

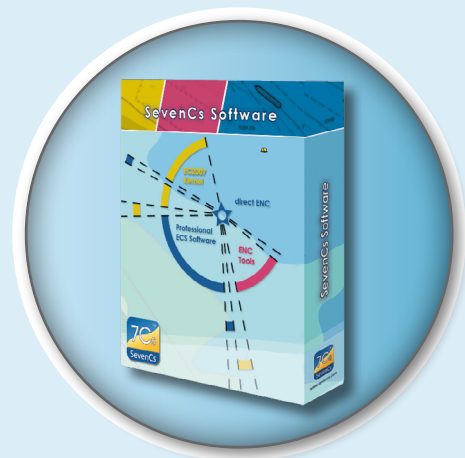


ENC Analyzer Standard

PRODUCT DESCRIPTION

Quality control is a critical component in the manufacture and maintenance of Electronic Navigational Charts (ENC) and derivative products. These charts products must be validated for adherence to standards, accuracy and consistency. As a hydrographic authority or data manufacturer, your reputation is on the line, so you want the most comprehensive validation tool on the market.

ENC Analyzer is the validation component of the SevenCs ENC Tools suite and is distributed by L-3 Oceania and SevenCs worldwide. ENC Analyzer validates S-57 ENC, Inland ENC and AML cells, performing an extensive series of checks to identify the wide variety of errors that can occur during the initial production phase and subsequent maintenance cycles.

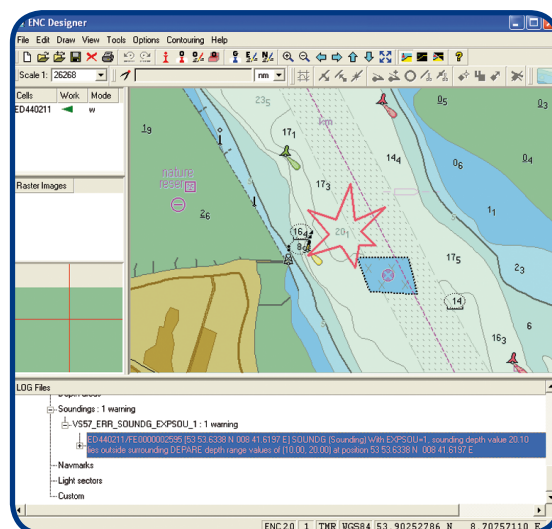


KEY FEATURES

- ➔ **Validation based on over 900 individual checks as defined by the following standards:**
 - ⇒ S-58 – Recommended ENC Validation Checks, edition 4.2
 - ⇒ S-57 – ENC Product Specification, edition 2.0
 - ⇒ ENC SCAMIN policy as defined by S-57 – Use of the Object Catalogue for ENC, edition 3.0.0
 - ⇒ Product Specification for Inland ENCs, edition 2.3
 - ⇒ AML Edition 2.1
- ➔ **Checks are divided into groups allowing the user to select the groups that apply to the different stages of production.**
- ➔ **Validation of:**
 - ⇒ ENC base and update files
 - ⇒ ENC exchange sets
- ➔ **Detailed reporting on the results of the applied checks:**
 - ⇒ Full cell header summaries
 - ⇒ Messages are reported as either errors or warnings, depending on severity
 - ⇒ Messages can be grouped based on errors, warnings and error codes
 - ⇒ XML export of validation logs
 - ⇒ Validation logs can be interactively viewed within ENC Designer

- ➔ **User definable custom checks to meet individual requirements of hydrographic offices.**
- ➔ **Operational use:**
 - ⇒ Standalone desktop application
 - ⇒ Integrates with ENC Designer, SeeMyENC and ENC Manager to provide quality control throughout the ENC production and maintenance cycle

Available on Microsoft Windows® XP / 7



Interactive Log file reviewed in ENC Designer



ENC Analyzer Horizontal and Vertical Consistency (HVC) Module

PRODUCT DESCRIPTION

The challenge for ENC producers today is to ensure consistent encoding of features that span multiple ENCs. Features that are common to adjacent ENCs, and overlapping ENCs of different scale bands, are often encoded from different data sources, potentially leading to inconsistencies in the encoding of a feature's spatial geometry and attributes. The ENC Analyzer HVC module has been developed to assist ENC producers achieve a consistent presentation of their ENC data across cell boundaries and scale bands.

Horizontal consistency refers to the consistent representation of features that span cell boundaries.

Vertical consistency refers to the consistent representation of features that appear in overlapping cells of differing usage / scale bands.

The ENC Analyzer HVC module performs horizontal and vertical consistency validation based on S-65 – Electronic Navigational Charts (ENCs) “Production Guidance” Ed. 1.2.

KEY FEATURES

→ Horizontal consistency checks that:

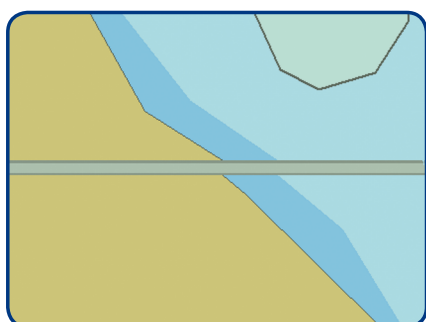
- ⇒ cells do not overlap by more than 0.125mm at compilation scale
- ⇒ there is continuity of linear features between adjacent cells
- ⇒ there is consistent encoding of attributes for adjacent features
- ⇒ there is continuity of area features between adjacent cells
- ⇒ there is no significant gap along the boundaries of bordering cells

→ Vertical consistency checks that:

- ⇒ overlapping or same real world features within overlapping ENC cells have consistent position
- ⇒ attributes for overlapping features are encoded consistently
- ⇒ navigable water of a small scale cell does not overlap non-navigable areas of a large scale cell
- ⇒ navigable water of a small scale cell is not shallower than overlapping areas of a large scale cell
- ⇒ small scale cells do not have areas of “No Coverage” (M_COVR with CATCOV=2) where there is coverage available in a larger scale cell
- ⇒ overlapping areas of a small scale cell do not have a higher CATZOC rating than that of a large scale cell

→ Checks that the coordinate multiplication factor (COMF) is the same for all cells.

Available on Microsoft Windows® XP / 7



Significant gap between bordering cells



Mismatch in contour intervals