



FirstClass Safety & Control Ltd (FCSC) deliver Industrial Automation Control & Safety Systems and instrument services to customers worldwide in rail, petrochemical, pharmaceuticals, power & utilities, automotive, food and beverage, marine and many other sectors.

FCSC operates from our engineering and manufacturing facility in Essex, UK and international offices for local support.

Maximising on our cross-industry knowledge gives us the expertise to offer innovative, affordable and integrated safety protection and control system solutions for all our customers.

Safety is at the forefront of our business, and we design all our systems to meet the required safety integrity level (SIL) accreditation. We manufacture both hardware based and Programmable Logic Controller (PLC) based systems using integrated intelligent devices which cater for every requirement.

In addition, our professional after-sales customer care team offer 24/7 full service and support reassuring you that your organisation will receive the prompt support they need when they need it.

# Full Project Life Cycle Services Offered

- Concept
- Design
- · Engineering
- Manufacturing
- Installation
- Commissioning
- Start-up Support
- Hardware & Software Engineers
- · De-Commissioning
- Long Term Plant Maintenance Services
- Fault Trend Reviews
- · Feasibility Services

To find out more, contact us on: info@firstclass-safety-control.co.uk
Tel: +44 (0)1621 743743

#### **SECTORS**



#### Rail

The Rail sector is our primary sector. We supply SIL2 rated Safety Systems either as replacement/upgrade for older rail Depot Protection/Control/LOPS systems or new build depots, using off the shelf hardware/software. Please see the following pages of this brochure for more details on our market leading rail sector products and services.



#### **Marine**

Our main area of operation in this sector is Alarm Monitoring Systems (AMS) for the control and monitoring of engine plants or rooms using Programmable Logic Controllers (PLC's) or Pneumatics.

Our engineers have experience working on several different classes of vessels including Tankers, Royal Fleet Auxiliary (RFA), Diving Support Vessels (DSV), Tugs, Roll on Roll off (RoRo), and Super Yachts.

The FirstClass Safety and Control marine AMS enhances efficiency and operator visualisation for all types of vessel and is able to monitor manned and unmanned applications. The system has the facility to identify and monitor irregularities in marine engines, generators, tanks and additional service systems.



#### **Petrochemical**

Our engineers have extensive knowledge and experience in this sector, spanning several decades. This makes us one of the very few experts in this field in the UK with the skills and expertise to support and maintain many legacy Petrochemical Safety and Emergency Shutdown Systems. Our range of services offered include:

#### **System Upgrades and retrofits**

We provide upgrades for obsolete safety and control systems. Using both PLC and hardware based platforms, our safety systems are capable of achieving SIL 3 Safety Integrity Level.

#### **Service & Maintenance**

We offer 24 hour telephone and on-call support in the North Sea for these systems. In addition we provide annual maintenance visits, fault history monitoring, modification services, spares and many other services.

#### **Spare Parts**

We provide spare obsolete parts on unsupportable systems that many OEM's will force the end user to upgrade. We also offer test and repair services on obsolete equipment.



We create intelligent systems encompassing features such as RFID tags for logging on/off, Pictorial RFID Logon Stations and Wi-Fi enabled interlocks, all managed via SIL2 Programmable Logic Controllers (PLC) making our tailored systems the most flexible on the market.

Our DPS has been designed around the Allen Bradley PLC range with Rockwell Automation software, ensuring worldwide hardware support. In addition we offer the flexibility to use other PLC providers, should you have standardized preferences on your site. Our DPS systems are fully flexible and can be built to meet each depot's individual requirements and budgets. This ensures we offer bespoke cost effective DPS solutions to meet all our customer needs, by choosing from our range of DPS components.

requiring a new or seeking to

upgrade a current system.

## **System Options**

Flexibility without compromise

FirstClass Safety developed the worlds' first RFID enabled DPS, replacing traditional key exchange technology. This has subsequently been developed to include full pictorial log on/off interface.



#### FirstClass De-Railer

At FirstClass we recognise that the market choice of De-Railers is very limited, expensive and often have long lead times.

We have developed our own FirstClass De-Railer offering our customers more choice at an affordable price, without compromising on quality and still using Network Rail approved components.

Our De-Railer is also the safest on the market as we monitor "head position" not "actuator position" therefore eliminating additional failure points. Actuator housings can be mounted anywhere to suit space restrictions.

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#### **Features**

#### **Typical DPS Interfaces:**

- · Logging on / off operators
- Movement beacon /sounder control (in pits, side pits, high level, external etc.)
- · OLE status beacons
- Aspect control for shunter driver signalling for inbound / outbound movements
- Automatic de-railers for protecting workforce on infrastructure
- Treadle switches for train detection
- Light curtains
- Diesel extractor infrared monitoring
- WIGWAG for vehicle / pedestrian movements around the depot
- Points interlocking for monitoring and control when safe to move the points
- High level gantry access control
- Hoist / Jacks / Mansafe / turntables access control
- OLE isolator key release control
- Electric shunter interface
- Internal movement control via the traverser
- Remote diagnostics
- Signal Passed At Danger(SPAD) Alarms
- Meets or exceeds the latest Network Rail Standard NR/ L2/RMVP/27035 Iss. 2



Our DCS is a totally flexible and cost effective alternative to a Locally Operated Points System (LOPS) or a Depot Points Control System. Using industry proven Aspects, Route Indicators, Points Machines and train detection methods our DCS is extremely user friendly for both experienced and new Operations staff.

Our DCS has been designed around the Allen Bradley PLC range with Rockwell Automation software, ensuring worldwide hardware support. However we offer the flexibility to use other PLC providers should you have standardized

requiring a new or seeking to

upgrade a current system.

preferences on your site.

All FirstClass Safety DCS systems meet the Safety Integrity Level (SIL) SIL2, making our tailored systems some of the best on the market.

# **Service and Support**

Supporting you and your teams

FirstClass can provide support and maintenance for your Depot Safety Systems. We have a proven track record for quick and cost effective maintenance support for repairs/upgrades, all backed up with 24/7 on call support and remote diagnostics.



Our professional after-sales customer care team offer a full service reassuring you that your depot will receive the prompt support they need.



Our training courses are highly rated by delegates both operationally and as part of ongoing maintenance requirements.

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## **DCS Features**

#### System, general:

 Distributed monitoring and control system to SIL2 standard, with Input/ Output(I/O) supervision, dual redundant PLCs and interface 3rd party equipment

#### System, hardware:

- Allen Bradley Control/ Logix, CompactLogix and Flex I/O Remote Input Output: Reliable, high quality hardware
- The workstation interface uses high integrity PCs and peripherals.

#### **Software:**

 100% configurable and COTS software, make integration and flexibility options endless

#### **Typical DCS Interfaces:**

- Depot Protection Systems
- Mainline Signalling NWR Interface
- · Points Machines
- Aspect Signals
- Route Indicators
- Train Detection
- Track Circuits
- Indusi Transponders
- Remote diagnostics
- Security CCTV Systems

# Additional 3rd party interfaces:

Easily integrates with 3rd party items such as;

- GPS Vehicle tracking within the depot
- Security Gate access control: one RFID tag per person for depot



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