HC SEANAV – Advanced Navigation system

Safe and reliable navigation in the archipelago and at open sea

HC SEANAV is developed for navigation and safety requirements according to the IHO ECDIS standard

- Combination of graphical and alphanumerical presentation together with audio alarms for critical events and exceptions makes the navigation safe
- Multiple sources for own position and ship data as well as multi channel track of AIS and Radar tracks secure safe positioning relative surrounding vessels
- Advanced route tracking with automatic calculation of Wheel Over Position, CPA and arrival zones together with the optional use of the autopilot control
- Graphical route planning with automatic warning for hazards in user defined safety zones enable safe, fast and easy planning of the route

HC SEANAV – Complete solution for small and medium vessels

Scalable and extendable platform for maritime navigation

HC SEANAV has a flexible architecture suitable for very small up to large environments with several simultaneous users

- From a single laptop up to network based client server solutions which enable users to share information and database but work with different tasks
- Client application is fully configurable at runtime allowing the users to switch tasks without closing down the client
- Server and client application are identical which makes it possible to scale up and extend the system without any need to change existing environment
- Modular and standardized architecture enables a cost effective solution for all needs to interface and connect external systems

HC SEANAV – One application configured and equipped for different needs

Standardized architecture enables low cost and fast development as well as reliable maintenance and support

HC SEANAV Workstation – All solutions

- Microsoft Windows 10 Pro
- Microsoft SQL Server 2012 Express
- Intel (R) Core(TM) i5-6400 CPU
- Intel (R) HD Graphics 630 GPU
- Display resolution, 1920 x 1080
- Display colors, 32 bit
- RAM, 16 GB
- HDD, 500 GB
- Ethernet, TCP/IPv4

HC SEANAV Server – Enterprise solution

- Microsoft Windows Server 2019
- Microsoft SQL Server 2012
- Intel (R) Xeon (R) Silver 4208 CPU
- Intel (R) HD Graphics 630 GPU
- Display resolution, 1920 < 1080
- Display colors, 32 bit
- RAM, 32 GB
- HDD, 1000 GB
- Ethernet, TCP/IPv4

HC SEANAV – Example Navigation Configuration & View

Navigation mode

HÄRNÖSAND-ÖRNSKÖLDSVIK || Scale: 1:20 000 APPROACH || Datum: WGS84 | Projection: WGS84, UTM, X/Y || Zone: (33) E015 00.000 | Width: 18.0 || Center: N 63 01.102, E018 24.460 | 6 992 208.0, 672 439.0 || North stabilized || True Motion || Category of display: Standard

Cursor [Rhumb line] (34)

Time and date
2021-04-05 13:43:10
CLT 2021-04-05 14:43:10

Geographic position (34)
Lat N 63 00.737
Lon E 018 22.082
X 6 991 425 Y 670 470
FP 2021-04-05 N 63 00.738
13:43:09 E 018 22.081
DR 2021-04-05 N 63 00.737
13:43:10 E 018 22.082

Heading
Hdg T 149.0 Deg
ROT 0.0 Deg/Min

Speed
COG T 149.0 Deg
SOG T 5.0 Kn
CSV 10 Min 0.83 Nm
CTW 224.1 Deg
STW 12.2 Kn

Depth (Seabed)
DBK 9.7 M
DBT 9.7 M

Depth (Surface)
DBK 44.2 M
DBT 44.2 M

Hazard settings
Isolated danger On
Isolated danger, Shallow On
Route monitoring, Around On
Route monitoring, Ahead On
Tracked targets (AIS - A) On
Tracked targets (AIS - B) On
Tracked targets (TTM - A) On
Tracked targets (TTM - B) On

System status
I/O Selector
Database
Chart engine
Graphic viewer

Selected AIS
Track 0003
MMSI 1141759
Type
N 63 13.640 E018 26.937
7 015 576 673 276
COG 225.0 Deg
SOG 8.0 Kn
Brg T 009.7 Deg
Rng 13.11 Nm
CPA > CPA range Nm
DCPA Nm
TCPA
Safety range
CPA range
Sensor range
Weapon range

Selected TTM
Track 0004
Name RAD003
Type Unknown
N 63 02.993 E018 35.420
6 996 218 681 479
COG 300.0 Deg
SOG 10.0 Kn
Brg T 069.6 Deg
Rng 6.47 Nm
CPA > CPA range Nm
DCPA Nm
TCPA
Safety range
CPA range
Sensor range
Weapon range

Cursor
Lat N 63 01.746
Lon E 018 27.807
X 6 993 552 Y 675 195
Brg T 068.8 Deg
Brg R -80.2 Deg
Rng 2.79 Nm
ETA 00:05:42
CPA -2.75 Nm

[Act Route] Route 002 | ULLERÅNGERS
Lat N 63 00.486
Lon E 018 22.410
X 6 990 973 Y 670 771
CTS 149.4 Deg
XTE -0.03 Nm
CPA 0.00 Nm
DTW 0.29 Nm
TTG 00:03:29
NCTS 080.9 Deg
DWOP 0.24 Nm
TWOP 00:02:56
TTTG 00:39:01
ETA 2021-04-05 14:22:11

Distance counter A
DOG 4 834.78 Nm
Time 06 15:46:26
Reset 2020-12-30 16:13:13

Distance counter B
DOG 4 834.10 Nm
Time 06 15:45:57
Reset 2020-12-30 16:13:17

Alert	First	Last	Source	Name	Description
0051	2021-04-05 13:42:41	2021-04-05 13:42:41	Route	Route warnings	Warning: Scanning in progress. Possibly dangerous items in selected route
0052	2021-04-05 13:42:43	2021-04-05 13:42:43	Route	Route warnings	Warning: Scanning stopped.
0053	2021-04-05 13:42:43	2021-04-05 13:42:43	Route	Route warnings	Warning: Scanning in progress. Possibly dangerous items in selected route
0054	2021-04-05 13:42:59	2021-04-05 13:42:59	Route	Route warnings	Alarm: Dangerous items in selected route

Storholmen · Docksta · fjärden · Ullångersfjärde · RTE 003(R) · RTE 002(R)
1.00 Nm
RAD002 · RAD004 · RAD001 · RAD003
1141759 · 1141732 · 1142003 · 1141748