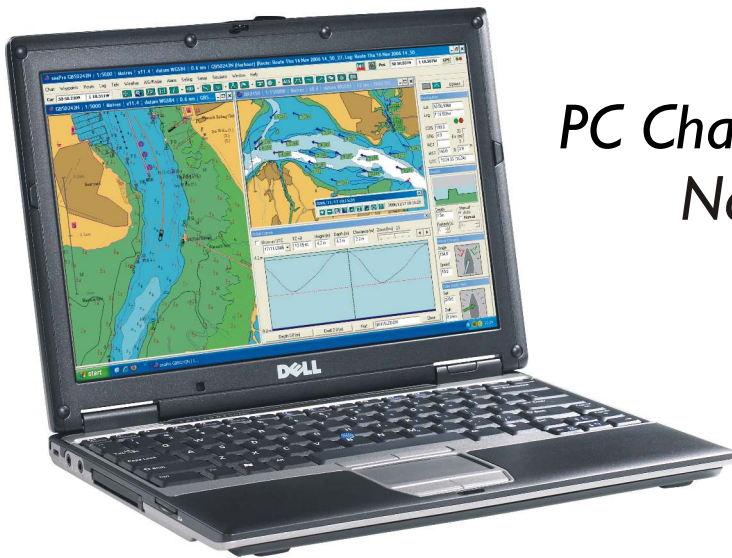


Leisure Product Range

# seaPro

Making Navigation Easy



PC Charting &  
Navigation Systems

# seaPro

## Making Navigation Easy

Since the late 1980s, Euronav have been making navigation easy for thousands of leisure and professional mariners around the globe. Having won awards and many accolades, the success of seaPro is attributed to its ease of use and practical navigation features combined with paper-quality charts that enable a PC to be transformed into a central navigation system.

As well as navigation software, Euronav also produce high quality vectored charts, called Livecharts. seaPro is designed to be 'multi-fuel', supporting the other major chart formats including Navionics<sup>†</sup>, ARCS, Seafarer, S57, NZ Mariner, BSB and BSB4 charts. This offers unrivalled flexibility and freedom to navigate using the best charts available wherever you are in the world.



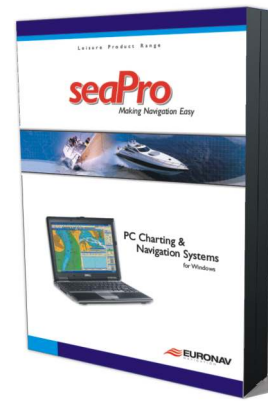
### † Navionics charts

Any of the systems in this brochure can be upgraded to use Navionics Gold or Platinum charts, just ask for the Navionics Pack.

### functionality

- Connects to a GPS receiver to display your position
- Automatically selects the best chart available for navigation
- Controls an autopilot
- Keeps a log of required information
- Enables route planning, taking into account wind & tides
- Tidal curves and vectors
- Calculates the best departure time and fastest passage for a journey
- Display weather information
- Interfaces to instrument systems to provide on-screen data readout

Note: features dependant on seaPro version - see table opposite to choose the version to suit your requirements.



### seaPro leisure product range

Major Features	Lite	Standard	Performance Sailing	Plus
GPS input interface	✓	✓	✓	✓
Livecharts	✓	✓	✓	✓
Multiple chart formats	Option I	✓	✓	✓
Plot vessel track	✓	✓	✓	✓
Route planning	✓	✓	✓	✓
Range & bearing measure tools	✓	✓	✓	✓
Autopilot output	✓	✓	✓	✓
Day/ Dusk/ Night display settings	✓	✓	✓	✓
Chart rotation options	✓	✓	✓	✓
Flashing lights (Vector charts only)	✓	✓	✓	✓
Tidal curves	✓	✓	✓	✓
Tidal atlas	✓	✓	✓	✓
NAVTEX interface (dual frequency)	✓	✓	✓	✓
RADAR overlay with MARPA*		✓	✓	✓
ARPA radar interface		✓	✓	✓
AIS display	✓	✓	✓	✓
Tidal route planning		✓	✓	✓
GPS upload/download waypoints		✓	✓	✓
Waypoint databases		✓	✓	✓
Instrument interface & Panel (wind, log, depth, compass, temp.)		✓	✓	✓
Position and track logging		✓	✓	✓
Weather overlay (GRIB Display)		✓	✓	✓
Weather routing		✓	✓	✓
Advanced weather routing			✓	✓
Fuel calculations		✓	✓	✓
Simple overlay	✓			
Standard overlay		✓	✓	
Advanced overlays				✓
MOB and event log buttons		✓	✓	✓
3D Chart display (S57 & Livechart)		✓	✓	✓
Speech output		✓	✓	✓
Advanced data logging			✓	✓
Performance sailing features			✓	
Great circle routes				✓
Chart over zoom				✓
Previous track display				✓
Search and rescue (SAR)				✓
ARCS Navigator service				✓
Network - Routes				✓
Network - Server NMEA/AIS				✓
Network - Client NMEA/AIS**	✓	✓	✓	✓

Option I - seaPro Lite+ only

\* Requires Koden RADARpc

\*\* seaPro Lite and Lite+ Client NMEA only



# seaPro

## Lite - National Pack Editions

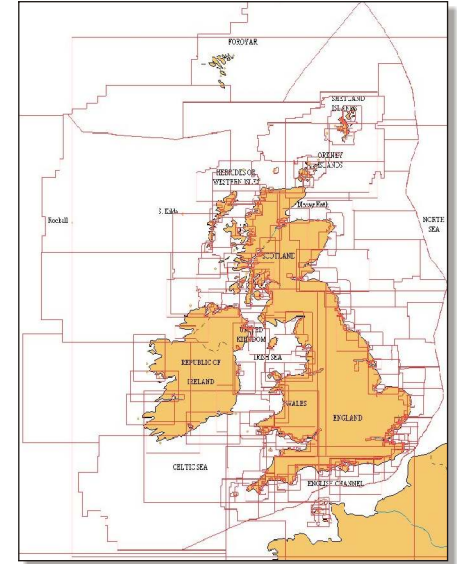
"seaPro Lite is a thoroughly well designed and practical package which does all the chart work that most of us will ever need"

Philip Corridan, Practical Boat Owner

Electronic chart plotting has never been more affordable or simpler than with seaPro Lite. This easy-to-use system combines high quality charts with practical navigation functionality. seaPro Lite National pack editions include a full set of vector Livecharts for the country chosen. A complete system for those who need a non-tidal plotter or who wish to get to grips with PC based chart plotting.

### seaPro takes the strain out of navigating

- Simple set up - just connect your GPS to the serial port of you PC to see your vessels position on the chart.
- Chart zoom and panning tools - move around charts quickly and easily.
- Route planning and monitoring - position waypoints simply by clicking the mouse button or edit them manually for precise positioning. 'On Route' information includes bearing and distance to next waypoint. All routes can be saved and re-used as required.
- AIS display - when connected to an AIS receiver seaPro Lite can show all the AIS target in range and warn of potential collision.
- Autopilot control - once a route has been created, information can be sent to a NMEA 0183 compatible autopilot allowing it to steer to each waypoint.
- Measure tool - measure distances and bearings quickly.
- Extended track line - shows your boat's position at up to 60 minutes ahead based on current speed and course.
- Tidal curve - the tidal curve function enables the display of tidal heights for ports.
- Overlay - place marks, lines and text on your chart using the built in overlay toolbar
- NAVTEX - collect NAVTEX messages in seaPro Lite using our dual frequency antenna



National chart packs offer excellent value for money. This picture shows just the UK national chart pack which contains over 500 charts.

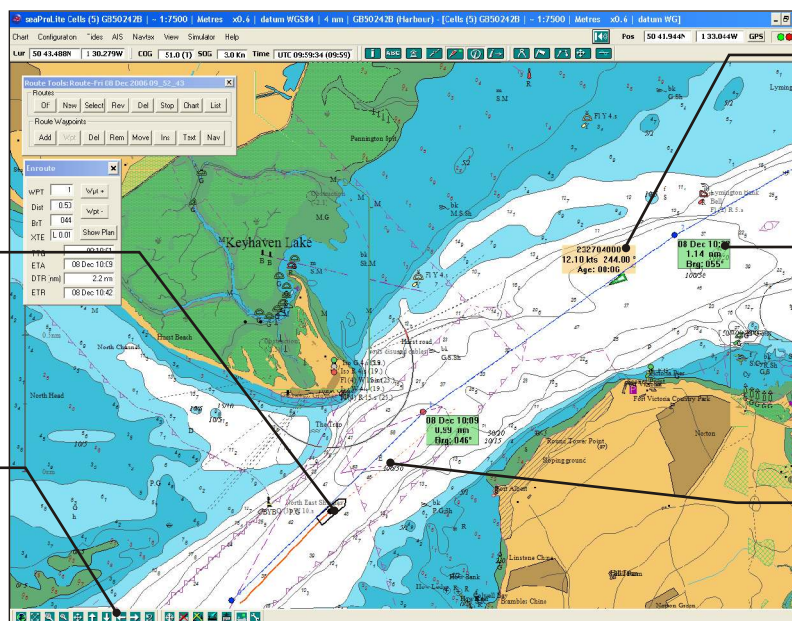


Predator 68, Photo courtesy of Sunseeker

# seaPro

## Lite+

- seaPro Lite+ has all the great features of seaPro Lite National Pack Edition but also allows you to use Vector (Livechart 157 & Navionics with the Navionics Pack) and Raster (ARCS, Seafarer, NZ Mariner, BSB and BSB 4) charts.



### Vessel Position

Connect GPS to serial port to see vessel position on the chart

### Chart Zoom

Use the Zoom toolbar to zoom and pan, or use the mouse buttons

### AIS Display

Connect your PC to an AIS receiver to show AIS target on screen

### Route Planning

With a few clicks, you can create a route, seaPro Lite calculates bearings and distances to each waypoint

### Extended Track Line

Shows future position of your vessel based on current speed and course

seaPro Lite, showing vessel position, track, extended heading line and route

# seaPro standard

"We chose seaPro, an easy to use, fully featured package."

Sir Robin Knox-Johnston, Clipper 05-06

The highly acclaimed seaPro standard is a unique electronic charting application designed to offer seamless selection of both vector (Livechart, S57 & Navionics with the Navionics Pack) and raster (ARCS, Seafarer, NZ Mariner, BSB4, BSB & PCX charts).

## Multiple Chart Windows

Plan and monitor your passage in different windows at different levels of zoom. Alternatively monitor your position in one window while planning your passage in another.

## Managing Routes

Unlimited routes and waypoints may be stored. These can be edited, reversed, appended and up/downloaded to a GPS.

## Tidal Passage Planning

Using tidal data from official sources, where available, seaPro will calculate passage time, expected ground track, course to steer and best departure time. You can also enter your own tidal data.

## Tidal Curves

The tidal curve function enables the display of tidal heights for ports where SHM data is available (including secondary ports). A world-wide tidal curve database is available as an option.

## Tidal Streams

Where available, visual tidal vectors can also be displayed on the chart.

## Weather Data

seaPro can overlay dynamic GRIB weather information (downloadable from various third party sources on the Internet). Display animated weather patterns (typically 3-5 day forecasts) on your chart, including wind speed/ direction, wave height/direction, barometric pressure, sea temperature, rain etc.

## Instrument Panel

Interfaced to your instruments via NMEA0183, seaPro will display this information in the repeater panel (position, log, wind speed & direction, heading & temperature).

## Position and Track Logging

GPS data is automatically written to the log at predetermined intervals and can be replayed or reviewed at a later date. Drop different 'marker flags' to indicate 'man overboard' or points of interest into the log with a single press of a button.

## Chart Overlays

Add your own marks, lines, areas and text to your charts with the overlay facility. Great for marking out your favourite fishing, anchoring or diving spots.

## Polar Diagrams

Performance characteristics of the yacht can be entered and updated. This is displayed graphically as a polar diagram which enables you to determine the maximum boat speed achievable for a given wind speed and wind angle.

## Weather Routing

For sailing yachts, planning is made even easier. Using information on your yachts sailing performance (polar diagram), tidal data and predicted wind (from a GRIB weather file or manually entered) seaPro will calculate the best route either between two points or from your route, adding tacking points as required making best use of wind and tide. If you have more than one sail plan you even get suggestions when to change sails.

## AIS Display and Logging

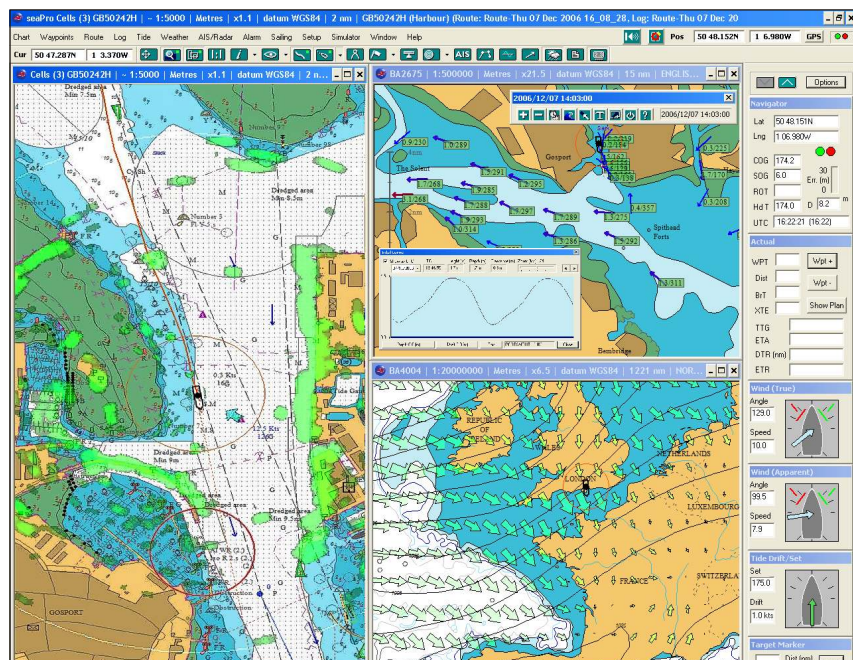
Full support for AIS receivers (including AI3000). seaPro will Log and display AIS targets on your screen and give you a visual and audible warning for any potential collision (CPA/TCPA).

## 3D Display

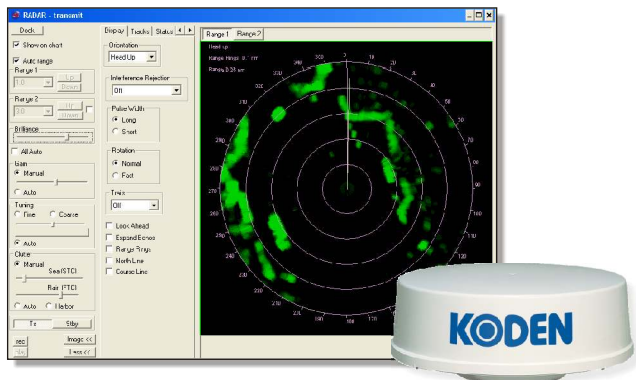
3D display takes standard Livecharts and S57 data and dynamically converts them to 3D images with real-time tidal heights, flashing lights, AIS, ARPA radar and view from your vessel.

## Autopilot Control

seaPro will drive an autopilot that has NMEA0183 compatibility.



seaPro Standard showing multiple windows, with radar overlay, tidal streams, weather overlay & instrument panel



seaPro displaying radar images in stand alone window

### Radar interface

seaPro will interface directly to the Koden RADARpc giving you a full radar overlay and MARPA target tracking either on your chart or as a stand alone window.

### Fuel Calculations

For the powerboat and motor yacht owner, this feature gives estimated fuel consumption when planning a route.

# seaPro plus

The advanced seaPro Plus offer all the features of seaPro Standard plus a host of additional functions.

### Overzoom

Allows the user to zoom into a chart beyond the normal viewing level.

### Multiple Overlays & Databases

Allows multiple overlays and databases to be displayed simultaneously.

### Great Circle Planning

This makes planning an ocean passage very simple. Just put a waypoint at the start and finish of your route and seaPro will fill in the rest giving you a great circle track.

### Enhanced logging

Any supported incoming instrument data can be logged. You can determine the intervals at which this information is recorded.

### Search and Rescue

Creates standard SAR patterns taking tidal information into account.

### Network Installation

An additional option for seaPro Plus, the network installation allows multiple users to share instrument data.

Other features of seaPro Plus include animated log replay, instrument log graphs, dual position fixer, true and relative motion display.

# AI3000

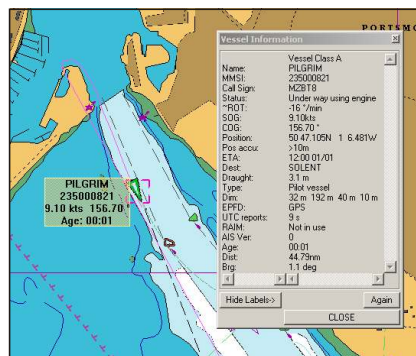
## Automatic Identification System



AI3000 is a low cost AIS receiver that enables the identification of vessels and nav aids fitted with AIS transponders.

AIS was conceived to fulfil a need for vessels to know the position, details and navigational intentions of other vessels within the local vicinity for improved safety and collision avoidance.

Whereas radar indicates the position of a target and the derived speed and heading, AIS shows full details of a vessel, including its name, call sign, current speed and heading. With AI3000 it is possible to plan collision avoidance early or call the vessel on the VHF radio to ascertain their intentions.

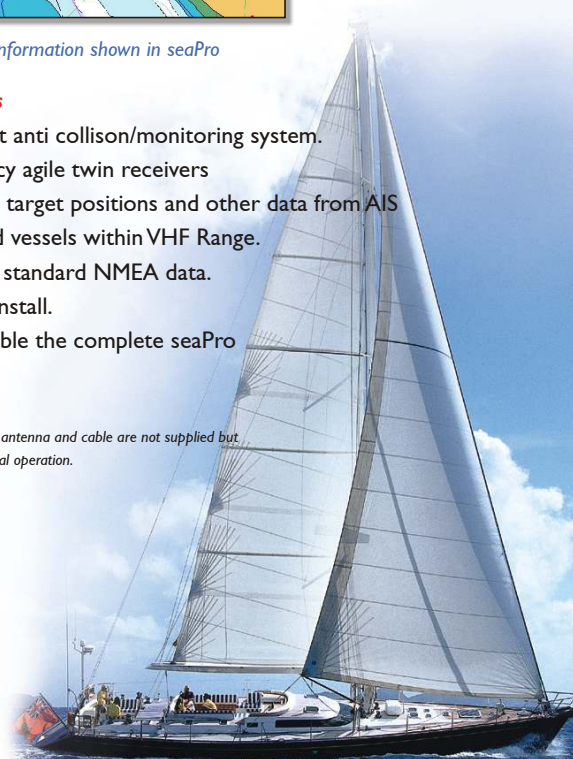


AIS target and information shown in seaPro

### Key Features

- Low-cost anti collision/monitoring system.
- Frequency agile twin receivers
- Receives target positions and other data from AIS equipped vessels within VHF Range.
- Outputs standard NMEA data.
- Easy to install.
- Compatible the complete seaPro range.

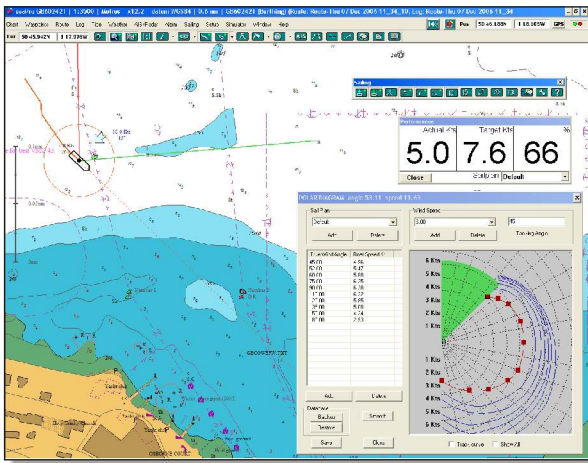
Note: A standard VHF antenna and cable are not supplied but are required for normal operation.





seaPro Performance Sailing has been designed for sailors who cruise or race and want to get more performance out of their yachts. In addition to the many features that enable you to sail faster, visual tools are provided including geographical wind direction, tacking angles and laylines, so you get the maximum information by simply looking at the screen.

Even for yachts with basic instrumentation, seaPro can provide information such as target boatspeed, time to layline etc. Output is also provided to interface with mast displays for B&G, NKE, Silva and Tacktick



seaPro Performance Sailing, showing polar table & performance meter

### Visual Wind Direction

The geographic wind direction is displayed as an icon relative to the vessel, with numeric wind speed and direction.

### Visual Tacking Angles

User configurable, these are displayed from the vessel.

### Visual Laylines

These are displayed on the active waypoint and will continually update taking into account the wind and tide.

### Performance Meter

This displays your current boat speed, target speed and performance percentage.

### Wind on Next Leg

After entering your course this feature will display the wind direction on each leg. This will help with preparations for spinnaker pole setup and tactical planning.

### Polar Data Auto-update

This feature allows polar diagrams to be updated from live incoming instrument data (polar information can also be entered manually for various sail plans).

### Race Planning

Start & finish line positions can be entered including race route with indicators for port and starboard marks. A start countdown timer can be displayed with audio start and warning signals.

### Instrument Displays

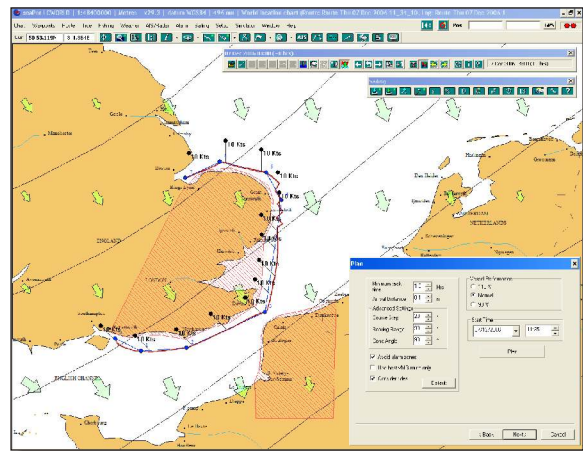
Up to nineteen 'virtual' instrument (data repeaters) can be displayed on screen. Each instrument can be configured to give a voice output.

### Support for Mast Displays

NMEA output for mast displays from leading suppliers such as B&G, Silva, Tacktick and NKE provide vital performance information where you need it most - on deck.

### Enhanced Weather Routing

Tune for the best route taking into account weather and tidal conditions to give the best performance possible. Define no-go areas and the planned route will avoid these zones.



Advanced weather routing, using weather data and tidal information

Bruce Schwab - Ocean Planet, 2004/2005 Vendee Globe

*"Euronav's seaPro Performance Sailing is the most stable, and complete sailing performance/charting software I have ever used. Every tool for monitoring, recording and editing your boat's performance polar data is there and more.*

*In the 2004/2005 Vendee Globe solo around the world race, seaPro was a vital part of my digital charting and performance software, and I will continue to use it for much shorter races!"*



## World-wide charting & National chart packs

seaPro is a 'multi-fuel' charting system that utilises both vector and raster chart formats to provide you with the best choice of quality charts wherever you are in the world. Simply select the charts that suits your geographic location and format preference.

Charts supported by Euronav offer quality, detail, accuracy and coverage in standard formats that are regularly updated.

### Vector chart formats

Livechart, S57 data (Primar & IC-ENC) and Navionics

#### Livecharts

Livecharts are quality vector charts faithfully reproduced from digital and analogue data provided by hydrographic offices worldwide. Livecharts are in a layered format offering total flexibility not possible with paper charts. Seamless chart selection and the ability to automatically select detail relevant to zoom level or as defined by the user.

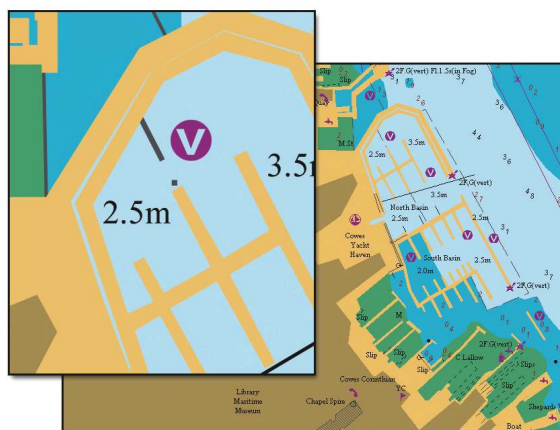
A complete Livechart catalogue is available within seaPro.

#### Navionics

Any of the seaPro systems described in this brochure can be upgrade to use either Navionics Gold and Platinum charts. The upgrade includes the Navionics card reader allowing you to use you Navionics SD or CF cartridges.

#### S57 (both encrypted and non-encrypted)

S57 is digital data produced by hydrographic offices and other official sources of chart data. Coverage is rapidly increasing and a weekly update service is available.



Livecharts vector charts - all detail is as per paper chart, but is digitised in layers. You can zoom in without loss of clarity and allow the software to automatically choose the detail displayed according to the level of zoom.

### Raster Chart formats

seaPro uses advanced image enhancement methods to make sure raster charts are displayed at their best with maximum clarity.

Supported raster formats are:

ARCS, Seafarer, NZ Mariner, BSB4, BSB and PCX

#### ARCS - British Admiralty Raster Charts

ARCS are official raster charts produced by the British Admiralty which offer world-wide coverage. An ARCS catalogue is provided within seaPro.

#### Seafarer - Australian Hydrographic Office charts

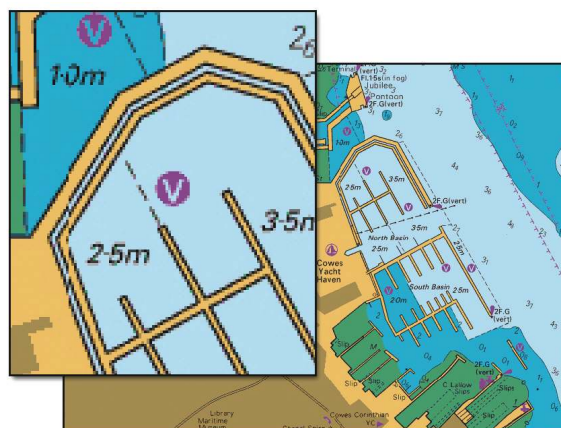
Seafarer are official raster charts produced by the Australian Hydrographic Office which covers Australasian waters

#### NZ Mariner - New Zealand Hydrographic Office charts

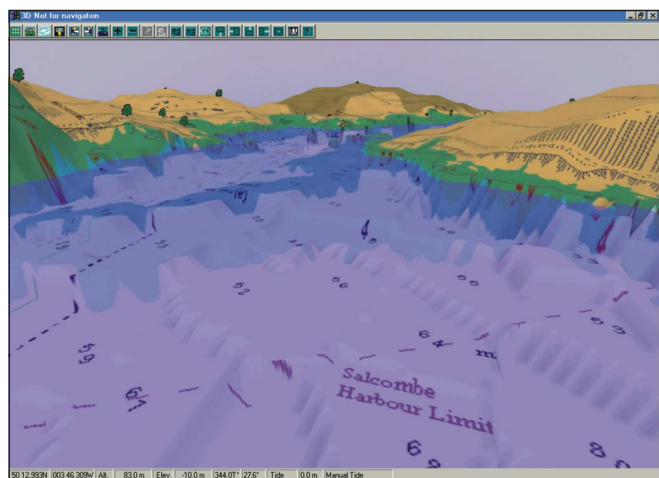
NZ Mariner are official raster charts produced by the New Zealand Hydrographic Office which cover New Zealand waters.

#### BSB4 / BSB / Digital Ocean (from NDI)

BSB charts are raster charts scanned from the National Oceanographic & Aeronautical Administration (NOAA) covering US and Canadian waters.



Raster Charts are 'photocopy' reproductions of the original paper chart. seaPro supports ARCS, Seafarer, NZ Mariner and BSB raster formats



3D display takes standard Livecharts and S57 data and dynamically converts them to 3D images with real-time tidal heights, flashing lights, AIS, ARPA radar and view from your vessel.

# seaPro

## Dive & Fish

"Using the overlays makes marking wrecks fast and accurate. Positioning the boat exactly where you want it is easy. An essential and useful aid to fishing and diving."

Ivan Warren, Ivans Dive and Fishing Charters

The ideal solution for sports fishing and wreck diving. The system is based on the seaPro plus series and offers a wealth of extra features specifically designed for these type of activities.

### Specialist Fishing Toolbar

Offers large easy to operate buttons giving access to all the functions required when on the water, position markers, log on/off, displays etc.



Fishing toolbar allows easy plotting of tracks and marks.

### Multiple Track Display

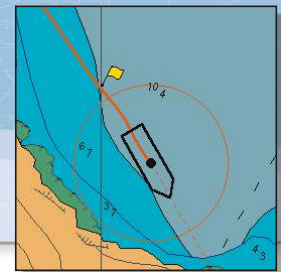
Shows current track as well as any number of previous tracks.

### Track Plotting

Displays the track as a solid color or shaded, to indicate the logged depth or temperature at each position with a user defined track width.

### Marker Flags

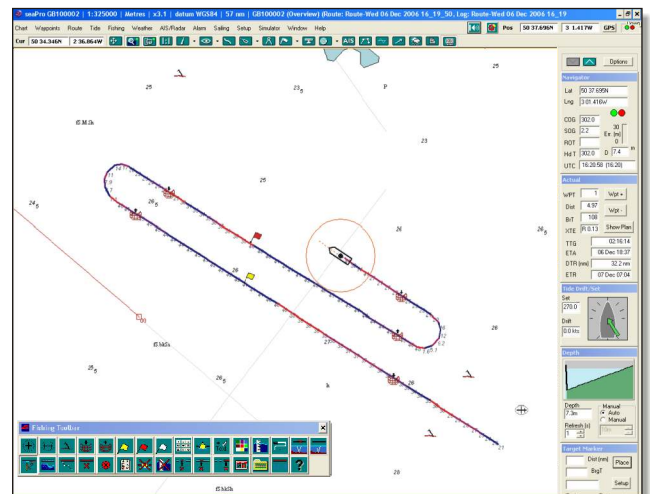
Select from eight instant marker flags, for recording special features such as, snags and wrecks, 255 different symbols available.



Drop marks with ease

### Detailed Overlay

Gives limitless multiple overlays featuring text, lines, areas and markers. Enables the creation of detailed wreck and fish overlay charts in both in 2D and 3D.



Boat drawing track showing sea temperature and dropping depth soundings. Marks have also been put on the chart to show snags, wrecks and other information.

### Enhanced Logging

Displays recorded depth soundings alongside the track.

### Key Features

- Easy to use - large floating toolbar.
- Clear display of tracks, marks and catches.
- Add your own symbols, text and areas.
- Record bathymetric data to improve fishing accuracy and repeatability.
- 3D view.



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