S-101 Product Specification Tests

1.0 Dataset Identification

Test reference	1.1	S-101 Reference	3
Test description			
The spatial resolution of datasets (both minimum and maximum display scale) must be one of the following values: **Scale** 1:10,000,000 1:3,500,000 1:1,500,000 1:700,000 1:350,000 1:180,000 1:90,000 1:45,000 1:22,000 1:12,000 1:8,000 1:4,000 1:3,000 1:2,000 1:1,000			
Set up			
Load the dataset			
Action			
1. Review the metadata of the dataset to determine if the minimum and maximum display scales are one of the pre-defined values *2. Review the metadata to make sure that the maximum display scale value does not exceed the minimum display scale value*			
Result			
The dataset has the correct maximum and minimum display scale values			

Test reference	1.2	S-101 Reference	3.0
Test description			
Data may have the following classifications: *unclassified* *restricted* *confidential* *secret* *top secret*			
Set up			
Access the exchange set and dataset metadata xml file			

Action
Examine the classification value in the dataset metadata element
Result
The dataset has a classification value

2.0 Data Content and Structure

Test reference	2.1-001	S-101 Reference	4.2
Test description			
The dataset must conform to S-100 Part 3 – General Feature Model			
Set up			
Open application and load the appropriate dataset			
Action			
Determine that the dataset conforms to S-100 Part 3 – General Feature Model which describes dataset content; it is structured in terms of real-world features and information types and their properties			
Result			
The dataset conforms to the General Feature Model			

Test reference	2.1-002	S-101 Reference	4.3.1
Test description			
Load dataset with the latest S-100 XML feature catalogue			
Set up			
Open application			
Action			
Load dataset with the latest S-100 XML feature catalogue and verify that the dataset content loaded successfully			
Result			
The dataset loaded successfully			

Test reference	2.2	S-101 Reference	4.3.2.1.1
Test description			
The dataset must be covered by skin of the earth (SOE)			
Set up			
Open application and load the dataset			
Action			
Retrieve SOE features (DepthArea, DredgedArea, LandArea and Unsurveyed Area) and verify that they cover the dataset completely with no gaps or overlaps			
Result			
The dataset is covered in its entirety by SOE with no gaps or overlaps			

Test reference	2.2.1	S-101 Reference	4.3.2.1.1
Test description			
The system must display the skin of the earth (SOE)			
Set up			
Open application and load dataset			
Action			
Retrieve SOE features (DepthArea, DredgedArea, LandArea and Unsurveyed Area) and verify that they are properly displayed			
Result			
The system is able to properly display all SOE features			

Test reference	2.2.2	S-101 Reference	4.3.2.1.1
Test description			
The geometry of coincident boundaries between skin of the earth (SOE) features			

in a dataset must not be duplicated
Set up
Open application
Action
Load dataset and retrieve geometry of SOE features (DepthArea, DredgedArea, LandArea and Unsurveyed Area); verify that the geometry of coincident boundaries between features is not duplicated
Result
The geometry of coincident boundaries between SOE features within a dataset are not duplicated

Test reference	2.3	S-101 Reference	4.3.2.2
Test description			
The system must be able to override default metadata values defined by the dataset descriptive records, with values contained in meta features			
Set up			
Open application			
Action			
Load dataset and retrieve meta features; verify that the system overrides the default metadata that is defined by the dataset descriptive records with the values contained in meta features			
Result			
The metadata values contained in meta features are overriding the default metadata values from the dataset descriptive records			

Test reference	2.4	S-101 Reference	4.3.3.1
Test description			
The dataset must be able to handle associations between features			
Set up			
Open application			
Action			
Load dataset and verify that the associations between features are valid and handled properly			
Result			
The associations between features are handled properly			

Test reference	2.4.1	S-101 Reference	4.3.3.1
Test description			
The system must be able to handle associations between features			
Set up			
Open application			
Action			
Load dataset and verify that the associations between features are valid and properly handled by the system			
Result			
The system properly handled associations between features			

Test reference	2.5	S-101 Reference	4.3.3.2
Test description			
The dataset must be able to handle aggregations between features			
Set up			
Open application			
Action			
Load dataset and verify that the aggregations between features are valid and handled properly			

Result
The aggregations between features are handled properly

Test reference	2.5.1	S-101 Reference	4.3.3.2
Test description			
The system must be able to handle aggregations between features			
Set up			
Open application			
Action			
Load dataset and verify that the aggregations between features are properly handled by the system			
Result			
The system properly handled aggregations between features			

Test reference	2.6	S-101 Reference	4.3.3.3
Test description			
The dataset must be able to handle compositions between features			
Set up			
Open application			
Action			
Load dataset and verify compositions between features are valid and handled properly			
Result			
The compositions between features are handled properly			

Test reference	2.6.1	S-101 Reference	4.3.3.3
Test description			
The system must be able to handle compositions between features			
Set up			
Open application			
Action			
Load dataset and verify compositions between features are properly handled by the system			
Result			
The system properly handled compositions between features			

Test reference	2.7	S-101 Reference	4.3.4
Test description			
The dataset must be able to handle information types			
Set up			
Open application			
Action			
Load dataset and verify that information types are valid and handled properly			
Result			
The information types are handled properly			

Test reference	2.7.1	S-101 Reference	4.3.4
Test description			
The system must be able to handle information types			
Set up			
Open application			
Action			
Load dataset and verify that information types are properly handled by the system			
Result			

The system properly handled information types

Test reference	2.8	S-101 Reference	4.3.4.1
Test description			
The dataset must be able to handle information types for spatial quality			
Set up			
Open application			
Action			
Load dataset and verify that the spatial quality attribute is handled properly by information types			
Result			
The information types for spatial quality are handled properly			

Test reference	2.8.1	S-101 Reference	4.3.4.1
Test description			
The system must be able to handle information types for spatial quality			
Set up			
Open application			
Action			
Load dataset and verify that the information types for spatial quality are handled properly by the system			
Result			
The system properly handled information types for spatial quality			

Test reference	2.9	S-101 Reference	4.3.5.2
Test description			
The dataset must be able to handle complex attributes			
Set up			
Open application			
Action			
Load dataset and verify complex attributes are properly handled in the dataset			
Result			
The complex attributes are handled properly			

Test reference	2.9.1	S-101 Reference	4.3.5.2
Test description			
The system must be able to handle complex attributes			
Set up			
Open application			
Action			
Load dataset and verify complex attributes are properly handled by the system			
Result			
The system properly handled complex attributes			

Test reference	2.10.1	S-101 Reference	4.4
Test description			
Each feature within a dataset must have an unique FOID			
Set up			
Open application			
Action			
Load dataset and verify that all features have been assigned a unique FOID			
Result			
All features in the dataset are assigned a unique FOID			

Test reference	2.10.2	S-101 Reference	4.4
Test description			
The FOID may be used to identify that the same feature has instances in separate datasets			
Set up			
Open application			
Action			
Load multiple datasets and retrieve features with the same FOID assigned for multiple instances in separate datasets			
Result			
Able to use FOID to identify the same feature where it is present in separate datasets			

Test reference	2.10.3	S-101 Reference	4.4
Test description			
FOIDs must not be repeated in a dataset			
Set up			
Open application and load dataset			
Action			
Retrieve FOIDs and examine the list to determine if there is any repetition within the singular dataset			
Result			
FOIDs in a singular datasets are not repeated			

Test reference	2.10.4	S-101 Reference	4.4
Test description			
Where a feature is repeated in different datasets the FOID should be repeated			
Set up			
Open application and load multiple datasets			
Action			
View a feature that is repeated in multiple datasets and verify that the same FOID has been used for each occurrence of the feature.			
Result			
A feature repeated in different datasets has the same FOID			

Test reference	2.10.5	S-101 Reference	4.4
Test description			
Where a real-world feature is repeated in datasets of different maximum display scale, the FOID should be repeated for each instance of the feature across the maximum display scale range. Where this occurs, all instances of the geo feature must be identical, i.e. same feature class and attribute values.			
Set up			
Open application and load multiple datasets of different maximum display scale			
Action			
Retrieve a real-world feature that is repeated in multiple datasets. Zoom in and out across maximum display scale range and verify that the geo feature has the same FOID, feature class and attributes.			
Result			
Real world feature that is repeated in datasets of different maximum display scale has the same FOID, feature class and attribution for each instance			

Test reference	2.10.6	S-101 Reference	4.4
Test description			
FOIDs must not be reused by another feature, even when a feature has been deleted			

Set up
Open application and load dataset
Action
Retrieve a list of all FOIDs within a dataset and review for any repeated instances
Result
FOIDs in the dataset are not reused by another feature

Test reference	2.11.1	S-101 Reference	4.5.2
Test description			
Each dataset must be contained in a physically separate, uniquely identified file on the transfer medium			
Set up			
Open exchange set folder on the transfer medium			
Action			
Examine each dataset to ensure that they are contained in a physically separate, uniquely identified exchange set on the transfer medium			
Result			
The datasets on the transfer medium are physically separate, uniquely identified			

Test reference	2.11.2	S-101 Reference	4.5.2
Test description			
Discovery metadata of a dataset must list all the DataCoverage features contained within that dataset and their assigned scale attributions			
Set up			
Access exchange set folder and open dataset discovery metadata xml file			
Action			
Locate and list all discovery metadata and verify that the dataset contains the same number of DataCoverage features with their assigned scale attributions.			
Result			
All of the DataCoverage features contained in dataset are listed in the discovery metadata xml file along with their assigned scale attributions			

Test reference	2.11.3	S-101 Reference	4.5.2
Test description			
ENC updates must not change the limits of a dataset			
Set up			
Open the application; load a dataset that has updates			
Action			
Load dataset and apply updates; determine if the update(s) has the same limit as the base dataset			
Result			
The ENC updates have the same limit as the base dataset			

Test reference	2.11.4	S-101 Reference	4.5.2
Test description			
Datasets must not cross the 180 degree meridian			
Set up			
Access exchange set folder and locate dataset discovery metadata xml file			
Action			
Open xml file, examine DataCoverage extents to determine if they cross the 180 degree meridian			
Result			
Dataset does not cross the 180 degree meridian			

Test reference	2.11.5	S-101 Reference	4.5.3

Test description
A dataset may contain more than one DataCoverage Feature, but must not contain more than three total DataCoverage features
Set up
Access exchange set folder and locate dataset discovery metadata xml file
Action
Open xml file, verify that it may contain more than one DataCoverage feature but not more than three in total
Result
Dataset may contain more than one DataCoverage feature but not more than three in total

Test reference	2.11.6	S-101 Reference	4.5.3
Test description			
The data boundary is defined by the extent of the DataCoverage features and must be contained within the boundingBox			
Set up			
Access exchange set folder and open the dataset discovery metadata xml			
Action			
Locate the DataCoverage feature extents and verify that the extents are within the boundingBox			
Result			
The DataCoverage features are contained within the boundingBox			

Test reference	2.11.7	S-101 Reference	4.5.3
Test description			
Datasets with the same maximum display scale may overlap, however DataCoverage features within these datasets must not overlap			
Set up			
Access exchange set that contains multiple datasets			
Action			
Load datasets and set display to maximum display scale; check DataCoverage features within these datasets for overlap			
Result			
Although datasets may overlap, there is no overlap for DataCoverage features			

Test reference	2.11.8	S-101 Reference	4.5.3
Test description			
When a dataset has multiple DataCoverage features, then the minimumDisplayScale must be the same for all DataCoverage features within the dataset			
Set up			
Load dataset			
Action			
Retrieve DataCovarage features; check minimumDisplayScale attribution to determine if it is the same for all DataCoverage features within the dataset			
Result			
All DataCoverage features with a dataset have the same minimumDisplayScale			

Test reference	2.11.9	S-101 Reference	4.5.4
Test description			
Datasets must not exceed 10MB			
Set up			
Access exchange set folder			
Action			

Check dataset size
Result
Datasets are not more than 10MB in size

Test reference	2.11.10	S-101 Reference	4.5.4
Test description			
Updates must not be larger than 200KB			
Set up			
Access dataset folder and locate update			
Action			
Check update size			
Result			
Updates are not more than 200kb			

Test reference	2.12.1	S-101 Reference	4.6
Test description			
The smallest display scale must be set in the minimum display scale and the largest display scale must be set in the maximum display scale.			
Set up			
Access exchange set			
Action			
Open dataset discovery metadata; the smallest display scale is to be set in the minimum display scale and the largest display scale set in the maximum display scale based on dataset scale range			
Result			
Dataset assigned with minimumDisplayScale of smallest display scale and maximumDisplayScale of largest display scale			

Test reference	2.12.3	S-101 Reference	4.6
Test description			
When a viewing scale is smaller than the minimumDisplayScale, skin of the earth (SOE) features within the DataCoverage feature are not displayed			
Set up			
Access exchange set			
Action			
Load dataset and set the viewing scale to smaller than the minimumDisplayScale, check to see if any SOE features are displayed in the DataCoverage			
Result			
SOE features are not displayed when viewing scale is smaller than the minimumDisplayScale			

Test reference	2.12.4	S-101 Reference	4.6
Test description			
When the viewing scale is larger than the maximumDisplayScale, skin of the earth (SOE) features within the DataCoverage feature are displayed with over-scale indications			
Set up			
Access exchange set			
Action			
Load dataset and set the viewing scale to larger than the maxmumDisplayScale, check all SOE features within the DataCoverage feature to determine if they are displayed with overs-scale indications			
Result			
SOE features are displayed with over-scale indications when viewing scale is larger than the maximumDisplayScale			

Test reference	2.13.1	S-101 Reference	4.7
Test description			
The system must load and unload data using the minimum guidance set out in Clause 4.7.1 - ECDIS to properly load and unload data as the mariner is zooming in and out using the mariners selected viewing scale (MSVS)			
Set up			
Load datasets with various scale ranges			
Action			
Zoom in and out within the minimumdisplayscale and maximumdisplayscale of loaded datasets and verify that they display following the algorithm specified in 4.7.1.			
Result			
Data coverage with the maximum display scale will be selected from the list			

Test reference	2.14.1	S-101 Reference	4.8.1
Test description			
The dataset must support S-100 Level 3a geometry			
Set up			
Open application			
Action			
Load ENC dataset and check that system supports datasets containing Level 3a geometry			
Result			
Dataset created with level 3a dimensional features, using subset of ISO 19107 guidelines can be opened and viewed			

Test reference	2.14.2	S-101 Reference	4.8.1
Test description			
The system must support S-100 Level 3a geometry			
Set up			
Open system			
Action			
Load dataset constructed with Level 3a geometry and check system ability to support this geometry			
Result			
The system is able to load a dataset created with level 3a dimensional features, using subset of ISO 19107 guidelines			

Test reference	2.14.3	S-101 Reference	4.8.2
Test description			
The dataset must support masking of features			
Set up			
Open application and load dataset			
Action			
Retrieve feature that has a masked spatial type and verify that the feature edge symbolization is masked			
Result			
The dataset supports masking of features			

Test reference	2.14.3.1	S-101 Reference	4.8.2
Test description			
The dataset must support masking of features sharing the dataset limit			
Set up			
Open application and load dataset			

Action
Retrieve a feature that shares the dataset limit and verify feature edge symbolization is masked along the dataset limit
Result
The dataset supports masking of features sharing the dataset limit

Test reference	2.14.4	S-101 Reference	4.8.2
Test description			
The system must support masking			
Set up			
Open application and load the dataset			
Action			
Retrieve a feature that has a suppressed edge and verify that the mask indicator is set to 1 (masked) and suppressed from display			
Result			
The system is able to support masking			

3.0 Coordinate Reference Systems

Test reference	3.1	S-101 Reference	5.2
Test description			
The system must display data in a Mercator projection unless otherwise indicated			
Set up			
Open application and load data			
Action			
Verify that data is Mercator projection			
Result			
The system is able to display data in a Mercator projection			

Test reference	3.1.1	S-101 Reference	5.2
Test description			
The system must display data in a Mercator projection unless otherwise indicated - Display data on a projection other than Mercator			
Set up			
Open application and set projection to custom			
Action			
Load dataset to be displayed on a custom projection that is other than Mercator			
Result			
The system is able to display data with a projection that is other than Mercator			

Test reference	3.3.1	S-101 Reference	5.3
Test description			
The dataset may have different vertical datums			
Set up			
Open application and locate dataset with different vertical datums			
Action			
Load dataset, verify that the different vertical datums have been supported			
Result			
The dataset supports different vertical datums			

Test reference	3.3.2	S-101 Reference	5.3
Test description			
The system must indicate where a different vertical datum is			
Set up			
Open application and locate a dataset with different vertical datums			

Action
Load dataset and verify that the system indicates that there are different vertical datums with parameter CRSH values set in a dataset
Result
The system is able to indicate different vertical datums within the dataset

4.0 Data Quality

Test reference	4.1	S-101 Reference	6.1.1
Test description			
The data must conform to all mandatory checks in S-58 for S-101			
Set up			
Open application and load dataset			
Action			
Perform mandatory checks in S-58 on the dataset and verify that the dataset complies with S-101			
Result			
The data conforms to all mandatory checks in S-58 for S-101			

Test reference	4.2	S-101 Reference	6.1.2,6.1.3,6.1.4
Test description			
The system must display different data quality indicators (Bathymetric Data Quality)			
Set up			
Open application and load dataset			
Action			
Verify that the system displays data for the following indicators: QualityOfBathymetricData, QualityOfNonbathymetricData and QualityOfSurvey			
Result			
The system is able to display different data quality indicators			

6.0 Maintenance

Test reference	6.1	S-101 Reference	8.5
Test description			
The ECDIS must be able to manage datasets and their catalogues that are created on different versions of the S-101 product specification			
Set up			
Open application			
Action			
Load into ECDIS, datasets and their catalogues that have been created on different versions of the S101 product specification and verify that they are managed by the system			
Result			
The ECDIS is able to load datasets and their catalogues that have been created on different versions of the S-101 specification			

7.0 Portrayal *(Will be filled out at a later date. Pending DIPWG input)*

Test reference	7.1	S-101 Reference	9
Test description			
The system must be able to display datasets in conformance to the portrayal			

catalogue
Set up
Open application
Action
Result

8.0 Data Product Format

Test reference	8.1	S-101 Reference	10.1
Test description			
The dataset must conform to S-100 profile of ISO/IEC 8211			
Set up			
Open application and load dataset			
Action			
Verify that the dataset conforms to S-100 profile			
Result			
The dataset conforms to S-100 profile of ISO/IEC 8211 standard			

Test reference	8.2	S-101 Reference	10.1.1
Test description			
The dataset must set the coordinate multiplication factors for latitude and longitude (CMFX and CMFY) to 10^7			
Set up			
Open application and load the dataset			
Action			
Examine the coordinate multiplication factor for subfields CMFC & CMFY which must be set to 10^7 under Data Set Structure Information [DSSI] field			
Result			
The coordinate multiplication factor for latitude and longitude is set to 10^7			

Test reference	8.3	S-101 Reference	10.1.2
Test description			
The dataset must set the depth resolution (CMFZ) to 100			
Set up			
Open application and load dataset			
Action			
Examine the depth resolution for subfield CMFZ which must be set to 100 under Data Set Structure Information [DSSI]; verify depths are two decimal meters in dataset			
Result			
The depth resolution set to 100			

Test reference	8.4	S-101 Reference	10.1.3
Test description			
The floating point or integer attribute values in the dataset must not be padded by non-significant zero's			
Set up			
Open application and load dataset			
Action			
Verify that there are not any floating point or integer attribute values padded by non-significant zero's			
Result			
The floating point or integer attribute values in the datasets have not been			

padded by non-significant zero's

Test reference	8.5	S-101 Reference	10.1.4
Test description			
The dataset must use ISO 10646-1 in UTF-8 for character strings			
Set up			
Open application and load dataset			
Action			
Verify that the character strings are encoded using the ISO 10646-1 in UTF-8			
Result			
The character strings in the dataset use ISO 10656-1 in UTF-8			

9.0 Data Product Delivery

Test reference	9.1	S-101 Reference	11.2
Test description			
The dataset must be in an exchange set			
Set up			
Access exchange set			
Action			
Locate the dataset within the exchange set			
Result			
The dataset is part of an exchange set			

Test reference	9.2	S-101 Reference	11.2
Test description			
The exchange set may contain supplementary files			
Set up			
Access exchange set			
Action			
Locate supplementary files in a separate folder within an exchange set			
Result			
The exchange set contains supplementary files in a separate folder			

Test reference	9.3	S-101 Reference	11.2
Test description			
The exchange set may deliver S-101 feature catalogues			
Set up			
Access exchange set			
Action			
Locate S-101 feature catalogue if delivered within an exchange set			
Result			
The exchange set delivers an S-101 feature catalogue			

Test reference	9.4	S-101 Reference	11.2
Test description			
The exchange set may deliver S-101 portrayal catalogues			
Set up			
Access exchange set			
Action			
Locate S-101 portrayal catalogue if delivered within an exchange set			
Result			
The exchange set delivers an S-101 portrayal catalogue			

Test reference	9.5	S-101 Reference	11.3.1

Test description
The dataset may have an update
Set up
Access exchange set and open dataset discovery metadata xml file
Action
Locate metadata element 'updateNumber', if set to other than 0 it is an update
Result
The dataset has an update when updateNumber is set to other than 0

Test reference	9.6	S-101 Reference	11.3.1
Test description			
The dataset may be a re-issue			
Set up			
Locate exchange set and open dataset discovery metadata xml file			
Action			
Locate and verify that the metadata element 'editionNumber' is set the same as the base dataset and 'updateNumber' to the last update issued on the base dataset			
Result			
The dataset is a re-issue			

Test reference	9.7	S-101 Reference	11.3.1
Test description			
The dataset may be a new dataset or a new edition of the dataset			
Set up			
Access exchange set and open dataset discovery metadata xml file			
Action			
Verify metadata element 'editionNumber' is set to 1 for new dataset or increased by 1 at each new edition			
Result			
The dataset is a new dataset with editionNumber = 1 or increased by 1 at each new edition			

Test reference	9.8	S-101 Reference	11.3.3
Test description			
The dataset must use the proper sequencing for new editions, updates, and reissues			
Set up			
Access the dataset archive and locate datasets with update, new edition and re-issue			
Action			
Locate each dataset package and verify that the following elements in dataset discovery metadata xml conforms to the proper sequencing for new editions, updates, and reissues *1. new edition - editionNumber increased by 1 and updateNumber to 0* *2. update - editionNumber is the same as the new dataset or new edition and updateNumber increased by 1 for each subsequent update* *3. re-issue - edtionNumber is the same as the new dataset or new edition and updateNumber of last update issued on the dataset*			
Result			
The datasets have been issued in proper sequence for new editions, updates and re-issues			

Test reference	9.9	S-101 Reference	11.3.3
Test description			

The system must check the sequencing of S-101 datasets for new editions, updates, and reissues
Set up
Access the dataset archive and locate datasets that have update, new edition and re-issue
Action
1. Load dataset and updates; verify that the system properly applies updates to the base dataset *2. Load new edition; verify that the system unloads the previous dataset and updates and loads the new edition* *3. Load re-issued dataset; verify that the system unloads the previous dataset and updates and loads the re-issued dataset*
Result
The system is able to load and apply updates, new editions and re-issues properly

Test reference	9.10	S-101 Reference	11.3.3
Test description			
The dataset must be able to be cancelled via an update dataset file where the edition number must be set to 0			
Set up			
Access exchange set and load dataset with update			
Action			
Apply update and verify that the dataset has been cancelled and editionNumber has been set to 0			
Result			
The dataset has been cancelled via an update dataset file			

Test reference	9.11	S-101 Reference	11.3.3
Test description			
The system must be able to cancel a dataset			
Set up			
Access the exchange set and load a dataset with update			
Action			
Apply update to cancel dataset			
Result			
The system is able to cancel a dataset via an update dataset file			

Test reference	9.12	S-101 Reference	11.4
Test description			
The dataset support files must be one of the following formats: *TXT* *HTM* *XML* *TIFF - baseline TIFF 6.0*			
Set up			
Locate the separate folder containing the support files within an exchange set			
Action			
Verify support files are in one of the following formats: *TXT* *HTM* *XML* *TIFF - baseline TIFF 6.0*			
Result			
The dataset support files are in the allowed format			

Test reference	9.13	S-101 Reference	11.4
Test description			
The system must be able to read the following formats for support files: *TXT* *HTM* *XML* *TIFF - baseline TIFF 6.0*			
Set up			
Locate the separate folder containing the support files within an exchange set			
Action			
Open the dataset and verify that the following support files can be read by the system: *TXT* *HTM* *XML* *TIFF - baseline TIFF 6.0*			
Result			
The system is able to read all allowable support file formats			

Test reference	9.14	S-101 Reference	11.4.2
Test description			
The support file must carry an issue date and CRC value calculated on the content			
Set up			
Access exchange set and open SupportFileDiscoveryMetadata xml file			
Action			
Verify that the xml file carries metadata elements issueDate and checksum with calculated CRC value on the support file content			
Result			
The support file carries an issue date and CRC value in the support file metadata			

Test reference	9.15	S-101 Reference	11.4.2
Test description			
The system must be able to delete the support file if the "deletion" flag is tagged in the XML catalogue metadata file			
Set up			
Access exchange set and XML catalogue metadata file			
Action			
Load dataset and verify that the system deletes the support file when the 'deletion' flag is tagged in the xml catalogue metadata file of the dataset			
Result			
The system is able to delete support files flagged "deletion" in the XML catalogue metadata file			

Test reference	9.16	S-101 Reference	11.4.2
Test description			
The system should store support files in a separate folder within the exchange set			
Set up			
Locate exchange set			
Action			
Open application and create exchange set; verify that the system is storing support files in a separate folder within the exchange set			
Result			
The system is able to store support files in a separate folder within the exchange set			

Test reference	9.17	S-101 Reference	11.5
Test description			
The exchange catalogue must be named CATALOG.101			
Set up			
Locate exchange set			
Action			
Verify that the exchange catalogue file has been named CATALOG.101			
Result			
The exchange catalogue file has been named CATALOG.101			

Test reference	9.18	S-101 Reference	11.6.1
Test description			
The exchange set must have a CRC value per dataset			
Set up			
Locate the exchange set folder and dataset discovery metadata xml file			
Action			
Open the dataset discovery metadata xml file and examine metadata element checkSum which must carry the CRC value of a dataset			
Result			
The exchange set has the CRC value per dataset			

Test reference	9.19	S-101 Reference	11.6.1
Test description			
The system must check data integrity against the CRC value in the exchange catalogue file			
Set up			
Locate exchange set folder			
Action			
Load dataset and verify that the system checks the data integrity against CRC value in exchange catalogue file			
Result			
The system is able to check the data integrity against the CRC value in the exchange catalogue file			

10.0 Metadata

Test reference	10.1	S-101 Reference	12
Test description			
The dataset metadata catalogue must comply to all of the mandatory metadata elements			
Set up			
Locate the exchange set folder and dataset discovery metadata xml files			
Action			
Open xml file and verify that it carries all of the mandatory metadata elements against the dataset			
Result			
The dataset metadata catalogue carries all of the mandatory metadata elements			

Test reference	10.2	S-101 Reference	12
Test description			
The system must be able to read the XML metadata catalogue			
Set up			
Locate the exchange set folder and XML metadata catalogue			
Action			
Open XML metadata catalogue and verify that the system reads all metadata			

elements
Result
The system is able to read all the elements in the XML metadata catalogue