

Admiralty Digital Sailing Directions: Consideration of S100

Presented by Johanna Marks September 2023



Background:

- User research continues to confirm that our users want narrative text in their planning products
- Narrative context is valued as it simplifies interpretation of data
- Completely vectorised Publications are not wanted as that information exists elsewhere
- Vector data will enhance the text not replace it
- Many Navigating officers already feel ECDIS is already overloaded with data.



Consideration of S100 in the Feature Model

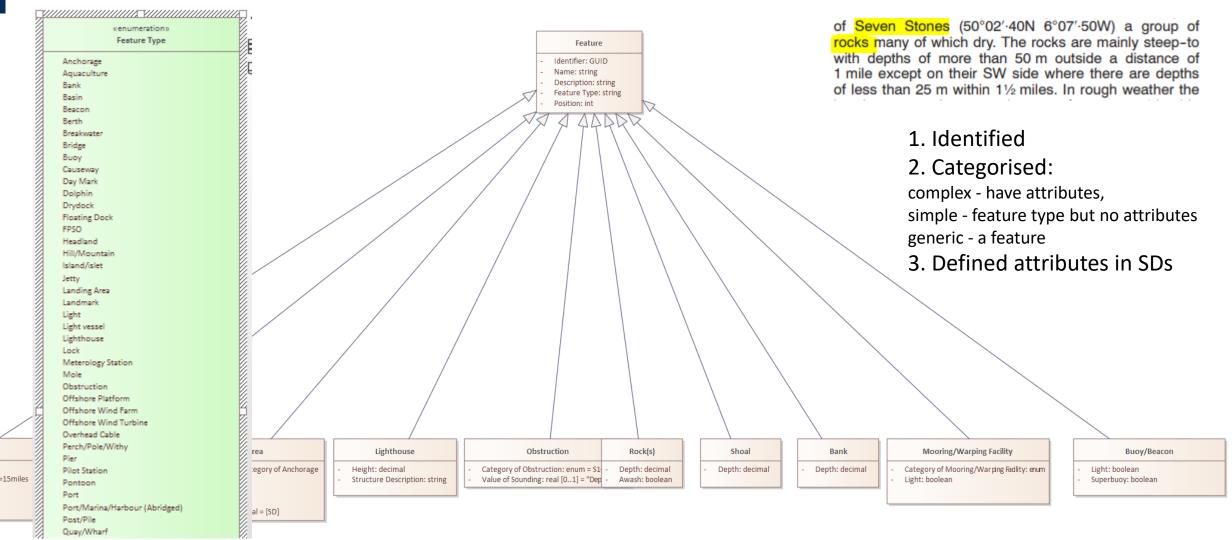


-900.0

h: string

= range >

Identifying Features in Sailing Directions



niuge, anu.

2

Clear of The Pol Bank (49°49'.48N 6°28'.21W). In rough weather there are overfalls over the bank which make it dangerous to open boats. Thence, from a position S of Bishop Ridge, the passage leads E, passing:

S of a 10 m shoal (49°51'.79N 6°25'.28W) lying 2 cables WSW of Isaacs Ledge, thence:



Vertical clearances 4.143

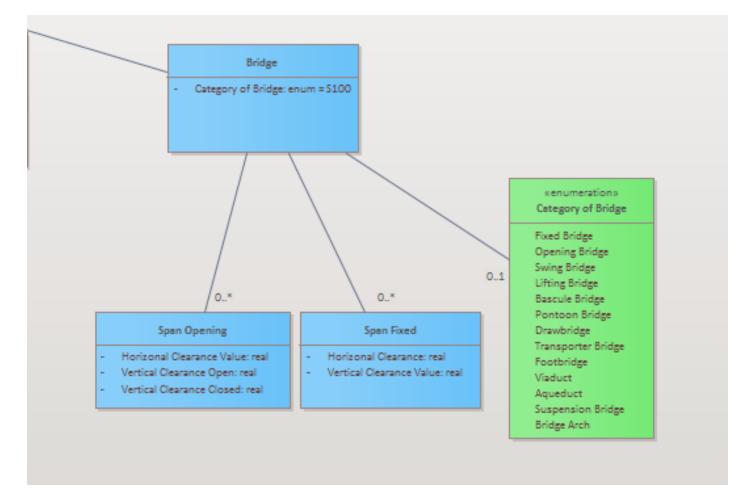
1

Bridges. Minimum vertical clearances under Royal Albert Bridge and Tamar Bridge, at the N end of Hamoaze at Saltash (50°24'.41N 4°12'.37W), are 30 m and 35 m, respectively.

S-100 Standard			«ComplexAttributeType»		«enumeration»
«Feature Bridg			fixedDateRange - NOT REQUIRED	«enumeration» Enumerations::status	Enumerations::verticalDatum
<pre>«S100_Simple» + categoryOfBridge: categoryOfBridge [01] + colour: colour [0*] = NOT REQUIRED {ordered} + colourPattern: colourPattern [01] = NOT REQUIRED + neight: real [01] = NOT REQUIRED + natureOfConstruction: natureOfConstruction [0*] = NOT REQUIRED + radarConspicuous: Boolean [01] = NOT REQUIRED + reportedDate: S100_TruncatedDate [01] = NOT REQUIRED + status: status [0*] = NOT REQUIRED + visuallyConspicuous: visuallyConspicuous [01] = NOT REQUIRED + scaleMinimum: integer [01] = NOT REQUIRED «S100_Complex» + featureName: featureName [0*] + fixedDateRange: fixedDateRange [01] = NOT REQUIRED «S100_Spatial» + geometry: Surface +componentOf 11 +componentOf BridgeAggregation BridgeAggregation EridgeAggregation BridgeAggregation BridgeAggregation BridgeAggregation +componentOf BridgeAggregation BridgeAggregation +componentOf BridgeAggregation +componentOf BridgeAggregation +componentOf BridgeAggregation +componentOf BridgeAggregation +componentOf BridgeAggregation +componentOf BridgeAggregation +componentOf BridgeAggregation BridgeAggregation BridgeAggregation +componentOf BridgeAggregation +componentOf BridgeAggregation +componentOf BridgeAggregation +componentOf BridgeAggregation </pre>		<pre>«S100_Simple» + dateStart:S100_TruncatedDate[01] + dateEnd:S100_TruncatedDate[01]</pre>	permanent = 1 occasional = 2 recommended = 3 not in use = 4	mean low water springs = 1 mean lower low water springs = 2 mean sea level = 3 lowest low water = 4 mean low water = 5 lowest low water springs = 6 approximate mean low water springs Indian spring low water = 8	
			«ComplexAttributeType» periodic/intermittent = 5 verticalUncertainty - NOT REQUIRED reserved = 6 temporary = 7 temporary = 7		
		«: + +	S100_Simple» uncertaintyFixed: real uncertaintyVariableFactor: real [01]	private = 8 low water spring low water = 8 mandatory = 9 approximate lowest at rorom call tide extinguished = 11 nearly lowest low water = 11 illuminated = 12 mean lower low water = 12	
		«ComplexAttributeType» horizontalClearanceFixed	public = 14 app synchronized = 15 app watched = 16 mei un-watched = 17 mei existence doubtful = 18 higt Buoyed = 28 app	low water = 13 approximate mean low water = 14 approximate mean lower low water = mean high water = 16	
		<pre>«S100_Simple» + horizontalClearanceValue: real + horizontalDistanceUncertainty: real [01] = NOT REQUIRED</pre>		mean high water springs = 17 high water = 18 approximate mean sea level = 19 high water springs = 20	
			«ComplexAttributeType» verticalClearanceFixed	«enumeration»	mean higher high water = 21 equinoctial spring low water = 22 lowest astronomical tide = 23
		«S100_Simple + verticalCles	e» aranceValue: real	Enumerations:: natureOfConstruction	local datum = 24 international greet lakes datum 1985 = 3
+consistsOf 0* {1*[C]} «FeatureType» SpanOpening	+consistsOf 0* {1* [C]} «FeatureType»	«S100_Compl + verticalUnd	ertainty: verticalUncertainty [01] = NOT REQUIRED	Masonry = 1 concreted = 2 loose boulders = 3 Hard Surfaced = 4	mean water level = 26 lower low water large tide = 27 Higher High Water Large Tide = 28 nearly highest high water = 29
«S100_Complex»	SpanFixed			unsurfaced = 5 wooden = 6	Highest Astronomical Tide = 30 Baltic Sea Chart Datum 2000 = 44
 fixedDateRange: fixedDateRange [01] = NOT REQUIRED horizontalClearanceFixed: horizontalClearanceFixed [01] verticalClearanceClosed: verticalClearanceOpen verticalClearanceOpen: verticalClearanceOpen setting 		eranceFixed [0., 1]		metal = 7 glass reinforced plastic (GRP) = 8 Latticed = 11 Glass = 12	«enumeration» Enumerations:: visuallyConspicuous
«S100_Simple» + verticalDatum:verticalDatum [01] = NOT REQUIRED «S100 Spatial»	<pre>«\$100_Simple» + verticalDatum:verticalDatum [01] = «\$100_Spatial»</pre>	NOT REQUIRED			visually conspicuous = 1 not visually conspicuous = 2 Prominent = 3



Simplified Bridge Feature based on S-100





Features and Attributes

- > Features are only stored once but referenced many times.
- > Flexible and Evolving Schema
 - attributes can be added to existing features
 - new features and attributes created
- > Feature attributes support SDs requirements and easy to maintain
- > Aligning with S100 where appropriate
- Supporting future exchange of data in S100 format as standards/specifications mature



Next Steps



Next Steps

- > Looking to include crowd source imagery a feature users value.
- > <u>https://www.admiralty.co.uk/publications/admiralty-sailing-directions/image-upload</u>
- > Planning a Sea Trial in March 2024 with basic functionality to confirm we are meeting user enabling the task of berth to berth passage planning.
- > Development will continue to be iterative based on feedback to ensure we are meeting the
- > Potential live demo/video



Any Questions?