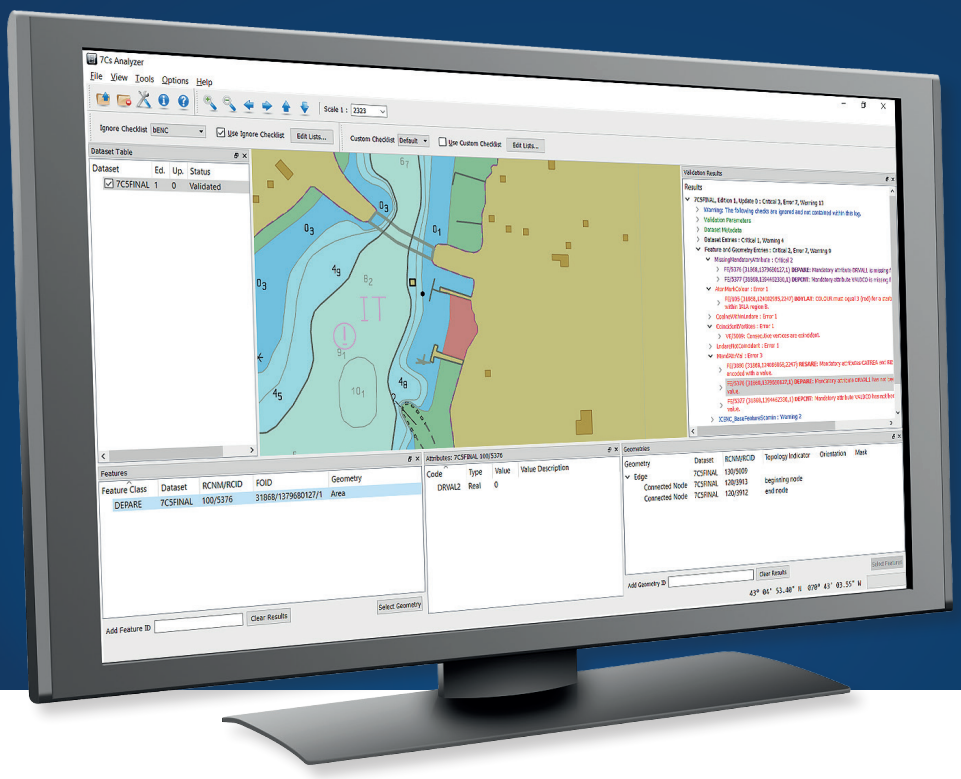
7Cs ANALYZER

The most comprehensive validation tool on the market.



The new-generation solution for validating **S-57** and **S-100/ S-101** nautical-chart products.

propelled by **NAUTILUS**

7Cs Analyzer performs hundreds of individual checks, using the same validation engine for S-57 and S-101 data products.

This makes the transition easy, much benefitting customers who have S-57-based and S-101-based product streams - the validation results will always be consistent between the standards.

Integrates SevenCs' powerful S-100 Kernel Nautilus, guaranteeing fast data access, great performance and suitability for future upgrades.

SevenCs

PRODUCT HIGHLIGHTS

- Validation of S-57 and S-101 nautical-chart products
- Compliant with the latest edition of IHO S-58 ENC Validation Checks
- Advanced editor for user-defined custom checks and for definition of checks that users wish to ignore
- Export of log messages to ESRI Shapefile format
- Verified against the new IHO S-58 Critical Test Datasets.
- Has passed every test case presented by these test datasets
- Horizontal-Vertical Consistency Module
- Sophisticated display module for in-depth error review

FUNCTIONAL OVERVIEW

During the Quality Control Procedure, data producers and reviewers can use 7Cs Analyzer to validate base files, sequential updates and exchange sets.

VALIDATION CHECKS AND RESULTS

7Cs Analyzer integrates hundreds of individual checks, to identify errors on data files, chart features, and geometries.

VALIDATION IS BASED ON THE FOLLOWING STANDARDS

- IHO S-100 Universal Hydrographic Data Model (December 2018)
- IHO Publication S-101 Edition 1.0.0 (December 2018)
- IHO S-57 Transfer Standard for Digital Hydrographic Data Edition 3.1
- S-57 ENC Product Specification 2.0
- S-65 Annex A, High Density (HD) ENC Production and Maintenance Guidance (Edition 1.0.0, January 2020)
- S-57 APPENDIX B.1 Annex A - Use of the Object Catalogue for ENC
- IHO S-58 ENC Validation Checks Edition 6.1 (September 2018)
- Product Specifications for Inland ENCs Editions 2.1, 2.2, 2.3, 2.4
- Recommended Inland ENC Validation Checks 2.4
- bENC/bIENC 1.0
- AML 2.x, 3.0, Recommended AML Verification Checks

VALIDATION RESULTS INCLUDE

- Validation parameters (e.g. tolerances, configurations)
- Dataset metadata (Name, Edition, Dates, Reference Datum, Units, etc.)
- Dataset entries (e.g. messages on erroneous record fields)
- Feature and geometry entries (e.g. erroneous feature attributes, corrupt topology, data-model errors, etc.)
- Indication of S-58 severity categories (critical error, error, warning)
- The validation results are presented to the reviewer, together with dataset information, in a hierarchical tree structure, in the order of their importance.
  The results are also automatically exported to XML log files.
- Features objects and spatial items (geometry) that are affected are highlighted in the chart display

CHART DISPLAY

The optional Chart Display supports various modes:

- IHO S-52 presentation
- Dedicated Geometry presentation
- Combination of both

CUSTOM-CHECK EDITOR

Users can define their own checks by means of the Custom-Check Editor. Results will be displayed in a separate section of the message log.

- Check datasets for existence of specific feature-attribute combinations
- Check for topological relations of features (over laps, intersections, etc.)
- etc.

SHAPE-FILE EXPORT

Validation log files can be exported to ESRI shape-file format, for inclusion in third-party production software:

- Export of log messages
- Export of features affected

OPERATION MODES

7Cs Analyzer can be operated in different modes and can even interact with other applications of SevenCs' chart-production suite.

- Use as a stand-alone desktop application
- Integration in ENC Designer and ENC Manager
- Command Line Mode

CUSTOMIZABLE APPLICATION OPTIONS

- Editable tolerances for distances
- Export of full or abridged validation log
- Specification of maximum number of CPU cores that will be used

IGNORE-CHECKS EDITOR

Temporarily, users may only want to focus on particular checks. To do so, they can define checks in order to suppress presentation of specified checks. Using the Ignore-Checks Editor, respective configurations can be easily set up:

- Overview of all tests in alphabetical order
- Function of filtering tests by name
- Straightforward selection of validation checks that users wish to add to the
- ignore-list
- Easy management of multiple-user or organiza tion-specific configurations

OPERATING SYSTEMS SUPPORTED

- Windows 10

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