

ABB Marine Academy course description

H923 - OCTOPUS-Onboard Commissioning

Course goal

This course prepares service engineers to properly mount the hardware related to OCTOPUS and make sure all the signals are valid and configured within the scope of a supply. Every participant will possess extend user knowledge allowing him to give the introduction to the system while on site.

Learning objectives

Upon completion of this course the participants will be able to:

- Explain the OCTOPUS system architecture and identify the functions of its components
- Create a new project and configure basic OCTOPUS modules
- Configure virtual points for measurement
- Design graphs for outputting the required data in real time
- Understand the basics of vessel motions, velocities and accelerations
- Maximize the quality of input data for the system
- Accurately translate the system output into clear advices
- Implement and understand criterions
- Troubleshoot most common basic software problems
- Understand and identify different data types
- Connect and configure external devices to OCTOPUS
- Identify and connect correct signals to OCTOPUS
- Troubleshoot hardware problems
- Commission the system
- Give the on-site introduction of the system
- Provide first level of support

Contents

- Introduction to vessel motions
- Benefits of having OCTOPUS
- OCTOPUS Onboard 5 and 7 system architecture
- Typical interfaces (manual and automatic)
- Data types, Creating and importing new projects
- OCTOPUS user interface, Creating custom dashboards
- Polar diagram, Responses, Weather windows
- Measurements, Statistical operators, Real-time graphs
- Time traces, Alarms and warnings, Virtual points
- Data sharing based on weather forecast, Data logging
- OCTOPUS Fleet Management System
- Serial data connections, Network data connections
- Network sharing and firewalls, File based interfaces
- NMEA protocol, MODBUS protocol
- Analog signals, Motion sensors and their limitations
- Sensor and Hardware mounting, Hardware FAT procedure
- Complete system commissioning

Methods

- Instructor led course with interactive classroom discussions and associated workshop exercises
- Approximately 25% of the time is used for practical exercises



Student profile

The training is targeted to service engineers, ETOs, technical superintendents and electrical engineers

Prerequisites

The students shall have a basic understanding of vessel operations and marine terminology
They will be familiar with at least NMEA and MODBUS protocols in both TCP/IP and serial versions
Participants can meet our prerequisites by attending one of our e-learning courses

Duration

2 days (16 hours)

Venue

Rotterdam

Additional information

When the complete classroom originates from one company, specific cases (based on the client operated vessels) will be presented and discussed. Please note that a notebook with OCTOPUS software is provided by the training facility. If you wish to use your notebook, please let us know before the course will take place.

This course is considered to be obligatory for personnel who wishes to commission OCTOPUS systems.



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Course outline

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Day 1

- Marine environment and forces acting on the vessel
- OCTOPUS architecture
- OCTOPUS user interface
- Functionality module by module
- Integration with 3rd party interfaces (basics)
- Troubleshooting
- Exercises

Day 2

- Data types
- Data protocols
- Hardware technical specifications
- SAT and FAT procedures
- Reviewing real commissioning cases
- Troubleshooting
- Exercises