



Royal Netherlands Navy
Hydrographic Service



NLHO S-100 update

NSHC TWG27

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Timeline

- First operational version of S-101 was ready at the end of 2024
- 1/1/2026 New ECDIS systems may be S-100 compatible
- 1/1/2029 New ECDIS systemen must be S-100 compatible
- Unknown: how long can we use S-57 in the existing ECDIS systems?
- Hydrographic Offices must deliver S57 and S-101 (dual fuel)



2023 + 2024 Trial Production

- Focus on try an error



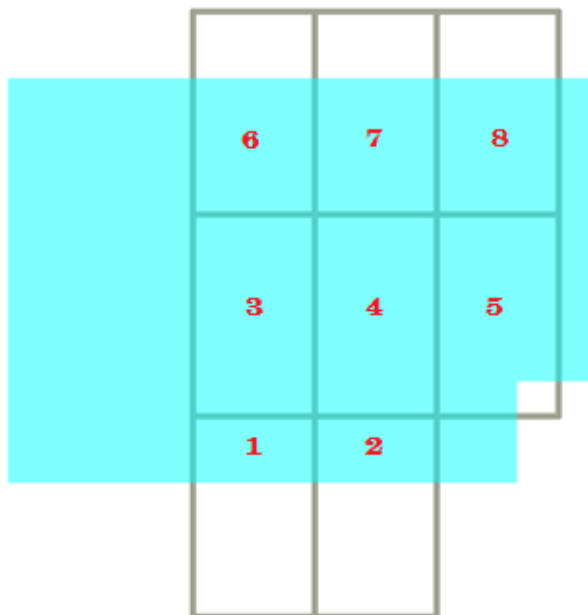


S-101

- Caris 4.1 Composer
- Source data: S-57 Harbour ENC
- Caris DCEG 1.0.0

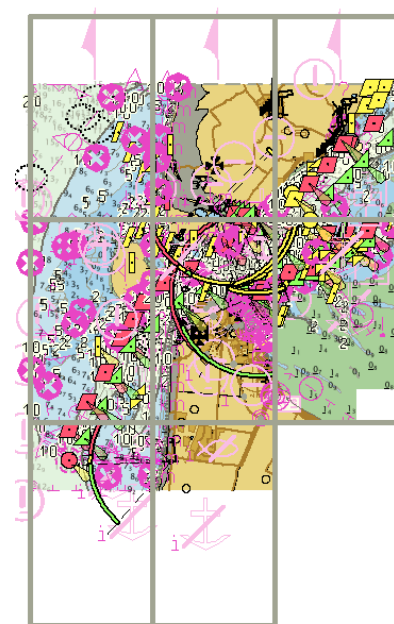


Current S-57 Harbour ENC,
compilation scale 22.000,
NL5WZ230



8 S-101 products
created based on
selected Grid

Attributes - DataCoverage	
Maximum Display Scale	12000
Minimum display scale	45000

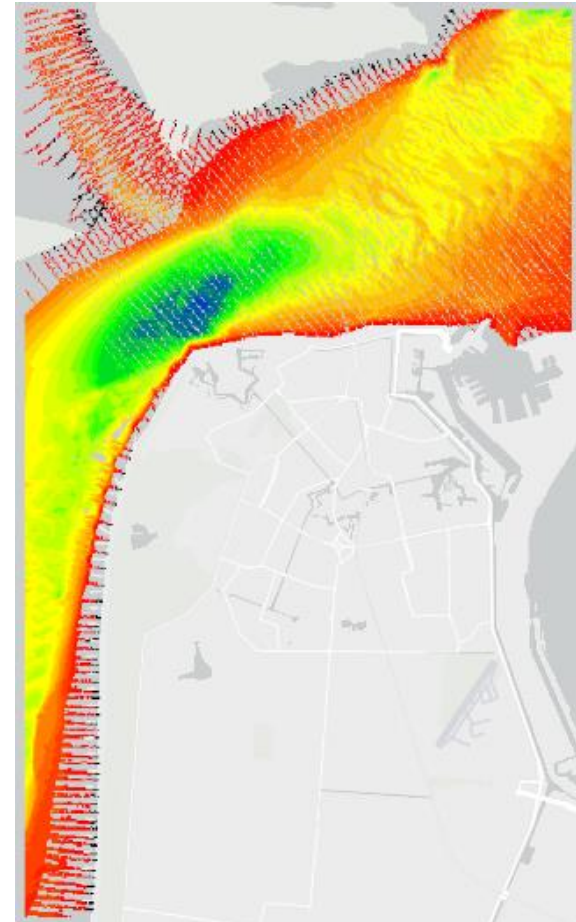


Populated S-101 products by
converting (mapping) S-57 to S-
101



S-102 Teledyne Caris

In Caris BASE Editor, created a raster file (.csar) per grid cel from the Bathy Database & exported to S-102




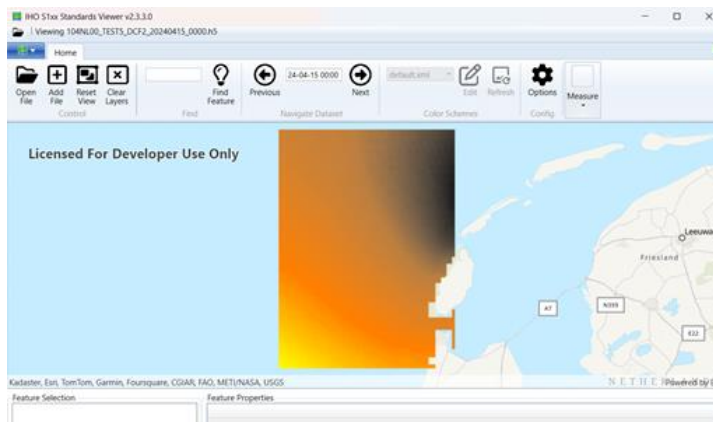


S-104

- Converted Netcdf file (from a hydrodynamic model) with SATIS – API to S-104 HDF5 file
- Data coding format 2 selected (regularly gridded data)
- 1 S-104 files created



 104NL00_TESTEN2_DCF2_20240415_0000.h5



source	: dcsn_v6_kf_harmonie
parameters	: se (waterlevel)
xmin,xmax	: 4.07,4.81
ymin,ymax	: 52.87,53.47
nx,ny	: 164,134
coordinate system	: WGS84
start date&time	: 202404150000
end date&time	: 202404160000
timestep	: 30 minutes
analyse time	: latest

Estimated download size: **4.11 Mb**

<https://github.com/flappah/S1XViewer>



S-111

- Data coding format 8
- Per Grid cell 12 S-111 files created for 1 year (1 per month)
- S-57 features TS_FEB from current database converted with SATIS-tool to a value per hour per station.

dataCodingFormat	Type of Data
1	Time series data at one or more fixed stations (organised by time) - type (a)
2	Regularly-gridded data at one or more times - type (b)
3	Ungeorectified gridded data or point set data at one or more times - type (c)
7	TIN data - type (d)
8	Stationwise time series at one or more fixed stations (organised by station) - type (a)

C:\Users\Hydr0013\AppData\Local\Temp\tidalstreams_1036.xml

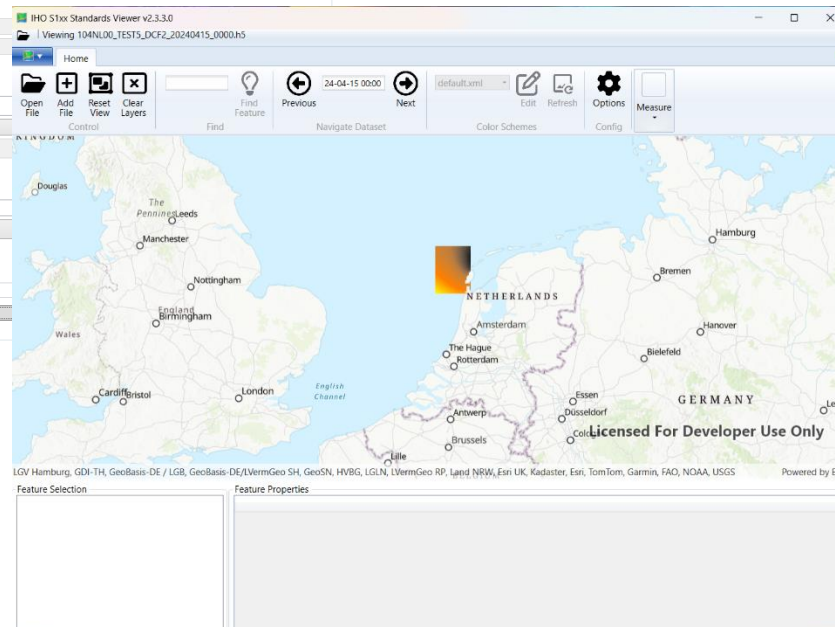
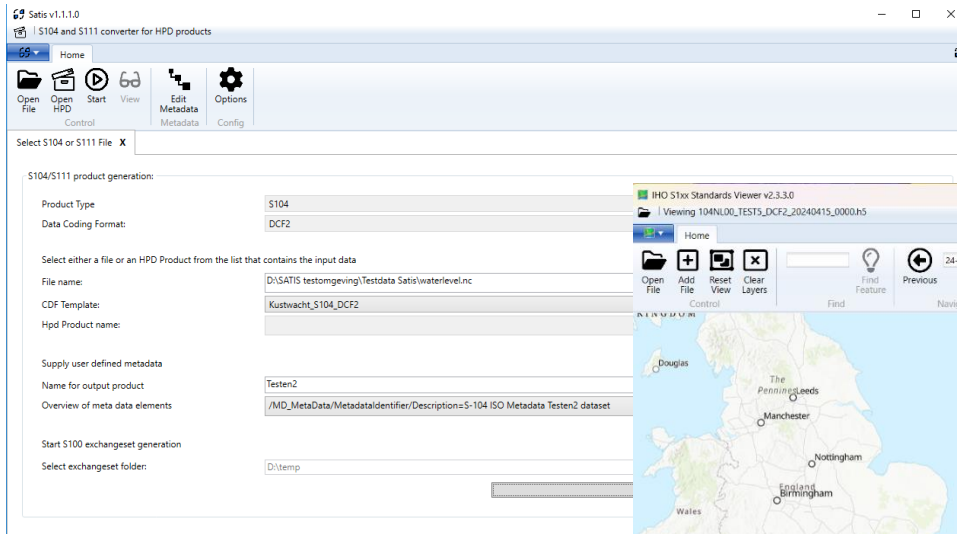


- 111NL00_TESTEN1_DCF8_20250101_0031.h5
- 111NL00_TESTEN1_DCF8_20250201_0036.h5
- 111NL00_TESTEN1_DCF8_20250301_0033.h5
- 111NL00_TESTEN1_DCF8_20250401_0028.h5
- 111NL00_TESTEN1_DCF8_20250501_0049.h5
- 111NL00_TESTEN1_DCF8_20250601_0014.h5
- 111NL00_TESTEN1_DCF8_20250701_0049.h5
- 111NL00_TESTEN1_DCF8_20250801_0016.h5
- 111NL00_TESTEN1_DCF8_20250901_0056.h5
- 111NL00_TESTEN1_DCF8_20251001_0051.h5
- 111NL00_TESTEN1_DCF8_20251101_0039.h5
- 111NL00_TESTEN1_DCF8_20251201_0055.h5



Demo SATIS API

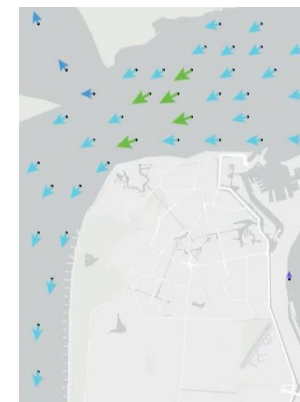
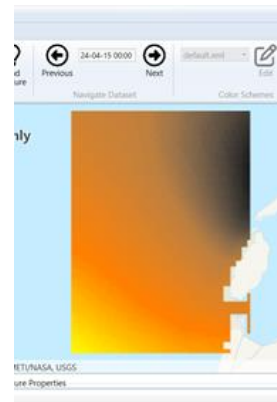
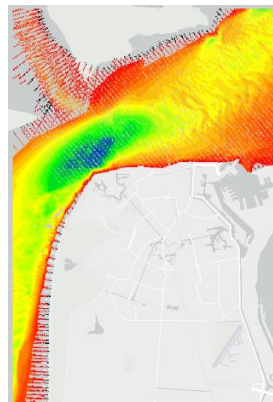
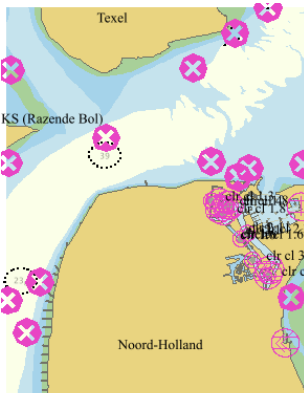
SATIS API and S-100 viewer Developed by Richard Flapper





Results

- Created S-101, S-102, S-104 and S-111 data
- Satis API developed for production S-104 and S-111
- NLHO S-1XX viewer developed
- Trial data provided to IC-ENC





Questions?

Ideas

Comments

Remarks