CyXense® Commander

Heterogeneous robotics fleet management system

Description ⌄

CyXense® Commander is a supervision system used to execute teleoperated, remotely controlled or autonomous inspections, maintenance or repair tasks on low-manned or unmanned installations.

The software is a T.EN Marseille's proprietary development designed to control and simultaneously operate a heterogeneous fleet of robotic devices (in-house or 3rd party) such as drones, ground crawlers and underwater drones. CyXense® Commander can be connected to any ICSS & CMMS to automate reporting plus data and alarm management.

Functions

- Robotics mission design & planning
- Mission simulation and ROI estimates
- Fleet supervision
- Autonomous navigation
- Dexterous manipulation supervision
- Long-distance operations
- Interface with ICSS & CMMS:
  Data management, alarm management, reporting, automated interactions

Typical deployments ⌄

- Oil & gas unmanned or low manned onshore & offshore assets
- Other energy assets such as nuclear plants, offshore wind farms and remote PV plants
- Harsh environments including areas of explosion risk, contamination, etc.
- Remote locations
- Construction yards

Value Proposition ⌄

General

CyXense® Commander allows the distant, live and simultaneous supervision operation of robots by a single operator. It helps generate production gains through the execution of multiple inspection & maintenance missions and operational benefits when coupled with digital capabilities.

Benefits prior to deployment

The simulation tool allows the estimation of gains potentially generated by robotics deployment on an asset.

Productivity & uptime

CyXense® Commander supervises the inspections and interventions of robots to improve equipment reliability and uptime.
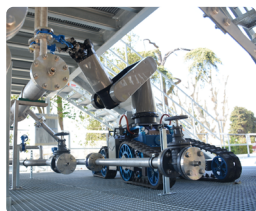
OPEX reduction

Significantly reduces manhours, unplanned visits and investigations during operations.

HSE & risk

Improve HSE by supervising operational activities and human risk exposure.

System Overview ⌄

Robotic control room
Powered by
cyXense
Commander

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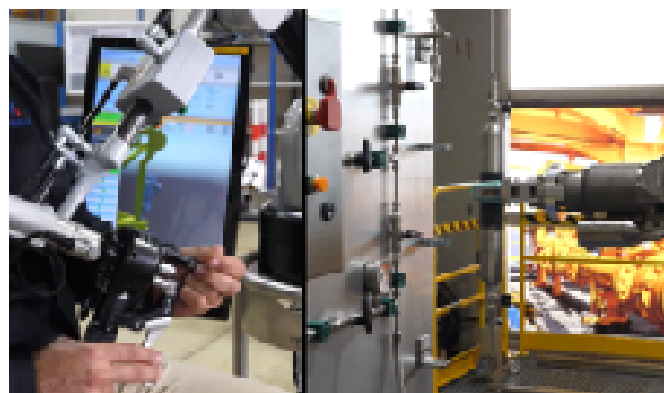| Heavy IMR UGV | Inspection UGV | Huil Cleaning & Inspection | Subsea Inspection AUV | Aerial Drones |

Robotics simulations ⌄

CyXense® Commander simulates robotics scenarios from existing 3D models. This function confirms equipment accessibility and assesses overall accessibility of the robot on the installation. CyXense® Commander also is integrated with a chronometer to measure and improve the efficiency of inspection and maintenance tasks.

Dexterous manipulations supervision ⌄

CyXense® Commander provides dedicated dexterous manipulation to control equipment like valves and electrical cabinet or perform liquid sampling and performance checks. Dexterous manipulation can be executed in autonomous or teleoperated mode.

> **A single software managing a fleet of robots to supervise, execute and coordinate a wide range of operation, inspection and maintenance activities."**

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