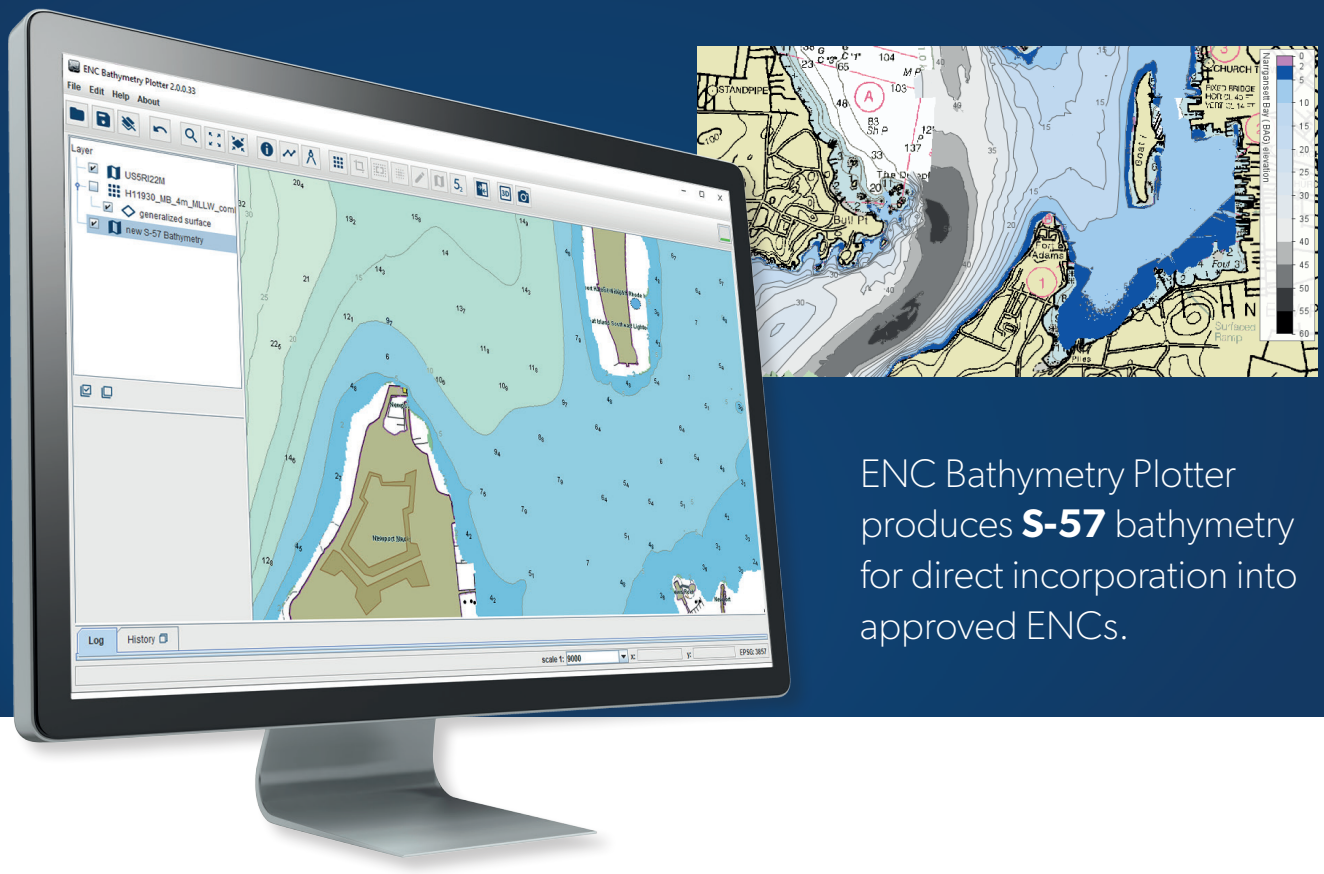
ENC BATHYMETRY PLOTTER

The most advanced solution for production of ENC bathymetry



ENC Bathymetry Plotter produces **S-57** bathymetry for direct incorporation into approved ENCs.

ENC BATHYMETRY PLOTTER uses bathymetric data to create contour lines, depth areas and selected soundings.

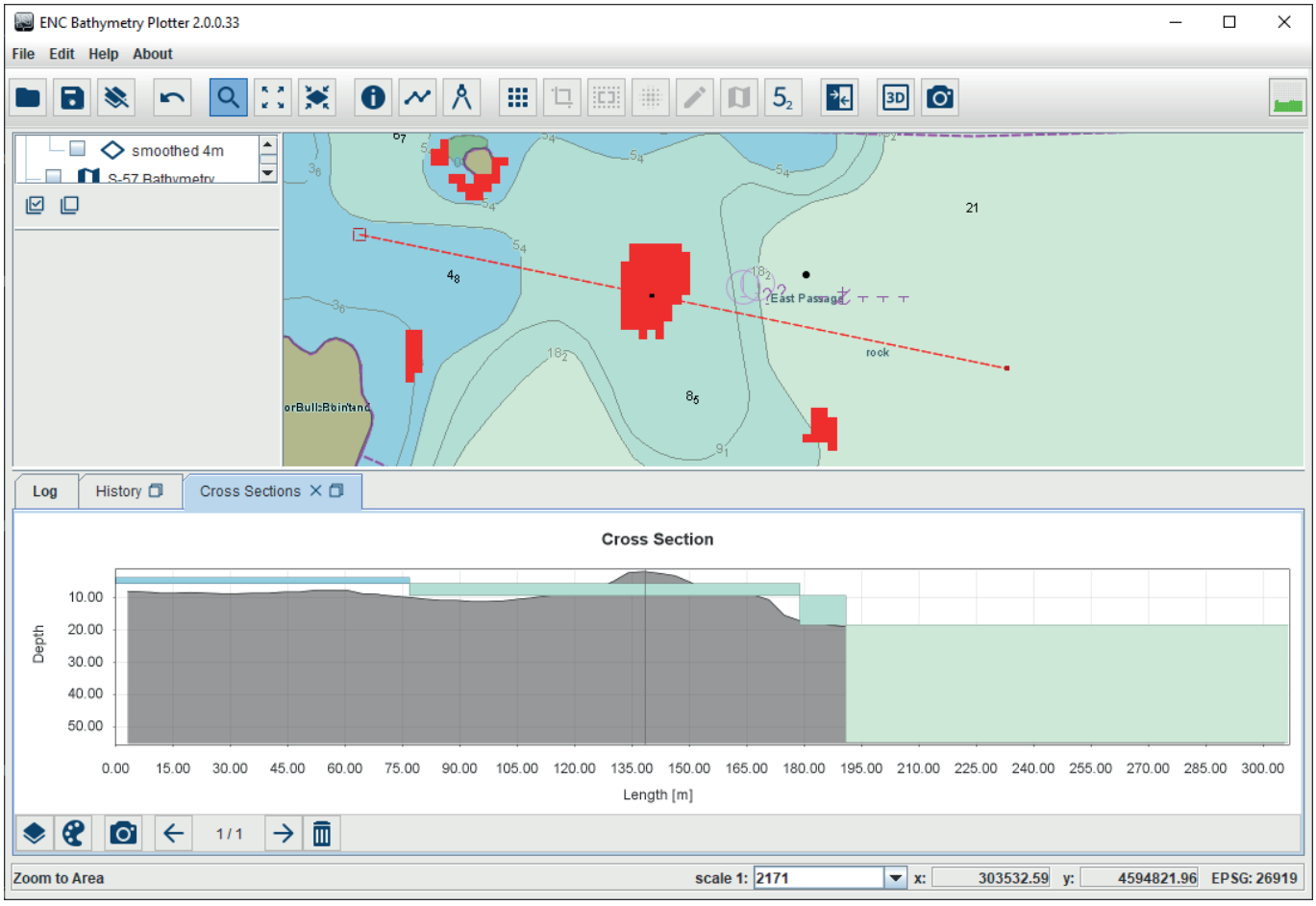
The contouring process is applied to a so called 'Nautical Elevation Model'. Users only need to set a few parameters (e.g. contour levels).

The resulting contour lines have a smooth, user-friendly appearance and usually require no further generalisation. Manual finetuning is still possible. ENC Bathymetry Plotter also enables users to configure their own preferred levels of density for soundings.

SevenCs

PRODUCT HIGHLIGHTS:

- Smooth progression of tasks: importing the data; creating the model; exporting the results
- Processes gridded bathymetry files (e.g. S-102, BAG) or xyz point-cloud data
- Visualisation settings: many options for customising presentation of the data
- Shoal-biased smoothing and generalisation process
- Easy-to-use, refined function of selecting soundings, building-in preference factors
- Generates a detailed processing report and statistics in PDF format, enabling customers to maintain transparency and traceability in their own QA procedures
- Contour-intervals can be set at any density level (suitable for High Density ENCs, bENCs/bIENCs, regular ENCs)



Examples of differences in soundings between input and output chart*

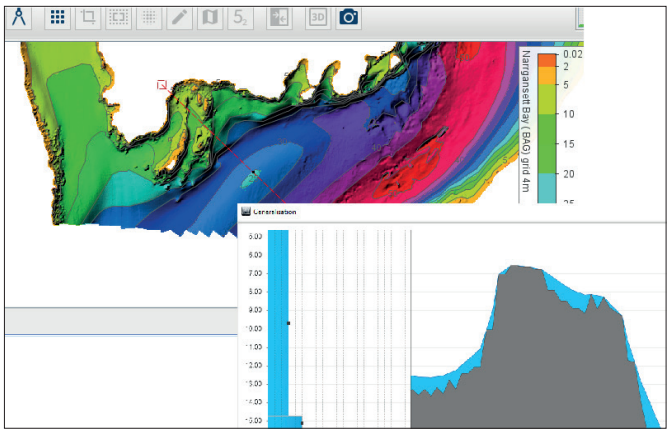
OVERVIEW

- Multiple degrees of flexibility – fine-tuning the chart to your needs: distance between depth contours; wide range of visualisation settings; variable density of soundings; variable degree of generalisation; fine-tuning of the degree of exclusion of small areas; reducing contour vertices to what is strictly needed in terms of target-scale
- Highlighting differences between input data and output chart
- Pre-defined chart boundaries: making it much easier to exactly define the geographic limits of your chart
- Reducing the strain on data processing by cropping large areas, precisely setting the 'frame' that sub-divides such an area
- S-57 compatibility built into every step of tailoring the product to user preferences

* The image was created from data provided by courtesy of NOAA

INPUT DATA

- Direct import of gridded bathymetry files and of output models from previous sessions
- Preview of xyz input file; easy mapping of x, y and z columns onto charts
- Definition of grid-size and interpolation parameters



DATA VISUALIZATION

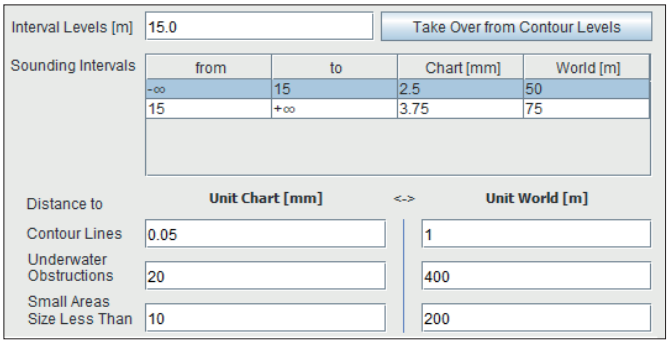
- Use of pre-defined chart boundaries for 'framing' output ENCs to match users' requirements; makes it much easier to produce made-to-measure sub-areas from large areas
- Wide range of colour palettes. Choice of grad tion or gradient colour mode
- Backdrops: various options for inclusion of auxiliary data (e.g. GeoTiff backdrops, ENCs, ESRI Shape © files)
- 3D display: also as a helpful tool when verifying the suitability of the output layer
- Source data and output model displayed separately
- Display-of-difference model

OUTPUT MODEL

- Tailoring of level of generalisation to suit users' requirements
- Profiles created automatically and interactively in profile viewer
- Dynamic process of presenting the output model as it progressively takes shape

SELECTION OF CONTOURS AND SOUNDINGS

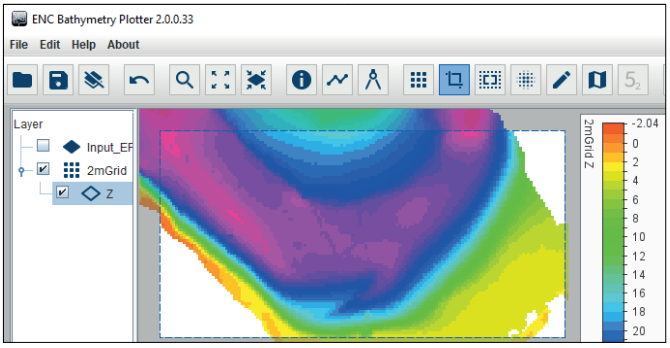
- Choice of levels for depth contouring; either entering individual values or defining a starting value and a constant interval for contours
- Optimising of contours, and thus of the chart's visual appearance, by reducing the number of line vertices in contours' coordinates; also by avoiding small, closed contours
- User-defined density of soundings (variable distances)
- Option of also calculating the deepest sounding (not only the shallowest)



Configuration of Sounding Selection

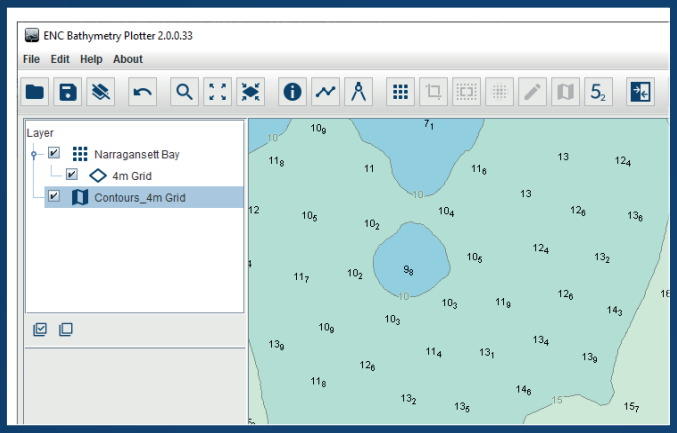
TOOLS AND EXTRAS

- Supports the large number of EPSG Coordinate Reference System definitions – geographic (e.g. Lat Lon WGS-84) and projected (UTM) coordinte systems
- Measuring of distance
- Real Display scale can be defined
- Profile-drawing function
- Statistics tool
- Log-book functionality



DATA EXPORT

- ENC Bathymetry Plotter supports individual export of bathymetric features, a model of the digital terrain, and a report.
- Contours, soundings, depth areas and coverage polygons
- Nautical Elevation Model (the output model) and the difference model
- Summary report



Resulting S-57 Bathymetry

FORMATS SUPPORTED

- Bathymetric Attributed Grid (.bag)
- Bathymetric Surface (S-102 ed. 1) (.bag)
- Bathymetric Surface (S-102 ed. 2) (.h5)
- Esri Ascii Grid (.grd) (.asc)
- Esri Shape © (.shp)
- GeoTiff (.tif) (.tiff)
- S-57 (ENC, bENC) (.000)
- XYZ Import (.xyz) (.txt)

OPERATING SYSTEMS SUPPORTED

- Windows 10 (64-bit recommended)
- Screen Resolution: 1024 x 786
- Hard Drive Space: 400 MB
- RAM Memory: 4 GB minimum; recommended: 16 GB

SEVENCS GMBH

ZIRKUSWEG 1, ATLANTIC HAUS
D - 20359 HAMBURG
PHONE: +49 (0) 40 851 72 40
FAX: +49 (0) 40 851 72 4 79

SALES@SEVENCS.COM