



INDUSTRY BRIEF

Baggage Handling

Control systems that route, sort
and track every bag, even at peak.



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

www.matrixsystems.co.uk
enquiries@matrixsystems.co.uk
0121 240 7454

YOUR PRIORITIES

What matters most

Baggage systems are the airport's hidden production line. Every bag must be screened, sorted to the right flight and tracked from check-in to aircraft, at peak volumes and with little room for downtime, while the people who run and maintain the system stay safe around moving machinery.

Availability at peak

A stopped conveyor at peak means missed bags and delayed flights. Controls must isolate faults, route bags around them and help your team recover quickly.

Every bag accounted for

Airlines must track bags at key points of the journey. Reads, sort decisions and exceptions need recording and passing on, so a mishandled bag is found fast.

Screening without delay

Every hold bag must pass through screening and be tracked through each level, with no way around it, while throughput stays high, even at the busiest times.

Safe for your people

Conveyors, lifts and sorters run close to handlers and maintainers. Guarding, emergency stops and safe access for maintenance must meet machinery safety law and standards.

WHAT WE WORK ON

Systems we engineer

- Check-in and transfer input conveyors
- Hold baggage screening integration
- Sortation, diverters and make-up
- Automatic tag reading and bag tracking
- Early bag storage
- SCADA, alarms and performance reporting

PLATFORMS WE WORK WITH

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

What this means on your project

Baggage systems rarely get a quiet day. We test sort logic and screening interfaces against a simulated system before site, then phase cut-overs around the flight schedule with fall-back routes agreed. You receive the design, code, safety documentation and method statements your team needs to keep bags moving.

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
ECAC Common Evaluation Process	European evaluation of hold baggage screening equipment against detection standards such as Standard 3.	We integrate approved screening machines into your system; the screening equipment carries its own approval.
IATA Resolution 753	Airlines' duty to track each bag at acceptance, loading, transfer and arrival.	Read and tracking events captured and passed on, so you and your airlines can meet it.
IATA RP 1745	Baggage messages such as BSM and BPM, which pass bag and flight data between airlines, handlers and airport systems.	PLC and SCADA interfaces to the systems that send and receive these messages.
BS EN 619	Safety of continuous handling equipment for unit loads, including baggage conveyors.	Guarding, stops, interlocks and control functions designed to its requirements.
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.

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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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