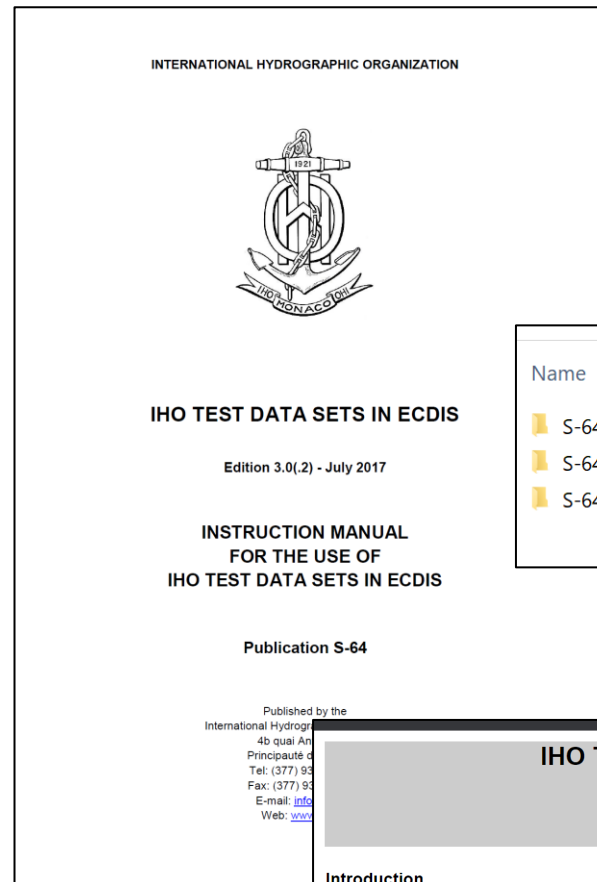


S-164 kickoff

SubWG Objectives

- Draft 1.0.0 of S-164
- S-164 components
 - Test dataset manual
 - Datasets
- Support to implementers
 - IHO landing page for users



Name	Date modified	Type
S-64_e3.0.2_ENC_Encrypted_TDS	25/08/2020 16:44	File folder
S-64_e3.0.2_ENC_Unencrypted_TDS	29/06/2020 10:33	File folder
S-64_e3.0.2_RNC_TDS	29/06/2020 10:33	File folder

IHO TEST DATA SETS FOR ECDIS Publication S-64 Edition 3.0(.2) - July 2017

Introduction

The IHO Publication S-64 comprises an **Instruction Manual** and numerous data sets. Since the release of Edition 3.0.0, a number of minor clarifications have been identified. The 2nd ENCWG meeting agreed that these should be included in a new clarification Edition 3.0(.2) of the document. The clarification edition and associated test datasets can be downloaded below.

The S-64 data sets contain both **encrypted and unencrypted ENC cells** and **Raster Navigational Charts (RNC)** data. Encrypted data sets conforming to the S-63 ENC standard, have been included so that ECDIS data loading and management operations can be tested for conformance with IEC 61174. The unencrypted data sets have been included to further test visualisation and operation aspects of the ECDIS. The RNC data sets conform to the **Hydrographic Chart Raster Format (HCRF)** and the **Maptech BSB** format.

Download

The S-64 Edition 3.0.2 documents and Test Data Sets can be downloaded here:

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- [Encrypted ENC Test Data Sets](#)
- [RNC Test Data Sets](#)

Where are we?

- Original conversion of S64 datasets
- Examination of how to enhance S-64 to make S-164
 - Stick to basic structure (mirror IEC61174/PS structure) and methodology (load ECDIS, perform functions, check expected results)
 - Add new S-100 functions and data
 - Add DF mode tests
- S100WG discussions
 - Refined what is delivered as test datasets (exchange sets)
 - Discussions around negative tests, scope, timescales etc etc..
 - V1.0.0 must be ready around S-100WG TSM
- More test data sets
 - S-164 suite of S-101 data
 - KHOA
 - Original S-64 conversions
 - Others (S-128, NIPWG)

What needs to be done?

To draft S-164 v1.0.0 we need to:

1. Establish scope (and any constraints)
2. Define Structure (major parts)
3. Define new tests required
4. Write test text/scripts and compile what expected results/screenshots we can.
5. Define concrete test dataset requirement(s)
6. Compile manual and assemble data (where it exists, note where it does not)
7. Note what is outstanding and anything required for clarification in S-100

Scope

- Scope of S-164 is testing of ECDIS under the “S-100 revision” of IEC61774 (S-100, S-98)
- Raster?
- Products required are:
 - S-101
 - S-102
 - S-104
 - S-111
 - S-124
 - S-128
 - S-129
- Others “could” be included if ready but initial scope (and what is in tests) is above. Some will need editing for e.g. upgrade tests.
- Key challenge is managing the linkages between S-164 and versions of products and catalogues.

Basic Structure

- Current S-64 deals with S-64/S-63 (and RNC)
 1. Chart Loading/Unloading and update
 2. Chart Display
 3. Functions associated with Chart Display
 4. Alerts and Indications
- S-164 needs to include
 - S-100 functionality
 - Existing S-57 functionality
 - Dual Fuel mode operations
- Options for structure are:
 - Split into three “Parts” (S-100 functionality, S-57 functionality, Dual-Fuel Mode testing)
 - Add new sections into the existing parts.

Thoughts?

S-164 structure (S-100 data)

Based on IMO sections content.		
1	Chart Loading and Updating	<ul style="list-style-type: none">• Anything to do with initial data loading, identification of which data products are present and their successful import (and update) into the system.• Expanded from Just S-57/S-63 to all data.• All new loading tests for new product specifications and testing of Part 15 (+17) content.• Includes arbitrary product loading.
2	Chart Display	<ul style="list-style-type: none">• Tests involving basic portrayal and interrogation.• Also includes layers, viewing groups, text etc.• Includes Loading strategy of charts and management of supplementary files.• Interoperability portrayal.
3	Functions associated with Chart display	<ul style="list-style-type: none">• All tests of "extended" functionality other than basic portrayal.• More S-98 functions (Annex C)• Includes loading/updating of feature and portrayal catalogues (and other catalogues?).• Status Report.
4	Alarms and Indications	<ul style="list-style-type: none">• Any thing to do with safety contour, Areas of special conditions and safety contour.• Also includes interoperability cases where such features are involved and• S-98 safety contour and WLA/planning.

Constraints from S100-WG

- Needs overview, test framework, data schemes
- Drafted User Manual
- Take into account
 - Existing S-164 conversions from S-64
 - S-98 interoperability considerations
 - User selected safety contour/Water Level Adjustment
 - Part 17 service aspects
 - Part 15
- Edition 5.0.0 exchange sets
 - S-128
- Initial Dual Fuel mode tests
- Landing Page

Landing page content

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- [RNC Test Data Sets](#)

Introduction

The IHO Publication S-164 comprises an Instruction Manual and numerous test datasets. These are provided to aid development and enable testing of S-100 ECDIS for conformance with IEC 61174.

The current release of S-164 is : **V4.1.61**

The S-164 test dataset contain the following:

1. Exchange sets for the testing of S-100 based ECDIS. These comprise both encrypted and unencrypted exchange sets with a mixture of S-100 data
2. Exchange sets for testing S-57 implementation of ECDIS
3. Exchange sets for testing the Dual Fuel mode of S-100 ECDIS.

Versions

S-164 is conformant with the following component standards and version numbers. Reference images contained in the S-164 user manual conform to the versions of the PC stated in the table below:

Framework Standards	Version		
S-100	Edition 5.0.0 (Sep 2022)		
S-98	Edition 1.0.0 (March 2022)		
Product Specifications		FC	PC
S-128			
S-101 (+DCEG?)	1.1.0	1.1.0	1.1.0
S-102			
S-104			
S-111			
S-124			
S-129			

Downloads

The S-164 Edition 4.1.61 is available from:

Please review and feedback!

- [S-164 Instruction Manual]
- [S-164 Test datasets (.zip)]

Additional Resources.

The following additional resources are available for implementers of the S-100 standard and its component product specifications within S-100 ECDIS.

[S-101 Test Datasets]	Comprehensive test datasets and resources for S-101 implementers.
IHO S-100 Pages	
IHO Registry etc...	
S-100 Schemas	

Feedback and Enquiries

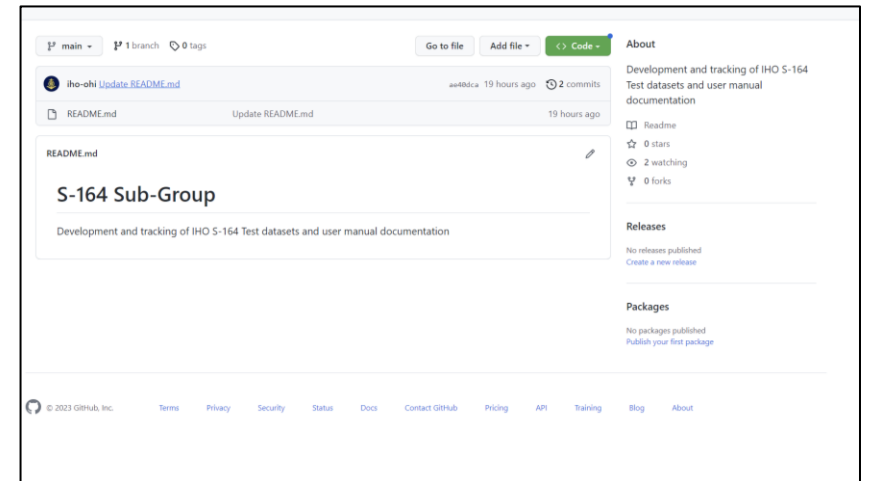
Questions and Feedback may be sent to s164@iho.int

Current test list

SubSect	S-64 Test Description.	Dataset numbers	Comment (approach from S-101/S-100 and other PS perspective)	Test
Dataset Loading				
2.1.1	Loading of initial datasets and indication of own ship stationary position		Includes S-101 + other product specifications. Single exchange set. Chart screen capture	
2.1.2	Loading of initial datasets and confirmation of presence in chart library		Includes all S-101 + other product specifications. Dates are issue dates from cells and CATALOG.XML	
2.1.3	Loading additional cell and confirmation of its addition to the chart library		Suggest this is an addition of an ENC and another PS dataset (e.g. S-124 or S-102)	
2.1.4	Removing a cell and confirmation of its removal from the chart library		Delete ENC + another dataset.	
2.1.5	Loading corrupt data		Still Required – also corrupted other PS too	
2.2.1	Loading corrupt updates		Still Required – also corrupted updates to other PS	
2.2.2	Loading correct sequential update files		Still Required – also sequential other PS (other schemes? Data which isn't updated mixed with data that is updated.)	
2.2.3	Loading updates files in an invalid sequence		ENC plus other PS's. Needs to test update to GML as well and ENC	
2.2.4	Loading update file of a newer edition than base cell installed.		Still Required – also other PS. Test where update is from another edition of the dataset.	
2.2.5	Loading update file of an older edition than base cell installed		Still Required. Also other PS.	
2.2.6	Loading a reissue of a dataset		Only S-101	
2.2.7	Loading cancellation update		As per reissues – S-101. If other product specifications support reissues then it should be tested too (is this generic S-100 functionality or just S-101?)	
2.2.8	Manual rejection of an automatic update		Only requires an update to be rejected manually. This should be verified against other product specifications too.	
2.3	Manual updates		Manual updates can apply to any product specification and this should be made clear, (i.e. which data is updated in a multi-product specification environment (ref: S-52 guidance on updating)). So, updating over a combined data picture with other PS content present too. e.g. Manual updating of S-102 would be good – marking wrecks/hazards and exposing to Alarm/Indication behaviour as well as checking interoperability behaviour. These tests also include date-dependent features (CTNARF) which should be factored into test updates.	

Actions

- Plan to have meetings every 2-3 wks between now and S-100WG TSM
- Github is here: <https://github.com/iho-ohi/S-164-Sub-Group> . Use for
 - Storage of test scripts, images and manual content
 - Issues and enhancement requests
 - Interim numbered releases leading up to 1.0.0
 - May be possible to auto generate manual from github (asciidoc)
- Actions:
 - Agree structure
 - Suggestions for
 - New tests required
 - Enhancements to existing tests
 - Can suggest using
 - github (raise an issue)
 - Email (to jonathan.pritchard@iictechnologies.com) and Yong
 - Via spreadsheet (on S-164 page)
 - Separate breakout sessions on:
 - Part 17 “service” elements and defining exchange sets
 - Encrypted test dataset scenarios



Questions?



write a test for display of standard mode on an S-100 ECDIS



To test the display of standard mode on an S-100 ECDIS, the following steps can be performed:



1. Turn on the ECDIS and ensure that it is in standard mode. This can typically be done by accessing the main menu and selecting "Standard Mode."
2. Verify that all relevant information, such as ship's position, heading, and speed, are displayed correctly on the screen.
3. Check that the electronic chart display is accurate and up-to-date. This can be done by panning and zooming the chart and comparing it to known landmarks or other reference points.
4. Confirm that all navigation and safety-related information, such as AIS targets, radar echoes, and EBL/VRM lines, are displayed correctly.
5. Test the display of other standard mode features, such as route planning and route monitoring, by creating and modifying a test route and ensuring that it is displayed correctly on the screen.
6. Repeat the test with different zoom levels and different chart regions to ensure that the display is correct throughout the entire range of scales.
7. Record any issues and report to the manufacturer for further troubleshoot.

Or just write the whole thing using AI? 😊