



**INDUSTRIES  
& ENVIRONMENT**

**SAFER  
GREENER  
SMARTER**

# Industrial Automation & Systems Design

**DRIVE YOUR EFFICIENCY, INNOVATION  
& COMPETITIVE ADVANTAGE**

**In today's industrial environment, maximising performance while reducing downtime and costs depends on having the right control systems in place.**

We deliver process automation and systems integration solutions that optimise operations, improve efficiency, and minimise downtime – providing reliable, high-performing systems that drive business results.

## **WHAT IS PROCESS AUTOMATION AND SYSTEMS INTEGRATION?**

Process automation and systems integration uses control systems, software, and OT infrastructure to automate critical tasks, reducing manual intervention while improving safety, consistency, and efficiency. By integrating sensors, controllers, operator interfaces, and communications, we ensure your systems work seamlessly to achieve your operational goals.

## **WHY PROCESS AUTOMATION IS ESSENTIAL?**

Precision control is critical for safe, efficient industrial operations, helping to:

- Boost productivity and reliability
- Reduce operational risk
- Support regulatory compliance
- Enable data-driven decision-making

Smart automation helps plants optimise resources, improve output quality, and strengthen the bottom line.

## **AUTOMATION & CONTROL SOLUTIONS**

As an open systems integrator, we select the right tools for the job delivering robust, cost-effective solutions tailored to your needs:

- Cloud or on-premises SCADA
- High performance HMI for safe abnormal situation management
- Alarm management to IEC-62682 / ISA-18.2
- Wide-area communications and telemetry
- DCS, PAC, PLC, and RTU controllers
- IEC-61131 and high-level programming languages
- Standardised process descriptions, FDS, and Cause & Effect templates
- Your automation goals are our priority – backed by global expertise and delivered locally.

**SGS**

## FUNCTIONAL SAFETY & CYBER SECURITY SUPPORT

Automation systems must be both safe and secure. Our dedicated teams bring specialised expertise in process and machinery functional safety, as well as OT cybersecurity across all control layers.

By working to international standards such as IEC 61508, IEC 62443, and ISO 27001, we ensure designs are robust, validated, and future-ready.

### OUR SERVICES

We deliver end-to-end EPC services for automation and integration projects, including:

- Project management and execution
- Risk assessments and optioneering
- Concept development and FEED
- Functional design specifications
- Detailed design and integration of control and safety systems
- Application programming (IEC-61131, ISA-88, ISA-95, GAMP5)
- System upgrades and replacements
- Site testing and commissioning
- Documentation and interface management response

### WHY CHOOSE SGS?

With us, you gain a trusted partner in process automation and systems integration. We provide:

- Independent expertise with global reach and local delivery
- End-to-end support from concept through commissioning
- Proven capability across complex industries and technologies

Choose us to optimise performance, reduce risk, and future-proof your operations.

### Contact us

#### Australia

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## Case studies: Our expertise in action

### CASE STUDY 1: HYDROGEN REFUELLING NETWORK

To support a nationwide rollout of hydrogen refuelling stations, we delivered

- Cloud-based Ignition SCADA with full network visibility
- Unlimited HMI clients and historian tags
- Automated energy scheduling via API integration
- Edge capability with 31 day store-and-forward resilience
- MQTT for IIoT and low-bandwidth sites
- SIL2-rated controllers for local safety control
- Cybersecurity by design – from cloud to edge

### CASE STUDY 2: ALARM MANAGEMENT FOR POWER GENERATION

For a multi-site geothermal power generator, we optimised over 30,000 alarms through:

- System-wide alarm audits and assessments
- Development and rationalisation of alarm procedures
- State-based suppression and “bad actor” alarm analysis
- Compliance to IEC-62682 / ISA-18.2