

A Supervisory Software for Monitoring and Surveillance solutions

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### Description

TECHNIP ENERGIES

Cyxense® Surveillor is a centralised data management solution for asset and equipment monitoring.

Cyxense® Surveillor supervises the full data management cycle from data acquisition, time stamping, storage and historization to analysis and display, alarms management and communication links..

The proprietary software supports all data formats (incl. video) acquired by instruments, sensors, robots or any other data acquisition mean.

Cyxense® Surveillor is a core system including principal supervisory functionalities. Applications for specific requirements can be added : Human Machine Interface (HMI) for example.

### **Functions**

- Monitoring & Supervision of equipment and systems
- Data management (storage, post-processing, postmortem engineering...)
- Data Treatment, Analysis & Reporting
- Alarm management
- Predictive maintenance (to come)
- Dashboarding & tailored HMI
- Communication with client supervision system

## **Value for Clients**

Cyxense® Surveillor manages data collection, treatment, historization, display and reporting of any type of data. It permits to generate dashboard and control board of multiple inspection & maintenance data.

#### **Real Time and Remote Asset Monitoring**

Cyxense® Surveillor provides real-time processed data related to asset performance and integrity. It also integrates real-time alarm management systems. In a network configuration Cyxense® Surveillor can monitor an asset from anywhere in the world.

#### Easy interfacing with Client supervision

Cyxense® Surveillor is using standard communication protocols and can be easily interfaced with Client supervision system. It can either be deployed as a standalone solution with a dedicated HMI, or operate as a « block box » and be fully integrated to the supervision system of the client to provide a more hollistic view of the asset.

#### Sensors interfacing capabilities

Cyxense Surveillor® is hardware agnostic and has been developed to be adapted to a various range of sensors.

#### Manage discontinuous flow of data

Cyxense® Surveillor uses time stamping of all data to manage discontinuous flow of data (typically for acoustic or wifi transmission) and enable post event analysis.

## **Typical deployment**

- Critical asset monitoring in harsh environments (O&G, Marine Renewables, Nuclear,...)
- Critical process equipment in harsh environments (robots, loading systems, or any other critical process equipment or system...)



# **Standard Architecture**



# **System Components**

### **Data Acquisition Unit (DAU)**

The DAU manages the data acquisition, time stamping, output control, local storage through the Acquisition Unit.

### **Data Collection Modules**

They interface DAUs management and data aggregation (real time or delayed).

### Data server and data base modules

They perform physical conversions, computed channels and manage alarms and historization.

### Workstation

Workstation displays monitoring dashboard, control panels, trend graphs, historian player, reporting and system set up.

# **Typical Use Case**

### **Continuous Offshore Monitoring**

500 variables acquired at 2Hz (0,5s) over 20 years

**31,5Tn** of data stored dynamically (1 year rolling)

**200** average values stored every 15min for 20 years (equipment time life)

140M of data stored over 20y



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