




## G.4 Locks, Barrages, Exceptional Navigational Structures

### G.4.8 Exceptional Navigational Structure (M)

An exceptional navigational construction such as an aqueduct, lift-lock, etc.

Graphics	Encoding Instructions	Object Encoding
<p><i>Real World (Lift Lock)</i></p> 	<p>A) DRVAL1 represents the minimum operating depth of the structure.</p> <p>B) The exceptional structure does not carry information about the vertical clearance underneath. If the exceptional structure crosses navigable water (e.g., aqueduct) a bridge object must be encoded to provide the vertical clearance underneath.</p> <p>C) Use 'verdat' only if vertical datum differs:</p> <ul style="list-style-type: none"> <li>- from DSPM SDAT subfield and</li> <li>- from Meta object 'm_sdat' attribute</li> </ul> <p>D) Note: The vertical datum is the reference of the minimum operation depth of the exceptional structure.</p> <p>E) If the exceptional navigational structure has a special time schedule or special operating hours apply, the object can be combined with a time schedule. For this purpose please refer to the time schedule (general) object 'tisdge' T.1.1.</p> <p>F) Restricted vertical clearance within the lock chamber should be encoded by the respective objects (e.g., GATCON, bridge, cblohd)</p> <p>G) If the ISRS code is available it shall be encoded (refer to General Guidance section H).</p> <p>H) For Notice marks on aqueducts see O.3.2</p> <p>I) All objects which belong to an Exceptional Navigational Structure must be combined into one aggregation area (C_AGGR).</p> <p>J) The object name of an Exceptional Navigational Structure is assigned to the respective C_AGGR object using OBJNAM.</p>	<p><b>Object Encoding</b></p> <p><b>Object Class = excnst(P,A)</b></p> <p>(M) DRVAL1 = [x.x] (metres), e.g., 2.7 or UNKNOWN</p> <p>(M) catexs = [1 (Lift-Lock), 2 (Aqueduct), 3 (Sloping plane lock), 4 (Water slope lock (Pente d'Eau))]</p> <p>(C) verdat = [12 (Mean lower low water), 31 (Local low water reference level), 32 (Local high water reference level), 33 (Local mean water reference level), 34 (Equivalent height of water (German GIW)), 35 (Highest Shipping Height of Water (German HSW)), 36 (Reference low water level according to Danube Commission), 37 (Highest shipping height of water according to Danube Commission), 38 (Dutch river low water reference level (OLR)), 39 (Russian project water level), 40 (Russian normal backwater level), 41 (Ohio River Datum)]</p> <p>(C) unlocd = (Refer to letter G)</p> <p>(M) wtwdis = [xxxx.xxx] (units defined in hunits), e.g., 2451.732</p> <p>(M) hunits = [3 (kilometres), 4 (hectometres), 5 (statute miles), 6 (nautical miles)]</p> <p>(O) CONDTN = [1 (under construction), 2 (ruined), 3 (under reclamation), 5 (planned construction)]</p> <p>(M) SCAMIN = [EU: 90000; US: 300000]</p> <p>(C) SORDAT = [YYYYMMDD]</p> <p>(C) SORIND = (Refer to Section B, General Guidance)</p>
<p><i>Real World (Aqueduct)</i></p> 		<p>(M) unlocd = (Refer to letter G)</p> <p>(M) wtwdis = [xxxx.xxx] (units defined in hunits), e.g., 2451.732</p> <p>(M) hunits = [3 (kilometres), 4 (hectometres), 5 (statute miles), 6 (nautical miles)]</p> <p>(O) CONDTN = [1 (under construction), 2 (ruined), 3 (under reclamation), 5 (planned construction)]</p> <p>(M) SCAMIN = [EU: 90000; US: 300000]</p> <p>(C) SORDAT = [YYYYMMDD]</p> <p>(C) SORIND = (Refer to Section B, General Guidance)</p>
<p><i>IENC Symbolization</i></p> 		<p>(M) unlocd = (Refer to letter G)</p> <p>(M) wtwdis = [xxxx.xxx] (units defined in hunits), e.g., 2451.732</p> <p>(M) hunits = [3 (kilometres), 4 (hectometres), 5 (statute miles), 6 (nautical miles)]</p> <p>(O) CONDTN = [1 (under construction), 2 (ruined), 3 (under reclamation), 5 (planned construction)]</p> <p>(M) SCAMIN = [EU: 90000; US: 300000]</p> <p>(C) SORDAT = [YYYYMMDD]</p> <p>(C) SORIND = (Refer to Section B, General Guidance)</p>

	K) If a structured external XML-file with more detailed communication information is available, the reference to the file has to be entered in the TXTDSC attribute.	Guidance)
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