

ID	Req. ID	Type	Requirement	S-101 Reference
	<b>FC 1</b>	<b>Feature Catalogue</b>	<b>Feature Catalogue Creation</b>	
	<b>FC 1.1</b>	<b>Feature Catalogue</b>	The system must be able to export a new feature catalogue in XML (version 1.0.0)	
	<b>FC 1.2</b>	<b>Feature Catalogue</b>	The system must be able to export a correction to the feature catalogue (1.0.1)	
	<b>FC 1.3</b>	<b>Feature Catalogue</b>	The system must be able to export a clarification to the feature catalogue (1.1.1)	
	<b>FC 1.4</b>	<b>Feature Catalogue</b>	The system must be able to export an extension to the feature catalogue (2.0.0)	
	<b>FC 1.5</b>	<b>Feature Catalogue</b>	The Feature catalogue must conform to S-100	
	<b>PC 2</b>	<b>Portrayal Catalogue</b>	<b>Portrayal Catalogue Creation</b>	
	<b>PC 2.1</b>	<b>Portrayal Catalogue</b>	The system must be able to export a new portrayal catalogue in XML (version 1.0.0)	
	<b>PC 2.2</b>	<b>Portrayal Catalogue</b>	The system must be able to export a correction to the portrayal catalogue (1.0.1)	

	<b>PC 2.3</b>	<b>Portrayal Catalogue</b>	The system must be able to export a clarification to the portrayal catalogue (1.1.1)	
	<b>PC 2.4</b>	<b>Portrayal Catalogue</b>	The system must be able to export an extension to the portrayal catalogue (2.0.0)	
	<b>S 3</b>	<b>System</b>	<b>S-101 Enabled ECDIS</b>	
	<b>S 3.1</b>	<b>System</b>	The system must be able to manage multiple versions of a Feature Catalogue	
	<b>S 3.2</b>	<b>System</b>	The system must be able to manage multiple versions of a Portrayal Catalogue	
	<b>S 3.3</b>	<b>System</b>	The system must be able to read and display data that are associated to multiple versions of a feature and portrayal catalogue	
	<b>S 3.4</b>	<b>System</b>	The system must display datasets in the chart display according to the rules and symbols set out in the S-101 Portrayal Catalogue	
	<b>S 3.5</b>	<b>System</b>	<b>Application of a Feature Catalogue</b> - The system must use the installed S-101 Feature Catalogue when listing Feature and Attribute details.	
	<b>S 3.6</b>	<b>System</b>	<b>Application of a Portrayal Catalogue</b> - The system must use the installed S-101 Portrayal Catalogue when displaying features in the chart display. The application	
		<b>PS</b>	<b>S-101 Product Specification</b>	Product specification has the following identifiers: PSD - Product Specification

	<b>PS 1</b>	<b>PSD</b>	<b>Dataset Identification</b>	<b>3</b>
	<b>PS 1.1</b>	<b>PSD</b>	The spatial resolution of the datasets (both minimum and maximum display scale) must the scale values listed in clause 3.	3
	<b>PS 2</b>	<b>PS</b>	<b>Data Content and Structure</b>	<b>4</b>
	<b>PS 2.1</b>	<b>PSD</b>	The dataset must conform to S-100 Part 3 – General Feature Model	4.2
	<b>PS 2.2</b>	<b>PSD</b>	The Dataset must be covered by a set the skin of the earth	4.3.2.1.1
	<b>PS 2.2</b>	<b>PSP</b>	The system must display the skin of the earth	4.3.2.1.1
	<b>PS 2.3</b>	<b>PSS</b>	The system must be able to override default metadata values defined by the data set descriptive records with values contained in meta features	4.3.2.2
	<b>PS 2.4</b>	<b>PSS</b>	The system must be able to handle associations between features	4.3.3.1
	<b>PS 2.5</b>	<b>PSS</b>	The system must be able to handle aggregations between features	4.3.3.2
	<b>PS 2.6</b>	<b>PSS</b>	The system must be able to handle compositions between features	4.3.3.3

<b>PS 2.7</b>	<b>PSS</b>	The system must be able to handle information types	4.3.4
<b>PS 2.8</b>	<b>PSS</b>	The system must be able to handle information types for spatial quality	4.3.4.1
<b>PS 2.9</b>	<b>PSS</b>	The system must be able to handle complex attributes	4.3.5.2
<b>PS 2.10</b>	<b>PS</b>	<b>Feature Object Identifier</b>	<b>4.4</b>
<b>PS 2.10.1</b>	<b>PSD</b>	Each feature within a dataset must have an unique FOID	4.4
<b>PS 2.10.2</b>	<b>PSD</b>	The FOID may be used to identify that the same feature has instances in separate datasets	4.4
<b>PS 2.10.3</b>	<b>PSD</b>	FOIDs must not be repeated in a dataset	4.4
<b>PS 2.10.4</b>	<b>PSD</b>	Where a feature is repeated in different datasets the FOID should be repeated	4.4
<b>PS 2.10.5</b>	<b>PSD</b>	FOIDs must not be reused by another feature, even when a feature has been deleted	4.4
<b>PS 2.11</b>	<b>PS</b>	<b>Dataset</b>	<b>4.5</b>

	<b>PS 2.11.1</b>	<b>PSD</b>	Datasets may contain more than one dataCoverage	4.5.1
	<b>PS 2.11.2</b>	<b>PSS</b>	The system must portrayal datasets that contain more than one coverage	4.5.1
	<b>PS 2.11.3</b>	<b>PSD</b>	Multiple dataCoverage's within a dataset must not overlap	4.5.1
	<b>PS 2.11.4</b>	<b>PSD</b>	ENC updates must not change the limits of a dataset	4.5.1
	<b>PS 2.11.5</b>	<b>PSD</b>	Datasets must not cross the 180 degree meridian	4.5.1
	<b>PS 2.11.6</b>	<b>PSD</b>	Datasets must on exceed 10MB	4.5.1.1
	<b>PS 2.11.7</b>	<b>PSD</b>	Updates must not be larger than 200KB	4.5.1.1
	<b>PS 2.12</b>	<b>PSD</b>	Display Scale Range	4.6
	<b>PS 2.12.1</b>	<b>PSD</b>	The smallest display scale must be set in the minimum display scale	4.6
	<b>PS 2.13</b>	<b>PS</b>	<b>Dataset loading and unloading</b>	<b>4.7</b>

	<b>PS 2.13.1</b>	<b>PSS</b>	The system must load and unload data using the minimum guidance set out in Clause 4.7.1	4.7.1
	<b>PS 2.14</b>	<b>PS</b>	<b>Geometry</b>	<b>4.8</b>
	<b>PS 2.14.1</b>	<b>PSD</b>	The system must support S-100 Level 3a geometry	4.8.1
	<b>PS 2.14.2</b>	<b>PSD,PSP</b>	The system must support masking	4.8.2
	<b>PS 3</b>	<b>PS</b>	<b>Coordinate Reference Systems</b>	<b>5</b>
	<b>PS 3.1</b>	<b>PSS</b>	The system must display data in a Mercator projection unless otherwise indicated.	5.2
	<b>PS 3.2</b>	<b>PSS</b>	The system must display polar data in a polar stereographic projection	#####
	<b>PS 3.3</b>	<b>PS</b>	<b>Vertical CRS for Soundings</b>	<b>5.3</b>
	<b>PS 3.3.1</b>	<b>PSD</b>	The system may have different vertical datum's	5.3
	<b>PS 3.3.2</b>	<b>PSS</b>	The system must indicate where a different vertical datum is.	5.3

	<b>PS 4</b>	<b>PS</b>	<b>Data Quality</b>	<b>6</b>
	<b>PS 4.1</b>	<b>PSD</b>	The data must conform to all mandatory checks in S-58 for S-101	6.1.1
	<b>PS 4.2</b>	<b>PSP</b>	The system must display different data quality indicators	6.1.2,6.1.3,6.1.4
	<b>PS 5</b>	<b>PS</b>	<b>Portrayal</b>	<b>9</b>
	<b>PS 5.1</b>	<b>PSP</b>	The system must be able to display datasets in conformance to the portrayal catalogue	9
	<b>PS 6</b>	<b>PS</b>	<b>Data Product Format</b>	<b>10</b>
	<b>PS 6.1</b>	<b>PSD</b>	The dataset must conform to S-100 profile of ISO/IEC 8211	10.1
	<b>PS 6.2</b>	<b>PSD</b>	The dataset must set the coordinate multiplication factors for latitude and longitude (CMFX and CMFY) to $10^7$	10.1.1
	<b>PS 6.3</b>	<b>PSD</b>	The dataset must set the depth resolution (CMFZ) to 100	10.1.2
	<b>PS 6.4</b>	<b>PSD</b>	The floating point or integer attribute values in the dataset must not be padded by non-significant zero's	10.1.3

	<b>PS 6.5</b>	<b>PSD</b>	The dataset must use ISO 10646-1 in UTF-8 for character strings	10.1.4
	<b>PS 7</b>	<b>PS</b>	Data Product Delivery	11
	<b>PS 7.1</b>	<b>PSD</b>	The dataset must be in an exchange set	11.2
	<b>PS 7.2</b>	<b>PSD</b>	The exchange set may contain supplementary files	11.2
	<b>PS 7.3</b>	<b>PSD</b>	The exchange set may deliver S-101 Feature Catalogues	11.2
	<b>PS 7.4</b>	<b>PSD</b>	The exchange set may deliver S-101 portrayal catalogues	11.2
	<b>PS 7.5</b>	<b>PSD</b>	The dataset may be an update	11.3.1
	<b>PS 7.6</b>	<b>PSD</b>	The dataset may be a re-issue	11.3.1
	<b>PS 7.7</b>	<b>PSD</b>	The dataset may be a new dataset or a new edition of the dataset	11.3.1
	<b>PS 7.8</b>	<b>PSD</b>	The dataset must use the proper sequencing for New Editions, updates, and reissues	11.3.3



<b>PS 7.9</b>	<b>PSS</b>	The system must check the sequencing of S-101 datasets for New editions, updates, and reissues	11.3.3
<b>PS 7.10</b>	<b>PSD</b>	The dataset must be able to be cancelled via an update dataset file where the edition number must be set to 0	11.3.3
<b>PS 7.11</b>	<b>PSS</b>	The system must be able to cancel a dataset	11.3.3
<b>PS 7.12</b>	<b>PSD</b>	The dataset support files must be one of the following formats: TXT	11.4
<b>PS 7.13</b>	<b>PSS</b>	The system must be able to read the following formats for support files: TXT	11.4
<b>PS 7.14</b>	<b>PSD</b>	The support file must carry an issue date and CRC value calculated on the content	11.4.2
<b>PS 7.15</b>	<b>PSS</b>	The system must be able to delete the support file if the "deletion" flag is tagged in the XML catalogue metadata file	11.4.2
<b>PS 7.16</b>	<b>PSS</b>	The system should store support files in a separate folder within the exchange set	11.4.2
<b>PS 7.17</b>	<b>PSD</b>	The exchange catalogue must be named CATALOG.101	11.5
<b>PS 7.18</b>		The dataset must have a CRC value	11.6.1

	<b>PS 8</b>	<b>PS</b>	Metadata	12
	<b>PS 8.1</b>	<b>PSD</b>	The dataset metadata catalogue must comply to all the mandatory metadata elements	12
	<b>PS 8.2</b>	<b>PSS</b>	The system must be able to read the XML metadata catalogue	12
			<b>S-101 Implementation Guidance (Annex C)</b>	