ECDIS
COMPLETE

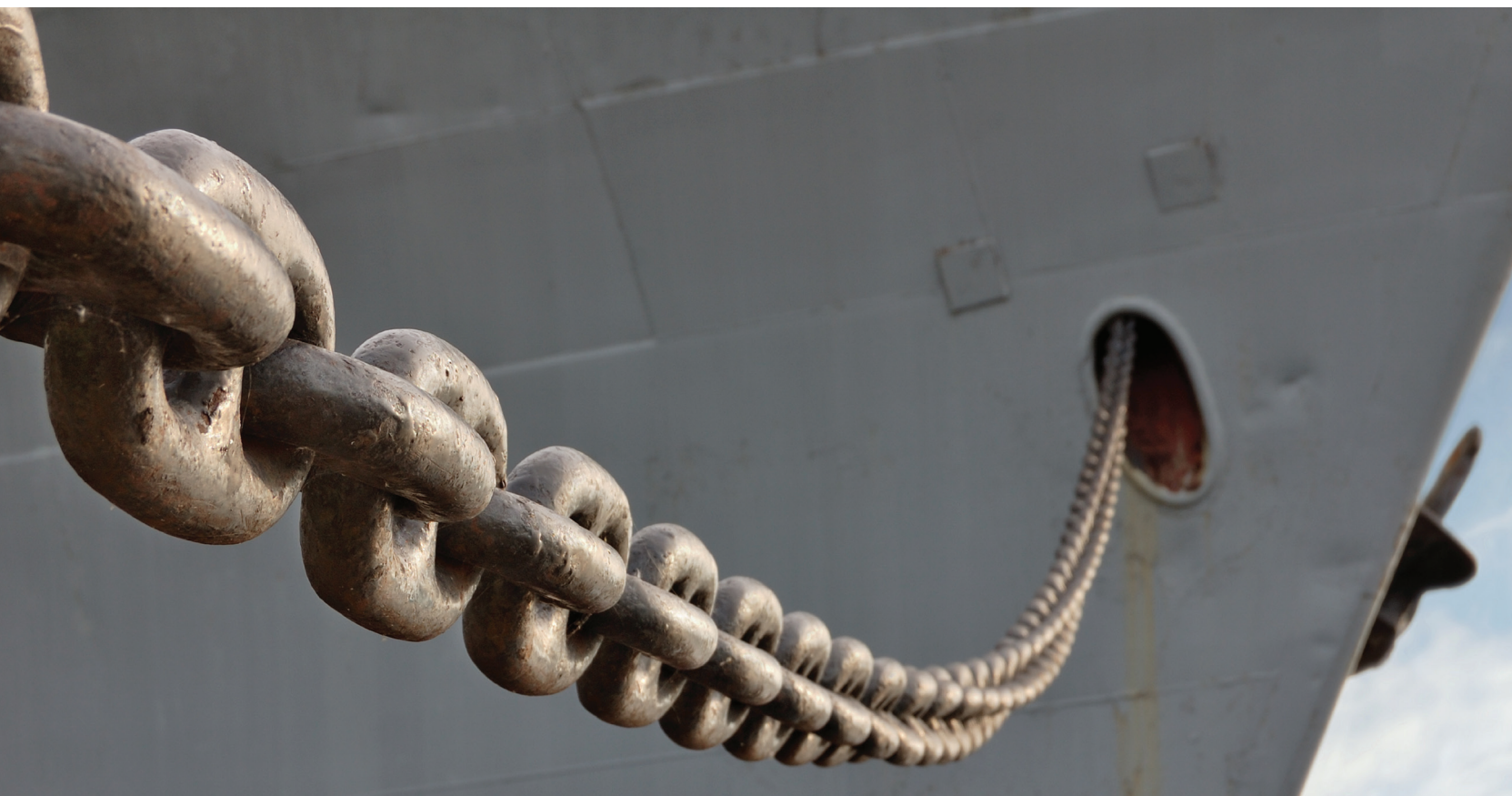A guide to the complete
ECDIS solution from Transas

TRANSAS®
SETS THE STANDARD

ECDIS COMPLETE is the solution to meet all your ECDIS needs. Transas can supply all products and services necessary for your fleet to move towards mandatory ECDIS, and from paper to electronic charts.

There are several different products and services recommended for a smooth transition to ECDIS. However sourcing these products and services from several different suppliers can be both problematic and time consuming.

With ECDIS COMPLETE from Transas, you have the world's number one ECDIS complemented by all the products and services surrounding ECDIS now and for the future. And the best news is that it's all from one supplier!

Transas ECDIS COMPLETE also offers services beyond the mandatory requirements to allow you to benefit from your investment in ECDIS and to save both time and money in the long run.

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WHY TRANSAS?

- The complete supplier of ECDIS products and services
- Understanding of and commitment to customer needs
- The world's most experienced ECDIS supplier
- The overall cost picture is outstanding
- An innovative company that constantly develops its product range to meet the future needs of its customers
- Product flexibility with options and customization to suit all customers
- The only ECDIS supplier with service centres in all major ports, providing 24/7 service and support
- Global sales team with unrivalled product knowledge and customer commitment

ECDIS

ECDIS is a computer-based navigation information system compliant with International Maritime Organization (IMO) regulations and can be used as an alternative to paper nautical charts. An ECDIS system displays the information from electronic navigational charts (ENC) and integrates position information from the Global Positioning System (GPS) and other navigational sensors, such as radar and automatic identification systems (AIS). Transas delivers a full range of type-approved ECDIS solutions customized according to the customer's requirements.

Standard - **Standard⁺** - **Premium** - **Premium⁺** . Each system includes a carefully selected range of standard features, with an extensive range of additional hardware and software options available. So whether you're just beginning your ECDIS journey or seek the ultimate level of information at your fingertips, Transas offers something for every ECDIS user.

Standard

The entry-level system from Transas, ECDIS Standard meets all IMO and SOLAS regulations. You benefit from advanced technology in a simple package along with the quality and service you expect from Transas:

› 24" Marine Panel Computer
› Transas ES6 Trackball
› Navi-Sailor 4000 ECDIS Software
› Basic ECDIS Functions

Standard✛

With the Standard+ package you enjoy the complete Standard ECDIS, plus the following additional planning and information functions:

› AIS, ARPA and Target Management
› Additional Sensors
› Additional Route Planning Functions
› Additional Chart Formats
› Tides & Currents
› Maps (User Charts)
› Navtex Interface

Premium

For those that want ECDIS to do more than fulfil the regulations. The Premium range utilizes the powerful RS6 marine computer with the latest Navi-Sailor 4000 ECDIS Multi-Function Display software and Marine LED Display. A whole host of additional standard features include:

› Transas ES6 Trackball and Keyboard
› User Configurations
› Dual Chart Panel
› Left Side Information Panel
› Docking Mode
› Quick Distance Calculator
› AIS MKD Functionality

Premium✛

The latest and most advanced ECDIS MFD available on the market today. You benefit from everything in the ECDIS Premium package plus unlimited access to the most comprehensive global information, services and support that the Transas organization has to offer, including:

› Advanced Planning Functions
› Predictor
› Curved Headline
› Rendezvous on the Route
› e-Log Book
› Conning Display
› Check List
› Voyage Plan
› True Ship Contour

Transas Navi-Sailor 4000 ECDIS configurations

Standalone Navi-Sailor 4000 ECDIS

Navi-Sailor 4000 ECDIS is designed in full compliance with the latest IMO, IHO and IEC standards and resolutions. NS 4000 ECDIS is a navigation information system that displays information from navigation sensors on the electronic navigational chart. The system is designed to assist the mariner in route planning and monitoring. The combination of all data on a single display allows for a high level of situational awareness and onboard decision making. Using a Standalone ECDIS requires a full paper chart collection in use as a backup arrangement to fulfil the carriage requirements.

Dual Navi-Sailor 4000 ECDIS

A dual ECDIS supplied in a Master + Backup configuration complies with the backup requirements for ECDIS and meets the chart carriage requirement. In the event of ECDIS Master failure, the Backup system automatically takes over as Master system in accordance with the ECDIS backup arrangement requirements.

NS4000 ECDIS 'Back of the Bridge' Planning Station

The NS 4000 ECDIS 'Back of the Bridge' planning station is based on the 24" Panel PC + Trackball. It includes Navi-Planner with full voyage plan functionality (Advanced Planning option) and ECDIS software. If mandatory sensors (Pos, Gyro and Log) are connected to the unit, it can be used as 3rd ECDIS and Back-up.

The 24" Panel PC 'BOB' Planning Station can be used in combination with both NS 4000 ECDIS Standard and NS4000 ECDIS Premium MFD. When used with Premium MFD, only the ECDIS and Navi-Planner can be installed and used on the 'BOB' workstation.

Additional ECDIS sensors

Other additional information and sensors/systems can be connected either directly via an NMEA port, or optionally via the Data Collector Unit (DCU) and displayed in the Navi-Sailor user interface.

Transas 4000 MFD functionality

The main advantage of the 4000 MFD concept is the integration and sharing of the radar image and other data amongst workstations connected to the network, such as:

- Charts and databases

- Sensor data, Radar data

- Route and Voyage plan data

- Alarms and warnings

- Bridge Navigation Watch Alarm System (BNWAS)

- Track history and electronic logbook.

Transas 4000 MFD software provides the common base for installation of ECDIS MFD and Radar MFD systems, depending on the primary task/ functionality and required certificate.
The ECDIS MFD is a type-approved ECDIS in a basic configuration, with an optional Radar Slave task for external radar connection but without scanner control.

The Radar MFD is a type-approved ARPA Radar in a basic configuration, with either an X or S-band transceiver. Both up and down mast transceivers are available. An ECDIS Slave station is optional and may be accepted as an ECDIS Backup by some flag states.

The Conning MFD task is optional and is available on all workstations in the network. It can be displayed on an extra monitor connected to any workstation processor for space saving and cost reduction.

WHY NAVI-SAILOR 4000 ECDIS?

- The world's number one ECDIS
- User friendly navigation tool
- Most evolved ECDIS on the market
- Flexible configuration
- 4-level ECDIS solutions to suit all customers
- MFD functionality and network capability
- Consistent graphic user interface (GUI)

Transas Graphical User Interface

Transas Graphical User Interface provides a clear and logical display of primary data and functions. The GUI used in the Transas ECDIS is consistent through the products including ECS, Radar, Conning and Wave, resulting in rapid user familiarization and reduced instances of human error. Additional data and tools are grouped for easy and quick access through a number of Information and Task panels.

User configurations

Officers and pilots need quick adjustments of the display for specific tasks and call up of a Standard ECDIS presentation (S-Mode). Transas took the customers wishes into account when taking it to the next level with the introduction of User configurations, which allow the operator to save the display presentation under a unique name for future use. User configurations can be used for ECDIS, Radar and Conning.

Bridge configurations

On a bridge where several Transas Multi-Functional Workstations are used, Transas Bridge configurations can be employed. Operators can load by single operation a predefined setup of all workstations with task (ECDIS, Radar and Conning) and defined User configuration.

Transas Navi-Sailor ECDIS Features

Return to the display of the area where the own ship is located

Move the ship symbol

Orientation to the nor

Orientation by the compass heading

Orientation by the direction of the current leg of the monitored route

Relative motion mode selecting

True motion mode selecting

Increase the chart display scale

Decrease the chart display scale

Display the chart on the original scale

Object informa

View ARCS and Seafarer format charts

Turn on MOB mode

Virtual keyboard display

The Control panel consists of the following windows:

NS 4000 ECDIS applications loading or switching

| ECDIS | Radar | Conning | AMS |

Return to the own ship location

Position Dropped

Sensors selection

| TX X-2 | Overlay | ARPA | AIS |

Status in the network

* MASTER *

Alarms display and acknowledgement

CHART Land danger

Warnings display and acknowledgement

SENS Aux. EPFS 2: no input

Time

| | 14 - 05 - 09 |
| UTC | 11 : 15 : 54 |

Primary positioning system

| Prim | 60° 00.390 N |
| GPS 1 | 030° 00.169 E |

Secondary positioning system

Sec:None

Ship motion parameters

COG	GPS 1	270.0°
SOG		9.0 kn
HDG	GYRO 1	270.0°
STW	LOG 1	9.0 kn

Charts Area

| ru3ntkq0 | Autoload | ON |
| 1 : 30,000 | Man. Corr. | |

Display Panel

System Information

System Information
- Primary Status
- Schedule Information
- Route data
- Environment Data
- Radar Settings
- EBL / VRM
- AIS Messages
- AIS VDL Data
- TRIAL/TGT Simulator
- Navigator
- Curved Heading Line
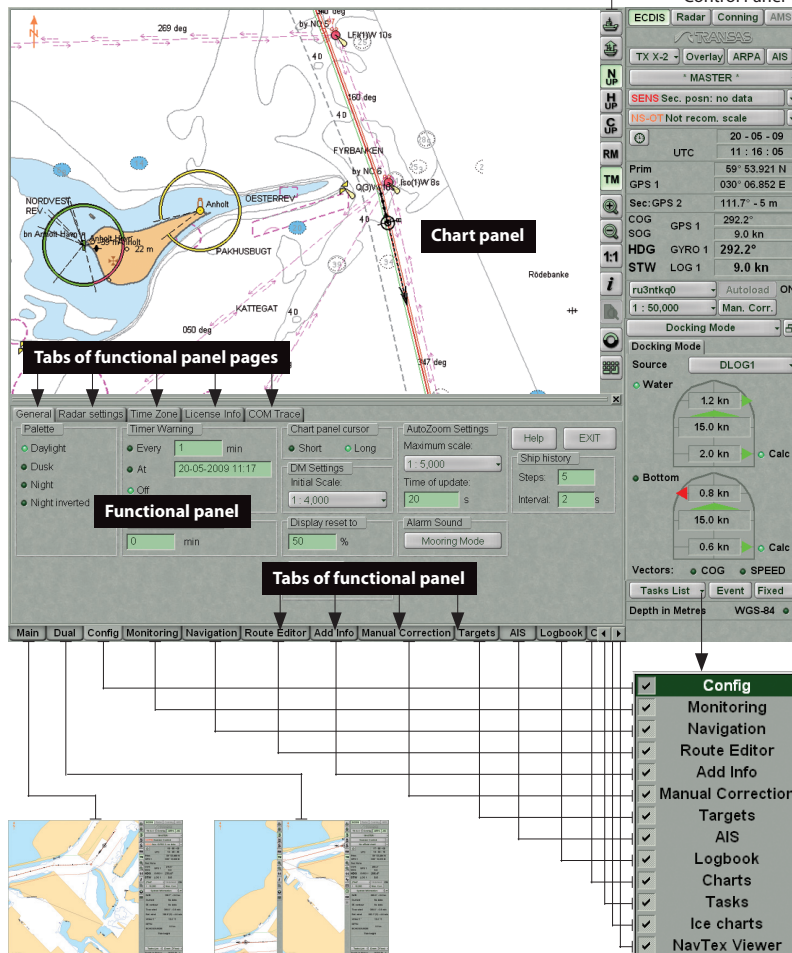- Docking Mode
- Manually Fix Position
- Special Purpose Objects
- TARGETS

Operational Panel

| Tasks List | Event | Fixed |

Lower Data Group

Depth in Metres   WGS-84

Control Panel

| ECDIS | Radar | Conning | AMS |

TX X-2 | Overlay | ARPA | AIS

* MASTER *

SENS Sec. posn: no data

NS-OT Not recom. scale

| | 20 - 05 - 09 |
| UTC | 11 : 16 : 05 |

| Prim | 59° 53.921 N |
| GPS 1 | 030° 06.852 E |

Sec: GPS 2	111.7° - 5 m
COG		292.2°
SOG	GPS 1	9.0 kn
HDG	GYRO 1	292.2°
STW	LOG 1	9.0 kn

ru3ntkq0 | Autoload | ON
1 : 50,000 | Man. Corr.

Docking Mode

Docking Mode
Source   DLOG1

○ Water
- 1.2 kn
- 15.0 kn
- 2.0 kn   ○ Calc

○ Bottom
- 0.8 kn
- 15.0 kn
- 0.6 kn   ○ Calc

Vectors: ○ COG   ○ SPEED

Tasks List | Event | Fixed

Depth in Metres   WGS-84

Chart panel

Tabs of functional panel pages

Functional panel

| General | Radar settings | Time Zone | License Info | COM Trace |

Palette
○ Daylight
○ Dusk
○ Night
○ Night inverted

Timer Warning
○ Every   1   min
○ At   20-05-2009 11:17
○ Off

Chart panel cursor
○ Short   ○ Long

DM Settings
Initial Scale:
1 : 4,000

Display reset to
50   %

AutoZoom Settings
Maximum scale:
1 : 5,000
Time of update:
20   s

Alarm Sound
Mooring Mode

Help   EXIT

Ship history
Steps: 5
Interval: 2   s

0   min

Tabs of functional panel

| Main | Dual | Config | Monitoring | Navigation | Route Editor | Add Info | Manual Correction | Targets | AIS | Logbook | C |

Config
- ✓ Monitoring
- ✓ Navigation
- ✓ Route Editor
- ✓ Add Info
- ✓ Manual Correction
- ✓ Targets
- ✓ AIS
- ✓ Logbook
- ✓ Charts
- ✓ Tasks
- ✓ Ice charts
- ✓ NavTex Viewer
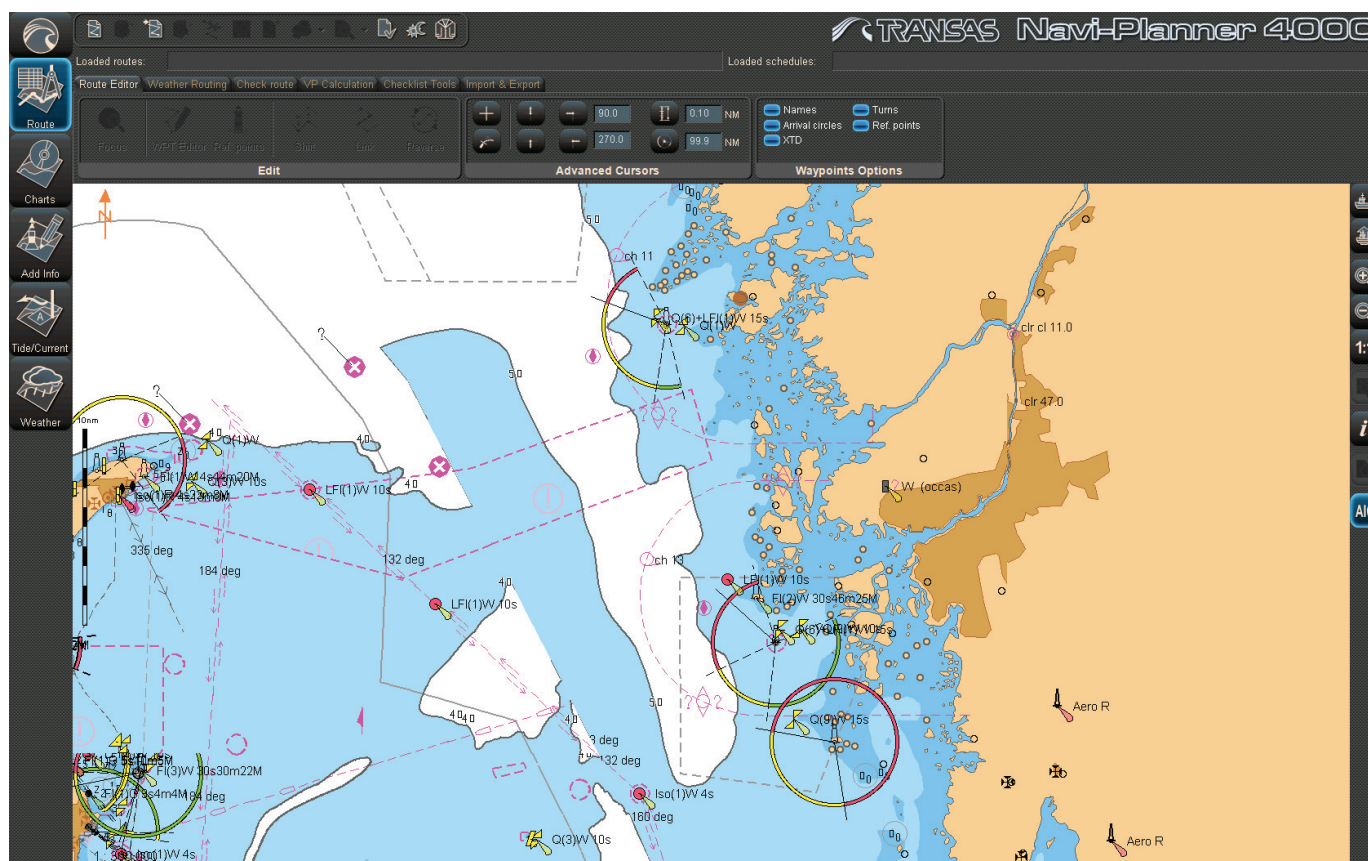
Navi-Planner 4000

Navi-Planner 4000 sets a new standard for safe and efficient voyage planning. This innovative solution from Transas provides a single access point for all information needed for every step of navigation. When developing the Navi-Planner 4000, Transas worked closely with oil company vetting-inspectors, ship owners and navigation officers. The result is a tool which makes voyage planning easy for navigators and efficient for ship owners. Navi-Planner 4000 complies with IMO Resolutions (IMO 1.916(22) Guidelines for the recording of events related to navigation and IMO A.893(21) Guidelines for Voyage Planning).

Navi-Planner 4000 also includes the option of Thomas Gunn Technologies online correction service for paper charts and publications.

Transas Navi-Planner features

Navi-Planner 4000 is primarily the ECDIS markets most powerful charts management application, and also a set of databases, applications and services intended for voyage planning. Suitable both onboard as a 'back of the bridge' application, and ashore as a management tool. Navi-Planner 4000 software creates a voyage plan using an electronic route editor, including:

- Port to port planning of a complete voyage plan
- AtoBviaC auto routing
- Under Keel and Over Head Clearance
- Route checking
- Reference point selection
- Reporting points
- Warnings along the route
- Chart listings for both (S)ENC and paper charts
- Detailed voyage plan reports
- Route export/import
- Integration with Navi-Sailor 4000 ECDIS

WHY NAVI-PLANNER 4000?

- The markets fastest and most powerful chart management application
- All you need for voyage planning and navigation management
- All digital services managed in one application
- Built-in paper chart and publication corrections
- Full voyage planning, port-to-port or .berth-to-berth
- Developed through co-operation with customers and authorities
- Made to support ISM procedures and bridge administration

Charts & Digital Products

Transas Admiralty Data Service (TADS) was developed by Transas in partnership with the United Kingdom Hydrographic Office (UKHO). It provides the most comprehensive official worldwide ENC data coverage with weekly updates. Whether you're a Transas ECDIS user or operate another brand of ECDIS, TADS delivers global chart coverage in SENC or standard ENC format to suit your needs. Developed directly for ship owners and managers, captains, navigators, crew, marine superintendents and shore-based staff, TADS uses only official chart data along with a range of carefully considered additional data services.

Transas Admiralty Data Service includes:

• Transas SENC Services for the Transas product line

• AVCS (ENC) Services for other brands of ECS, ECDIS and Chart Radar

• Admiralty Digital Publications (ADP)

• SPOS Weather Service

• Admiralty Information Overlay AIOs (Temporary & Preliminary Notices to Mariners)

• ARCS (some flag states allow ARCS where ENC coverage is not available)

In choosing Transas as your chart provider you'll be advised of the most cost effective chart purchases. Transas provides the knowledge and expertise and will customize the process specifically for you. Charts are supplied on CDs or DVDs; the quarterly base issues include all available charts and are sent to the vessel 4 times per year. Chart licences can be purchased automatically through our online server or manually via our Chart Group sales staff and e-mailed directly to the vessel.

The vessel can update charts in three different ways:

• Weekly update CDs

• Online downloads from the Transas website

• Tailored datasets automatically provided from Transas chart server

WHY TADS?

- Additional quality control of ENC charts for increased system safety and to prevent installation of corrupt data
- Faster installations and updates via SENC service
- Best SENC/ENC coverage available
- 24/7 chart support
- Cheaper data transfer thanks to unique file compression and push of correction data by the route

Pay As You Sail from Transas

Traditionally, navigators must select and purchase charts prior to each voyage by placing a chart order online or via a local sales office. With this method, commonly called 'pre-licensing' the user must have purchased a licensed chart to be able to view any chart data other than just the chart border.

With Transas' 'Pay As You Sail' the vessel has licensed access to view and pre-plan in official charts at no extra cost. The vessel will only be charged for charts used for actual navigation monitoring; in other words, charts that have been displayed on the screen together with ships position and symbol or generated navigational alarms. In principle this is 'best scale charts only', not all charts under the keel. Recording and reporting of charts used is done with and by extraction from the Transas ECDIS logbook.

The process of chart selection, ordering, receipt and installation is time-consuming and requires additional training for the user. Instant availability of all charts in the ECDIS enhances safety onboard. Charts may be required urgently due to a changed port of call, alternate route planning or weather conditions.

WHY PAY AS YOU SAIL FROM TRANSAS?

- Vessels only pay for charts actually used for navigation monitoring. You only pay for best scale charts and not for all charts that have been under the keel.
- Transas PAYS service is an online service for access to licensed charts and corrections. Chart licensing, management and chart activity recording are integrated with ECDIS.
- Transas ECDIS logbook records and reports charts used

Wav**e**
by Transas

Wave by Transas is the first generation of fuel efficiency monitoring systems from Transas. It's installed as a standalone system together with flow meters.
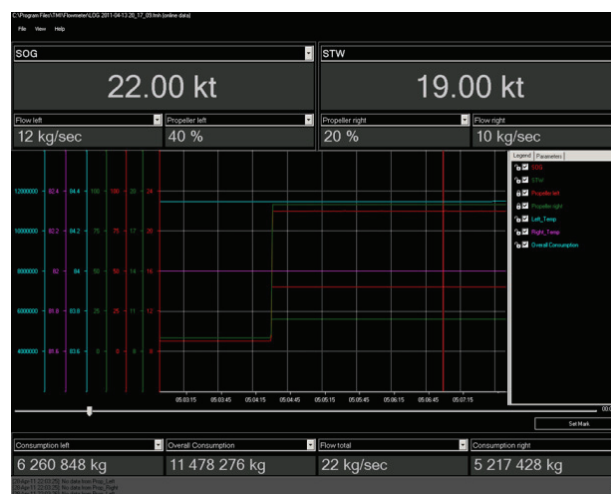
Wave

Wave provides online decision support where instantaneous consumption as well as consumption per sailed distance is presented in a clear and simple way. This solution can be compared to an advanced vehicle trip computer.

Understanding the impact of speed, trim, draught and other parameters is crucial in decreasing fuel consumption. Wave is installed on the bridge and collates information from the vessel's navigation sensors, flow meter, engine data and emission sensors.

WHY WAVE?
- Modular and flexible design
- Scalable system
- Wave is a part of the ECDIS
- Ready for new requirements

BNWAS

The Bridge Navigation Watch Alarm System (BNWAS) triggers an alarm if an Officer on Watch (OOW) becomes incapable of performing the OOW's duties.

Transas BNWAS is fully type approved according to IEC62616 (MSC.128(75), IMO resolution A.694(17)) and DNV rules (for retrofits and new builds, excluding vessels under NAV/OC or AW).

WHY BNWAS?

- Any RS6-based Transas ECDIS is easily upgraded to meet BNWAS requirements
- Low system cost and peripheral components
- Minimal requirement for additional hardware components
- Flexible configuration compatible with non-Transas systems (via discrete or RS6 ports and NMEA custom messaging)
- Flexible hardware platform with bespoke connectivity of discrete and NMEA signals
- Software, alarms and additional data are easily modified and/or connected
- Seamless integration with Transas MFD stations: alarms and data transfer
- NMEA output of BNWAS status alongside discrete output of alarm yes/no to VDR/External Alarm Panel

Bridge Reset Button

Power supply from MAIN and Battery maintained power supply

Master Cabin/Mess Room/ Accommodations

Bridge Navigation Watch Alarm System (BNWAS)

Training

Crucial to implementing ECDIS is the appropriate training for the crew and relevant managerial staff ashore. All bridge officers keeping watch on a vessel equipped with an ECDIS should receive general ECDIS training that follows the IMO Model Course 1.27, in addition to hands-on training in the particular equipment used onboard. Transas ECDIS training ensures that your team receive the required knowledge about the general use of an ECDIS, as well as a detailed introduction into the features of the ECDIS equipment.

Transas provides the following types of ECDIS training worldwide:

- **ECDIS IMO Model Course 1.27 at our affiliated Training Institutes and Academies**
  Transas offers two kinds of combined generic and type specific courses. These courses follow the IMO Model Course 1.27 and are in accordance with the Manila Amendments to STCW. They are certified by Germanischer Lloyd.

- **Hands-on training, 2 days (16 hours)**
  Transas ECDIS Hands-on Training provides you with the required knowledge about the general use of ECDIS as well as detailed introduction of system's features.

- **Computer Based Training**
  Transas ECDIS CBT gives understanding of both the benefits and limitations of ECDIS; understanding of how ECDIS can be used for navigation, route planning and monitoring, display of navigation data, performing updates etc.

- **International Safety Management code (ISM) training**

- **Train the Trainer course**
  Transas provides detailed Train the Trainer and Instructor courses for all products. These courses enable our customers to gain deep product knowledge and use the Transas products at a full potential.

GET-Net Global ECDIS Training Network

With the introduction of the GET-Net concept, Transas joins forces with its Simulation and On-Board Systems customers. GET-Net is an international partnership between Transas Marine and outstanding ECDIS training providers worldwide.
As most crews reflect a truly international mix it is desirable to have quality-assured, standardized ECDIS training available in different locations.

GET-Net joins training institutes worldwide to provide high standard ECDIS courses. Equipment specific and generic ECDIS training is available compliant with STCW and certified by Germanischer Lloyd.

GET-Net Status Level and quality audit

Depending on the level of cooperation, facilities and services available, a GET-Net partner can achieve different status levels. GET-Net is a high quality training brand. To ensure this high quality, GET-Net Partners are audited by a certified Transas Instructor. After successful completion of the audit, the partner training institute will receive an official Transas certificate and quality seal to include in their marketing material.

GET-Net Partner   GET-Net Gold Partner   GET-Net Platinum Partner
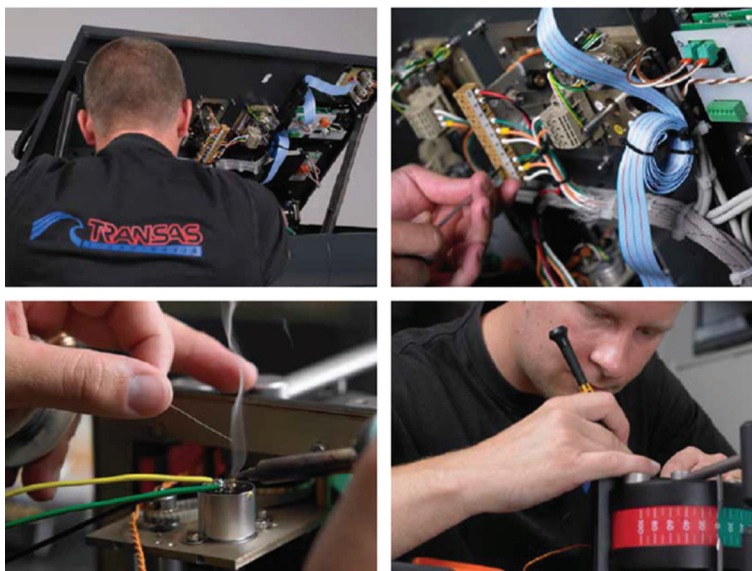
Service & Support

A reliable service partner is vital when selecting your ECDIS supplier. Transas is dedicated to providing the highest level of customer service. The service stations in our worldwide network are strategically located to provide fast and efficient support to our customers.

Transas provides service from own trained specialists in all the biggest ports and in all other ports via our wide spread Service Network. All work is performed by Transas-certified engineers who are regularly trained to upgrade and refresh their knowledge of the latest technologies.

WHY SERVICE & SUPPORT FROM TRANSAS?

- Worldwide service network
- Service coordination
- 24/7 support via service hotline and email
- Chart support
- ECDIS annual maintenance
- TRANSERV contract: maintenance, support, warranty and upgrade services
- Technical training.

TRANSERV

TRANSERV is a comprehensive, flexible and customizable maintenance and development program developed by Transas. This program is fully applicableto the entire range of Transas products, integrated solutions and navigation and communication equipment onboard.

The TRANSERV program achieves total customer satisfaction through the best service quality and value for money. The customer has the highest priority, regardless of the urgency of the request or service required.

The program offers a number of options, designed to provide every Transas customer with a scope of maintenance, support, warranty and upgrade services, to meet their budget and business objectives. The TRANSERV packages have been designed in accordance with customer demands and requirements.

The TRANSERV program is initiated via the worldwide network of Transas certified local service agents, under the management of our global Transas offices.

Building long lasting relationships through excellent service and support!

A global network for local needs

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Find your local dealer at www.transas.com/dealers

For more information on ECDIS
COMPLETE scan the QR code or visit
www.transas.com/products/onboard

TRANSAS ®
S E T S   T H E   S T A N D A R D