

I am modelling a sample station using the infrastructure schema or Railml, but I am having problems with the balise/baliseGroup element and with the orientation attribute of the connection element.

For balises and balise groups the infrastructure define the balises and balise and balise group. When I am trying to model a ETCS balise group I find myself with the following problem.

In ETCS a balise group is composed by balises, but the baliseGroup element only allow references to already existing balises. Each balise has to be defined individually but that implies that information that belongs to the group has to be repeated for each balise (!?)

For example:

LinkReactionAscending/Descending
LinkingAccuracy
GroupID
CountryID

Shouldn't it be better to have the balise contained in side the baliseGroup element and define at baliseGroup level the attributes with information related to the balise group?

If I define a multiple balise group do I have to repeat the informaton which belongs to the group on each single balise?

I my attempt I have modelled a balise group as follows:

```
<ocsElements>
  <signals>
    <signal id="E2" pos="120.000" type="main" dir="up"/>
  </signals>
  <balises>
    <balise id="BG01_0" countryID="357" groupID="01" pos="100.000" ndx="0"
dir="up"/>
    <balise id="BG01_1" countryID="357" groupID="01" pos="100.003" ndx="1"
dir="up"/>
    <balise id="BG01_2" countryID="357" groupID="01" pos="100.006" ndx="2"
dir="up"/>
  <baliseGroup>
    <baliseRef ref="BG01_0"/>
    <baliseRef ref="BG01_1"/>
    <baliseRef ref="BG01_2"/>
  </baliseGroup>
```

</balises>
</ocsElements>

There is a balise group "BG01" which is composed of three balise groups. NDX is the equivalent to the the ETCS language variable N_PIG. I find it cumbersome to repeat for each balise the attributes ndx, dir, groupID and countryID.

Regards and thanks in advance.
