



Neptune

Mission Level Autonomy

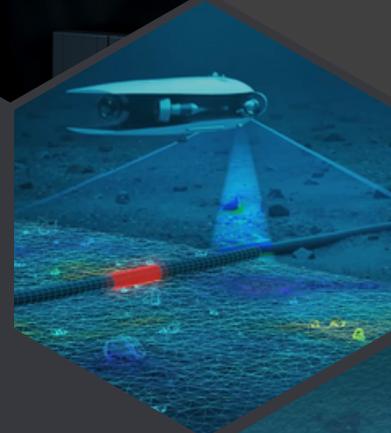
Neptune is an intelligent, mission level autonomy system for squads of Robotic and Autonomous Systems (RAS).

Neptune assigns goal-based plans and objectives based on the assets capabilities, ensuring each system is used to its potential.

In mission, Neptune will adapt to changes in the environment and coordinate assets to ensure mission success. By augmenting decision making, Neptune allows users to focus on the end goal.



*Adopted by the US,
UK and Dutch
Navies for EOD and
MCM operations*



-  **User trusted planning, that is faster with fewer errors**
-  **Integrates with a diverse range of RAS**
-  **Recognises common behaviours to re-assign RAS in mission**
-  **Commercially Controlled Open Architecture**
-  **Comprehensive Software Development Kit**

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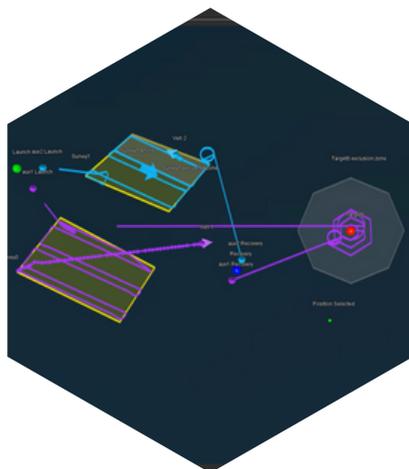
Neptune

In-Mission Adaption

On-board Artificial Intelligence will respond to changes in mission objectives, the environment, and other vehicles. Vehicles will collaborate and adapt to ensure mission success.

Decentralised Control

Run multiple tasks in parallel, with vehicles automatically taking responsibility for tasks. This optimises mission execution by allowing vehicles to swap or add tasks, and manage malfunctions. The decentralised autonomy ensures vehicles operate even in comms restricted environments.



Third-Party Integration

Neptune is built on top of our commercially controlled open architecture. Third-party vehicles, sensors, autonomy behaviours, or signal processing functions can be integrated using our Software Development Kit.

Additional tools



Mission Management



ATR System



Whitepapers

For more information please contact our team at +44 (0) 131 447 4200 or sales@seebyte.com

Specifications

Supported Platforms

- HII REMUS
- ATLAS SEACAT
- MARTAC MANTAS

Supported Formats

- EdgeTech Side Scan
- Klein Side Scan (MIND-Technology)
- Marine Sonic Side Scan

Forward Look Sonar Formats

- Teledyne BlueView
- Tritech Gemini

Video Formats

- MPG and others assuming operating systems CODEC availability

Primary Support Raster and Vector Formats

- S-57 ENC
- S-63 Encrypted ENC
- ESRI Shape files
- GeoTIFF

Recommended System Requirements

- Neptune requires SeeTrack

Recommended Laptop Requirements

- Please refer to SeeTrack brochure

Neptune Embedded Processor Requirements:

Without AI/ML

- Intel Atom Processor E3845 (Intel 64), 8GB RAM, Ubuntu 64bit (18.04 or newer), 256 GB SSD

or

- Raspberry Pi 4 (ARM64), 8GB RAM, Raspbian OS 64bit (Debian Bullseye or newer), 256 GB SSD

With AI/ML (e.g. ATR)

- NVidia Jetson AGX Xavier (ARM64+GPU), 16GB RAM, 512/64 cores, Current NVidia JetPack, 256 GB SSD