

13 Reasons why you will love MAPS

Mitsubishi Electric Adroit Process Suite



Life cycle management

As Life Cycle Management starts the day you decide to engineer a new part of your manufacturing process, it is paramount to maintain a solution with increasing returns. Designed to offer a fully integrated management solution, MAPS can significantly reduce lifecycle engineering effort and costs, offering savings of up to 50%.

MAPS adds value throughout all the phases of the automation system project, from process design to engineering, development of the control systems, installation, commissioning, start-up and acceptance testing, all the way through to operations, maintenance, repairs and ongoing upgrades. Unlike traditional SCADA programmes, MAPS delivers a tightly integrated SCADA and PLC solution built around pre-configured and tested engineering libraries, with a built-in full suite of diagnostics and maintenance tools and integrated document management capabilities.



1. Architecture and redundancy technology

Features:

The software is a 64-bit client-server. An object-oriented I/O server (Agent Server)

that is scalable to cope with the smallest or the largest systems. The client side is a .NET based Smart User Interface whose communications is designed to work optimally on a LAN/WAN or Internet. Mitsubishi Electric offers simple to setup redundancy using the Active Clustering technology.

Benefits:

The architecture and product is future proof. Your plant will run 24 / 7 / 365



2. Drivers to PLCs and RTUs

Features:

The product has more than 120 built-in drivers to most popular PLCs, including but not limited to: Mitsubishi Electric, Siemens, Allen-Bradley, Modbus, Omron, etc. Where a driver does not exist, it is possible to use the built-in OPC capability.

Benefits:

Rarely is there a complete standardization of controllers on the shop-floor. MAPS can exist within a plant that uses various manufacturers' offering seamless integration.



3. Security

Features:

The product is built on Microsoft Security, respecting Users and Groups locally or on Domain Controllers.

Benefits:

Projects can be secured down to the smallest data element or client side control.



4. Logging and Alarming

Features:

MAPS has its own built-in Historian capable of storing your production data. You can configure multiple log sets to any combination of data stores, local native log files or SQL server.

Benefits:

Users have complete flexibility on how they want to log their data without having to purchase an expensive historian. In addition, this capability is free of charge and does not consume scan point licensing.



5. Object-based Architecture

Features:

The MAPS I/O server is fully object orientated. The MAPS tags are in fact intelligent tags. Each object within the server is built to serve a specific requirement and has built-in intelligence. By way of example, the MAPS Analog Agent contains internal properties such as the ability to scale the raw value, 5 levels of alarms, etc., all of which are tags and can be scanned, logged or alarmed. The extension of this is that apart from the basic agent types, digital, analogue, string, etc., there are a host of MIS/MES agent types that can leverage the basic types for greatly added value. Examples of these are DBAccess, Overall Equipment Effectiveness (OEE), Maximum Demand/Energy Management, Counter agents, etc. It is possible for users to build their own object structures for repeatable engineering.

Benefits:

It is possible within the standard MAPS SCADA to build an integrated performance driven shop-floor solution, including production, energy efficiency, asset performance solutions, etc., without having to purchase large enterprise MES solutions.



6. Built-in Auditing Capability

Features:

MAPS is delivered with a built-in auditing capability. Keep track of engineering and setpoint changes, when your system started/stopped, tags added and changed, etc.

Benefits:

Auditing report is free in the Report Suite.



7. Modern Graphical User Interface

Features:

Built on the native WinForms architecture, MAPS delivers the capability of using vector based graphics mixed with standard Windows controls. This is very suited to building and delivering integrated production solutions where it is necessary to mix real-time data from the control system with transactional data that makes up a large portion of a modern manufacturing solution. Any standard Windows control can be housed and driven from the data available in MAPS.

Benefits:

MAPS is designed to give operators and managers greater visibility by displaying production schedules, quality and other data useful to drive higher productivity on the shop-floor, where this data resides in ERP or other databases. If users have the ability to build user controls, these can also be used to achieve a customized view or manipulation of data.



8. Built-in Wizards and Templates

Features:

MAPS is shipped with over 300 shapes and wizards. The wizards are intelligent in that should you change the original design the engineer can update in real-time any graphic forms where that wizard is used within the project. Users can build their own wizards in the same design environment.

Benefits:

MAPS offers higher engineering productivity through the use of common objects.



9. Built in Bulk Engineering Tools

Features:

Generate your tag configuration using the power of Excel, including scanning, logging and alarming.

Benefits:

Reduced engineering time, higher quality project



10. Built-in SNMP

Features:

MAPS is shipped with SNMP (Simple Network Management Protocol) communications capability.

Benefits:

MAPS can also monitor the performance of your industrial network, provided the

infrastructure supports SNMP.



11. Integration into Alarm Management and Report Suite

Features:

MAPS offers a high level of integration to the Alarm Management Suite.

Benefits:

Drive world-class manufacturing by having a world-class alarming strategy, understand where your problems are by using the intuitive web-based reports based on ISA 18.02 and the EEMUA guidelines.



12. Integration into the Mitsubishi Electric SCADA Intelligence Platform

Features:

MAPS offers a high level of integration to the Mitsubishi Electric SCADA Intelligence BI and reporting suite.

Benefits:

Drive world-class manufacturing by having visibility and reporting with the ability to use standard analysis tools like Excel.



13. Openness

Features:

MAPS is a completely open architecture and can share information with external applications with very little effort. Some of the interfaces are:

- OLE for Process Control (OPC) – MAPS is an OPC Client so can communicate with 3rd party OPC servers. The MAPS I/O server is also an OPC server, so MAPS can share any tag data with 3rd party applications.
- OLE Automation Interface – built into the I/O server, this means that tag data can be shared with 3rd party applications very easily
- Active X Control – supports the OLE Automation within a control that can be embedded for even tighter integration.
- Active X Scripting Object in the server supports Server Side Scripting using either VB Script or JavaScript. Examples are available to publish data to Excel or even web page.
- The Client side forms based architecture offers users VB.Net or C# as their forms based scripting. This is also integrated into Microsoft Visual Studio offering integrated debugging capability.
- The integrated OLE.DB connectivity using the DBAccess Agent allows solutions to integrate reliably with database applications. Writing and reading data by simply configuring the Agent without having to develop complex scripting. Recipe management and execution along with production reporting is easy with MAPS.

Benefits:

The sharing of data is important in the modern enterprise, with MAPS this is made even easier with the native connectivity using open standards.

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About Mitsubishi Electric

With over 90 years of experience in providing reliable, high-quality products to both corporate clients and general consumers all over the world, Mitsubishi Electric Corporation is a recognised world leader in the manufacture, marketing and sales of electrical and electronic equipment used in information processing and communications, space development and satellite communications, consumer electronics, industrial technology, as well as in products for the energy sector, water and waste water, transportation and building equipment.

With around 135,000 employees the company recorded consolidated group sales of 38.8 billion US Dollars* in the fiscal year ended March 31, 2016.

Our sales offices, research & development centres and manufacturing plants are located in over 30 countries.

Mitsubishi Electric Europe, Industrial Automation – Irish Branch is located in Dublin, Ireland. It is a part of the European Factory Automation Business Group based in Ratingen, Germany which in turn is part of Mitsubishi Electric Europe B.V., a wholly owned subsidiary of Mitsubishi Electric Corporation, Japan.

The role of Industrial Automation – Irish Branch is to manage sales, service and support across its network of local distributors throughout Ireland

**Exchange rate 113 Yen = 1 US Dollars, last updated 31.3.2016 (Source: Tokyo Foreign Exchange Market)*

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