Subject: A train with ETCS?
Posted by   on Tue, 02 Oct 2012 20:26:32 GMT
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Dear all,

for the usage of RailML in Austria in conjunction with the opening of ETCS on Westbahn line at the end of this year, we need to describe whether a train operates with ETCS or not.

Therefore, it is necessary to use the element <train>.<trainPartSequence>.<equipmentUsage> with its attribute 'type'. It has the type tNationalSystemsType. Now the problem:

tNationalSystemsType has everything - but no ETCS...

For the moment, it would be sufficient to extend the enumeration tNationalSystemsType with either one "ETCS" value in general or "ETCS Level 1", "ETCS Level 2" a. s. o. values.

The better solution would be to have a unification of
  - rail:etcs,
  - rail:nationalSystem,
  - rail:equipmentUsage.

All three lead to the same: A train protection system (Zugbeeinflussungsanlage). The 'nationalSystem' element is very good (with a very bad name - from my opinion) but why is 'etcs' outside 'nationalSystem'? (You do not really want to tell me that ETCS is international? No, since there is already the 'srsVersion' attribute...)
Both should be unified as "trainProtectionSystem" or such.

And the same type should be used
  - for vehicles,
  - at a train,
  - at a track,
all three in sequences: A vehicle can support non, one or more trainProtectionSystems, a track can support some trainProtectionSystems. Normally, a train would operate with none or one trainProtectionSystem only in one section, but there may also be two trainProtectionSystem with different tasks - one for securing the maximum speed, and another for securing the main signals. For instance, in Germany INDUSI and ZUB262 operate simultaneously in trains with tilting technology.

Would be nice if we could get
  - a short solution with RailML 2.2
  - a good solution with RailML 3.0…
;-)

Best regards,
Dirk.