

# PLUTO LIVE REPORT

SIMPLE, FAST & INTELLIGENT



**MONITORING - DASHBOARDING - REPORTING  
FOR SMART BUILDING AND INDUSTRIAL AUTOMATION**

# DEFINITION

PLUTO LIVE REPORT (PLUTO) IS A **MONITORING, DASHBOARDING AND REPORTING** SOFTWARE PRODUCT FOR THE SMART BUILDING AND THE INDUSTRIAL AUTOMATION MARKETS. SIMPLE AND TOTALLY CONFIGURABLE, PLUTO ENABLES TO EASILY CREATE APPLICATIONS FOR:

- » **ENERGY EFFICIENCY**
- » **OEE & DOWNTIME ANALYSIS**
- » **PRODUCTION ANALYSIS**
- » **PROCESS OPTIMIZATION**
- » **MAINTENANCE ASSISTANCE**
- » **AND MANY MORE...**



# DATA INTELLIGENCE

## DATA COLLECTION

PLUTO CAN MANAGE MILLIONS OF DATA AND ALARMS FROM MANY DATA SOURCES. IT INTEGRATES MULTIPLE DATABASE CONNECTORS AND A ROBUST HISTORIAN CAPABLE TO LOG LIVE DATA, ALARMS BUT ALSO DATA ANALYSIS.

### LIST OF DATABASE CONNECTORS

- SQL SERVER
- MYSQL
- POSTGRE
- ORACLE
- OSISOFT PI
- SIEMENS DESIGO
- WONDERWARE
- PROFICY
- SIGFOX
- ...

### LIST OF REAL TIME DRIVERS

- OPC DA SERVERS
- OPC UA SERVERS
- CSV & TXT FILES
- SIEMENS OZW
- FIELDBUSES
- MODBUS
- BACNET
- ...



### LIST OF CERTIFIED OPC SERVERS

- CIMPLICITY - CITECT - EWON - IFIX - IGNITION - INDUSOFT - INTOUCH - KEPWARE - PANORAMA - PCVUE - WINCC  
(i) those opc servers have been tested and certified, for other opc servers please contact us.

# DATA TRANSFORMATION

## STATISTICS, INDICATORS...

PLUTO TRANSFORMS RAW DATA INTO VALUABLE INFORMATION, STATISTICS AND PERFORMANCE INDICATORS. STATISTICS ARE EXECUTED AUTOMATICALLY AND CAN COMBINE MULTIPLE DATA FROM DIFFERENT DATA SOURCES AND AT DIFFERENT TIME. EACH STATISTICS ARE THEN ARCHIVED INTO NEW DATA TABLES TO CREATE A NEW CLEAN AND ACCURATE DATABASE.



## CLEAR NAMING

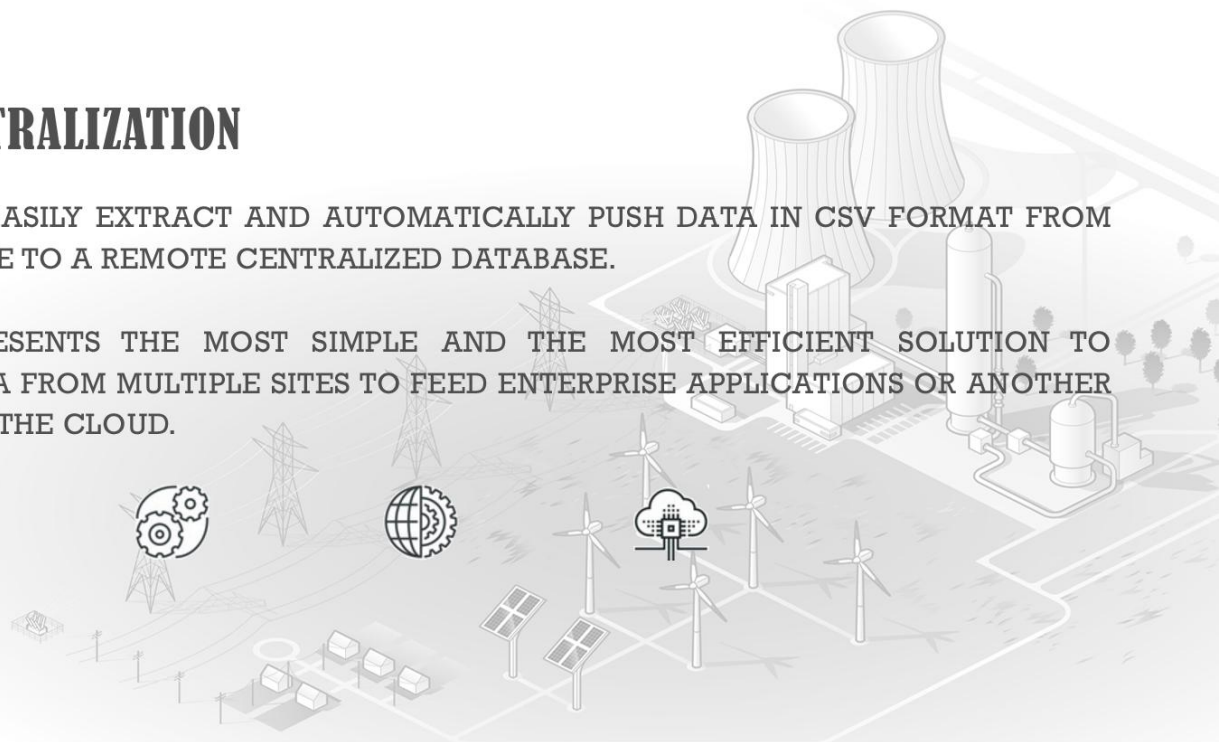
PLUTO ALSO SUGGESTS TO RENAME EACH DATA FROM ANY DATABASE, TO CREATE A SIMPLE TAG NAMING ORGANIZATION UNDERSTANDABLE AND USABLE BY ANYONE.



# DATA CENTRALIZATION

PLUTO CAN EASILY EXTRACT AND AUTOMATICALLY PUSH DATA IN CSV FORMAT FROM ANY DATA SOURCE TO A REMOTE CENTRALIZED DATABASE.

PLUTO REPRESENTS THE MOST SIMPLE AND THE MOST EFFICIENT SOLUTION TO AGGREGATE DATA FROM MULTIPLE SITES TO FEED ENTERPRISE APPLICATIONS OR ANOTHER PLUTO SERVER IN THE CLOUD.



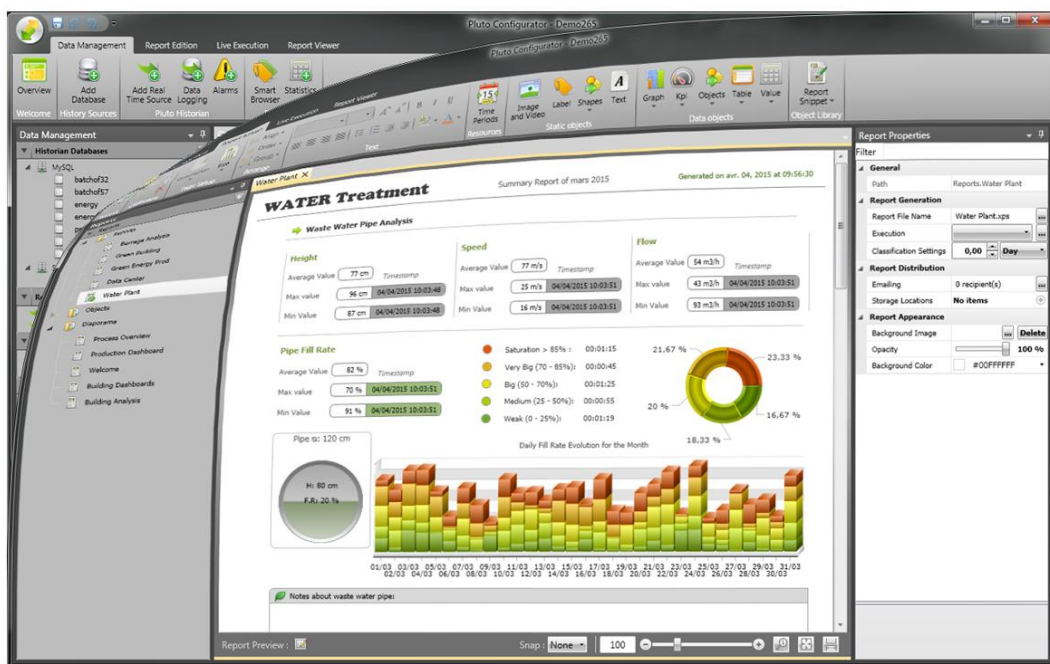
# APPLICATION DESIGN

## THE USER INTERFACE

PLUTO USER INTERFACE IS BASED ON MICROSOFT WPF TECHNOLOGY TO FACILITATE PROJECT CONFIGURATION. WPF STANDS FOR "WINDOWS PRESENTATION FOUNDATION" THE NEW RICH WINDOWS GRAPHICS ENGINE, ENABLING TO CREATE MODERN AND USER FRIENDLY APPLICATIONS.

## THE CONFIGURATION

PROJECTS DEVELOPMENT DOESN'T REQUIRE ANY IT OR PROGRAMMING SKILLS. THE APPLICATION IS MADE WITH AN IMPRESSIVE REPORTING OBJECT LIBRARY, GLOBAL RESSOURCES AND GRAPHICAL ELEMENTS. ANYONE WITH ONLY 2 DAYS TRAINING CAN CREATE AND IMPROVE ITS APPLICATION.



PLUTO ENABLES TO DEVELOP EASILY AND FAST ANY TYPE OF APPLICATION. TO DO THIS, PLUTO INTEGRATES INTUITIVE OBJECTS BUT ALSO IMPORT & EXPORT FUNCTIONS, REPORT TEMPLATES AND KEY STATISTICAL FUNCTIONS TO EXTRACT DATA.

### LIST OF STATISTICAL FUNCTIONS:

- » LAST VALUE
- » MIN VALUE
- » SUM
- » STANDARD DEVIATION
- » COUNT ON & OFF
- » DURATION ON & OFF
- » PREVIOUS VALUE
- » MAX VALUE
- » AVERAGE DEVIATION
- » STANDARD DEVIATION P
- » COUNT & COUNT BETWEEN
- » DURATION BETWEEN
- » FIRST VALUE
- » AVERAGE VALUE
- » INDEX DEVIATION
- » EFFICIENCY
- » ALARM OCCURENCE
- » ALARM DURATION

**LIST OF INSTRUCTIONS:**

**BASE MATH** [ -, +, \*, / ]    **LOGIC** [ AND, OR, >, >=, ==, !=, =<, <]    **CONDITION** [A,B]  
**ADVANCED MATH** [ ABS, ACOS, ASIN, COS, SIN, EXP, FLOOR, LOG, LOG<sup>10</sup>, SQRT, TAN, TANH, POW, ROUND... ]

**LIST OF AVAILABLE OBJECTS:**

- » VALUE
- » DATE
- » LABEL
- » DATA TABLE
- » STATISTICAL TABLE
- » ALARM TABLE
- » BAR GRAPH
- » PIE GRAPH
- » TIME CHART
- » XY CHART
- » LINEAR REGRESSION CHART
- » RADIAL GAUGE
- » HORIZONTAL GAUGE
- » TANKS & MIXERS
- » MOTORS & PUMPS
- » DEVICES
- » IMAGE
- » VIDEO

# OPERATING MODES

PLUTO OFFERS MULTIPLE WAYS TO MANAGE AND OPERATE YOUR DATA. BASED ON A CLIENT SERVER ARCHITECTURE, PLUTO SUPPORTS MULTIPLE CLIENT CONNECTIONS TO RUN ALL MODES TOGETHER.

**MONITORING MODE**

LIKE DIGITAL SIGNAGE APPLICATIONS, PLUTO CAN RUN DASHBOARDS ON MULTIPLE MONITORING SCREENS. DASHBOARDS ARE MADE WITH LIVE ANALYSIS, STATISTICS, MESSAGES AND COMPANY INFORMATION.



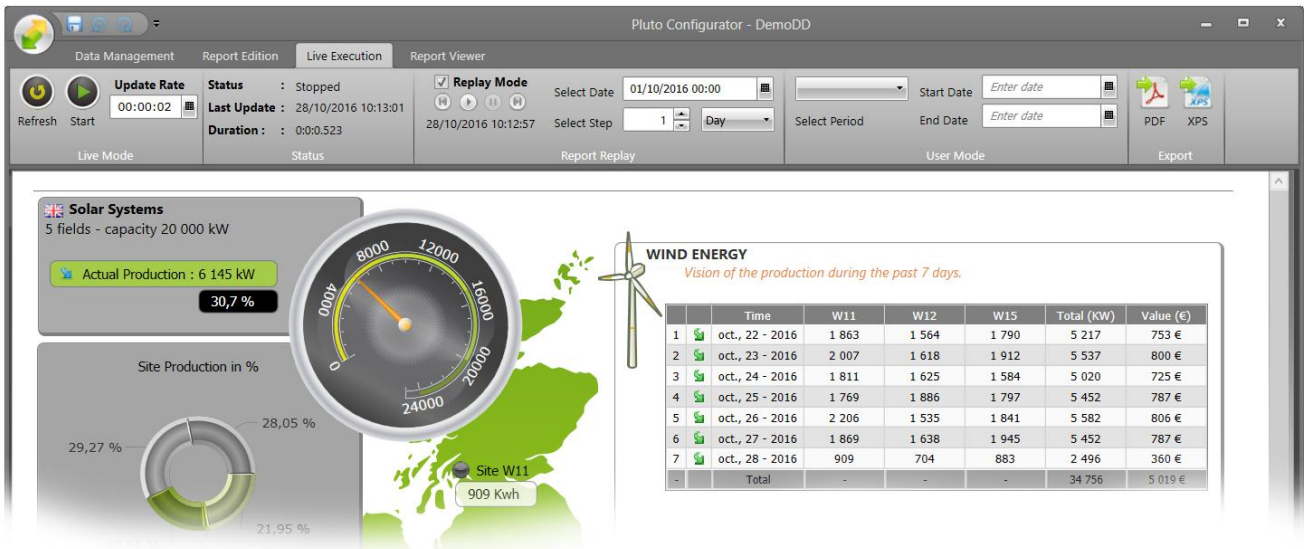
**REPORTING MODE**

PLUTO IS ALSO A REPORTING TOOL, CAPABLE TO GENERATE AND DISTRIBUTE REPORTS TO MULTIPLE RECIPIENTS BY EMAIL. REPORTS CAN BE SENT IN BOTH PDF AND XLS FORMAT.



## DIAGNOSTIC MODE

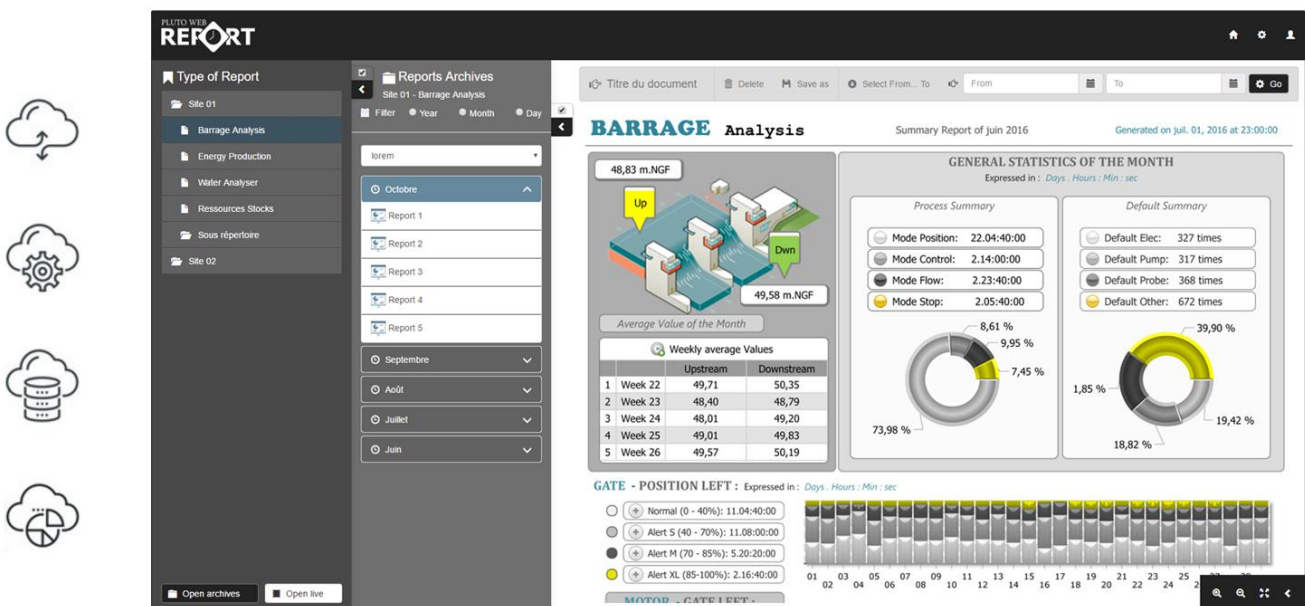
EACH AUTHORIZED USER CAN USE THE PLUTO CLIENT APPLICATION TO PLAY AND VISUALIZE LIVE REPORTS ANY TIME. THIS MODE IS THE MOST EFFICIENT APPLICATION TO DO TROUBLESHOOTING AND PROCESS OPTIMIZATION.



USERS CAN INTERACT AND UPDATE THEIR APPLICATION BY USING PLUTO CONTROL BUTTONS. THEY CAN PLAYBACK REPORTS FROM ANY DATE, OR ADJUST THE REPORT PERIOD MANUALLY TO REFRESH IT ON DEMAND.

## WEB MODE

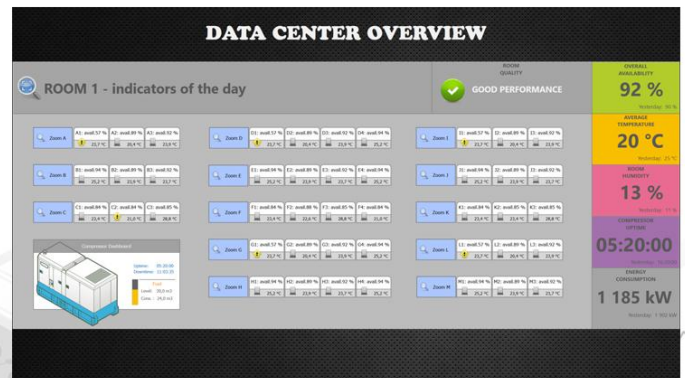
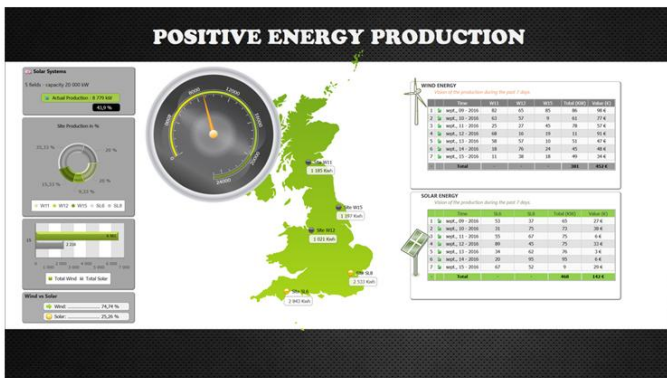
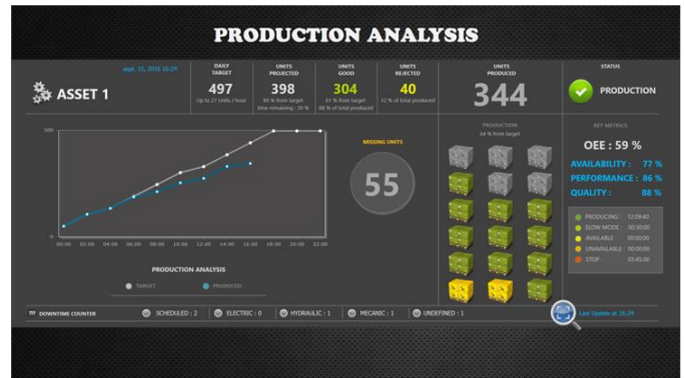
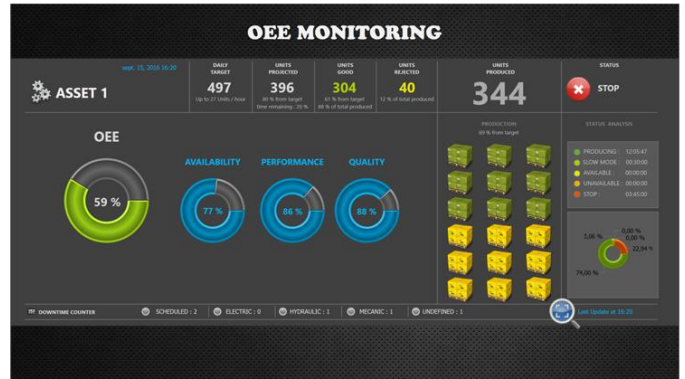
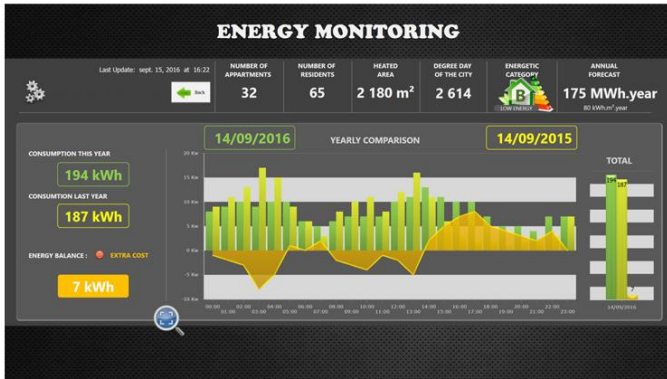
TO SHARE AND ACCESS REPORTS REMOTELY PLUTO INTEGRATES A WEB SERVER AND A USER FRIENDLY PLUTO WEB PORTAL. PASSWORD PROTECTED, RESPONSIVE AND TOTALLY CUSTOMAZIBLE, IT ENABLES COMPANIES TO CREATE THEIR OWN WEB INFORMATION APPLICATION IN FEW CLICKS



# PLUTO MARKETS

PLUTO LIVE REPORT IS USED WORLDWIDE BY SMALL AND LARGE COMPANIES LOOKING FOR A SIMPLE AND INTELLIGENT CONFIGURABLE SOFTWARE TO LEVERAGE PLANT DATA.

## MONITORING EXAMPLES



## REFERENCES

PLUTO CAN BE USED IN ALL VERTICAL MARKETS AND HAS REFERENCES IN BUILDING, ENERGY, FOOD & BEVERAGE, INDUSTRY, INFRASTRUCTURES, MACHINES, MANUFACTURING, MINING, OIL & GAS, PHARMACEUTICAL, WATER SUPPLY, WATER TREATMENT...

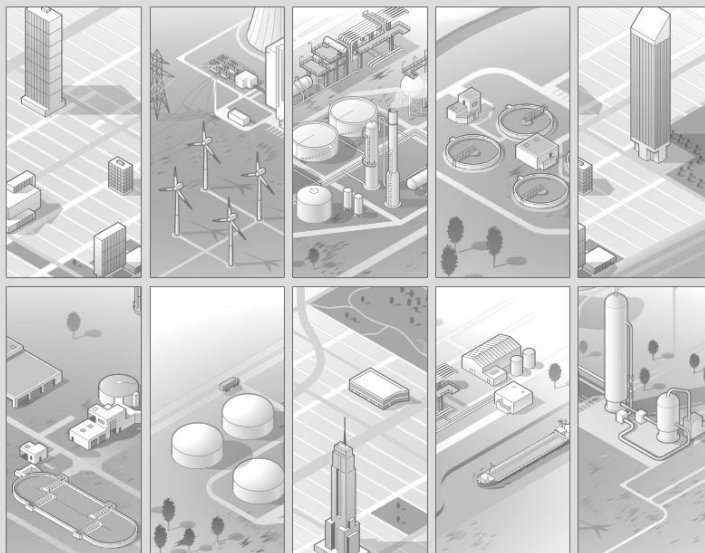
## CERTIFIED PARTNERS

PLUTO IS REPRESENTED WORLDWIDE BY CERTIFIED PARTNERS AND DISTRIBUTORS CAPABLE TO PROVIDE ADVANCED TRAINING, SUPPORT, AND TECHNICAL ASSISTANCE.



[www.exakom.com](http://www.exakom.com) - [contact@exakom.com](mailto:contact@exakom.com)

ENERGY EFFICIENCY - OEE AND DOWNTIME ANALYSIS - PERFORMANCE ANALYSIS  
PROCESS OPTIMIZATION - MAINTENANCE ASSISTANCE - REAL TIME MONITORING  
DASHBOARDING - VISUAL MANAGEMENT - LIVE AND PLAYBACK ANALYSIS  
AUTOMATIC REPORT GENERATION AND DISTRIBUTION - WEB REPORTING  
DATA AGGREGATION - DATA LOGGING - DATA VALORISATION - KPI GENERATION  
ENTERPRISE INFORMATION INTEGRATION AND MORE...



**AUTOMATION INTELLIGENCE**

