

**Title: Correction for S100\_ProductSpecification****S-100 Maintenance - Change Proposal Form**

<b>Organisation</b>	NIWC	<b>Date</b>	3/1/2023
<b>Contact</b>	David Grant	<b>Email</b>	david.m.grant22.civ@us.navy.mil

**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	10c 17 17	Table 10c-6 Row 1 Figure 17-7 4.5	Correct the S100_ProductSpecification reference Correct the UML model Correct the identifier used to resolve the FC

**Change Proposal**

Support unrestricted and unambiguous determination of the feature catalog associated with each dataset and/or portrayal catalog.

See attached redlines.

**Change Proposal Justification**

See attached.

**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 Schemas

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

## Change Proposal Justification

Currently, data producers and distributors are restricted in how they can associate datasets and portrayal catalogues (PC) with the appropriate feature catalogue (FC) within an exchange set (XS).

Upon receiving an XS the ECDIS must associate each received dataset and PC with a corresponding FC prior to use. Currently, the *number* attribute of *S100\_ProductSpecification* is the only value which can be used to discover this association. This poses the following issues:

- The FC must be associated with a registered version of a product specification. This precludes use of FC's intended for:
  - evaluation (during FC development)
  - support of specific testing (prototyping or proof-of-concept)
  - support of application specific profiles within a product specification.
- Experience has shown that not all versions of a product specification will be registered, or the registrations may not occur until after the need to deliver catalogues and data has arisen. In these cases, an XS cannot accurately describe the FC associations.
  - e.g., S-101 v1.0.2, etc.
- Populating the XS is complicated by the fact that the registry user interface doesn't expose the index of the registered product specifications.
- Experience has shown that the current implementation is confusing:
  - to ECDIS developers
  - to data producers
  - to data distributors

The redlines which follow provide a clear and unambiguous method to determine:

- the feature catalogue used to create a given dataset,
- the feature catalogue targeted by a given portrayal catalogue,
- the feature catalogues associated with a particular version of a product specification (assuming the *version* attribute is provided in the *S100\_ProductSpecification* class).

The change identifies the feature catalogue using an S-100 cryptographic hash MRN (e.g., *urn:mrn:iho:s100:hash:sha256:a948904f2f0f479b8f8197694b30184b0d2ed1c1cd2a1ec0fb85d299a192a447*). Consideration should also be given to embedding this MRN in both the PC and in the 10a/b/c encodings to assist in automated population of exchange sets, but that is out of scope for this proposal.

## Redlines

### 1. Correct the S100\_ProductSpecification reference in Table 10c-6 Row 1.

Table 10c-6 – Embedded metadata (carrier metadata) in root group

No	Name	Camel Case	Mult	Data Type	Remarks and/or Units
1	Product Specification number and version	productSpecification	1	String	For example <sup>2</sup> , 'INT.IHO.S-NNN.X.X', with Xs representing the version number. "NNN" and "X" do not imply length restrictions  Corresponds to combination of S100_ProductSpecification name and <u>number-version</u> fields
...	...	...	...	...	...

### 2. Update S100\_ProductSpecification in Figure 17-7.

