

**Title: S-100 Proposal Form - Appendix 4a-D change  
S100\_ExchangeCatalogue productSpecification multiplicity**

**S-100 Maintenance - Change Proposal Form**

<b>Organisation</b>	PRIMAR		<b>Date</b>	16-Jan-2020
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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
4.0.0	4a	Appendix 4a-D – Figure 4a-D4 S100_ExchangeCatalogue	Change productSpecification multiplicity.
4.0.0	4a	Appendix 4a-D – Elements of the exchange set S100_ExchangeCatalogue	Change productSpecification multiplicity.

**Change Proposal**

*The change proposal suggests changing the productSpecification attribute multiplicity from [0..1] to [1..\*].*

If the attribute productSpecification defined in S100\_ExchangeCatalogue changes multiplicity to [1..\*], we introduce a mechanism identifying the products within the catalogue at the top level of an exchange catalogue metadata structure. The

mechanism clarifies the multiple product exchange set possibility being supported by the exchange catalogue.

End user system would immediately recognize whether the exchange set contains supported products or not, being able to reject the catalogue immediately without parsing through the content of the CATALOG.XML file if it only contains unsupported products.

This mechanism also supports the inclusion of datasets for one product based on different versions of the product specification, e.g. S-101 1.0.0 and S-101 2.0.0 being packaged within the same catalogue, as each instance of the attribute productSpecification encoding must encode the version number of the product specification.

Existing situation:

Extract from S-100 Figure 4a-D-4

S100_ExchangeCatalogue	
+	identifier: S100_CatalogueIdentifier
+	contact: S100_CataloguePointofContact
+	productSpecification: S100_ProductSpecification [0..1]
+	metadataLanguage: CharacterString
+	exchangeCatalogueName: CharacterString
+	exchangeCatalogueDescription: CharacterString
+	exchangeCatalogueComment: CharacterString [0..1]
+	compressionFlag: Boolean [0..1]
+	sourceMedia: CharacterString [0..1]
+	replacedData: Boolean [0..1]
+	dataReplacement: CharacterString [0..1]

Suggested change:

S100_ExchangeCatalogue	
+	identifier: S100_CatalogueIdentifier
+	contact: S100_CataloguePointofContact
+	productSpecification: S100_ProductSpecification [1..*]
+	metadataLanguage: CharacterString
+	exchangeCatalogueName: CharacterString
+	exchangeCatalogueDescription: CharacterString
+	exchangeCatalogueComment: CharacterString [0..1]
+	compressionFlag: Boolean [0..1]
+	sourceMedia: CharacterString [0..1]
+	replacedData: Boolean [0..1]
+	dataReplacement: CharacterString [0..1]

This change must also be reflected in the S100\_ExchangeCatalogue table in Elements of the exchange set:

Existing situation:

Attribute	productSpecification	Details about the product specifications used for the datasets contained in the exchange catalogue	0..1	S100_ProductSpecification	Conditional on all the datasets using the same product specification
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Suggested change:

Attribute	productSpecification	Details about the product specifications used for the datasets contained in the exchange catalogue	1..*	S100_ProductSpecification	
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## Change Proposal Justification

This proposal:

Add a mechanism to identify the products within the catalogue without the need to parse through all the CATALOG.XML files content.

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

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