
Subject: [railML3]crossesElement/[railML2.5]crossedElement

Posted by [Torben Brand](#) on Sun, 03 Apr 2022 08:15:53 GMT

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The Norwegian IM Bane NOR maps the following type of elements that a level crossing crosses in its asset management system (BaneData) and needs to exchange these with the Norwegian railway sector and international. The table (I miss tables in the forum... :roll:) also contains suggested extended and existing values for railML3.2 crossesElement@type and railML2.5 crossedElement@type.

Type (en);Type (no);Type (de);crossesElement@type;crossedElement@type
national road;riksveg;Bundesstrasse;other:primary;other:primary
county road;fylkesveg;Landesstrasse;other:secondary;other:secondary
municipal road;kommunal veg;Kreisstrasse/Gemeindestrasse;other:tertiary;other:tertiary
private road with public access;privat veg med allmenn ferdsel; Privatweg mit öffentlichen Zugang;other:permissive;other:permissive
private road with no public access;privat veg uten allmenn ferdsel;Privatweg ohne öffentlichen Zugang;other:private;other:private
footpath;gangvei;Fussweg;footway;highway:footway

PS. I've added a pdf for easier reading of the table.
Further descriptions of the road types can be found in [3].

For later versions of railML the prefix "other:" should be removed. The suggested values are based on the following deductions:

1. Existing values in railML3 are listed in wiki page [1]. Existing values in railML2.5 are missing in wiki page [2], but are contained in the XSD. The railML2.5 values are the same as in railML3.2 but with the prefix "highway:" in addition for the relevant items here. It seems that the values are based on Openstreetmap keys and also contain values for bridges (which are not relevant for level crossings). This missing information should be added to both wikis.
2. The existing values for type of car roads in both railML3 and railML2 are only "motorway" and "road". "motorway" seems overkill and irrelevant for level crossings as a level crossing (hopefully) will never be crossed by an Autobahn! "road" on the other hand means in openStreetmap terms "unknown road type". In our use case we know the road type and would thus lose information.
3. Based on the openstreetmap key wiki pages for highway [3] and access [4] we derive the values suggested above.
4. The private road with or without public access is a combined value of road type and access type. Openstreetmap allows combined values [5]. The combined values would then be: "highway:service;access=permissive" and "highway:service;access=private". Access "permissive" and "private" are only valid for private owned roads. Private owned roads cannot be of type "primary/secondary/tertiary/unclassified". Then we are left with the use either as "service" or "road" for an unknown type. If mapped explicitly I would suggest type "service" as the type would be the only relevant one in our use case for private roads (usually agricultural but also industrial access road). But I concluded to use a simpler value without the use of multiple/combined values.

This as "permissive" and "private" both indicate private owned roads.

5. For railML2.5 I suggest to use the same simple construct as in railML3 and not use the prefix "highway:"

If the railML community agrees to these values the Norwegian railway sector will use them in our Norwegian extensions for railML2.4nor.

[1] <https://wiki3.railml.org/wiki/IS:crossesElement#3.2>

[2] https://wiki2.railml.org/wiki/IS:crossedElement_crossedElements_levelCrossing

[3] <https://wiki.openstreetmap.org/wiki/Key:highway>

[4] <https://wiki.openstreetmap.org/wiki/Key:access>

[5] https://wiki.openstreetmap.org/wiki/Multiple_values

File Attachments

1) [LevelCrossingType.pdf](#), downloaded 200 times
