DAJO Solutions

Developing and exploiting machine intelligence

Automation

Solution

Catalogue

Status monitoring

Mobile applications

Multi-site Integration

Machine intelligence

Human/Machine Interfaces

Obsolete Equipment
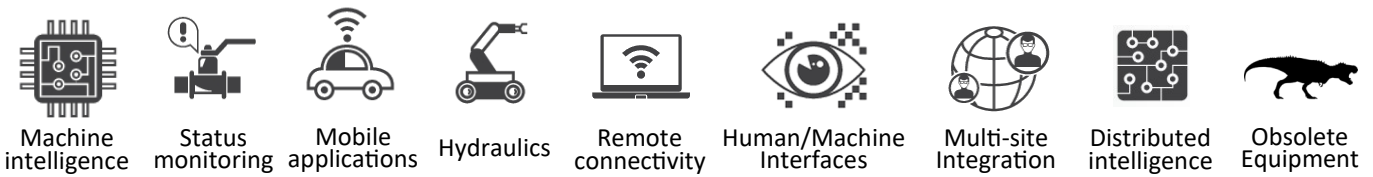
Hydraulics

Distributed intelligence

Remote connectivity

DAJO Solutions
Developing and exploiting machine intelligence

Products

Our comprehensive range of products are individually selected
to deliver the highest levels of capability and efficiency.

Machine intelligence | Status monitoring | Mobile applications | Hydraulics | Remote connectivity | Human/Machine Interfaces | Multi-site Integration | Distributed intelligence | Obsolete Equipment

Solutions

You can view our complete range of case studies at
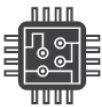
www.dajo.co.uk/solutionsblog

Integrated HMI/PLCs

A space and time saving solution for industrial control and automation applications

Available with screen sizes from 3.5" to 15"

Machine intelligence	Status monitoring	Remote connectivity	Human/Machine Interfaces	Multi-site Integration	Distributed intelligence

Our range of touch screen HMI/PLCs integrate with any manufacturer's PLC. In addition, its unique features enable the harvesting of meaningful data from any application or process, enhancing productivity and efficiency.

- Enables open communication via Ethernet, fieldbus, Smartwire-DT (up to 150 protocols)

- Single software package for control and visualisation

- Customisable operator console

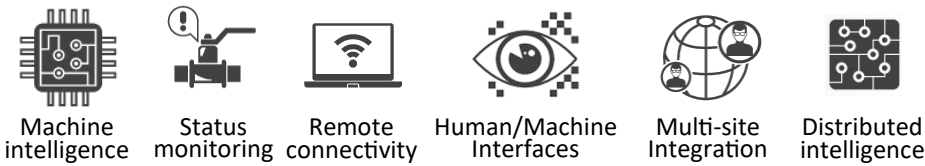| Part No.	Casing	Interface	Size					
			3.5"	5.7"	7"	10"	12"	15"
XV102	Plastic	Resistive	✔	✔	✔			
XV152	Metal	Resistive		✔	✔	✔		
XV303	Plastic	Capacitive			✔	✔		✔
XV400	Metal	Infra Red		✔		✔	✔	✔

In addition, when used in conjunction with Smartwire-DT, these compact, powerful devices support the realisation of further benefits, including :

- Vastly reduced engineering, commissioning and maintenance requirements

- Connection with up to 99 devices up to a range of 600m

- Development of remote intelligence and removal of an entire device level

Industrial PCs

Powerful industrial computers for demanding and intensive applications

Available with screen sizes from 10.1" to 21.5"

Machine intelligence	Status monitoring	Remote connectivity	Human/Machine Interfaces	Multi-site Integration	Distributed intelligence

If our PLC range doesn't have the processing power you need, then you should consider a more powerful device. Our range of ruggedized industrial PCs can cope not just with high intensity operations, but also with an industrial environment that would quickly destroy a more consumer oriented computer.

The PC range is an ideal solution for manufacturing applications. Its powerful 1.65GHz processer copes with ease, even in the most demanding of applications. And, thanks to *ProtectMode*, high system availability is guaranteed, even without a UPS.
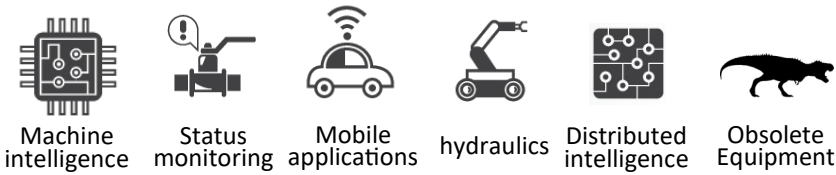
- 1.65 GHz processor, 24 GB internal memory, with a further 4 GB removable memory
- Ethernet, USB, RS232, RS485 and DVI-I connections
- Customisable operator console
- Touch screen, supports multi touch gestures

A single unit that can be integrated into an individual control panel, or used to oversee the operation of a number of devices. This tool forms the backbone of many demanding industrial applications.

Comprehensive I/O range

Decentralised signal processing

Further savings of space and time with our modular I/O range

Machine intelligence | Status monitoring | Mobile applications | hydraulics | Distributed intelligence | Obsolete Equipment

Our comprehensive, flexible range of modular I/O devices cover a wide range of functions including integrated gateways for all industrial programming languages.
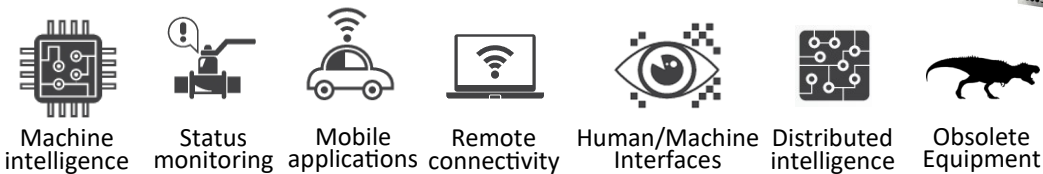
- Click connectivity reducing assembly time

- Slim design maximising panel space

- Cross platform functionality can extend the useful life of obsolete equipment

- Modular design ensuring maximum space savings

Motor control solutions

Precision and economy

A diverse range of motor starters and drives for every application

| Machine intelligence | Status monitoring | Mobile applications | Remote connectivity | Human/Machine Interfaces | Distributed intelligence | Obsolete Equipment |

Our comprehensive range of variable frequency drives and starters suit applications up to 250kW, even in the most demanding and aggressive environments. Their high specification and flexibility enable them to cope with complex routines and challenging applications.

- Quickly copy parameters from drive to drive using a COM stick

- Communicate via CANopen, Modbus RTU & TCP, PROFINET, Ethernet/IP, EtherCAT, BACnet/IP or DeviceNet

- High temperature range available. with no derating, even at 50°C

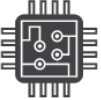- External keypad available to control up to 63 devices
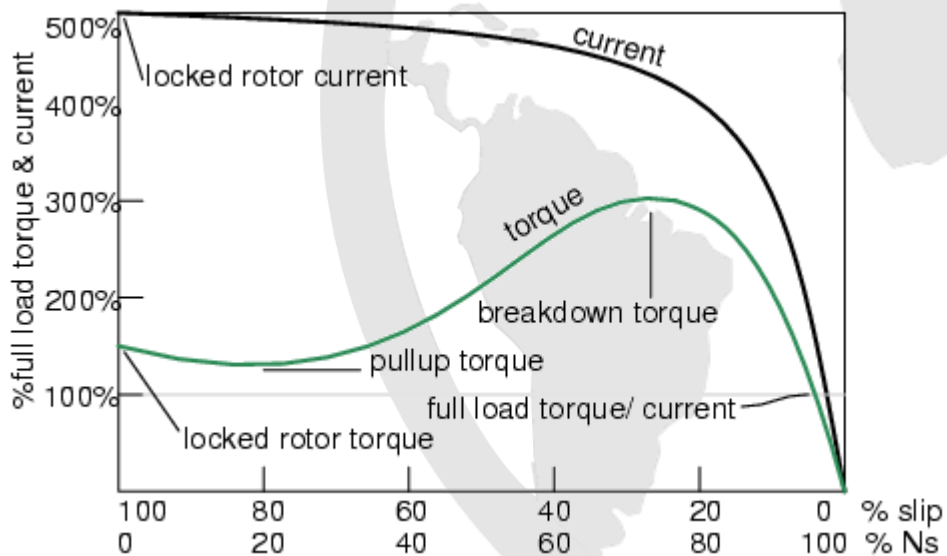
Ruggedized Process Controllers

Versatile, durable controllers for any application

32 bit processor with up to 48 I/O and 3 video inputs

Machine intelligence   **Status monitoring**   **Mobile applications**   **hydraulics**   **Distributed intelligence**   **Human/Machine Interfaces**

Take control of every system function, whether its on a harvester, concrete mixer, crane, dump truck or any other application. On or off highway. The power of our capable programmable controllers can manage it.

Powerful 32 bit processers, configurable CAN channels, industry leading software, and a configurable I/O system come as standard on all the models in our range.

Our range of integrated video processors can handle up to three visual channels with ease, and switch display, either automatically, or through operator based selection. While simultaneously running any other processes that might be required in the background.

Control
Analysis   Intelligence

Monitor
Visualisation   Performance

Process
Monitoring   connectivity

Output
£
Integration   Maximisation
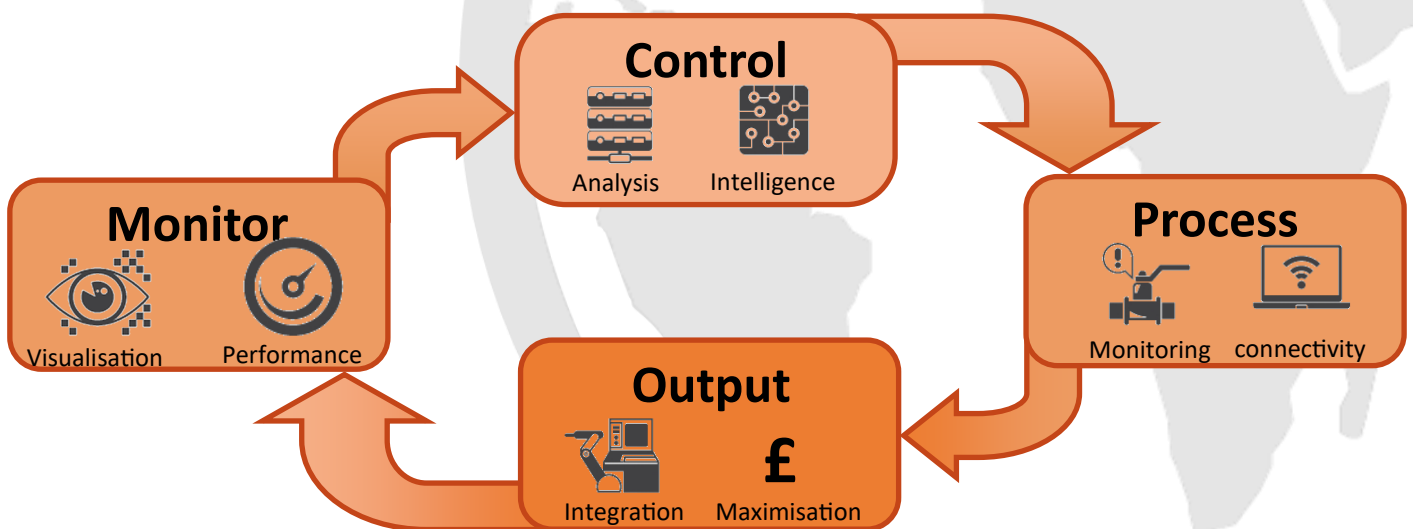
Telematics and data capture

Connecting your business

Real-time data from every application in every location, and instruction from a central control location

Status monitoring   **Mobile applications**   **Remote connectivity**   **Multi-site Integration**   **Distributed intelligence**

Connected to an application's PC, PLC or HMI our range of industrial modems send and receive data according to the specification of the application. Whether its supporting data collection and aggregation in a cloud based server; diagnostic, maintenance and operational features; or delivering new instructions, there is a solution.

- Serial

- Ethernet

- GSM

- GPRS

For short range, device to device remote connectivity we can also support Bluetooth connections. With most modern mobile devices having integral Bluetooth connections this can be a low cost and convenient method of data transfer.

Another alternative over distances of up to 200m is an RFID or NFC tag. These disposable devices can, for example, enable you to track items physically moving through a process. Or read a limited amount of data from a remote device, where internet connections may not be available or appropriate.

Software Development

Experience and innovation combined

Using our knowledge base to help you realise your vision.

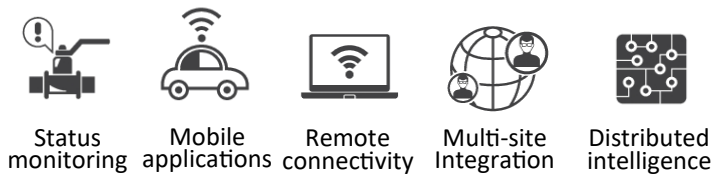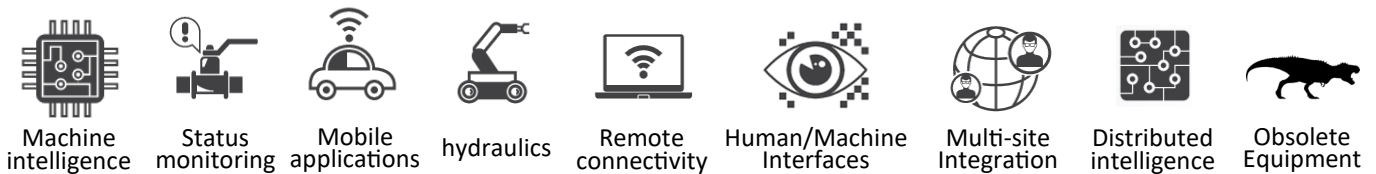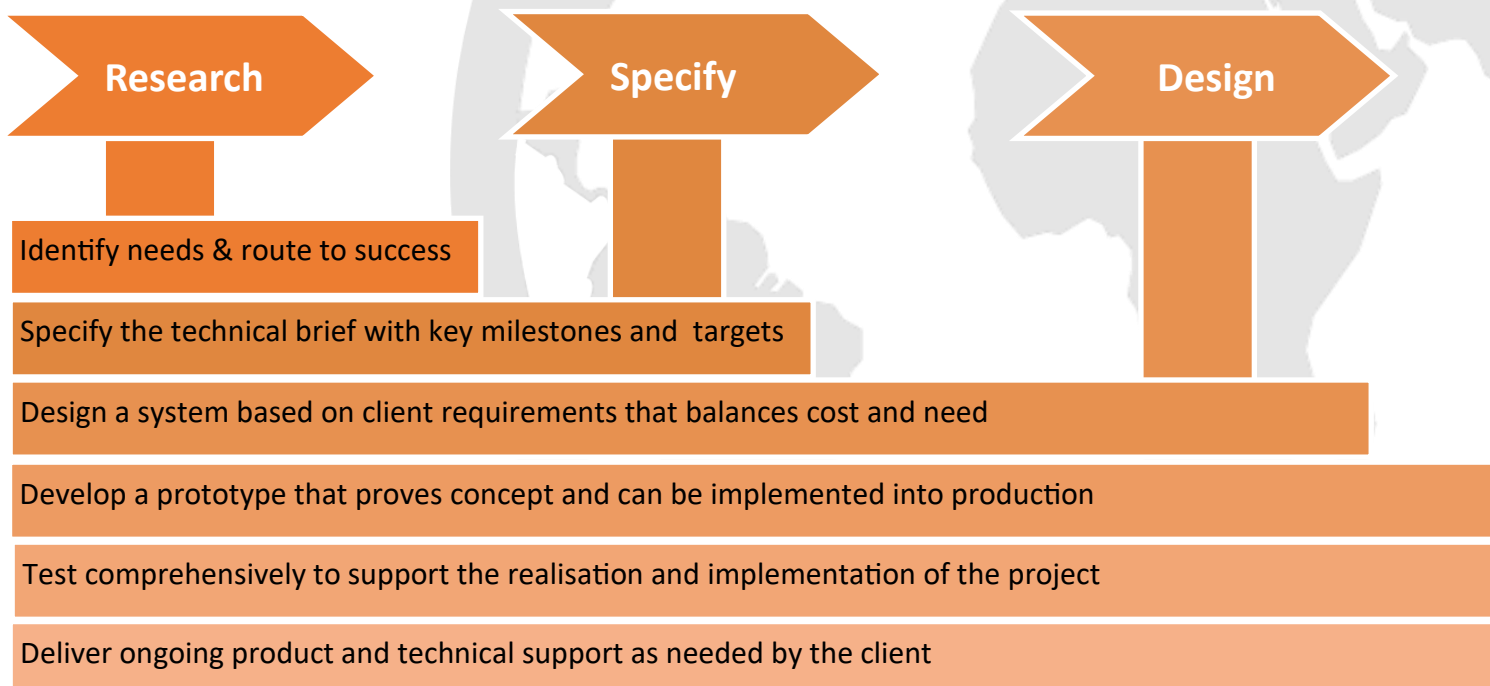|								
Machine intelligence	Status monitoring	Mobile applications	hydraulics	Remote connectivity	Human/Machine Interfaces	Multi-site Integration	Distributed intelligence	Obsolete Equipment

Our extensive understanding of industrial programming languages and protocols has been gained across a vast array of differing industrial applications. But each of them shares a common thread: A client who wants to solidify their position by marking themselves as a leader and innovator in their field. Who feels the need to capitalise on new technologies for commercial advantage. And, ultimately, one who wants to outpace their competition in every viable way.

DAJO's client centric six step project delivery process

Research

Specify

Design

Identify needs & route to success

Specify the technical brief with key milestones and targets

Design a system based on client requirements that balances cost and need

Develop a prototype that proves concept and can be implemented into production

Test comprehensively to support the realisation and implementation of the project

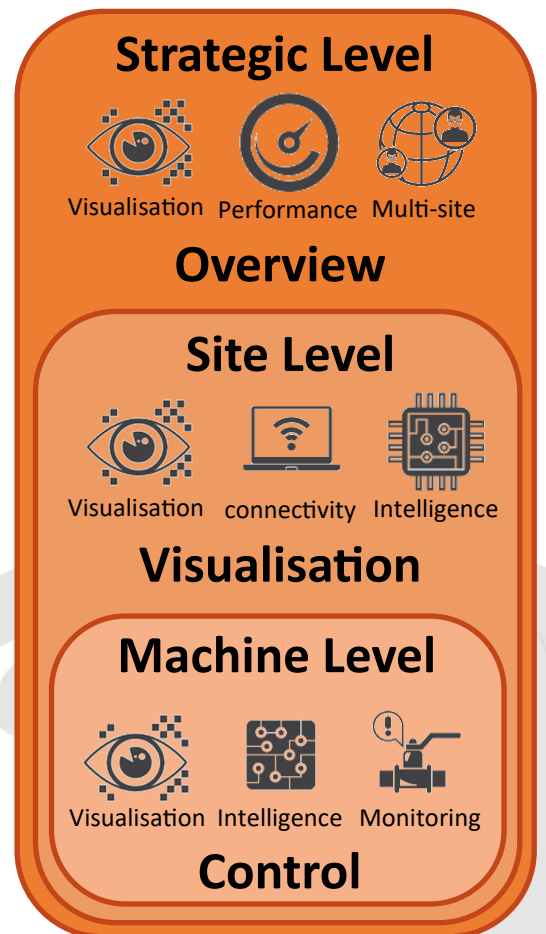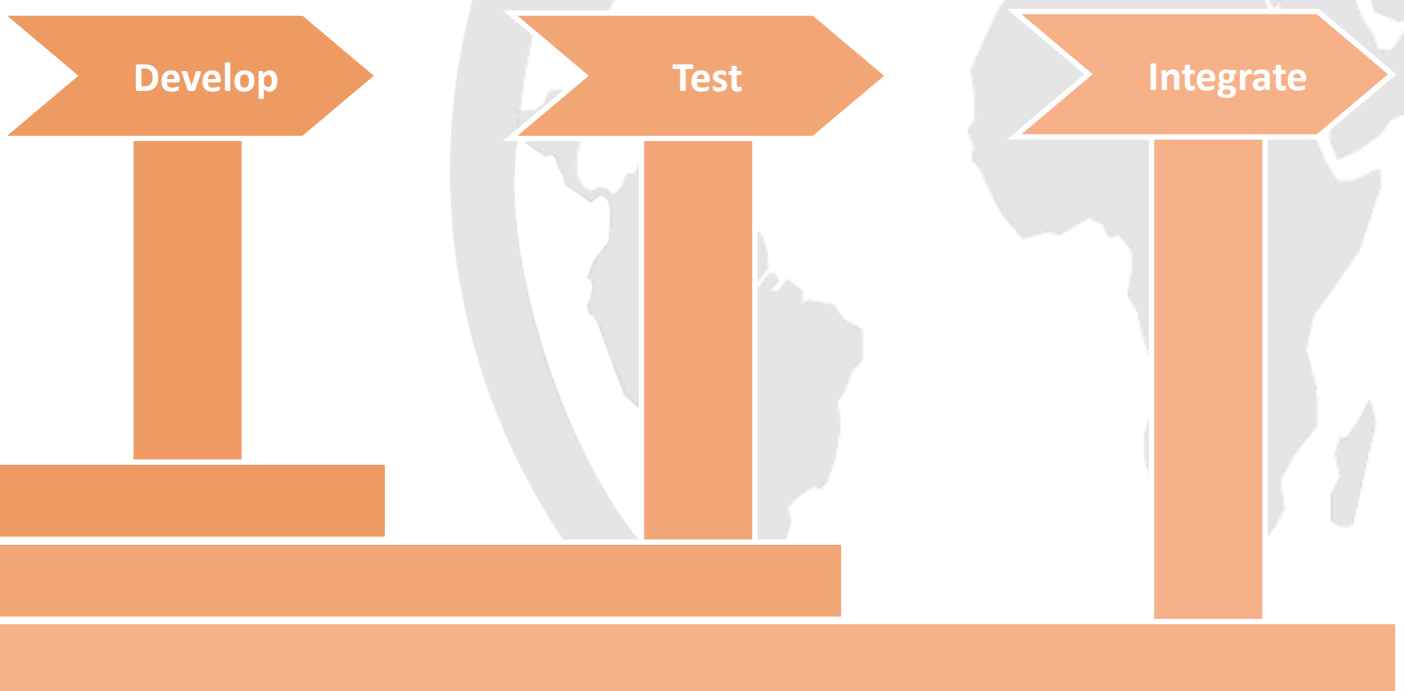Deliver ongoing product and technical support as needed by the client

System architecture

The information you need at the tip of your fingers

Designing efficient, innovative systems that maximise productivity at every level

Machine intelligence | Multi-site Integration | Human/Machine Interfaces | Distributed intelligence | Remote connectivity

We understand that you are pulled in every direction. Cost restrictions, time restrictions, customer requirements, legislative demands, cash flow, fear of change, need for change… A never ending list, leaving little time for you to understand what is actually happening in your organisation.

Our dedicated, detail focused, system architects can design and implement operational management and visualisation tools that will give you the insights you need, when you need them.

Strategic Level

Visualisation | Performance | Multi-site

Overview

Site Level

Visualisation | connectivity | Intelligence

Visualisation

Machine Level

Visualisation | Intelligence | Monitoring

Control

Develop

Test

Integrate

Bespoke Hardware Development

Saving you time and space

Supporting the development and distribution of machine intelligence throughout your operation

Machine intelligence | **Status monitoring** | **Distributed intelligence** | **Obsolete Equipment**
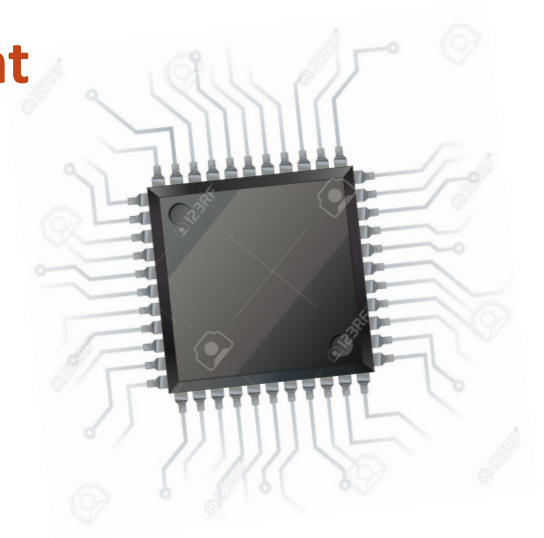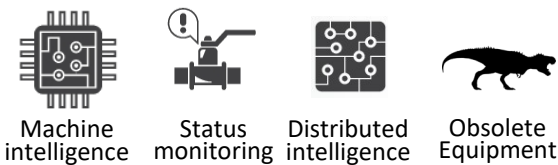
As licenced ASCII developers for Eaton's ground-breaking Smartwire-DT technology we are in the unique position of being able to add intelligence directly into virtually any hardware.

Intelligent lighting, fuel storage tanks, and relays are just some of the products we have helped develop for our clients. Products which have not only saved them time and money, but also helped them develop a significant competitive advantage in their market places.

The benefit, rather than your product being superseded by the competition and going into decline, you advance the capability and competitiveness of your offering, gaining market share from your competitor's less capable alternative.

Sales

Introduction   Growth   Maturity   Decline

—— Traditional product lifecycle

—— Lifecycle extension achieved through product development
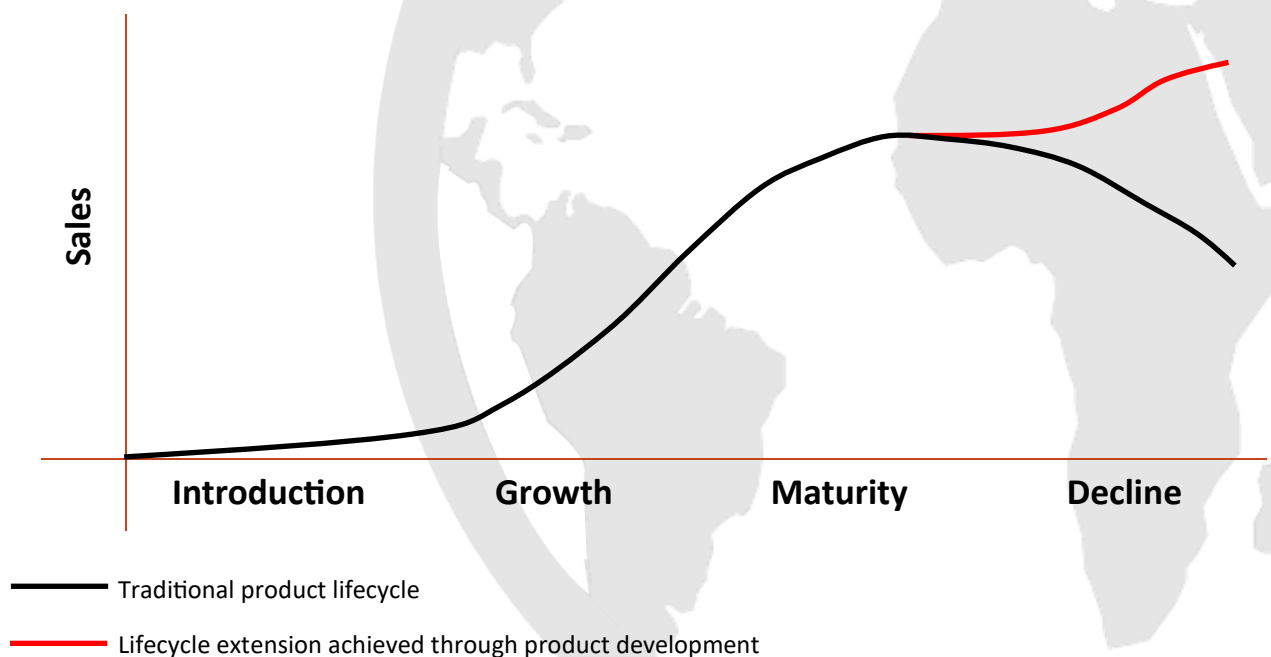
Remote and radio control

Enhanced control, safety and efficiency

Reliable, rugged controls to distance operator from operation

Machine intelligence   Status monitoring   hydraulics   Remote connectivity   Human/Machine Interfaces
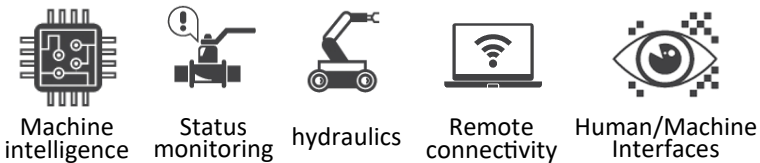
In today's health and safety conscious industrial environment, it can often be a distinct advantage to insert distance between operator and operation.

Our robust, easy to use, one and two way control transmitters and receivers are designed to perform on a wide variety of industrial machines, in applications such as marine, construction, off highway, rail and other hostile or aggressive environments.
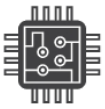
- Industrially hardened Trusted Wireless [TM] FHSS radio technology

- Impact resistant

- Dependable operation and precise control

- Customisable operation

- A range to suit any application

Our expertise

Iconography

Industrial automation is a vast field, and requires
understanding of many engineering disciplines.

Machine intelligence

Machines aren't spontaneously intelligent. Their intelligence must be planned and programmed. One of our areas of expertise is the implementation of specific intelligence into machines, maximising their efficiency and profitability.

Mobile

The latest technological innovations mean that smart industrial vehicles are an increasing reality. Enabling maximum safety and productivity for your workforce wherever they are, whatever they do.

Remote Connectivity

Data has an ever increasing value in today's dynamic market places. But data is a perishable commodity, the closer you come to real-time availability the more valuable it is. That value comes in the form of increased responsiveness to those same dynamic markets.

Distributed Intelligence

Teamwork amongst machines is a new phenomenon. But, just like us, machines work best when they work together. Distributing appropriate intelligence throughout your industrial landscape, then gathering, interpreting and visualising it are key factors of efficiency.

Status Monitoring

Unscheduled downtime has catastrophic consequences. Real-time monitoring of device performance is a critical ingredient of preventative or even predictive maintenance . Often, however the benefits are hidden, and therefore overlooked.

Hydraulics

More and more hardwired controlled devices are now making the shift into software based control. Whether this capability includes full IoT functionality or not, it is a massive step forward for flexibility and efficiency.

Human/Machine Interfaces

How we control our machines has changed enormously. Physical controls like push buttons and levers don't give operators the feedback they need in order to run at peak efficiency. Customised interactive touch displays give full control of the machine to the operator.

Multi Site Integration

In many cases operations spread across a number of sites. Causing further complications for data aggregation and visualisation. Developing a system that gives the information you need how and when you need it becomes particularly important in these instances.

Obsolete equipment

As individual parts become obsolete, the ability to maintain costly capitol equipment diminishes. Often the controls rather than the equipment fails. We can integrate new control mechanisms which also enable equipment to run more efficiently.

Our solution partners

Our solution partners are experts in their fields

And work closely with us supporting the development of new solutions

CSL — Industrial Control Panels And Automation Systems

CCSL is one of the UK's leading manufacturers of control panels. They specialise in applications that need to endure hazardous and aggressive environments.

EATON

Eaton are a world leading manufacturer of a vast array of control and distribution equipment for industry.

HTL — Hydraulics & Transmissions Ltd

HTL are a distributor and solution provider for users of hydraulic equipment, whether they are mobile or industrially based.

CONTROL TECHNOLOGIES UK LTD

Control Technologies is a UK based tech start-up. Specialising in the implementation of smart technologies into industry.

ems | electrical manufactured solutions

EMS are a UK based manufacturer specialising in the production of power distribution systems for always available applications

NETP — NORTHANTS ENGINEERING TRAINING PARTNERSHIP

Northampton Engineering Training Partnership is part of Northamptonshire University, ensuring that engineering students gain the best possible exposure to professional work placements.

Our Other Suppliers

And we couldn't do it without our other suppliers too.

STW is a technology leader and manufacturer in the fields of control and measurement equipment

Sierra Wireless designs and manufactures industrial wireless communication devices and sells them around the world.

Brucom are a UK manufacturer of wiring systems, specialising in the mobile industry.

Turck are a world leading manufacturer of automation and control equipment, including extensive ranges of sensors and connectivity products.

Application and Project Notes

Thank you for your interest in The DAJO Solutions Ltd Product And Solution Catalogue

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