

UMISOFT

A comprehensive software suite for off-board systems missions

- Integrity and cybersecurity
- Open architecture
- Third party integration
- Interoperability
- User friendly interface



MISSION MANAGEMENT SYSTEM

Associated with its drone suites for naval missions, UMISOFT by Exail is a comprehensive software suite from mission preparation to drones and data management.

UMISOFT is a software suite interconnecting all phases of a mission in a comprehensive and smart progression. It allows operators to carry out operations with unprecedented performance, ease and flexibility.

VERTICALLY INTEGRATED

Whatever the mission (MCM, Maritime Survey, SAR and Hydrography), UMISOFT guarantees full integration for the management of the operation cycle.

The different phases from order reception to final report edition are planned, simulated, run, supervised and analysed thanks to this fully integrated software suite.

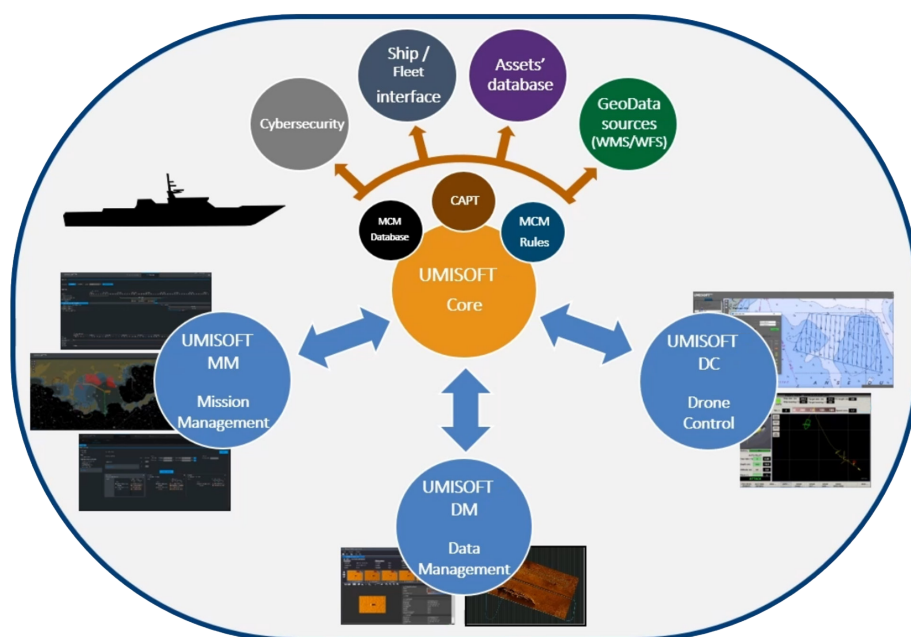
DEDICATED SOFTWARE MODULES FOR EACH PHASE OF THE OPERATION

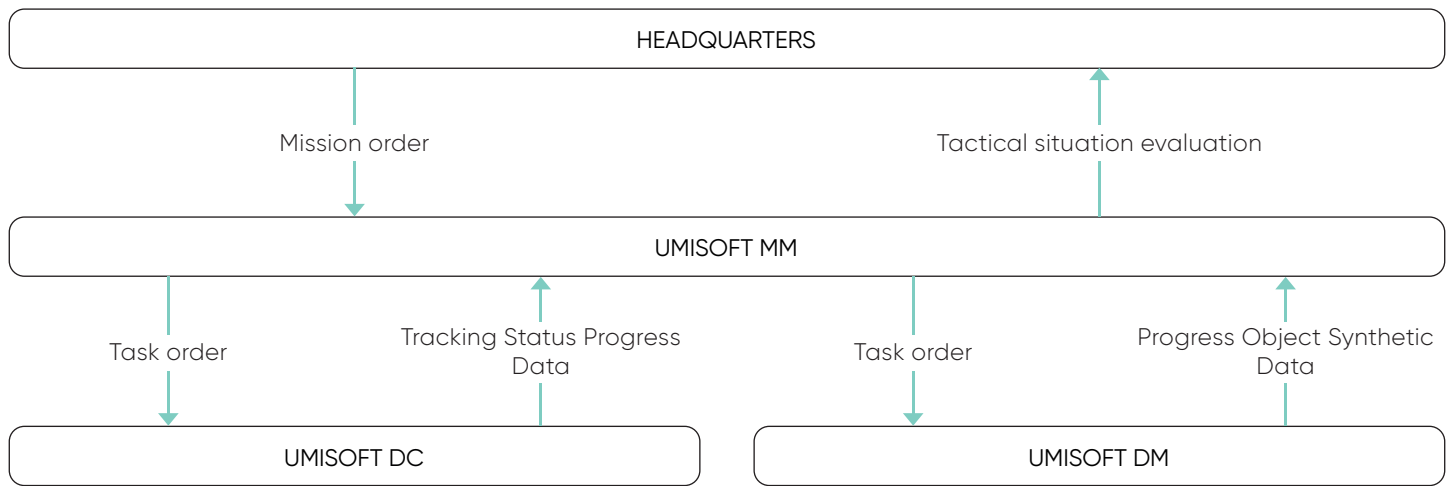
UMISOFT suite includes various interconnected modules around the core allowing comprehensive management of the mission.

The core is the backbone of the system. Three main modules are positioned around the core:

- UMISOFT MM for Mission Management
- UMISOFT DC for Drone Control
- UMISOFT DM for Data Management

Plus a set of auxiliary modules managing interface and data storage (assets, geodata, weather, ...)





UMISOFT MM	• Mission planning - Mission management - Automatic solution proposal - Overview and detailed view - Mission simulation • Supervision - Tactical situation - Real-time tracking • Evaluation - Estimated and actual indicators computation - Synthetic maps
UMISOFT DC	• Unmanned vehicles / systems control and command - Task creation and edition - Setup and programming - Diagnosis • Execution monitoring - Real-time feedback - Manual or automated piloting (depending on drone capabilities) - Individual situation monitoring
UMISOFT DM	• Multi-sensor data fusion - Imagery, bathymetry and geophysics data import and processing - Fully configurable georeferenced multilayer display • Automated processing - Side scan sonar and video mosaicking - Automated navigation corrections - Seabed classification • Evaluation - Automatic Target Detection (ATD) & Automatic Target Recognition (ATR) - Change detection - Mine database management

OPTIMISATION OF PERFORMANCES

UMISOFT allows improvement of mission performances and time saving thanks to its capability to simulate and optimise tasks of each drone before operation as well as conduct simultaneously the tasks within the mission simultaneously.

INTEGRITY AND CYBERSECURITY

UMISOFT is organised with a robust identification of users and system log. All data exchanges between modules within the system are encrypted.

Its isolated data base and storage prevent any direct access to data secured infrastructure and network.

OPEN ARCHITECTURE

UMISOFT is interoperable and can be interfaced in existing ship systems including Combat Management System (CMS), Mine Warfare Data Center (MWDC), and Military Message Handling System (MMHS).

THIRD PARTY INTEGRATION

Third party drones can be easily integrated into the robot suite thanks to UMISOFT DC (Drone Control) interface:

A dedicated gateway with third party control software can be created according to a predefined protocol.

SCALABILITY

UMISOFT enables the use of:

- An unlimited number of connected drones (USV, AUV, ROV, UAV)
- An unlimited number of client modules

Storage space can be easily expanded and adapted meet specific customer requirements.

INTEROPERABILITY

UMISOFT is designed to fulfill standardised rules and recommendations:

- NATO Standards
- (MW procedures, symbology, messages)
- STANAG 1116
- EXTAC 878
- MIL STD 2525D
- Additional military layers
- ENC 557, 563, 5100