

# PLUTO LIVE REPORT

SIMPLE, FAST & INTELLIGENT



**DASHBOARDING & REPORTING  
FOR BUILDING AND INDUSTRIAL AUTOMATION**

# PLUTO LIVE REPORT

## INFORMATION MANAGEMENT SOFTWARE

PLUTO LIVE REPORT is a **DASHBOARDING** and **REPORTING** software product for the industrial automation market. It responds to people who need valuable information to monitor and optimize their process. PLUTO is the perfect tool for plant personal and managers who need to take decisions based on real analysis.



so many question, so little time

PLUTO is a powerful product aggregating and turning the overall plant data into valuable information. Very intuitive, it enables to create easily and fast a bunch of professional applications to monitor and manage your data.

- » **ENERGY EFFICIENCY**
- » **OEE & DOWNTIME ANALYSIS**
- » **PERFORMANCE ANALYSIS**
- » **PROCESS OPTIMIZATION**
- » **MAINTENANCE & QUALITY MANAGEMENT**
- » **ENTERPRISE INFORMATION INTEGRATION**



## SIMPLE & INTELLIGENT

PLUTO was developed with modern technologies to be very simple and totally configurable. The product user interface is very intuitive and does not require any IT or programming skills. Projects are configured according to simple steps with no more than a few clicks for each feature. Reports and dashboards are built with a rich graphic studio engine for amazing professional quality rendering.

PLUTO combines all the features to aggregate, archive, calculate, compare, analyze, manage and monitor data from multiple sources in many ways. This perfect integration enables to build simple or even very complex applications in minimum time.

# MAIN BENEFITS

**SIMPLICITY:** PLUTO's first benefit is to allow clients to be self dependent if they want to develop their data analysis projects by themselves. The product is so friendly and easy to learn that most of companies can envision starting leveraging their data in few hours. PLUTO represents also the perfect alternative to expensive IT reporting solutions or time consuming Excel Based developments.

**SCALABILITY:** PLUTO is a cost effective solution. Companies can start investing small and increase their project by just upgrading their license model. The overall product is available with limited tags for few hundred dollars and can be expanded to thousands tags for a minimum budget.

**MULTIPLE USES:** PLUTO suggests multiple ways to leverage data. Users can first generate and distribute automatically reports to multiple recipients by email. They can also access to any report over the web. They can visualize dashboards and dynamic reports in multiple monitors across their enterprise. Finally, they can extract data analysis by using the live and the replay mode to see for example process deviations, downtime, failures and many more.



## ABOUT DATA

PLUTO enables to leverage data from Meters, Sensors, PLCs, Scada systems, Historians, Databases and many other data sources. It behaves as a massive data aggregator, capable to connect, collect and log data from multiple data sources.

### DATA COLLECTION:

PLUTO integrates native databases drivers for SQL Server, MySQL, PostgreSQL and Oracle. Those drivers are fast and support two ways communication, in order to read but also log data with PLUTO Historian. PLUTO integrates also professional Historian drivers such as Proficy Historian from General Electric, PI from Osisoft, Desigo from Siemens...

### DATA LOGGING:

PLUTO integrates its own datalogger to archive data from more than 200 drivers such as Modbus, Profibus, Device Net, Bacnet, Knx...through OPC DA and OPC UA connections. Moreover, PLUTO can import data from text or csv files. It detects automatically any new text file to extract and push its data into any SQL database.



## DATA ORGANIZATION & VALORISATION

Probably the most important issue for information management projects is to prepare data for the long term. To resolve this issue PLUTO integrates an unique application called the SMART BROWSER to easily organize the overall plant data, and a STATISTICAL module enabling to turn raw data into valuable information and KPI.

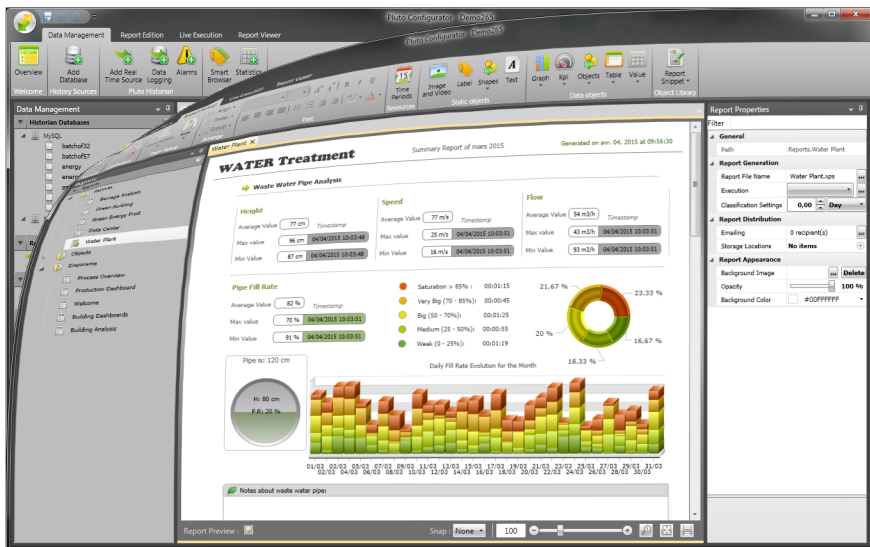
**PLUTO SMART BROWSER** is an application capable to transform complex tag naming structures into a friendly organization with clear tag names. This new organization makes reports configuration very simple and doable by anyone.

**PLUTO STATISTICAL** module combines Math expression, Data Queries and a Scheduler engine capable to calculate thousands of statistics per second. Pluto statistics can be calculated from data coming from multiple databases simultaneously. Each Statistic can be logged in a specific table to feed your PLUTO project or third party applications with clean and accurate indicators like OEE, Downtime, MTTR...

ex:  $\text{Math.Sin} ( A ) / \text{Math.Pow} ( B , 3 )$   
 $A * B * \text{Math.Cos} ( \text{Phi} )$   
 $(( C * 9 ) / 5 ) + 32$

*A , B , C and Phi are 3 different queries*

## THE REPORT DESIGNER



PLUTO REPORT EDITOR is based on Microsoft WPF technology. WPF stands for "Windows Presentation Foundation" the new rich graphics engine for Windows operating systems. The benefit for users is to get perfectly designed reports and very simple configuration interfaces to define time periods and report objects. PLUTO supports video, animated Gif, Jpeg, Png and Bmp images and integrates a large population of vector objects to design professional reports.

PLUTO can also group and save multiple objects together into a custom Object Library. Libraries can be easily imported to other PLUTO projects.



## FAST CONFIGURATION

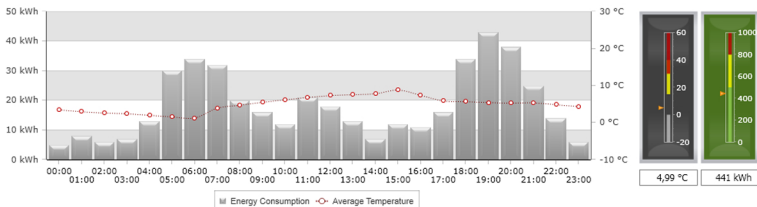
Reports and objects are configured through an intuitive property grid position on the side. Users can define and visualize the object looking at the same time. The other benefit is to speed up development by selecting and configuring multiple objects together.

**REPORT CONFIGURATION:** The report property grid enables to define the report execution rules and the list of recipients who will receive the reports automatically by email just after execution.

**OBJECT CONFIGURATION:** The object property grid enables to define the object appearance and to select the tag, the statistical function and the time period.

PLUTO suggests a list of **STATISTICAL FUNCTIONS** available in every object by direct selection.

- |                      |                         |
|----------------------|-------------------------|
| » Last Value         | » First Value           |
| » Min Value          | » Max Value             |
| » Average Value      | » Sum                   |
| » Average Deviation  | » Index Deviation       |
| » Standard Deviation | » Standard Deviation P  |
| » Count ON & OFF     | » Count & Count Between |
| » Duration ON & OFF  | » Duration Between      |
| » Alarm Count        | » Alarm Duration        |



**TIME PERIODS:** Time definition have always been complex to configure in reports, that's why PLUTO integrates a specific object capable to define any kind of the time period in few seconds.

Very intuitive, this object enables to create:

- » Fixed Periods
- » Dynamic Periods
- » Relative Periods
- » Batch Periods

Periods are define once and are available by direct selection on every object and for every statistics.

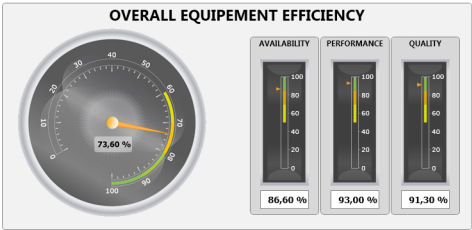
## OFF LINE CONFIGURATION:

PLUTO integrates report templates, import/export functions but also a specific copy paste feature enabling to work and deploy projects super fast. Basically all reports defined can be saved as resources to be used anywhere. Reports are automatically created with their list of tags in the Smart Browser. Users just have to connect those tags with the appropriate database and the report is fully operational.

# PLUTO REPORTING OBJECTS

PLUTO Reporting Objects includes Text values, Labels, Tables, Pies, Bars, Charts, Gauges and multiple Graphical objects such as Motors, Tanks, Shapes, Maps and many more. Vectorial based, users can design state of art reports supporting zooming for both live and PDF reports.

Tables, Bars, Pies and Charts can be defined with multiple tags and multiple periods. These powerfull combinations enable to compare anything and extract clear analysis. Moreover users can also define expressions to calculate values from advanced math equations.



In conclusion, PLUTO Reporting Objects enables to easily define and highlight for example process deviations, gap consumptions, efficiency indicators, sites performances and more.

ex:  $OEE = Availability * Performance * Quality$

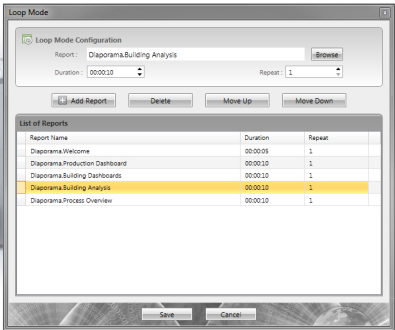
# LIVE DASHBOARD AND REPORTING

PLUTO Live Report is an unique out of box software enabling to manage comprehensive reports in multiple ways.

## MONITORING MODE

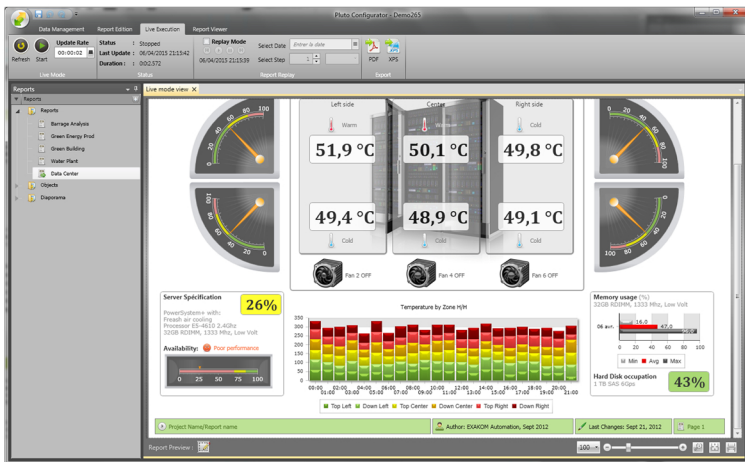
PLUTO MONITORING was inspired by the digital signage applications enabling to play live reports with dashboards in loop mode. Reports can display data analysis but also contextual messages such as good practices or company information.

PLUTO MONITORING can run in both automatic and manual mode. In automatic mode reports are updated continuously. In manual mode users can select and update any report on demand.



## LIVE & REPLAY MODE

PLUTO enables to do live analysis by using the Live mode. Multiple users can access to the server with a PLUTO Client application and update any report anytime. The replay mode enables to select a past date to know the values at that time. A step by step function allows to playback reports continuous-ly to easily visualize process deviations and see when a problem occurs.

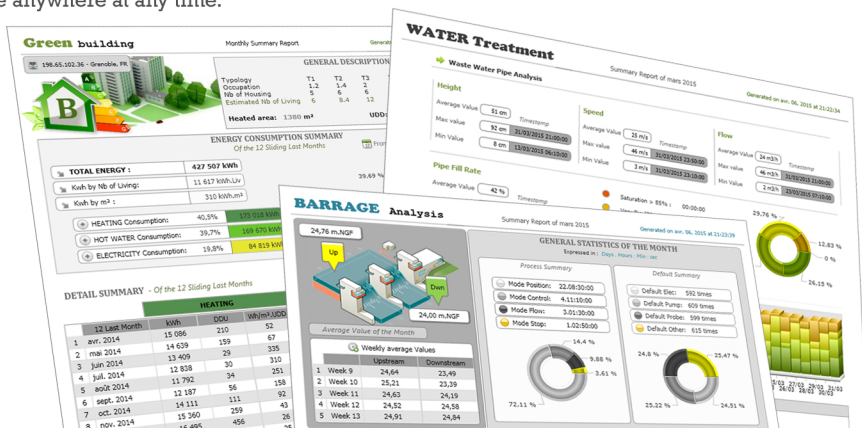


## AUTOMATIC REPORT GENERATION AND DISTRIBUTION

PLUTO SERVER executes automatically XPS, PDF or XLS reports on event, on schedule and on user demand. Once generated, reports can be automatically distributed to multiple outputs, such as emails and files repositories.

## REPORT SHARING

PLUTO WEB REPORT and PLUTO REPORT VIEWER are password protected applications enabling to rapidly search, visualize and compare reports. Information is no longer hidden but accessible to everyone anywhere at any time.



## REPORTS FOR EXCEL

PLUTO4Office is an add in for EXCEL, enabling to create xls report templates. Users can browse all report objects defined in the PLUTO project and drop it in any Excel Sheet. PDF and EXCEL reports will be generated together automatically.

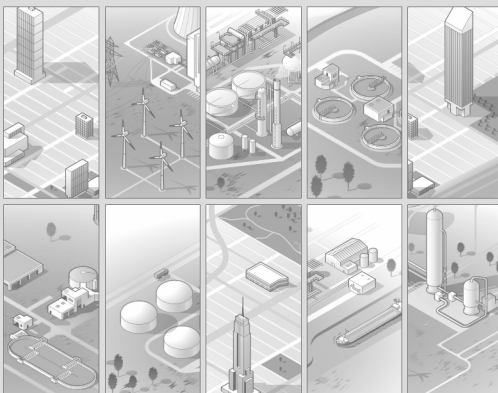
## CONCLUSION

PLUTO LIVE REPORT is the unique software product on the market enabling to easily manage data from devices and industrial automation applications. It is the most efficient solution to design and create AUTOMATION INTELLIGENCE applications.



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PROCESS OPTIMIZATION - MAINTENANCE ASSISTANCE - REAL TIME MONITORING  
DASHBOARDING - VISUAL MANAGEMENT - LIVE AND PLAYBACK ANALYSIS  
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AUTOMATION INTELLIGENCE

