Title: Provide Vertical CRS vice Vertical Datum in Dataset Discovery Metadata

S-100 Maintenance - Change Proposal Form

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| --- | --- | --- | --- |
| **Organisation** | NIWC | **Date** | 2/5/2021 |
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Change Proposal Type *(Select only one option)*

|  |  |  |
| --- | --- | --- |
| 1.Clarification | 2.Correction | 3.Extension |
|  | X |  |

Location (*Identify all change proposal locations)*

|  |  |  |  |
| --- | --- | --- | --- |
| S-100 Version No. | Part No. | Section No. | Proposal Summary |
| 5.0 draft | 4a | Appendix 4a-D | Modify *S100\_DatasetDiscoveryMetadata* to provide a vertical and sounding CRS vice providing a vertical and sounding datum. |

Change Proposal

**S100\_DatasetDiscoveryMetadata**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Role Name | Name | Description | Mult | Type | Remarks |
| Attribute | vertical~~Datum~~CRS | Vertical ~~Datum~~CRS of the entire dataset | 0..1 | S100\_VerticalAndSounding~~Datum~~CRS |  |
| Attribute | sounding~~Datum~~CRS | Sounding ~~Datum~~CRS of the entire dataset | 0..1 | S100\_VerticalAndSounding~~Datum~~CRS |  |

**S100\_VerticalAndSoundingCRS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Role Name | Name | Description | Mult | Type | Remarks |
| Class | S100\_VerticalAndSoundingCRS | Defines a vertical CRS | - | - | - |
| Attribute | datum | A vertical datum | 1 | S100\_VerticalAndSoundingDatum |  |
| Attribute | axis | The axis of the coordinate system | 1 | CS\_CoordinateSystemAxis | rangeMeaning must be "exact" if present.  axisDirection must be either "up" or "down" |

Update Figure 4a-D-4 – S-100 Exchange Set – class details

Change Proposal Justification

A vertical datum only indicates the reference plane (surface of zero elevation) for measuring height or depth. The unit of measure and orientation (up or down) should also be provided to support machine-readability and autonomous navigation.

What parts of the S-100 Infrastructure will this proposal affect?

S-100 Feature Concept Dictionary Interface or Database

S-100 Portrayal Register

S-100 Feature Catalogue Builder

S-100 Portrayal Catalogue Builder

S-100 UML Models

S-100 GitHub Schemas

**Please send completed forms and supporting documentation to the secretary S-**100WG.