AlphaMINDS Conning
Software suite

ALPHATRON
Marine

- Monitoring and controlling of equipment onboard
- Based on in-house developed automation and connecting platform Lynx
- Custom built as preferred by owner
- Available in hardware and software bundle

Category
All vessel types

Yachting

Deepsea

Workboats

Fishing

alphatronmarine.com

Features |

Our new Conning software is the first member of applications of our powerful all-in-one software suite AlphaMINDS (Multifunctional Information Navigation Display System). The conning application can be an integrated part of a JRC navigation system for advanced new build or retrofit projects or used as standalone system next to existing equipment. A large number of standard available protocols like NMEA 0183, Modbus, RS422/RS485 and ethernet are included.

- Heading repeater
- Pitch, roll & heave indication
- Rudder angle repeater
- Speed indication

- Rate-of-Turn repeater
- Meteo overview
- Propellor revolution indication
- Indication of maneuvering devices

Based on Lynx |

The software of AlphaMINDS and thus the Conning, is based on our in-house developed automation and connecting platform Lynx, specific designed as maritime SCADA software for monitoring and controlling all kinds of equipment onboard a vessel. Integrated in Lynx is the OpenBridge design guideline that will give a better user experience with regards to design, styling and easy recognition of indicators, messages, alarms of the graphical user interface (GUI). Consistency across systems is an essential aspect for reducing human errors and this will contribute to an improvement of the quality of ship bridges, the work environment for seafarers and overall ship safety.

Screen modes |

The Conning screen contains all standard presentations for displaying the usual information needed for safe navigation of a vessel. The standard conning application is divided into screens with tabs available in day, dusk or night theme that give the user a complete overview of the most important information at the time it is most relevant.

Navigation tab
- No.1 GPS
- No.2 GPS
- Compass (Gyro/MAG/GPS)
- Speed log
- Echo Sounder
- Anemometer
- Current
- Meteo information
- Auto Pilot

- Rudder
- Engine/Propeller
- Bow thruster

- Course over ground (COG)
- Same as No.1 GPS
- True heading/ Rate of turn (ROT)
- Speed through water (STW)
- Depth
- Wind speed & direction
- Drift speed & set
- Air temp/ pressure/ humidity
- Steering mode
- Heading (actual and set)
- ROT (actual and set)
- Angle
- RPM (and pitch)
- Direction & Load or RPM

Docking tab
- No.1 GPS
- No.2 GPS
- Compass (Gyro/MAG/GPS)
- GPS Compass or other sensors
- Docking
- Speed log
- Echo Sounder
- Anemometer
- Current
- Rudder o Angle
- Engine/Propeller
- Bow thruster

- Course over ground (COG)
- Same as No.1 GPS
- True heading/ Rate of turn (ROT)
- Pitch/ Roll/ Heave
- Bow, stern and longitudinal speed
- Speed through water (STW)
- Depth
- Wind speed/direction
- Drift speed & set
- Angle
- RPM (and pitch)
- Direction & Load or RPM
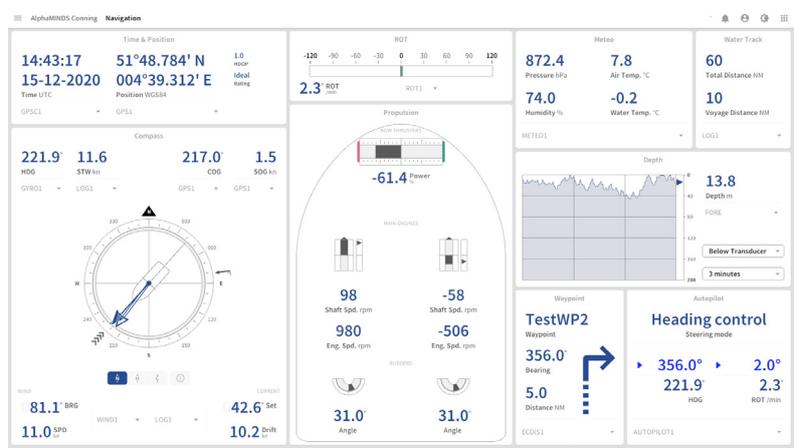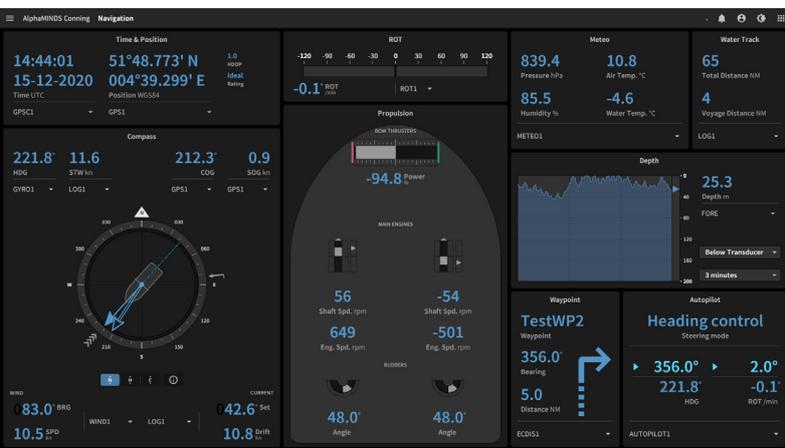
Customization |

During the early design of our Lynx platform, a well-thought-out software architecture was developed. As a result, applications based on Lynx (such as conning) can be built in a very flexible way.

Even with the standard out-of-the-box Conning software, the user will have possibilities to set and customize some preferences like units, but also the range scales of presented data.

Tailor-made GUI with widgets (add-ons) can be designed to your needs, delivered, and implemented in a reasonable amount of time with the possibility to expand later if necessary.

Units
• Prop. Pitch Angle: %, °
• Thruster Pitch Angle: %, °
• Rudder Angle: %, °
• Engine/Shaft rotation speed: rpm, r/min, r/s, %
• Thruster rotation speed: rpm, r/min, r/s, %

• Depth: m, ft
• Air Pressure: mbar, hPa
• Wind Speed: m/s, km/h, kn

• Vessel Speed: m/s, km/h, k
• Longitudinal Vessel Speed: cm/s, m/s, km/h, kn
• Transversal Vessel Speed: cm/s, m/s, km/h, kn
• Current Drift: m/s, km/h, kn

⚙ Home › Range & Style › **Rudder**

RANGE SETTINGS

Rudder Angle Range [°]
The visible range of the rudder visualisation

45

STYLE SETTINGS

Rudder Style
The style of the rudder visualisation

Arrow

Arrow

Bar

DEFAULT SETTINGS

Reset To Default Settings
Reset the settings on this page to the factory settings

Range - Scale
• Depth: Depth scale, Time scale
• ROT: Scale, style
• Rudder: Angle scale, style

System overview |

We offer the AlphaMINDS Conning as a hardware and software bundle, a complete solution that provides what you need.

Diagram for AlphaMINDS Conning hardware bundle

Keyboard with trackball

Maritime PC with AlphaMINDS Conning

Ethernet switch

Serial to IP-based Ethernet LAN device server

Display

LAN devices

Serial NMEA devices
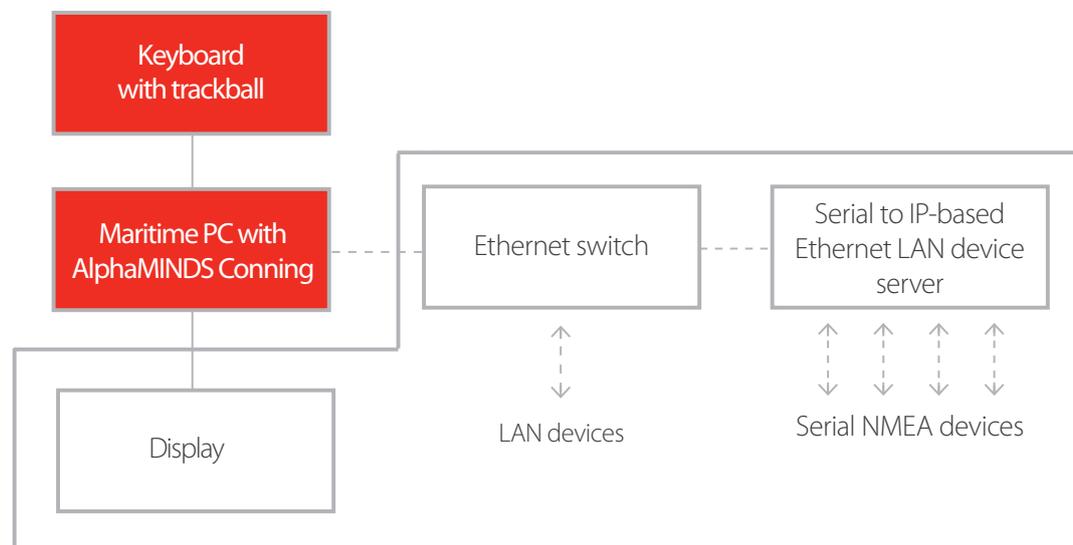
Not included

Specifications |

AlphaMINDS Conning bundle

This bundle consists of an IEC90645 certified marine computer with pre-installed AlphaMINDS Conning software and a secured dongle for running the application, without peripherals.

AlphaMINDS Conning bundle	
Software	AlphaMINDS Conning
	Lynx Software license - Secured USB dongle
Hardware	
Computer	Marine grade and fanless computer with multi power: 100-240VAC 50/60Hz + 24VDC
Operating System	Pre-installed Windows 10 - 64Bit IoT version with latest updates or better
Processor (CPU)	Intel® Celeron® 3955U or faster
Memory	8 GB
Storage	240 GB SSD
Graphics card	Compatible with DirectX 12 or later with WDDM 2.0 driver, OpenGL 3.5 or better
Certification	IEC 60945 4th (EN 60945:2002), IACS E10 EN55024 EN55022, Class A EU RO MR - Mutual Recognition ClassNK - Nippon Kaiji Kyokai, CCS - China Classification Society

AlphaMINDS Conning software

Conning software to be used as part of an existing AlphaMINDS installation or as a stand-alone application.

Recommended Requirements Computer¹	
Operating System	Windows 10 - 64Bit versions with latest updates or better
Processor (CPU)	64-bit architecture, dual core or more
System Memory	4 GB or higher
Storage	4 GB free disc space
Graphics card	Compatible with OpenGL 3.5 or better
Certification	IEC 60945

Minimum Requirements Display	
Display aspect ratio	1920x1080 pixels
	1920x1200 pixels
	(for standard conning, other aspect ratio's possible on request)

[1] Specifications are based on the minimum requirements of the application

In the box

- AlphaMINDS Conning bundle   G-009390

  Consists of:
- AlphaMINDS Conning with Lynx software license and secured dongle   G-007680
- Computer Intel 3955U 2.0GHz, 8GBRAM, 240GBSSD WIN10   G-008059
- Backlit keyboard & 25mm trackball   G-008141