

FLEETWARE

Management Suite for Autonomous Mobile Robots



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Sorion

FLEETWARE

Fleetware is designed to enable the implementation of AMRs into a dynamic production environment.

The software **integrates with WMS/ERP systems** to receive and supply order data and then manages the missions by logistic priority.



CAPABILITIES

- Dynamic assignment of missions by logistic priority
- Central configuration and monitoring of the fleet of robots
- Simple, modular robot missions
- Test the environment prior to installation of physical robots via the Simulation Tool
- Robot monitoring and analytics via EMA for Fleetware
- Can be utilised with Sorion's Sextans process control application to provide a complete guided assembly process solution



APPLICATIONS



Logistics &
Warehousing



Just-in-Time
sequenced manufacturing



Transport of WIP goods between
individual production stages



WHAT DOES FLEETWARE PROVIDE?

FLEETWARE CORE



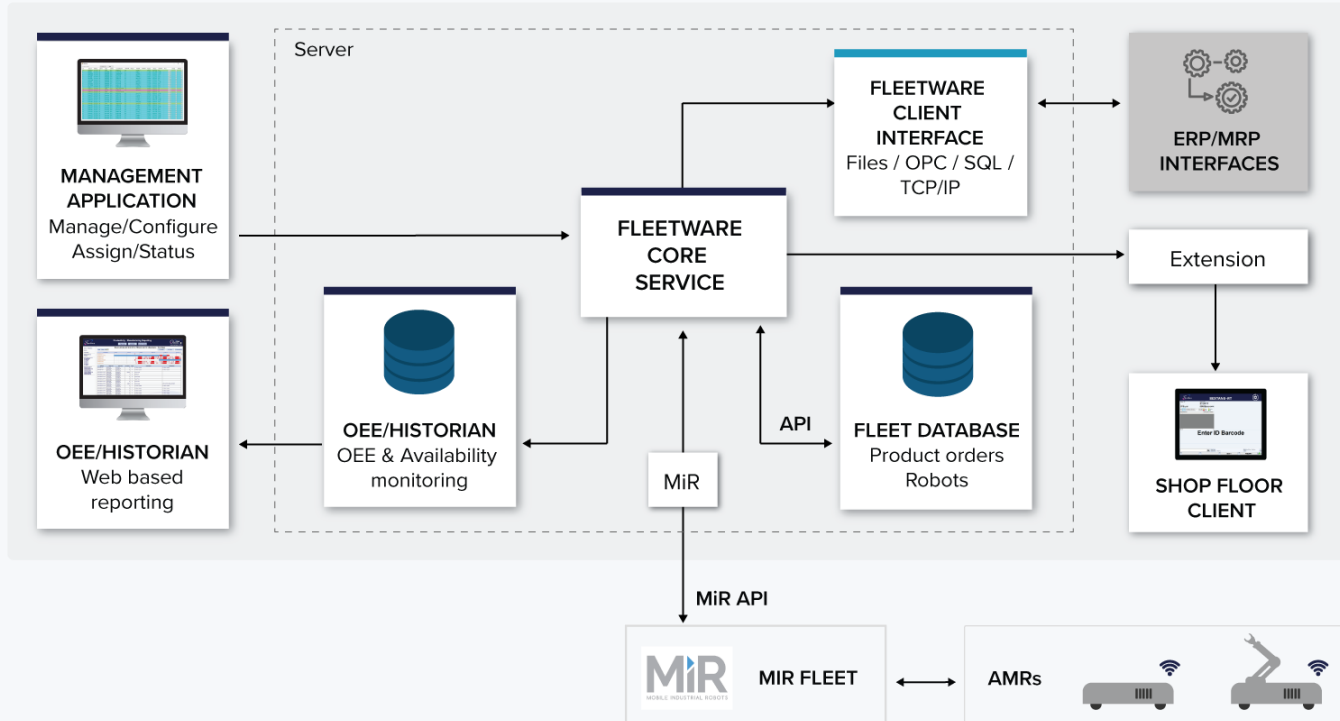
Automated mission assignment
Integrate robots into a Guided
Assembly solution
AMR monitoring & analytics

FLEETWARE SIMULATION



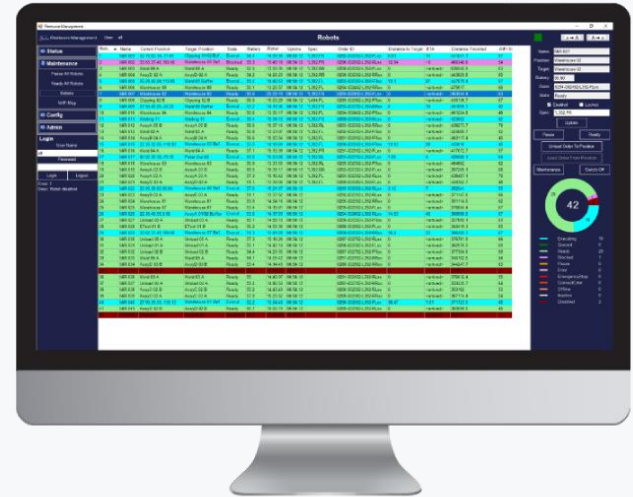
Test the environment prior to
installation of physical robots

SYSTEM ARCHITECTURE



MANAGEMENT APPLICATION

- The core management applications allow for configuration of the robots, missions and locations
- Real time status monitoring, diagnostics, logging and operational maintenance functions



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FLEETWARE EMA – ROBOT REPORTING

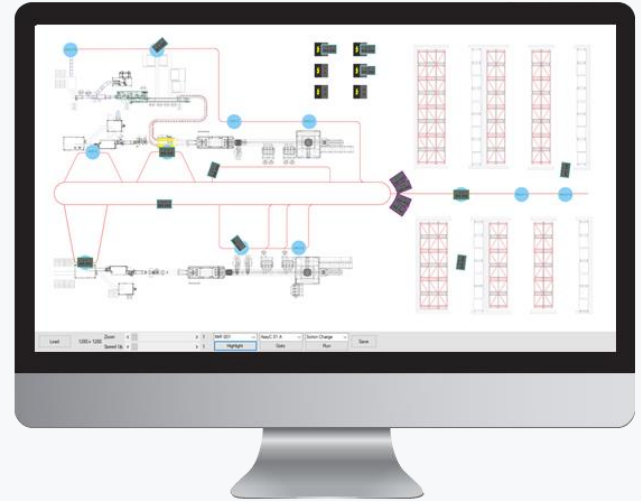
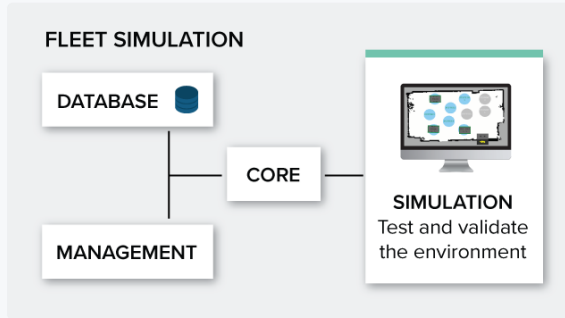
The EMA (Equipment Monitoring and Availability) interface tracks status events from the robot fleet:

- Track waiting and charge times
- Classification of stoppage times
- A total overview of fleet utilisation and performance with failure and cause statistics



FLEET SIMULATION



Using the Fleetware Simulation Tool, the environment can be tested and validated prior to installation of physical robots and changes to layout and capacity, saving time and resources.




LICENSING

	Fleetware Core	Fleetware Simulation
Application	Production license for real system	Demo, validation and logic
Number of robots	Up to 100 robots	Unlimited
EMA for Fleetware	Included	-

SPECIFICATIONS

	MiR Fleet 	Fleetware 
Centralised control of a fleet of robots	Up to 100 robots Initial mapping and robot configuration with manual assignment	Up to 100 robots Fully automated and dynamic mission assignment
Traffic control	Coordination of critical zones with multiple robot intersections – robot collision avoidance	
AMR fleet monitoring	Live map of AMRs	Real-time monitoring of facility status by robot, product or station/stopping point.
Mission assignment	A sequence of pre-set missions	Automated mission assignment Real time adaptation to changing demands (reassign/cancel mission)
Battery level control	Monitoring of robot battery levels and automatic handling of recharging	Battery levels included within robot assigning logic
Product tracking		Tracking through facility by specific product ID

SPECIFICATIONS cont.

	MiR Fleet	MiR	Fleetware	
MES/ERP integration			Processing of incoming orders for logical assignment of product to most appropriate robot	
Factory floor integration			Integration with guided assembly and test processes via Sextans	
Fleet simulation			The environment can be tested and validated prior to installation of physical robots	
OEE Reporting and Andon status	Live map of AMRs		Available via Orion EMA to give a detailed breakdown of utilisation and route effectiveness	
Application	Logistics		Just-in-Time sequenced manufacturing and Logistics	
Robot manufacturer	MiR robots		Robot manufacturer independent	