



INDUSTRY BRIEF

Warehousing & Logistics

Control systems that move the right load to the right place, first time.



Control system engineering, integration and analytics since 1997
ISO 9001 certified • Cyber Essentials • CHAS • Constructionline • SafeContractor

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YOUR PRIORITIES

What matters most

Modern warehouses are judged on speed and accuracy. Conveyors, cranes, shuttles and automated vehicles must move the right load to the right place first time, keep stock visible to your warehouse systems and recover fast from faults. The people around them must stay safe, while volumes swing with the season.

Throughput at peak

Orders must leave on time, especially at peak. Conveyors, cranes and sortation have to route every load the best way and recover quickly from faults.

Knowing where everything is

Every tote, pallet and carton needs tracking from receipt to despatch, with the control system and your warehouse management system kept in step at all times.

People and automation

Cranes, shuttles, automated vehicles and conveyors share space with people. Safety functions, guarding and safe maintenance access must meet machinery standards and your risk assessment.

Uptime and maintenance

Unplanned stoppages cost orders and overtime. Clear alarms, fault diagnostics and maintenance reporting help your team fix problems quickly and plan maintenance before it becomes urgent.

WHAT WE WORK ON

Systems we engineer

- Conveyors, turntables and transfers
- Stacker cranes and automated storage
- Tote and pallet handling
- Palletising and order consolidation
- WMS, WCS and MES integration
- SCADA, recipes and maintenance reporting

PROJECT EXPERIENCE

Conveyor and crane warehousing

Matrix implemented the software, electrical and SCADA system for a material handling system: conveyors, cranes, turntables, tote and pallet handling, and storage. It routes material by the ideal path, stores in-demand product dynamically, consolidates items onto single pallets, and provides SCADA recipe handling, maintenance reporting and MES part tracking.

What this means on your project

Most warehouse automation goes into a building that is already trading. We prove routing and storage logic against a simulated system before site, phase cut-overs around your peaks and agree interfaces to your WMS early. You receive the design, code and safety documentation to run and extend the system yourselves.

STANDARDS

The standards that shape your project

Customers ask us first about standards. These are the ones we meet most often in this sector, and what they mean in practice.

Standard	What it covers	How we work with it
BS EN 619	Safety of conveyors and handling equipment for unit loads such as totes, cartons and pallets.	Guarding, stops, interlocks and control functions designed to its requirements.
BS EN 528	Safety of rail-dependent storage and retrieval machines such as stacker cranes.	Crane control, travel limits and safe maintenance access designed against its requirements.
BS EN 15095	Safety of power-operated mobile racking and shelving, carousels and storage lifts.	Controls and interlocks for these units integrated so they work safely within the wider system.
BS EN ISO 3691-4	Safety of driverless industrial trucks, such as AGVs and AMRs, and the areas they work in.	Interfaces between vehicles, conveyors and doors designed so hand-offs and safety zones are clearly defined.
BS EN ISO 13849-1	Design of safety-related parts of control systems, rated by performance level.	Safety functions specified, designed and validated to the performance level your risk assessment requires.
Supply of Machinery (Safety) Regulations 2008	GB law on machinery safety: essential requirements, conformity assessment, marking and declaration.	Designs, risk assessments and documentation that support the technical file for the installed system.

The standards listed are those most often relevant to control-system work in this sector. Which apply to your project, and how, is agreed with you at specification stage.

The evidence you receive at handover

✓ Functional design specification	✓ I/O list and cause-and-effect	✓ Alarm list and HMI interface
✓ FAT and SAT records	✓ As-built drawings and source code	✓ Method statements for common faults

ABOUT MATRIX

Standards-led, fully documented control systems that you own and can support.

Matrix International (UK) Ltd has designed, built and supported industrial control systems since 1997. We take projects from specification and electrical design, through PLC, DCS and SCADA software, to installation, commissioning and long-term support, and we build the analysis software that shows how a plant is really performing. We are ISO 9001 certified and hold Cyber Essentials, CHAS, Constructionline and SafeContractor accreditation.

Siemens TIA Portal, S7 and PCS 7 • Rockwell • ABB • Schneider • Mitsubishi • Beckhoff • Emerson DeltaV • Honeywell • GE • WinCC, Ignition, AVEVA (Wonderware), FactoryTalk, iFIX and Citect SCADA

HOW WE DELIVER

From specification to long-term support

01 Specify

Requirements, applicable standards and risks agreed with you up front, itemised into a clear plan.

02 Design

Electrical and control design, PLC/DCS and SCADA software, to your standards and ours.

03 Test

Logic proven against a simulated plant, then factory acceptance testing before anything reaches site.

04 Commission

Installation, commissioning and site acceptance testing, planned around your operation.

05 Hand over

Full documentation, method statements for common faults, and training for your team.

06 Support

Maintenance, upgrades and analysis for the life of the system, with 24/7 cover under a support agreement.

WHY MATRIX

Why customers choose us

Standards first

An ISO 9001 certified quality system, designing to the standards your sector demands, plus any you specify.

You own the system

Clear structure, open interfaces and complete documentation, so you can support it yourself or with any vendor.

Tested before site

Control code is version-controlled and tested against a simulated plant before factory and site acceptance.

Multi-vendor

Siemens, Rockwell, ABB, Schneider, Mitsubishi, Beckhoff, Emerson, Honeywell and GE platforms.

In it for the long term

For us a project is not finished until the control system is decommissioned. 24/7 support is available under a support agreement.

OUR PROMISE

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Talk to us about your project

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