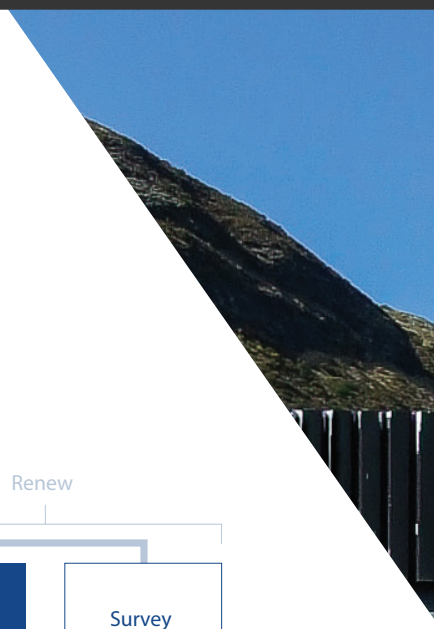
PDS

INTEGRATED TRANSPORT SYSTEMS

Our Expertise

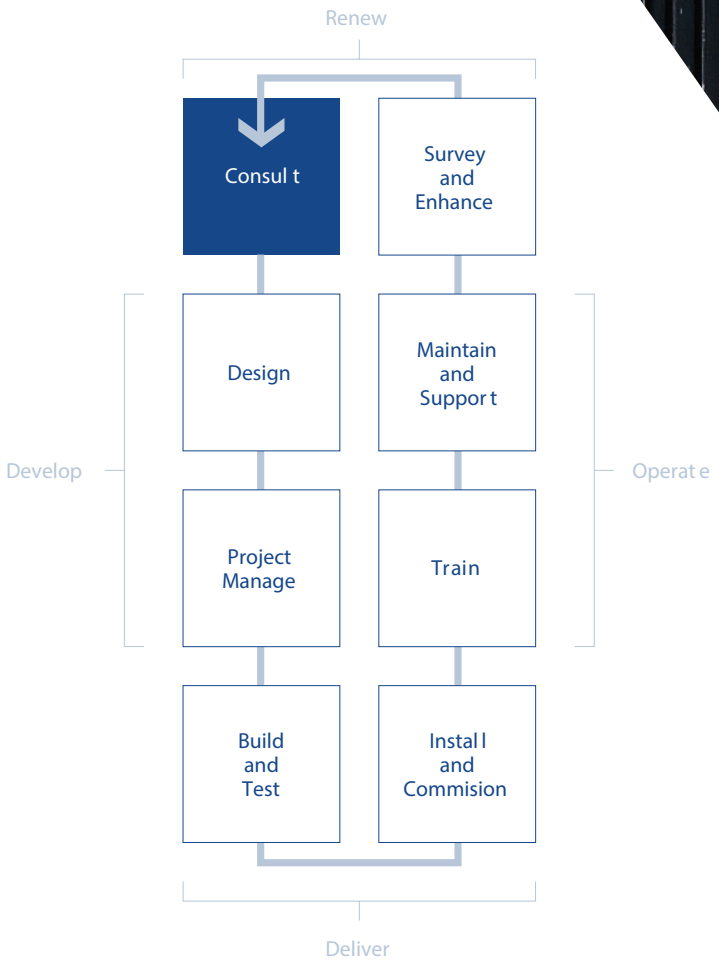


Since 1988 PDS have been delivering and supporting high integrity Infrastructure Control and Monitoring Systems. Working extensively in the UK's transport industries, deploying innovative Intelligent Transport Systems and technologies from the control room to the road side.

Our projects range from small installations through to new build and refurbishments providing fully integrated solutions within the Strategic, Urban and City road networks. We help our clients to find solutions to address their current and future challenges, providing a consultative engineering-driven approach to develop innovative and cost-effective solutions.

We are a technology driven solutions and service company of professional designers, engineers, project managers and technical consultants, working for an enviable Blue Chip client list. Our strength is in our technical expertise and our ability to integrate data from any source.

SERVICES

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Traffic Management Systems

INTRODUCTION

Our Integrated Transport Sytems provide a suite of tools enabling real time management of traffic in a control room environment. Gathering data seamlessly from disparate assets along the Strategic Road Network, inter-urban or city based environments. Assets include anything from road side equipment such as VMS signs, Radar and ANPR, through to completely independent systems found in road tunnels and bridges.

A fully integrated common user interface provides a clear and concise operator interface, enabling users to quickly identify any issues on the road network whilst being guided through a workflow to quickly and safely resolve the situation. Our philosophy is to provide a fully open, non-proprietary solution based upon free to use standards, customised to user requirements. Therefore avoiding “vendor lock in” whilst ensuring it is future proofed for further developments and enhancements.

ARCHITECTURE

- Industry Standard Interfaces
  - Open protocols including Modbus, SNMP, Datex II, ONVIF, NMCSII, OPC, UTMC
  - Easily and readily integrated with disparate legacy systems and equipment whilst at the same time being scalable to meet future requirements
- Fully Redundant Architecture
- Windows platform supporting virtualised environment
- Open and Flexible Architecture
- Supporting distributed management of roadside assets from single to multiple control rooms for nationwide or localised supervisory applications
- Thick Clients or cloud hosted
- HTML 5 web client support
- Redundant server options supporting up to 99.99% availability
- SQL Server®
- Web Services Support
- UTMC Compliant Database
- Communications support
  - Includes Fixed, Wi-Fi or Mobile

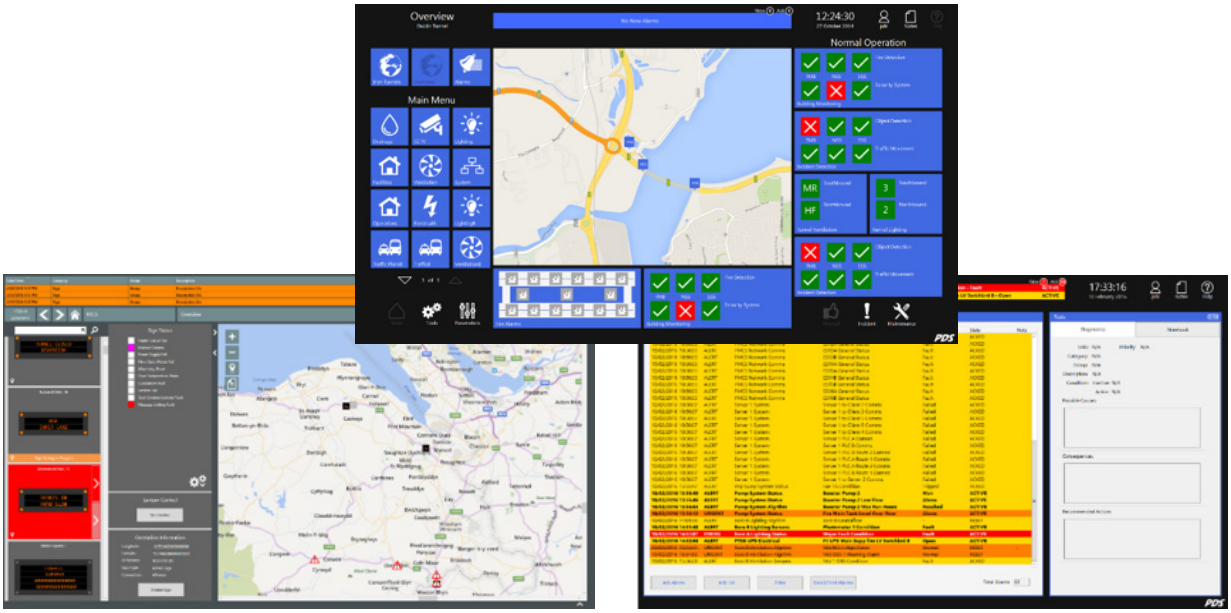
SUPPORTED APPLICATIONS

- Monitoring and Enforcement
- Journey Time Measurement
- Traffic Information and Management
- Environmental Monitoring
- Road Tunnels
- Bridges
- Toll Roads
- Smart Motorways
- Incident Detection

ROAD SIDE TECHNOLOGIES

- Video
- Radar
- CCTV
- Bluetooth
- Signs and Signals
- VMS
- Lighting
- Environmental Monitoring
- ANPR

GRAPHICAL USER INTERFACE



- Visualisation of complete system
- Map based or fixed Mimic style views
- Fully customised
- Simplistic layered views
- Click down to further information available should the operator require it
- Intuitive look and feel
- Dedicated windows for each sub-system

FEATURES & BENEFITS

- Centralised data supports improved traffic analysis and emergency situation detection enables operators to more efficiently manage the road network
- Platform independent from road side equipment
- Unified Alarm Viewer/Banner
  - Affected screen icons change colour to indicate alarms, simplifying where intervention is required
- System security
  - Password protection
  - Customisable user levels and access rights
  - Cyber Essentials Certified
- On-line help and alarm diagnostics
- User Management with customisable access and profiles
- Future expandability, using Plug & Play IP enabled devices and associated object based software
- Increased productivity
- Reduced operational costs
- Ability to integrate and test the whole solution off-site, minimising commissioning effort and on-site interfacing problems
- Improved overall system integrity using fault tolerance and redundancy, increasing the reliability of data transmission and processing
- Incident Management, operational workflow management and guidance to help operators manage complex situations and provide a consistent and efficient response
- In-built training simulator using video / audio / data roll-back, improving operator responses to real emergency situations
  - Operator training with no impact on live operations
  - Training server uses simulated snapshots of live data to get latest operational conditions
- True event examination & playback, in-built real event response training
- ‘Commercial off the Shelf’ (COTS), non-proprietary solution
- Intuitive user interfaces using common principles for more effective and efficient operation of the infrastructure
- Open, modular software supporting client expandability and unlimited interface capability
- Open, object orientated software
- High system integrity, fully fault tolerant
- Single system operations for intuitive emergency and workflow co-ordination

Modules

INTEGRATED FAULT MANAGEMENT

An integrated fault management system allows authorised users to identify issues quickly and swiftly taking the appropriate action.

Users are able to:-

- View, edit, action and acknowledge faults
- Monitor the progress of faults and have the ability to close faults
- Categorise faults according to urgency
- Search the fault database using a range of search criteria
- Hide faults where necessary

USER MANAGEMENT

The system will provide up to 256 user authority levels (e.g. Maintainer, Operator, Manager or Administrator) to be defined, each one providing a configurable list of access rights. 1000+ user accounts can be created with each one linked to an authority level. Password complexity is checked prior to acceptance to ensure it conforms to the appropriate IT policies.

ASSET MANAGEMENT

Data from the monitored roadside equipment and assets can be passed through, to and from 3rd party asset management tools, through open standard interfaces.

TUNNEL AND BRIDGE CONTROL

A proven comprehensive platform for individual or multiple tunnels and/or bridges requiring a centralised control and monitoring system. It provides the ability to retrieve and manage data for the display and control of the road environment, traffic and plant. There are many safety sub-systems within a tunnel environment which need to be controlled and managed to help ensure compliance to minimum operating requirements and safely manage incidents.

- Traffic Signage
- Public Address
- Tunnel Lighting
- Pollution Monitoring
- Ventilation
- Journey Time
- Incident Detection
- Dangerous Goods
- CCTV
- Communications
- Sumps & Pumps
- Fire & Security
- Electrical Systems

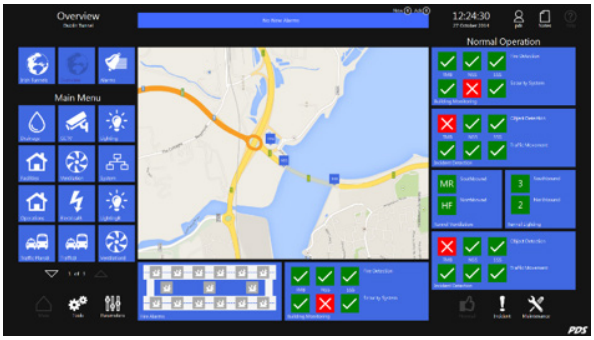
TABLET/PHONE ACCESS

Our versatile user interface has been designed to be fully accessible using a touch-screen or conventional keyboard/mouse interface. It is therefore accessible through any type of device including phone or tablet. All controls are sized and positioned such that they can easily be selected by touch, and textual entry fields are avoided where possible. Symbols and navigation controls have a modern ‘tile’ look and feel to mimic touch-screen devices in order to aid intuitive operation.

DASHBOARD

The Data presentation feature enables data and KPI’s to be presented in many forms including curves, histograms, RADARS, pie charts and balloons. Operators can quickly get a summary of the overall performance of their plant equipment and drill down for more in depth analysis. Typical information available is as follows.

- System Availability (Downtime, Uptime)
- Module Availability
- System/Module Performance
- System Faults
- Fault Resolution
- Energy Usage



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