



Adroit
Technologies



Company Profile



Adroit
Technologies



**MITSUBISHI
ELECTRIC**

FACTORY AUTOMATION
Authorised Distributor

Contents

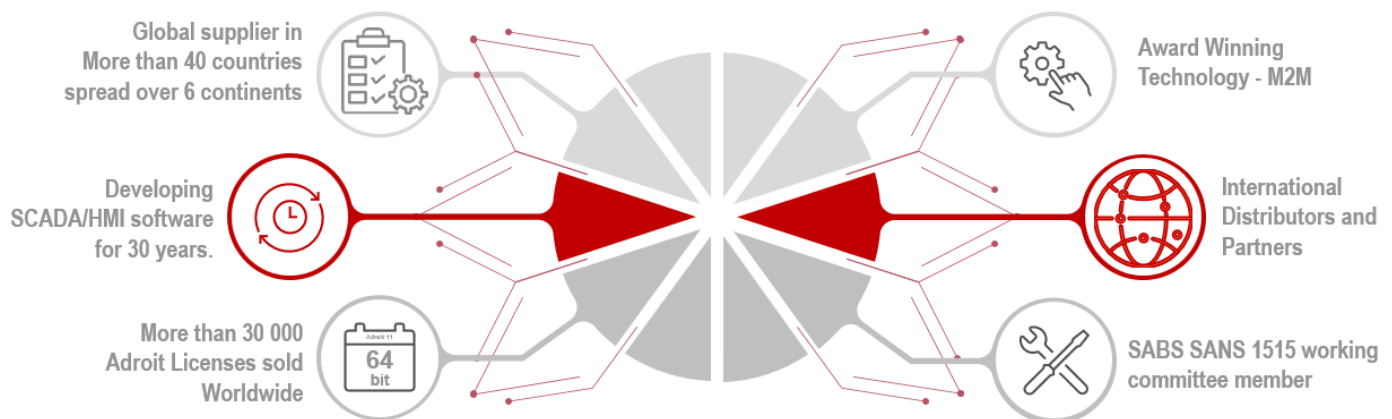
Company Profile	3
Introduction	3
Adroit Technologies	3
Mitsubishi Electric	3
Adroit Technologies' Core Values.....	4
Adroit Technologies' Vision Statement	4
Industries Served.....	5
Product Overview	5
Adroit Product Suite	6
Supervisory Control and Data Acquisition (SCADA).....	6
Report Suite	6
Alarm Management and Analysis (AMA)	6
Adroit SCADA Intelligence (ASI).....	6
Adroit Mobility	7
Adroit Edge Gateway	7
Software as a Service (SaaS).....	8
Adroit Vertical Products	8
Overall Equipment Effectiveness (OEE)	8
Environmental Management Systems (EMS)	9
MAPS (Mitsubishi Adroit Process Suite)	10
MAPS (Mitsubishi Adroit Process Suite).....	10
Mitsubishi Electric – Factory Automation	11
CNC (Computer Numerical Control).....	11
Condition Monitoring.....	11
HMIs.....	11
PLCs - Compact	11
PLCs - Modular	11
Power Meters	11
Robots/Cobots.....	11
RTUs.....	11
Servo Systems.....	11
VSDs (Variable Speed Drives)	11
Adroit Technologies Technical Services.....	12
Technical Support	12
Services	12
Capabilities & Experience of the Service Team.....	12
Training	13
Adroit Training	13
Mitsubishi Electric Factory Automation Training	13
Customers	14

Company Profile

Introduction

Adroit Technologies is a software development company that has been developing award winning real-time software for the industrial automation and critical infrastructure markets for over 30 years. It has the global Factory Automation giant Mitsubishi Electric as a shareholder who resell the Adroit Software branded as Mitsubishi Adroit Process Suite (MAPS) in the European markets.

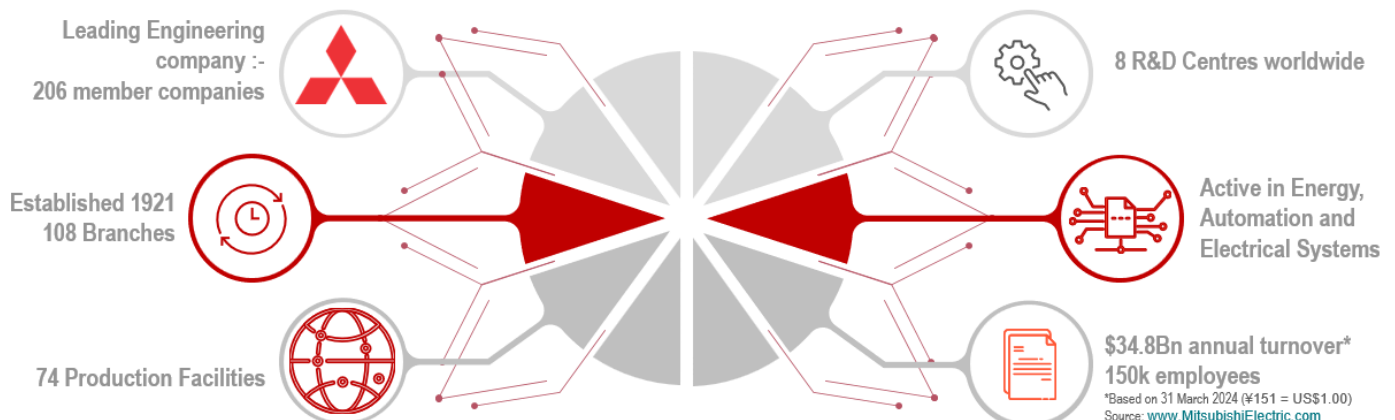
Adroit Technologies



Adroit Technologies concerns itself mainly with research and development, production, marketing, sales, training and support of its industrial automation and related software products and the Mitsubishi Electric Factory Automation range of hardware products.

Since the share acquisition by Mitsubishi Electric BV, they have successfully been promoting the Mitsubishi Adroit Process Suite (MAPS), as well as Adroit's SCADA/HMI, Alarm Management and SCADA Intelligence software throughout Europe. Mitsubishi Electric Automation products are known world-wide for quality and they guarantee customer satisfaction.

Mitsubishi Electric



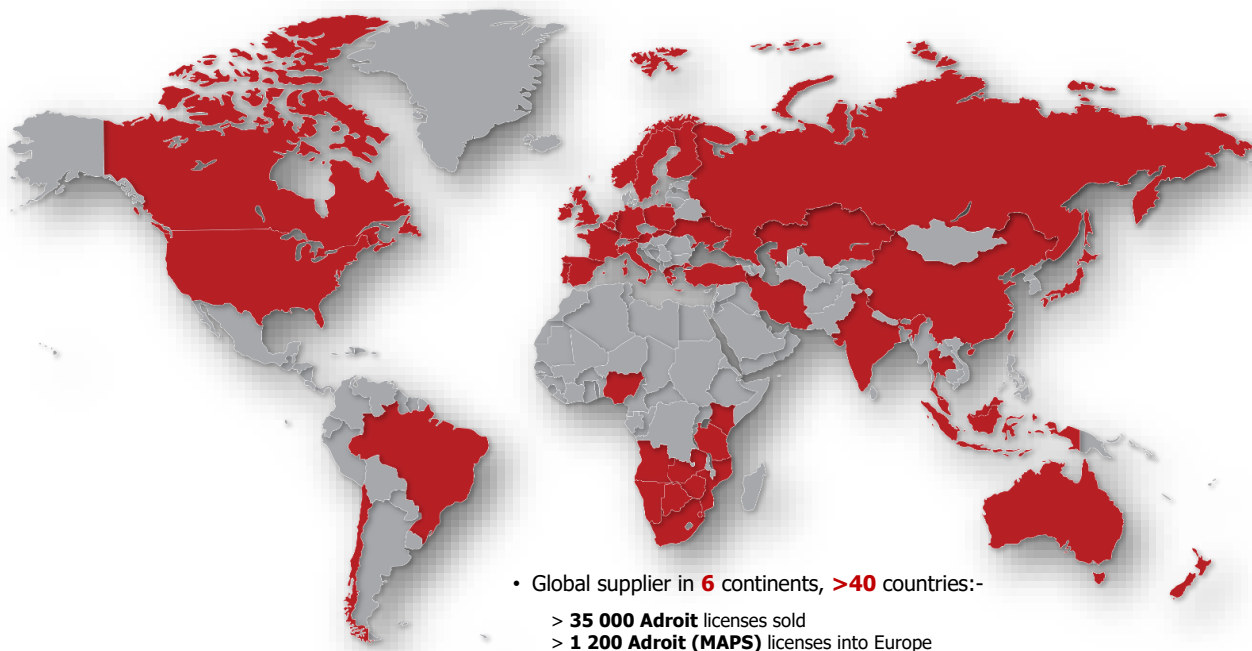
Adroit Technologies has been an Authorised Distributor of the Mitsubishi Electric Factory Automation range of products for the Sub-Saharan Africa region since 2012. In July 2021, Adroit Technologies were appointed the official channel for CNC business for Mitsubishi Electric in Southern Africa.

Adroit Technologies is a global supplier in 6 continents and in more than 40 countries with over 35 000 licenses of the Adroit SCADA/HMI and related software products have been sold globally.

In addition, Adroit Technologies offers professional services to its customers in the form of consulting, project management, project execution, support and training in areas of industrial control systems, as well as manufacturing execution systems, management information systems and more recently have built up a deep knowledge of the IIoT space and Industry 4.0 trends and technologies.

More recently Adroit Technologies has formed a Digital Services division to assist customers in their Digital Transformation strategy as well as implementing Cloud based projects including reporting, dashboarding and Artificial Intelligence solutions.

Adroit Technologies distributes its products through a channel of international distributors and partners.



Adroit Technologies' Core Values

- Creativity
- Excellence in Customer Service
- Integrity
- Social Responsibility
- Value

Adroit Technologies' Vision Statement

"Enabling our customers to achieve their most challenging goals through a partnership that is driven by innovation and guided by integrity"

Adroit Technologies strives to deliver world-class "**Solutions Focused Software Products**" and "**Best In-class Support and Services**" to its customers. In doing so the companies customers are empowered to build comprehensive automation and industrial solutions, designed to drive better value. Be that Quality, Productivity, Safety and always focused on the bottom line. As the technologies develop to allow even tighter levels of integration between the products and external applications, customers will enjoy greater productivity and profitability – secure in the choice of automation partner.

Industries Served

Adroit Technologies' products can be found in almost every market requiring process data acquisition and visualisation.

Over 35 000 licenses in the world, running mission critical applications in the most remote and harshest environments.

Our business portfolio includes:

Agriculture
Automotive
Cement
Energy Management
Facilities Management
Food and Beverage
Iron and Steel

Life Sciences
Manufacturing
Metals
Mining
Nuclear
Oil and Gas
Petrochemical

Pharmaceutical & Medical
Power Utilities
Pulp and Paper
Smart Cities
Telecommunications
Warehousing
Water and Wastewater

Industrial Internet of Things

Smart Industry
Smart Water Utilities

Product Overview

Adroit Technologies is focused on providing innovative software solutions and development tools for a variety of customer segments including international distributors, systems integration partners, OEMs and end-users that require process visualisation and reporting.

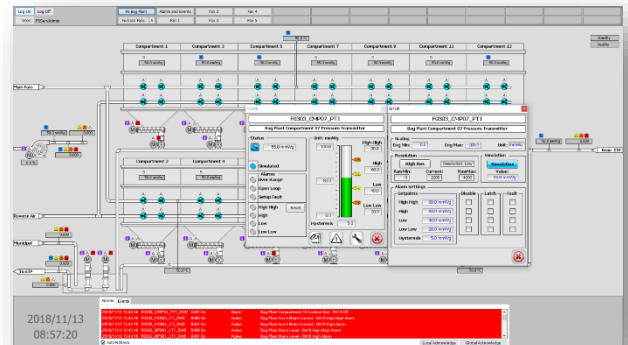
The products are steeped in the Microsoft technologies, and as a Gold Microsoft Certified Partner we have been enjoying a very close working relationship with Microsoft both locally and internationally, for over 20 years.

Established in 120 countries, Mitsubishi Electric prides itself in delivering the highest quality automation products that drive production and processes around the world. With the Factory Automation range of Mitsubishi products in our basket, we can now offer our customers unique turnkey solutions.



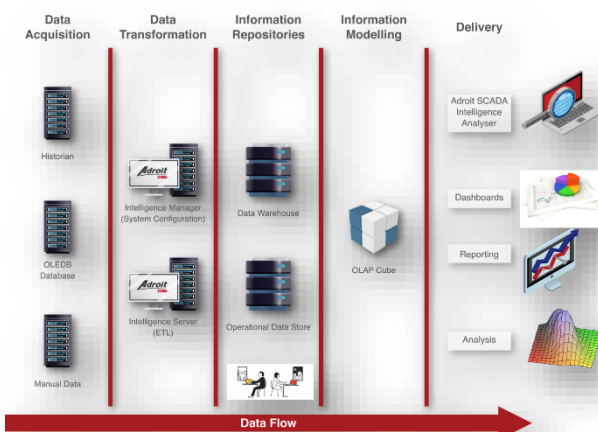
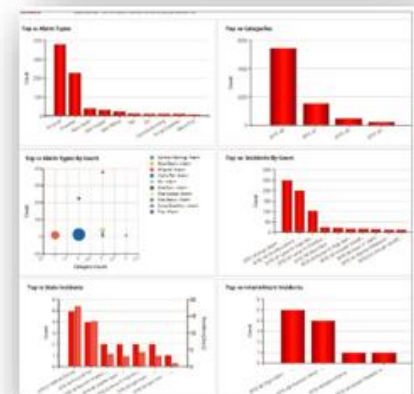
Adroit Product Suite

Supervisory Control and Data Acquisition (SCADA) software for the monitoring and control of any real-time data. The Adroit product is Internet aware and as such is an ideal IIoT applications platform, for both data acquisition and application layer building as a gateway to large data platforms.



Report Suite is a value-add information system based on specific Adroit Agent data logged to an OLE DB database. Information is presented in the form of web based reporting through the Microsoft SQL Server Reporting Services platform.

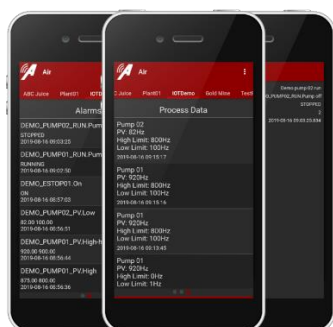
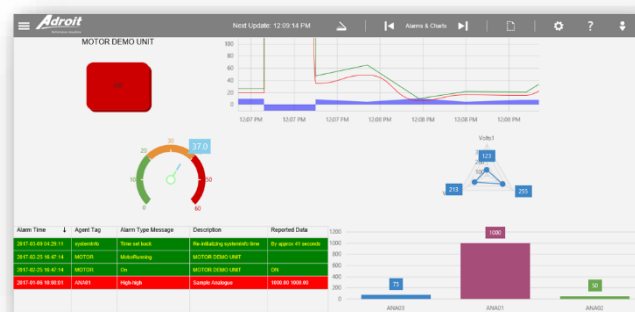
Alarm Management and Analysis (AMA) assists customers with the identification of problem alarms in the control system and focusses on gaining performance whilst increasing safety.



Adroit SCADA Intelligence (ASI) uses the latest in business intelligence technology to allow customers to analyse and understand data within a defined and structured context.

Adroit Mobility allows operation across any operating system or platform as well as any mobile system.

With **Performance Anywhere** you can access process data via computer, tablet, laptop or smartphone. Dashboard displaying Alarms, Events and Performance of your sites wherever you are any time

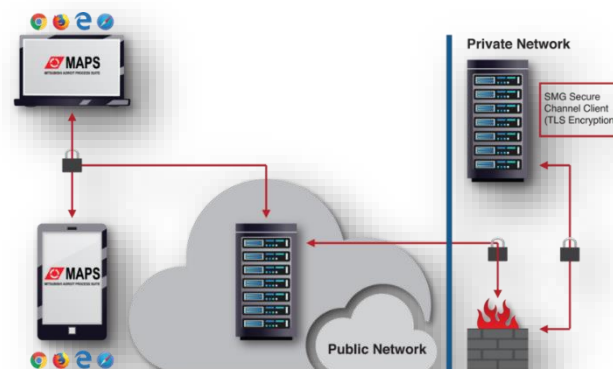


The **Adroit Air 2.0** phone App is an alarm notification and text message platform that enables users to receive alarms and process data directly on their smart device from your Adroit SCADA platform.

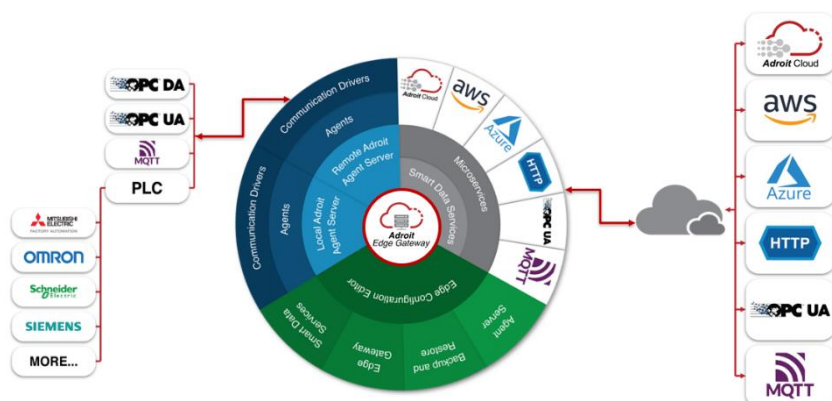
One free connection is standard with every Adroit Licence.

Our **Secure Mobile Gateway** is a cloud based service that allows the Adroit Operator to be securely accessed and run on any device with HTML 5.0 compliant web browser, including Apple, Android, Linux, Windows. No initial download requirement.

All communication is encrypted. All the functionality of Adroit Operator.



Adroit Edge Gateway uses the tried and tested Adroit SCADA engine to acquire data on the shop-floor or real-time process using our drivers to talk to all well know programmable controllers.



The product allows customers to use the Agent architecture of the Agent Server (I/O Server) to pre-process field data "on-the-edge" prior to publishing the data to a number of Cloud Service Providers. These include but are not limited to Adroit Cloud, AWS, Azure, Generic HTTP, OPC UA and MQTT all protocols and Cloud endpoints commonly used in Cloud Solutions.



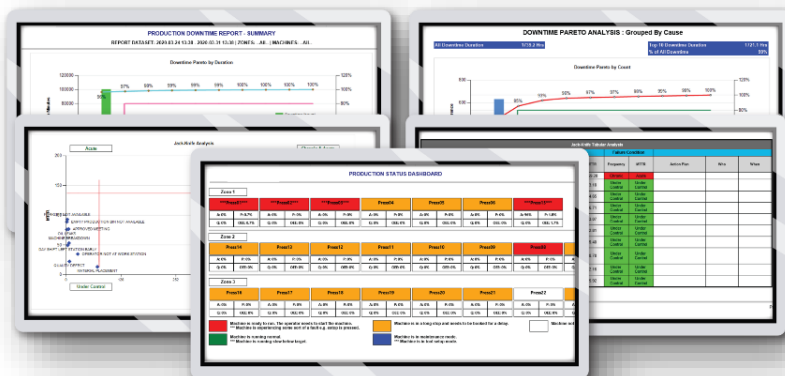
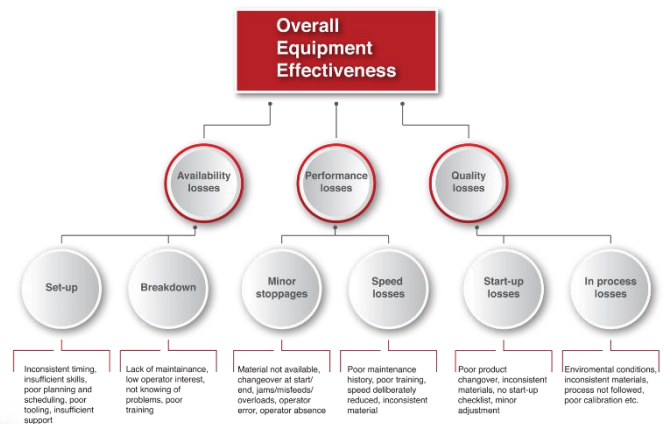
Software as a Service (SaaS) uses the web to deliver applications that are managed by a third-party vendor and whose interface is accessed on the clients' side. Most SaaS applications can be run directly from a web browser without any downloads or installations required, although some require plugins. Managed by either Adroit Technologies or by the client's own IT Dept. Can be hosted on premise or by Adroit Technologies. Rental Agreements are also available

Adroit Vertical Products

Overall Equipment Effectiveness (OEE)

OEE (Overall Equipment Effectiveness) is a method used to measure manufacturing productivity or how effectively a manufacturing operation is utilized. Calculating OEE helps to reduce equipment and process related losses/waste

The Adroit OEE offering comes in two flavours. The first is a basic OEE and machine performance monitoring



and the second is an Enterprise OEE offering that can be fully integrated into an ERP system and has built in management reports and manufacturing performance analysis, including downtime management.

The OEE is solution specific product. Please contact your Adroit Sales representative to clarify

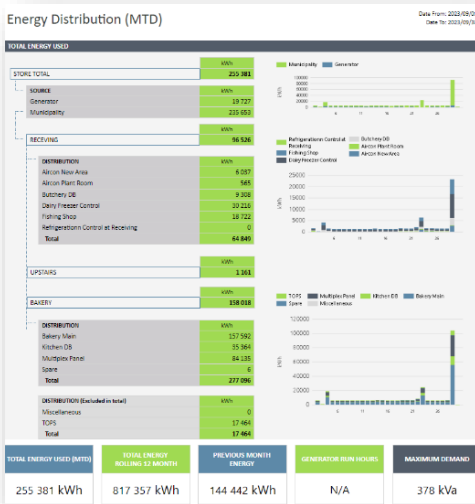
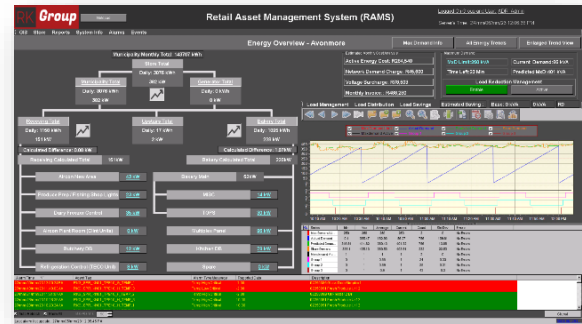
Energy Management

The Adroit Energy Management vertical solution is designed for customers to build an Energy Management and Control solution on the Adroit SCADA/HMI software.

Several objects have been designed to tie into the Maximum Demand Agent that performs the data acquisition and calculations surrounding energy usage.

These include but are not limited to Max Demand prediction, realtime and predicted energy usage.

The Agent facilitates a easy energy control system to manage both energy and maximum demand costs.



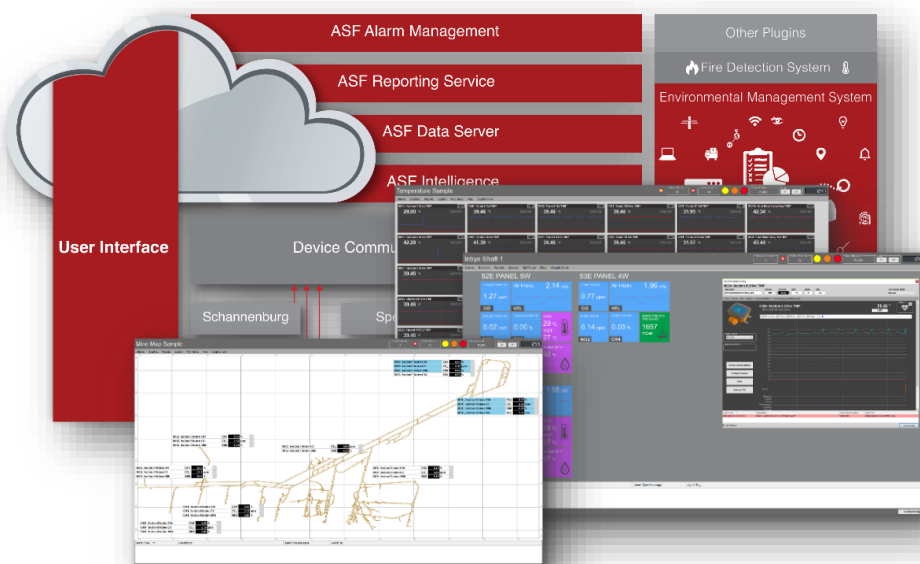
The solution is also able to log to a database, or use the Adroit Edge Gateway to log energy data to the Adroit Cloud where standard reports are available.

Using the customers time of use tariffs also yields the predicted costs of energy in realtime. Various "what if" scenarios can be run on historical data to understand the effects of time based reduction of energy usage as well as "shifting" of energy to low cost time patterns.

This allows customers to plan changes to production in the most energy and cost effective way.

Environmental Management Systems (EMS)

Environmental Management Systems (EMS) is a set of measurements, processes and practices that enable an organisation to reduce its environmental impacts and increase its operating safety and efficiency. is a set of measurements, processes and practices that enable an organisation to reduce its environmental impacts and increase its operating safety and efficiency



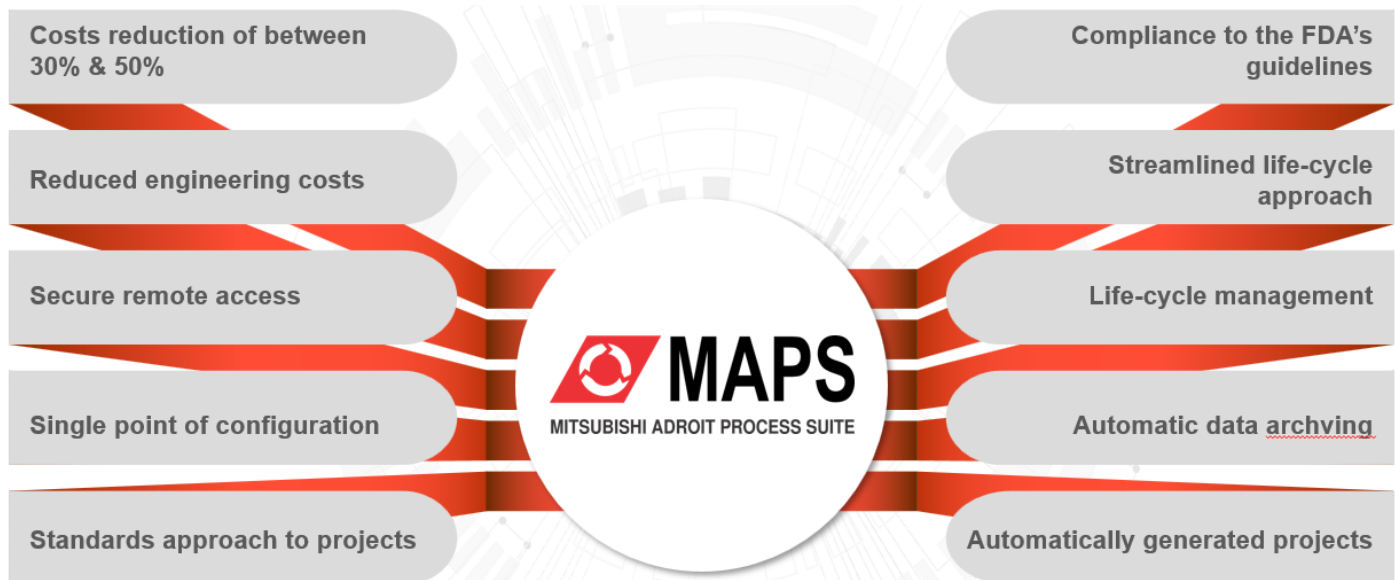
The product has good vertical integration into the mining sector with over 20 well known sensor brands already integrated into the platform.

Full reporting, fire detection algorithms and health and safety checks within a mine are available within the product.

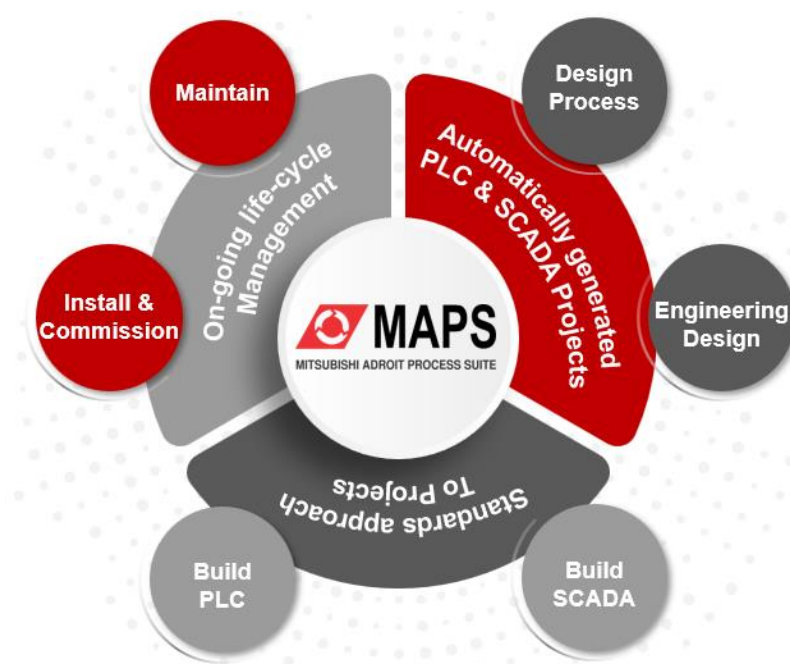
MAPS (Mitsubishi Adroit Process Suite)

MAPS (Mitsubishi Adroit Process Suite) is a collaboration between Adroit Technologies and Mitsubishi Electric focused around offering an integrated PLC/SCADA programming and management tool.

The result is an integrated life-cycle management solution to the automation industry.



Unlike traditional SCADA programmes, **MAPS** delivers a tightly integrated SCADA and PLC solution built around preconfigured and tested engineering libraries, with a built-in full suite of diagnostics and maintenance tools and integrated document management capabilities.

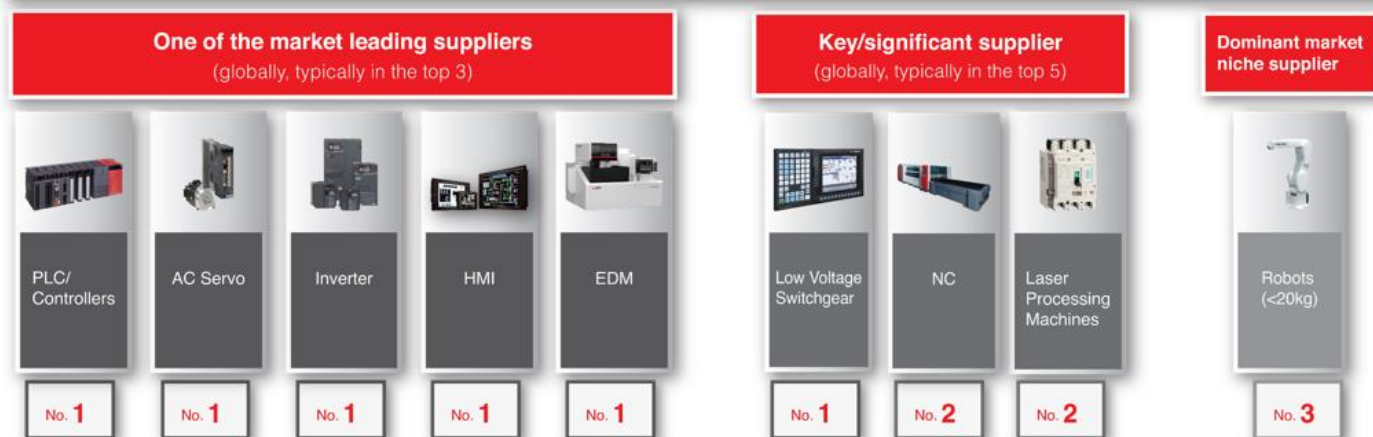


MAPS can significantly reduce lifecycle engineering efforts and costs, offering savings of up to 50%.

MAPS adds value throughout all the phases of the automation system project, from process design to commissioning, start-up and acceptance testing

Mitsubishi Electric – Factory Automation

A Global leader in Automation



The Factory Automation range of products available include:

CNC (Computer Numerical Control)

Condition Monitoring

HMI's

PLCs - Compact

PLCs - Modular

Power Meters

Robots/Cobots

RTUs

Servo Systems

VSDs (Variable Speed Drives)



Adroit Technologies Technical Services

Adroit Technical Services (ATS) and Adroit Digital Services (ADS) departments offers solutions to the growing demand for services and solutions by certain customers wishing to deal directly with Adroit as a principal supplier.

Technical Support

The demand for support, service level agreements (SLA's) as well as professional services in the form of consulting, design, test, commission and project manage more complex SCADA, MES and Industrial IT, IIoT and Cloud solutions.



Services

Services	Description
Consulting	Business case analysis for proposed solutions Project Management User Requirements / Functional and Technical Design Digital Transformation
Application Development	Development Documentation Factory Acceptance Testing (FAT) Prototyping Site Commissioning
Training	Adroit Product Suite (see below) Mitsubishi Electric Factory Automation (see below)
Support	Ad Hoc Structured Service Level Agreements (SLA's)

Capabilities & Experience of the Service Team

Capabilities & Experience	Description
Capabilities	ASP.NET Database Design and Development Microsoft SQL Server Microsoft VB.NET, C#, C++ Use of all the Adroit Technologies products Use of all the ME Factory Automation products
Areas of Experience	Asset Management Customised Solutions Downtime Analysis Industrial Internet of Things (IIoT) MES Production Monitoring (OEE) Reporting Cloud Based Solutions – Dashboarding, Reporting, Analytics and Artificial Intelligence.

Training

Adroit Training

Gain the competitive edge, by attending one our various courses and improve your skills, system reliability and configuration skill sets. Our courses have practical, hands-on exercises and examples ensuring better dealing with real-time scenarios. The following product training courses are presented by Adroit Technologies:

- Adroit Classic UI – Basic & Advanced*
- Adroit SmartUI - Basic & Advanced*
- Alarm Report Suite and Alarm Management*
- Adroit SCADA Intelligence (ASI)
- Environmental Management Systems (EMS)

**Offered as both Classroom and Online Courses*



Mitsubishi Electric Factory Automation Training

Gain the competitive edge, by attending one our various courses and improve your skills, system reliability and configuration skill sets. Our courses have practical, hands-on exercises and examples ensuring better dealing with real-time scenarios. The following product training courses are presented by Adroit Technologies:

- Mitsubishi Adroit Process Suite (MAPS)
- Mitsubishi Electric GOT Basic & Advanced
- Mitsubishi Electric PLC iQ-F Series Basic, Intermediate & Advanced
- Mitsubishi Electric PLC iQ-R Series Basic, Intermediate & Advanced
- Mitsubishi Electric PLC Q-Series Basic, Intermediate & Advanced
- Mitsubishi Electric Servo Basic (MR-J5-A with iQ-F)
- Mitsubishi Electric Simple Motion (MR-J4-B Type with iQ-F SSCNET III/H Simple Motion Module)
- Mitsubishi Electric Simple Motion (MR-J5-G Type with iQ-F CC-Link IE TSN Simple Motion Module)
- Mitsubishi Electric Simple Motion (MR-J5-G Type with iQ-F CC-Link IE Field Basic)
- Mitsubishi Electric Simple Motion (MR-J5-G Type with iQ-R CC-Link IE TSN Motion Module)
- Mitsubishi Electric Simple Motion (MR-J5-G Type with iQ-R CC-Link IE Field Basic)
- Mitsubishi Electric Simple Motion (MR-J5-B Type with iQ-R SSCNET III/H Motion CPU)
- Mitsubishi Electric Simple Motion (MR-J4-B Type with iQ-R SSCNET III/H Motion CPU)
- Mitsubishi Electric Simple Motion (MR-J5-B Type with Q-Series SSCNET III/H Motion CPU)
- Mitsubishi Electric Simple Motion (MR-J4-B Type with Q-Series SSCNET III/H Motion CPU)
- Mitsubishi Electric Simple Motion (MR-J4-B Type with Q-Series SSCNET III/H Simple Motion Module)
- Mitsubishi Electric VSD Basic and Advanced

Customers

A summarised list of companies that have and/or are utilising the Adroit Technologies Products and Services.

Aberdare Cables	Johannesburg Water
African Explosives And Chemical Industries (AECI)	Kumba
Amatola Water	KWV
Anglo American	Magalies Water
Anglo Platinum	Masterfoods
Angola Breweries	Meadow Feeds Midrand Town Council
Atlas Copco	Mondi
Atomic Energy Corporation Of South Africa	Mosselbay Municipality
Avgold Limited	Mossgas
Bayworld Aquarium	MTN
Benoni Town Council	Much Asphalt
BB Cereals	Multichoice
Bloem Water	Namakwa Sands
British Aerospace	NCP Yeast
Buffalo City Municipality	Nelson Mandela Metropol Municipality
Cape Metro Council	Nestle
Cape Town Int. Convention Centre	New Denmark Colliery
Ceres Fruit Growers	NFDie Castings
Cadbury	Nigerian Gas Company
Coca-Cola	Petro SA
Chemserve Polymers	Polyfin
Dairybelle	PPC Cement
De Beers Corporation Of SA	Rand Carbide
Debswana Diamond Mines – Orapa, Jwaneng	Rand Refinery
Distell	Randfontein Estates Gold Mine
Dorbyl Automotive Systems	Reckitt Benckiser
EFCO Furnaces	SA Fisheries Marine and Coastal Management
Eyesizwe Resources	SA Mint
Exarro	Safripol
Elandsrand Gold Mine	Saldanha Steel
Eskom	Sandvik – Voest Alpine
Ferralloys	Sasol
Ford Motor Company	Sea Fisheries Institute
Foskor	Sentech
Goldfields	Shatterprufe
General Motors	Slagment
George Municipality	Tablebay Refrigeration
Guestro Wheels	Telkom
Glaxo Smith Kline	Tioxide Southern Africa
Haggie Rand	Toyota
Highveld Steel and Vanadium	Transnet
Hout Bay Fisheries	Tubatse Ferrochrome
Hosaf Fibres	Umgeni Water
Hugenot Tunnel	United Carbon Producers
Illman Plastics	Various Waterboards In Netherlands
Illovo Sugar	Vector Logistics
Imperial Tobacco Limited	Vodacom/Vodaphone
Irvin & Johnson	Xstrata
Johannesburg Roads Agency	