

**Title: Permit File and Signature corrections****S-100 Maintenance - Change Proposal Form**

<b>Organisation</b>	Portolan Sciences LLC	<b>Date</b>	26 Feb. 2024
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**Change Proposal Type** (*Select only one option*)

1. Clarification	2. Correction	3. Extension
	X	

**Location** (*Identify all change proposal locations*)

No.	S-100 Version No.	Part No.	Section No.	Proposal Summary
1	5.2.0	15	8.8	Update the examples of digital signatures in 15-8.8 (Additional digital signatures) to use XML examples conforming to the Part 17 exchange catalogue model..
2		15	XSD	Update Part15.xsd to allow {header, products} [1..*] internal structure decided by Part 15 breakout group
3		17	XSD	Update exchange catalogue XSD file to replace import of old Part 15 XSD file with new Part15 XSD file

**Change Proposal**

Detailed revisions in red below.

*Item 1:* Replace the examples of signatures in discovery metadata with the examples below.

(datasetDiscoveryMetadata entry)

```
<S100XC:digitalSignatureValue>
  <S100SE:S100_SE_SignatureOnData id="s1" certificateRef="PROD1"
    dataStatus="unencrypted">(sig. omitted)</S100SE:S100_SE_SignatureOnData>
</S100XC:digitalSignatureValue>

<S100XC:digitalSignatureValue>
  <S100SE:S100_SE_SignatureOnData id="s2" certificateRef="RENC1"
    dataStatus="encrypted">(sig. omitted)</S100SE:S100_SE_SignatureOnData>
</S100XC:digitalSignatureValue>

<S100XC:digitalSignatureValue>
  <S100SE:S100_SE_SignatureOnSignature id="s3" certificateRef="DIST1"
    signatureRef="s2">(sig. omitted)</S100SE:S100_SE_SignatureOnSignature>
</S100XC:digitalSignatureValue>
```

*Item 2:* The breakout group for S-100 Part 15 decided to change the structure of PERMIT.XML to allow multiple permits in a single file, structured as outlined below:

```

<Permit>
  <header>...content of header 1 ... </header>
  <products>...products using the permit in header 1 ...</products>
  <header>...content of header 2 ...</header>
  <products>...products using the permit in header 2 ...</products>
  ... additional header/products pairs ...
</Permit>

```

In short, the permit file will now allow a sequence of *header/products* pairs. *Header / products* pairs after the first are optional.

Two changes to the Part 15 XML schema are required:

- 1) The multiplicity of the sequence content of the Permit element in the Part 15 XML schema needs to be changed to allow the new structure.
- 2) Since this change is incompatible with the old Part 15 XML schema, it will be necessary to update the namespace in the Part 15 schema to use an Edition 5.2 namespace.

*Item 3:* Since the exchange catalogue schema imports the Part 15 schema, it will also be necessary to update the exchange catalogue schema to import the new Part 15 schema. As a consequence of the incompatibility of new and old imported schemas, the exchange catalogue schema will also require a new Edition 5.2 namespace.

## Change Proposal Justification

Item 1: Correction to align examples in Part 15 with actual format in Part 17.

Item 2: Reported too late for inclusion in the original set of S-100 Edition 5.2.0 schemas.

Item 3: Consequence of Item 2. Needed so implementations can avoid using multiple different versions of the Part15 XSD with different namespaces and the corresponding different sets of generated classes for each version.

Note: This change proposal conforms to the decision made by the Part 15 sub-group; if this had been on the agenda as a regular proposal the author of this proposal would have suggested:

- (a) introducing an intermediate container element for each header/products pair, so the permit file would be structured as follows:

```

<Permit>

  <PermitContainer id="permit1">
    <header>...</header>
    <products>...</products>
  </PermitContainer>

  <PermitContainer id="permit2">
    <header>...</header>
    <products>...</products>
  </PermitContainer>

</Permit>

```

- (b) Splitting the Part 15 XSD to place the permit structure into a separate XSD to isolate permits (which are not used in Edition 5.2.0 exchange catalogues) from digital signatures.

**Reviewers including the author of this proposal have additional comments and have**  
 S-100 Change Proposal Form (Updated April 2016)

***noted other places where Parts 15 and 17 can be improved. However the author of this proposal is not including these comments in this proposal so as not to delay Phase 1 implementation.***

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.**