <linearLocation> and <spotLocation> are acceptable.

Cases in order of preference:
1) <linearLocation> + (@intrinsicCoordBegin and @intrinsicCoordEnd) or (<linearCoordinateBegin> and <linearCoordinateEnd>)*;
2) <spotLocation> + @intrinsicCoord or <linearCoordinate>* + length;
3) <spotLocation> + @intrinsicCoord or <linearCoordinate>*.

* mandatory according to the positioning approach [1]

Interpretation of the above three cases:
1) Data on both beginning and ending of -crossing is provided;
2) Coordinate provided represents beginning of -crossing, length is known;
3) Coordinate provided represents the centre of -crossing, length is unknown.

Please answer the following questions:
1) Do you agree with the suggested modelling principles and cases?
2) Should the set of cases be extended?
3) How should the case of incomplete data be handled? For example, user has a coordinate somewhere within -crossing and cannot make data more precise. Therefore, none of the suggested above cases is applicable.

Keep in mind that incomplete data is also a part of forum post in the context of provision of the real-life beginning and ending mileage values of the railway line [4].

When consensus is reached these best practices could be step by step extrapolated to all the functional IS elements with length child or attribute e.g. line, platform, platformEdge, track.

[1]   https://www.railml.org/forum/index.php?t=msg&th=920& start=0&
[2] https://wiki3.railml.org/wiki/IS:overCrossing
[3] https://wiki3.railml.org/wiki/IS:underCrossing

[4]   https://www.railml.org/forum/index.php?t=msg&th=946& start=0&

Sincerely,

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