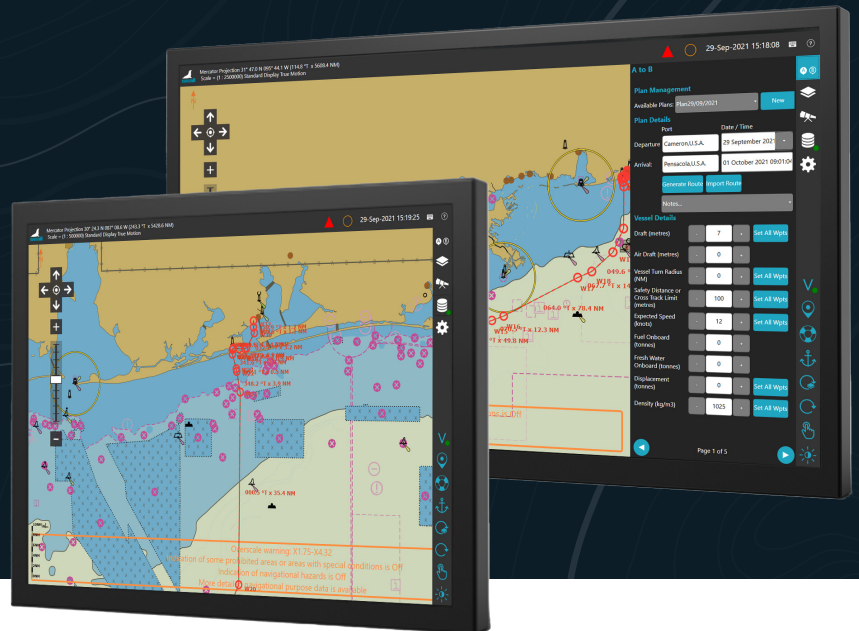


# ECDIS NI-WP

Touchscreen navigation



The SEALL ECDIS is one of the first marine software systems to include a multi-touch screen interface, changing the way it's operated and making it one of the simplest ECDIS systems to operate on the market.

- The 24-inch or 19-inch colour display, touch screen and PC are contained within a single panel PC.
- Designed to include only features required by the end-user, to avoid over-complicating the system.
- Easy to use and guarantees a seamless transition from other ECDIS systems or paper navigation.
- Minimise disruption with day to day operation and any downtime.
- Competent and compliant with regulatory requirements in mind to meet the highest safety standards.
- Ideal for compact installations.
- Developed with the end-user in mind.
- Requires a minimal amount of training.
- **FREE** computer-based training application included with printable certification at no cost.

The system automatically detects any sensors that it's connected to and routinely sets up monitoring functions, including motion, AIS, ARPA, positioning and heading devices.

Smart intuitive functionality ensures installing and setting up the SEALL ECDIS is a **FAST** and **SIMPLE** process.

SEALL continues to bring its cutting-edge, innovative product line to the international marine markets, including leisure, workboat, and commercial.

Now powering over

## 60,000

licensed products globally.

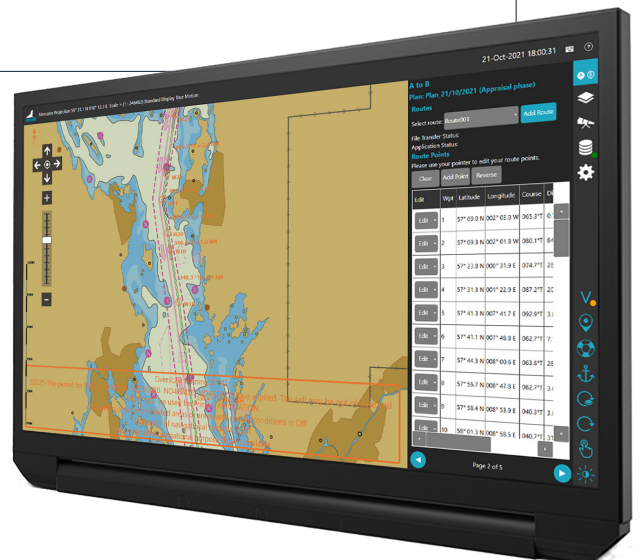
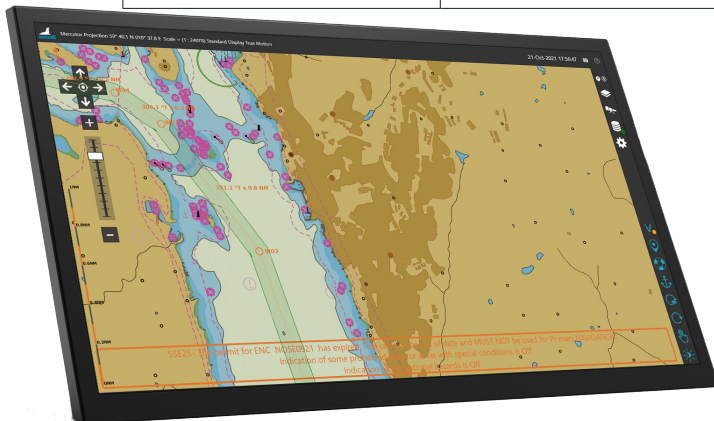
Our smart, user-friendly technology simplifies the display, management, and sharing of navigational data, making critical information more accessible. That's why Seall is the trusted technology partner for modern maritime solutions,

Find out more by visiting [seallecdis.com](https://seallecdis.com)

## HARDWARE SPECIFICATION 24”:

### DISPLAY UNIT:

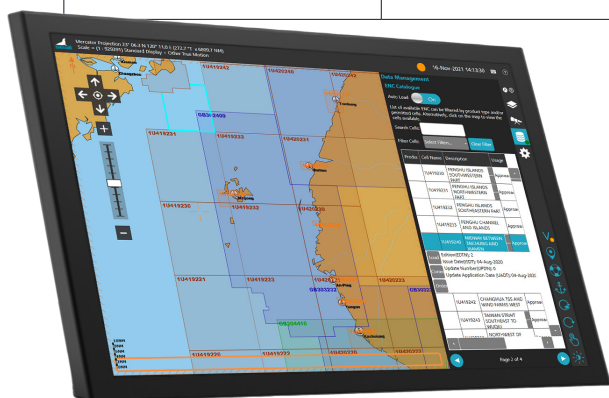
Model:	North Invent Wave PERFORMANCE
Product Dimensions:	574 mm x 341 mm x 93 mm (23.6" x 13.4" x 3.7")
Product Weight:	Approx. 10.4kg / 23.0lbs
Display Size:	24.0 inch - 609.6 mm, Active area 531.36 (W) X 298.89 (H) mm
Touch:	10 Point PCAP Multitouch
Display:	Contrast Ratio 3000:1 (typ), 25ms response time, $\pm 89^\circ$ viewing angle
Resolution:	1920 x 1080 pixels (FHD) at 60Hz
Memory:	8GB DDR4 2400
Processor:	1 x Intel® Quad Core™ i7-8665UE @ 1.7 GHz / 4.4 GHz
Storage:	1 x M2 SSD 120GB
Software:	Windows 10, SEALL ECDIS
Graphics:	Intel® UHD Graphics 620
Connections:	<p>2 x 10/100/1000 Ethernet (4 x 10/100/1000 optional)</p> <p>2 x Display Port</p> <p>2 x USB 3.1</p> <p>2 x USB 2.0, 2 x RS232/RS485/422 +</p> <p>2 x RS232 (D-SUB), Line in + Line out (mini Jack)</p> <p>HMI (15pD-Sub)</p> <p>90-264 VAC (IEC Inlet), 18-36 VDC or AC / DC Multipower optional.</p> <p>3 x M2 slot + SATA</p>



## HARDWARE SPECIFICATION 19”:

### DISPLAY UNIT:

Model:	North Invent Wave PERFORMANCE
Product Dimensions:	414 mm x 342 mm x 78 mm (16.3" x 13.4" x 3")
Product Weight:	Approx. 9.9kg / 21.8lbs
Display Size:	19.0 inch - 482.6 mm, Active area 376.32 (W) X 301.06 (H) mm
Touch:	10 Point PCAP Multitouch
Display:	Contrast Ratio 3000:1 (typ), 25ms response time, $\pm 89^\circ$ viewing angle
Resolution:	1280 x 1024 pixels at 60Hz
Memory:	8GB DDR4 2400
Processor:	1 x Intel® Quad Core™ i7-8665UE @ 1.7 GHz / 4.4 GHz
Storage:	1 x M2 SSD 120GB
Software:	Windows 10, SEALL ECDIS
Graphics:	Intel® UHD Graphics 620
Connections:	<p>2 x 10/100/1000 Ethernet (4 x 10/100/1000 optional)</p> <p>2 x Display Port</p> <p>2 x USB 3.1</p> <p>2 x USB 2.0, 2 x RS232/RS485/422 +</p> <p>2 x RS232 (D-SUB), Line in + Line out (mini Jack)</p> <p>HMI (15pD-Sub)</p> <p>90-264 VAC (IEC Inlet), 18-36 VDC or AC / DC Multipower optional.</p> <p>3 x M2 slot + SATA</p>



## OPTIONAL ACCESSORIES:

<b>Plinth:</b>	Height: 1174 mm Width: 250mm Weight: 6.5Kg Finish: Anodised
<b>Mounting Feet:</b>	For mounting on Table/Desktop/Ceiling 2 x Fully assembled brackets EN60945 Tested.
<b>External NMEA COM Module:</b>	4 x NMEA RS-422 / RS-485, 4 x 5-pin Terminal Block 3.81 connector: EN60945 Tested.
<b>USB Extension:</b>	Type A plug to Chassis mount Type A receptacle for all Panel Computers and Computers. 1m, UL2725 USB2.0, 28AWG*1P+24AWG*2C+AL+D+B, PVC Jacket, UV Resistant, Black OD=ø5.5mm EN60945 Tested.



## DATA:

<b>Input:</b>	Connect to sensors through direct serial connections separately Multiplexed connection down single Serial Multiplexed on a single LAN through bridge network Through external COM module via USB Port Sensors Input: GNS, LOG, GYRO , AIS, ARPA, ECHO SOUNDER
<b>Output:</b>	VDR, BAMS (Bridge Alert Management System). BNWAS (Bridge Navigational Watch Alarm System)



## INSTALLATION:

SEALL ECDIS has been type-approved by DNV GL and designed to meet the following standards:

- IEC 61174 (2015)
- IEC 60945 (2002) incl. IEC 60945 Corr.1:2008
- IEC 61162-1 (2016)
- IEC 61162-450 (2018)
- IEC 62288 (2014)
- IEC 62923-1 (2018) and IEC 62923-2 (2018)
- IHO S52 Presentation Library Edition 4.0
- IHO S57 Edition 3.1
- IHO S63 Edition 1.2

## TESTING/APPROVED TO STANDARDS:

The hardware has been tested / type-approved by the following classificationsocieties:

- |                                     |                             |
|-------------------------------------|-----------------------------|
| • Regulations V/18, V/19, V27 & X/3 | • IMO Res. MSC.191(79)      |
| • IMO Res. A.694(17)                | • IMO Res. MSC.232(82)      |
| • IMO Res. MSC.36(63)               | • IMO Res. MSC.302(87)      |
| • IMO Res. MSC.97(73)               | • IMO MSC.1/Circ.1503 Rev.1 |

Installing and setting up the SEALL ECDIS is a fast and simple process. The system automatically detects any sensors that it is connected to including, motion, positioning and heading devices, AIS and ARPA and automatically sets up monitoring functions.