# wtwdis Mandatory or Condional

**General Discussions**

**ReneVisser**

Jul '18

I promised to draw up some CRs. During the preparations I come to the conclusion that the way of encoding water depths (i.e. lock thresholds) and clearances (bridges and lifting lockdoor) i.c.w. watergauge stations work well for an upstream situation. (River encoding) However, in the lower areas such as in the Netherlands, with a more complex waterway network (estuary), this method of encoding does not always work well. (Lowland encoding)

With "River encoding", the relationship between the location of the water gauge and, for example, a bridge is given by a certain distance calculation assuming that the bridge and water gauge are on the same waterway. (linear referenced). The attribute wtwdis of the bridge and wtwgag is then important to be able to "calculate".

In "Lowland encoding", a water station can refer to several waterways and therefore also refer to multiple unique fairway linear reference systems. The use of the attribute wtwdis of a bridge in such a complex fairway network has no use at all.

So, for the Netherland or other eatuaria the attribute wtwdis should be conditional. In the FC
http://ienccloud.us/ienc/web/s-57/index24.html
Wtwdis is indeed conditional.
But in the EncodingGuide 2.3.6 an 2.4.x wtwdis is mentioned to be a mandatory attribute.
This is strange.
If the FC is right, than there is a need for an extra CR irt the encoding guides. ( or also validation checks??)

**Bernd**

Jul '18

Dear René,
the Encoding Guide is describing a specific situation. It is possible that a certain attribute is mandatory in one situation and optional for the encoding of a different real world object. In such a case you will find mandatory (m) on one page of the EG, optional (o) on another page of the EG and conditional (c) in the FC.

But in the case that you described I would recommend to draft a CR with a new encoding instruction that explains in which cases wtwdis has to be encoded and to change wtwdis in the EG to (c).

Best regards
Bernd