

About myself

- Born in Northern Germany
- living with my Girlfriend in Eckernförde
- Industrial Engineer
- Over 5 years with SevenCs
- Have a dog, Luna

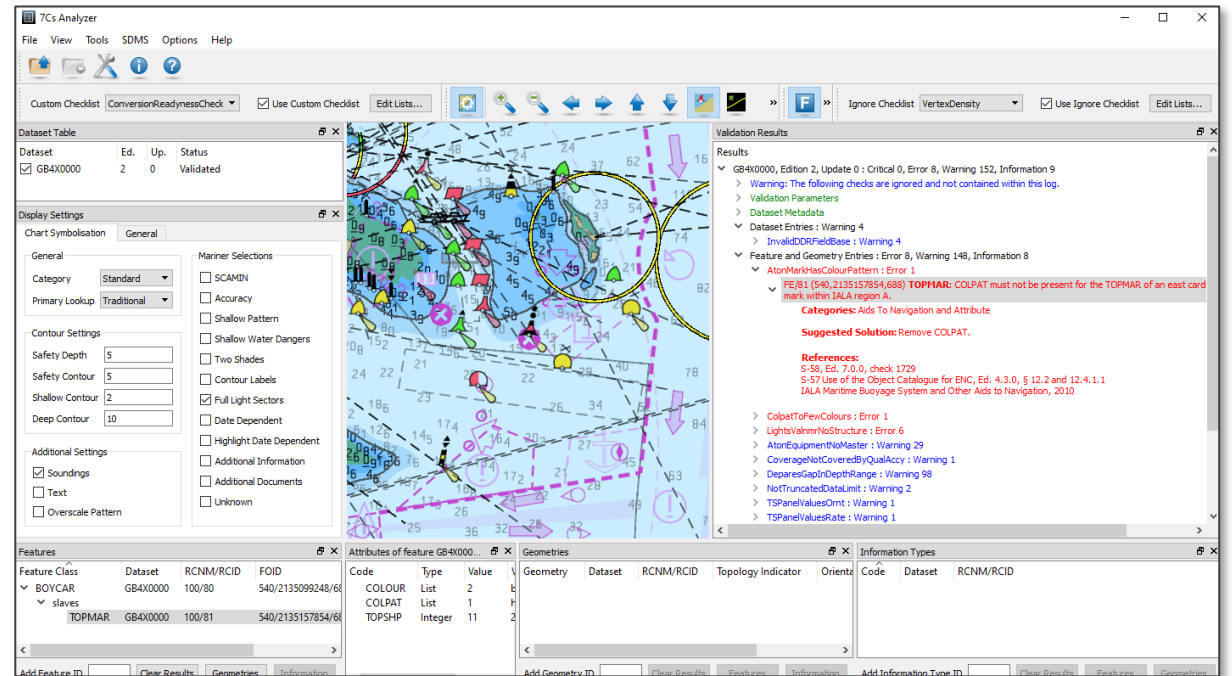


7Cs Analyzer Desktop



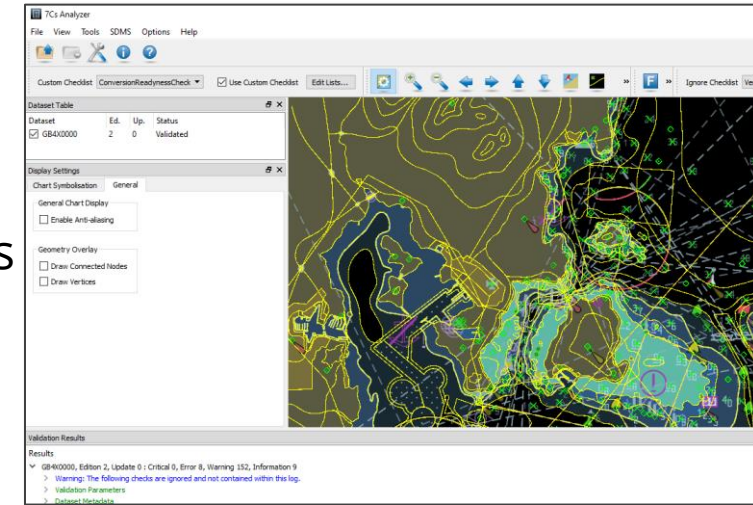
7Cs Analyzer

- Validation of S-57/S-101 datasets according to relevant IHO standards:
 - S-57 ENCs, IENCs, AML, bENCs
 - S-101 Edition 1.1.
- Desktop application
- User interaction
 - Load files,
 - review validation logs,
 - analyze log results, ...



7Cs Analyzer desktop – typical usage scenarios

- Validation during or at the end of the chart editing process
- Verification of chart editing status, identify necessary corrections
- Error analysis requires human interaction
- 7Cs Analyzer provides dedicated functions to do an in-depth analysis of reported errors
- Used as primary or secondary validation tool,
- Independent validation tool separate from production tool; “3rd party rule”
- Automation is possible where human interaction is not required

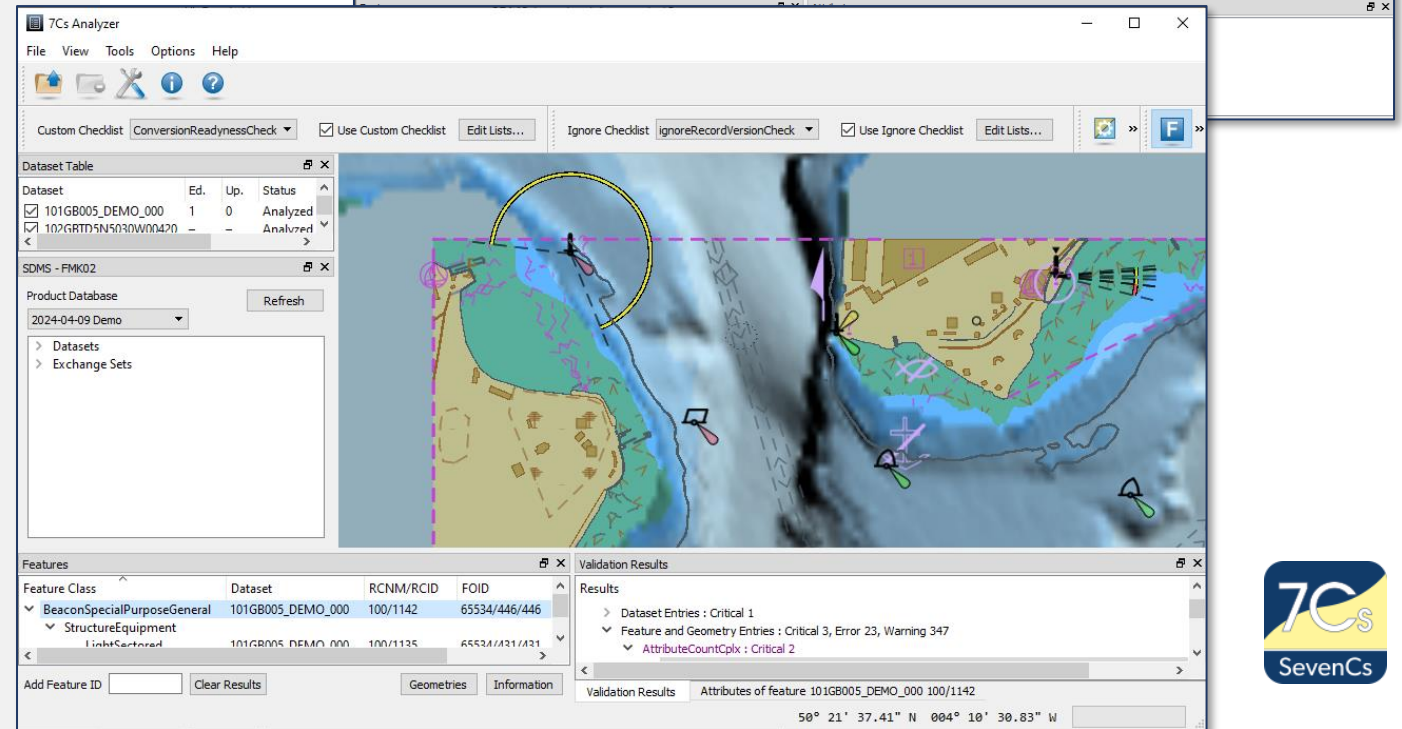
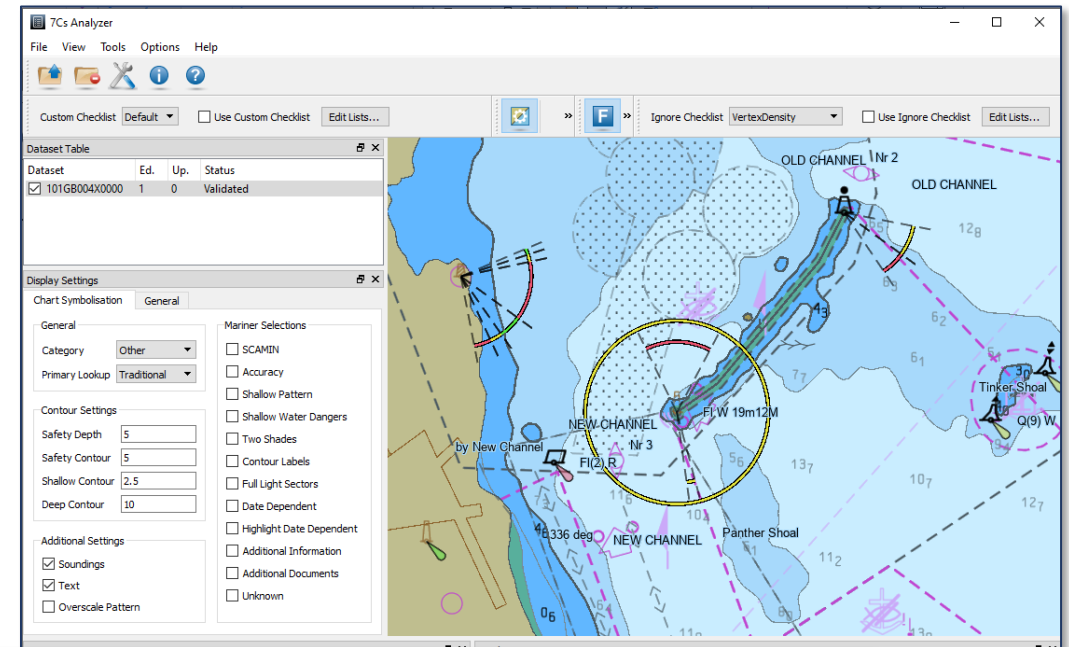




Next Release
7Cs Analyzer Version 5.3

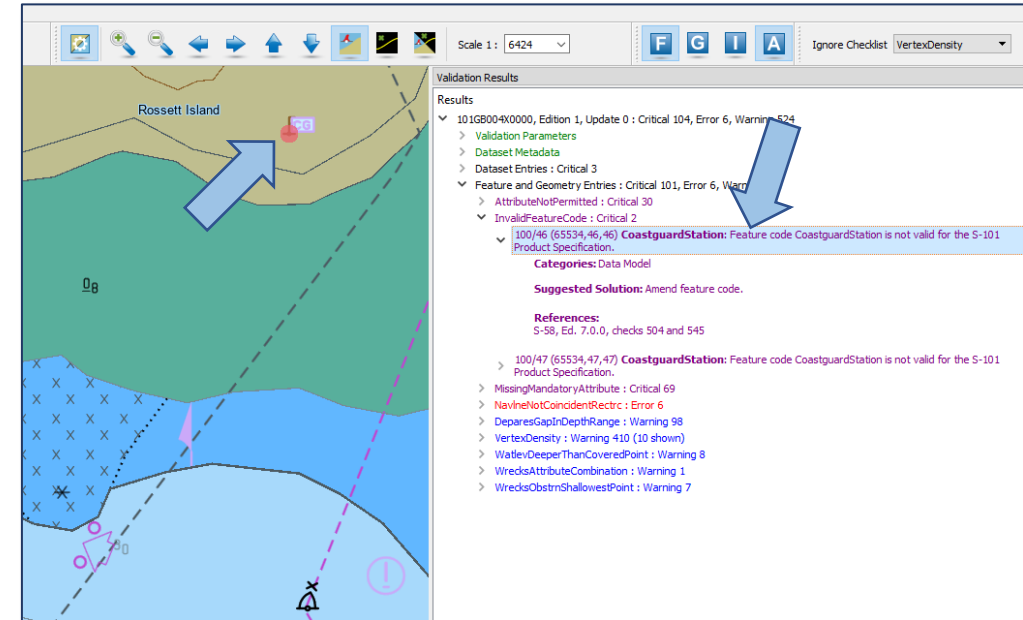
7Cs Analyzer 5.3

- Support of S-58 Edition 7.0
- Interaction with SDMS (for workflow management of validation processes; optional feature)
- Supports S-101 Edition 1.1, 1.2, 2.0
- S-101 Chart Display
- S-102 Display
- S-101 / S-102 checks for cross-product validation

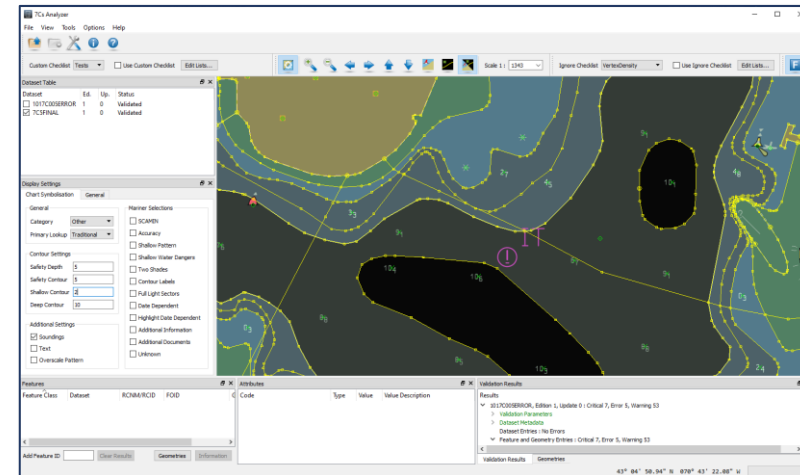


The validation process

- Import S-57 / S-101 dataset(s)
- Display and validate dataset(s)
- Review error messages
- On selection of error message, items affected are highlighted in chart display
- Functions for in-depth analysis of reported errors:



- different display modes
- review of feature and spatial relations,
- feature attribution, feature associations



Export of error report

7Cs Analyzer – export of error report

- 7Cs Analyzer supports various formats to export the error log (xml, plain text format and shapefile).
- Exported shape files contain geometry of affected features along with the relevant error messages.
- Shapefiles can be loaded into 3rd party production software as reference during data fixing.

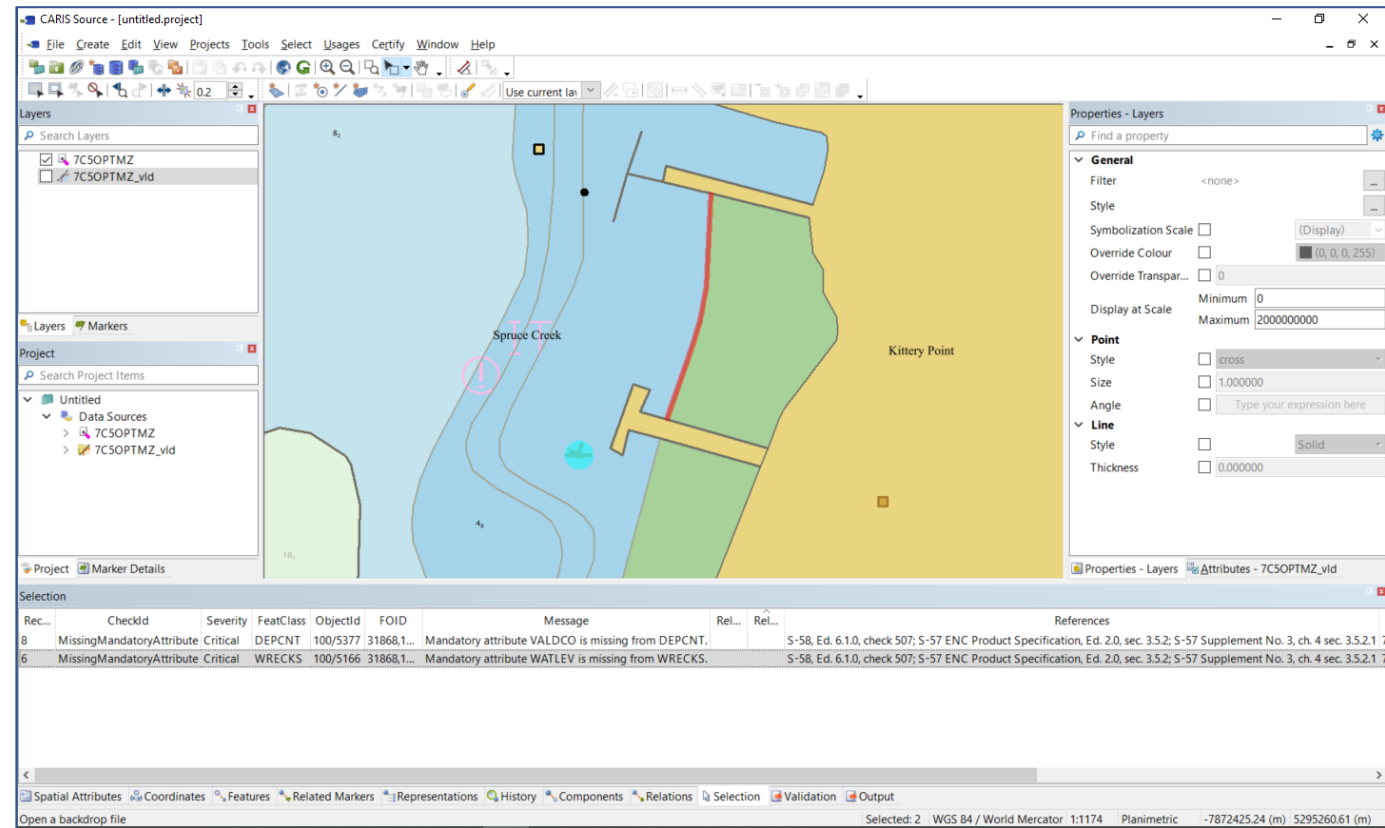


Image captured in CARIS HPD™ with permission of Teledyne CARIS™

Custom checks

7Cs Analyzer Custom Check Editor

- Example of Custom-Check: *finds RESARE without RESTRN attribute and RESARE with empty RESTRN attribute*

The screenshot displays the 7Cs Analyzer software interface. On the left, a map shows a coastal area with a pink shaded region labeled 'shells' and 'MICKLEFIRTH CHANNEL'. A feature is highlighted with a red circle and a pink arrow. The map includes depth contours and labels like 'mud', 'by E. Bow', and 'Q (3) W 10s'. The top toolbar contains navigation icons, a scale of 1:38670, and buttons for 'F', 'G', 'I', and 'A'. On the right, the 'Validation Results' panel shows a tree view of results. The selected entry is 'FE/1590 (540,2135125633,688) RESARE: RESRTN does not exist or RESRTN has no value', categorized as 'Logical Consistency'. A suggested solution and a reference to IHO S-57 ENC to S-101 Conversion Guidance Section 11.1 are provided. Another entry 'FE/1591 (540,2135125644,688) RESARE: RESRTN does not exist or RESRTN has no value' is also visible.

Feature Highlight

Result of Custom Check

Some of our Products



SDMS (S-100 Data Management System)

- Helps the data producer to manage their ENC production processes from validation to preparation of the distribution (data signing, exchange set creation, etc.)
- Supports S-101 and S-57 now, more to come...

SevenCs S-100 Data Management System (SDMS)

Home Settings Activity Log About Logout FMK02

Product Database
2024-04-09 Demo

Filters (active)

Bulk Processing

▼ Datasets

▼ US

▼ S-101 ENC

▼ 22000

101US005CA58M_... 1/0 (Validation Passed)

> 45000

> 90000

> 180000

> 350000

> Imported Text

▼ Exchange Sets

Imported (empty)

Created (empty)

Datasets > US > S-101 ENC > 22000 > 101US005CA58M_000

| 101US005CA58M_000 | Update | Status | Validation Result |
|-------------------|-----------------|-------------------|-------------------|
| Edition 1 | | Validation Passed | |
| | Update 0 | Validation Passed | 101US005CA5... |
| > | Referenced Text | | |

Data Set Information

101US005CA58M_000 Edition 1

Status: Validation Passed

Issue date:

Min scale: 1 : 45000

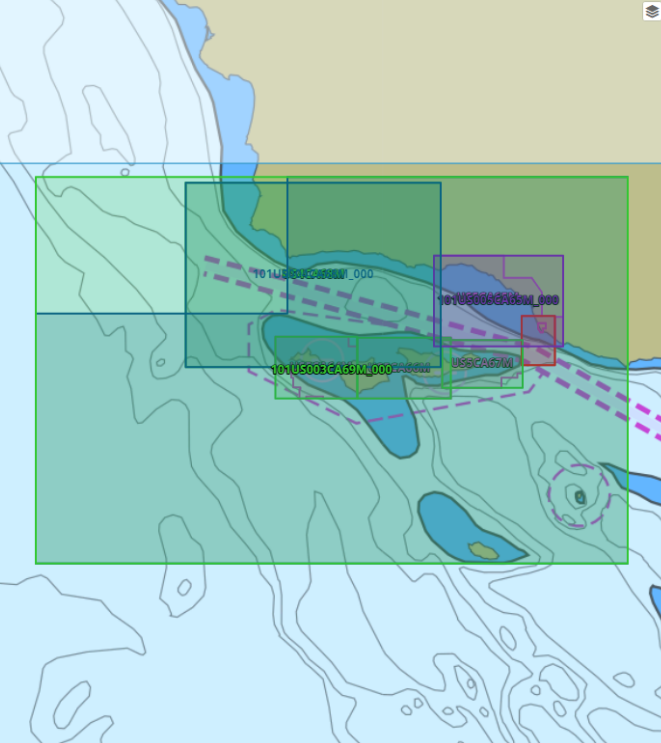
Max scale: 1 : 20000

Bounding rectangle:

Lat: 34° 00' 24.00" N ; 34° 12' 24.00" N

Lon: 119° 19' 17.00" W ; 119° 09' 24.00" W

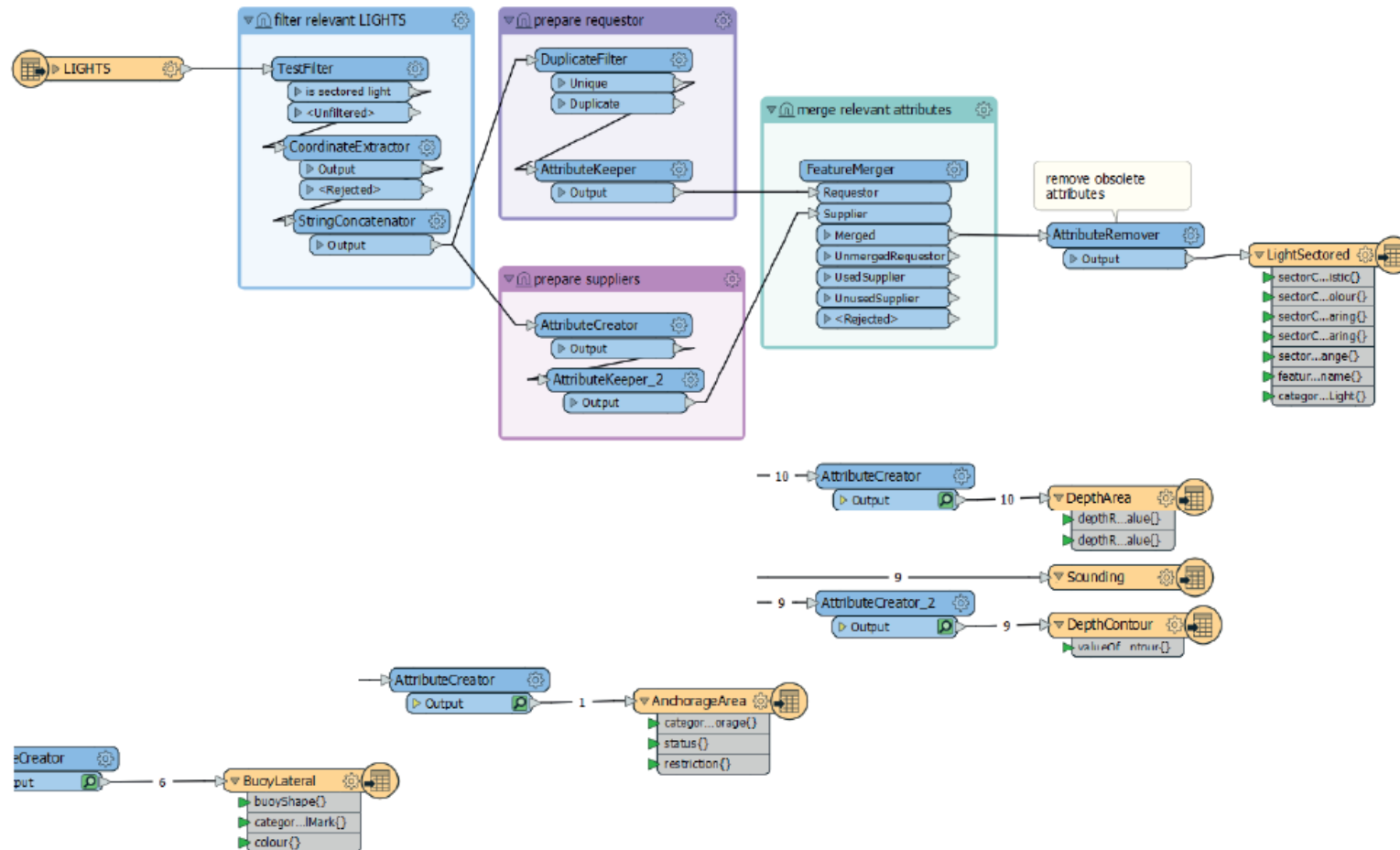
Horizontal Coordinate Reference System: World Geodetic System 1984



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S-57 <-> S-101 conversion

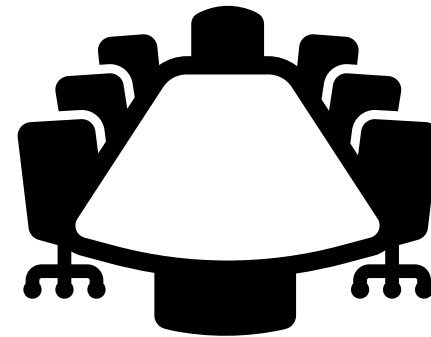
- SevenCs offers Plugins for FME to convert S-57 to S-101 and vice versa.
- Supports S-101 and S-57 now, more to come...



Training and Consultancy

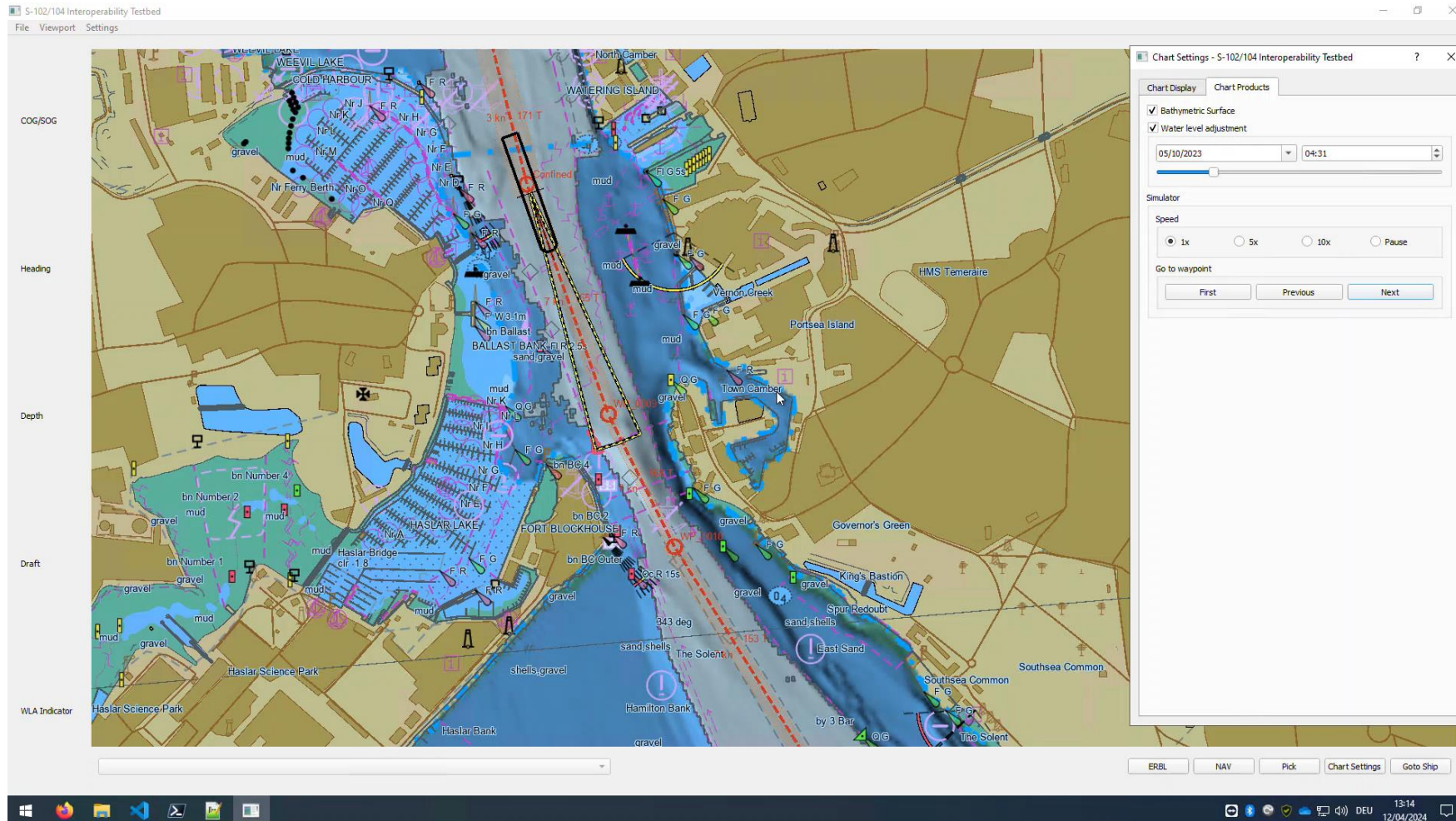
SevenCs can offer a range of services to help our customers:

- Bespoke Training for customers
- Basic Training about Data formats
- Data conversion S-57 into S-101 or vice versa
- ENC Tools
- How to set up a workflow
- Capacity building

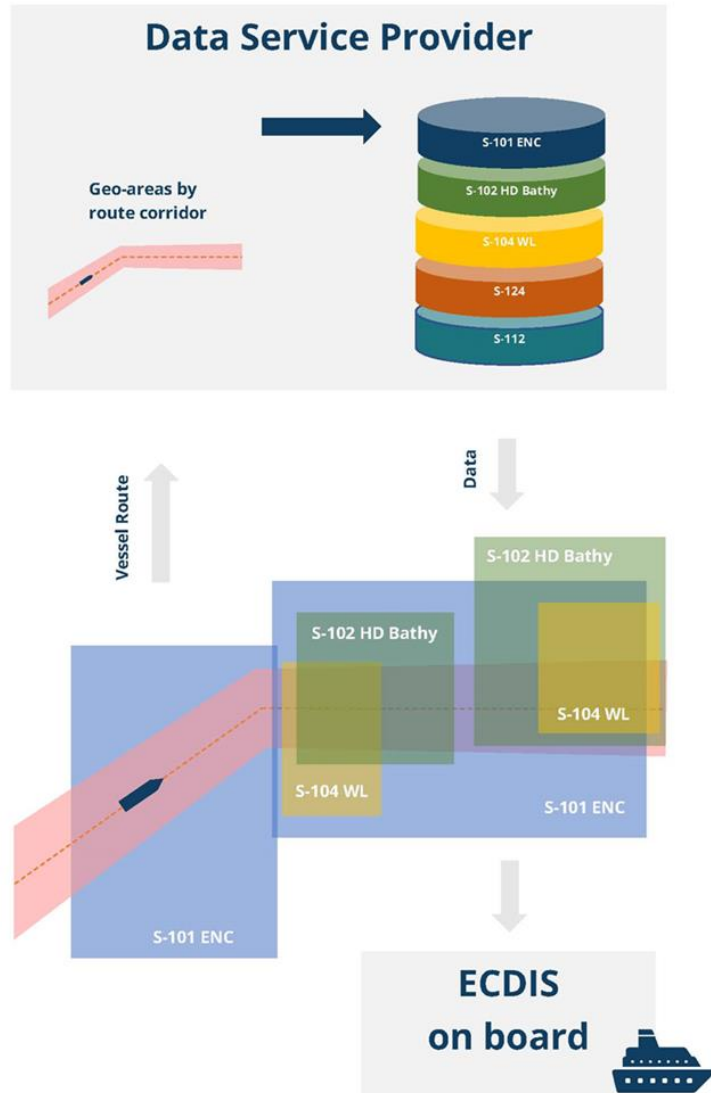


Nautilus ECDIS Kernel SDK

- State of the art Software Developing Kit for maritime Applications
- Supports S-57, S-101, S-102, S-104, S-111 and more...



Food for thoughts:



Data Value Chain Expectations

Free data; Chargeable Service

Deliver all the best data to vessels without a need to select or count or charge per cell/piece.

End User pays a Hydrographic Service Fee.

One-Stop-Shop for all S-100 data services along a given route.

How do we solve the current shore-based licensing issue?

What about the non-SOLAS market?

Thank You