<mark>**Change ID: 5.1-27**</mark>

Movement area element types

Summary

It is proposed to separate the list of values for RunwayElement and TaxiwayElement types and also to introduce "holding bays" as taxiway element type.

Background

The different parts that compose a runway or taxiway surface (such as central part, shoulder, etc.) are modelled through RunwayElement and TaxiwayElement features, a concept inherited from the Airport Mapping Database (AMDB) specification.

Rationale for the change

Holding Bay

The code HOLDING_BAY appears as a value in CodeRunwaySectionType . However, the definition of the value is "Taxiway holding bay", which is a correct definition since holding bays are normally positioned on the side of a taxiway. It is therefore proposed to remove it from the list of runway sections and to insert it in the list of TaxiwayElement types.

Distinct attribute for Underpass/Overpass

A taxiway element that is situated on a bridge over a road could be both 'NORMAL' or 'SHOULDER' and 'OVERPASS'. This is not possible with the current model, where OVERPASS and UNDERPASS are in the same list of values CodeRunwayElementType .

To solve this issue, the values underpass and overpass should be supported by a separate attribute.

Separate element types for Runway and Taxiway elements.

The same CodeRunwayElementType list of values is used in AIXM for both RunwayElement and TaxiwayElement. However, some coded values are only applicable to one of the two. For example: DISPLACED only applies to RunwayElements.

It is proposed to separate the two lists in AIXM: CodeRunwayElementType (NORMAL, INTERSECTION, DISPLACED, SHOULDER, OTHER) and CodeTaxiwayElementType (NORMAL, INTERSECTION, SHOULDER, HOLDING_BAY, OTHER).

Change proposal details

In the CodeRunwaySectionType data type:
  • remove the value TWY_HOLD_BAY

Introduce a new attribute in RunwayElement and TaxiwayElement:

- gradeSeparation = " *A code that indicates the placement of the element at a different height from another element.*"
    - data type = CodeGradeSeparationType

Introduce a new "enumeration" data type class:

- CodeGradeSeparationType = " *A list of coded values that indicate the placement of an element at a different height from another element.*"
    - UNDERPASS = " *The current element is in a tunnel below another element*"
    - OVERPASS = " *The current element is on a bridge above another element*"
    - OTHER.

In the CodeRunwayElementType data type:

- remove the value UNDERPASS
- remove the value OVERPASS

Introduce a new data type "enumeration" class:

- CodeTaxiwayElementType = " *A code list of values indicating a component of the taxiway surface*"
    - NORMAL = " *The default/regular type.*"
    - INTERSECTION = " *Intersection element - with a runway or with a taxiway.*"
    - SHOULDER = " *Intersection element - with a runway or with another taxiway.*"
    - HOLDING_BAY = " *A defined area, on the side of a taxiway, where aircraft can be held, or bypassed, to facilitate efficient surface movement of aircraft*".
    - OTHER

Change the data type of the "type" attribute of the TaxiwayElement into CodeTaxiwayElementType.