

“Improved autonomous planning and control systems for delivering unmanned mine countermeasures”

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Neptune

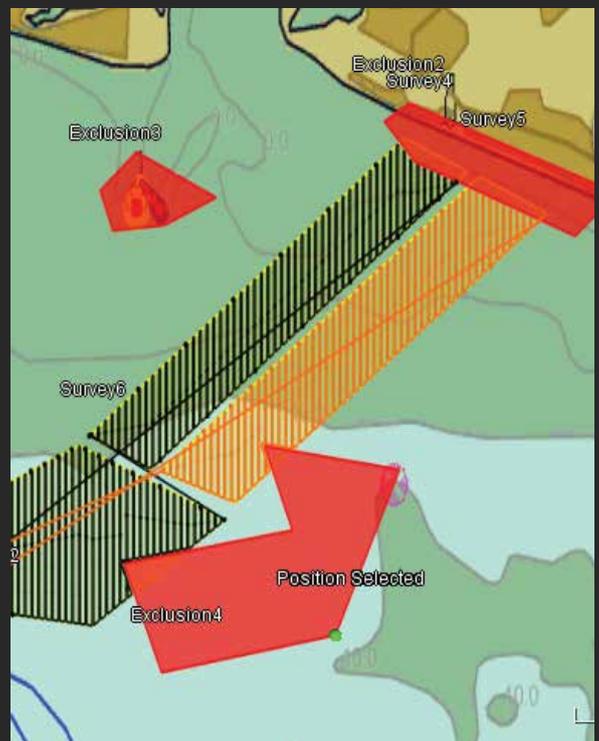
Autonomous Control

Neptune provides a payload control architecture, goal based mission planning, and real-time autonomy engine for Unmanned Maritime Systems (UMS) to plan and execute well known patterns of behaviour. Neptune expedites and optimises single-vehicle and multi-vehicle operations.

Fully compatible with SeeTrack, a commercially available, equipment independent mission planning, monitoring and post-mission analysis and reporting tool, used by leading MCM nations, Neptune is installed and operating in support of three leading navies' AUV fleets.

Deciding *What to do* instead of *How to do it*:

- Automatic matching of mission requirements against available assets and discoverable capabilities – enables speedy response time and efficient use of hardware
- In-mission adaptation to changes in the environment, assets and mission objectives – allowing for the best possible results in fluctuating conditions
- Open interfaces to services and vehicles – making life easier for the operator
- Integrates with tactical decision software – integrates with MEDAL and MINTACS to conform with your procedures
- User-defined behaviors designed to simulate expert operators – making the mission as comprehensive as possible
- Software development kit available – Integrate third-party hardware and software, enabling you to develop your own expert behaviors to meet your specific requirements



Neptune Screenshot

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Specifications

What are Behaviors and Functions?

- Neptune analyses sensor data through the use of functions. The communications relay function is used to help multiple assets and operators share a single view of the world
- Automatic Target Recognition (ATR) is an optional function that can be used to help find and recognise specific objects in real-time
- Neptune guides assets through the best trajectory to meet vehicle-specific and joint goals. These trajectories are known as behaviors. Behaviors range from the simple 'Wait' and 'GoTo' commands to the more complex Survey and Reacquire-Identify behavior
- By making best use of Behaviors and Functions, Neptune simplifies mission planning

Supported Platforms:

- Iver (L3 Oceanserver)
- LAUV (OceanScan-MST)
- Remus (Hydroid Inc)

Supported Formats:

- EdgeTech Side-scan
- Klein Side-scan
- Marine Sonic Side-scan

Minimum System Requirements:

Neptune requires SeeTrack v4

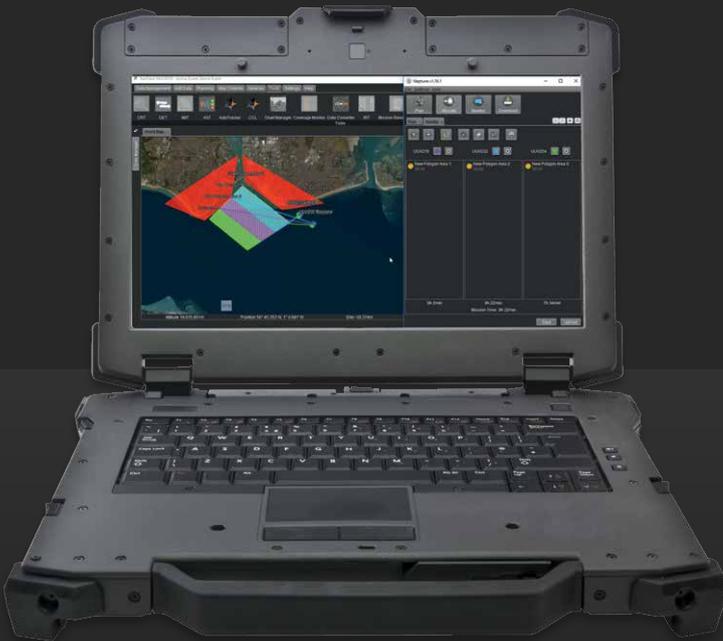
Laptop requirements

- OS: Windows 7/10 (Pro 64-bit)
- Processor: Intel Core i5 (preferably Core i7)
- Graphics: 1GB RAM capable of Open GL2.0
- HDD: 10GB of free HDD space (preferably SSD)

Embedded Processor Requirements

- Intel Atom N450 1.66 GHz Processor
- ARM (NVIDIA Jepsom TX1, Raspberry Pi 3)

This is not an exhaustive list of supported formats, for latest specifications please contact us directly.



Contact

For more information on Neptune and SeeByte's other software solutions please get in touch with our sales team on +44 (0) 131 447 4200 or email us at sales@seebyte.com