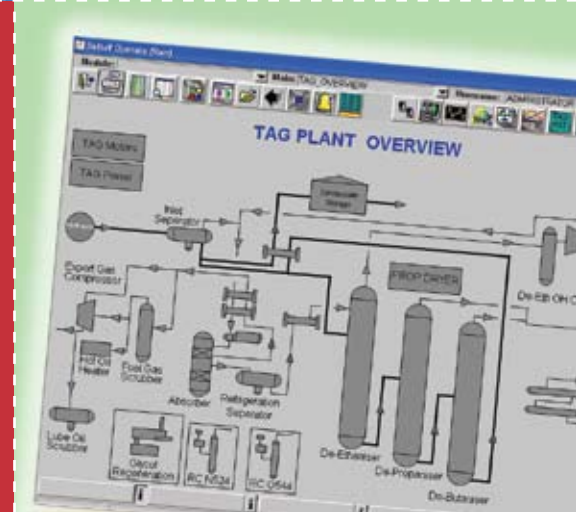
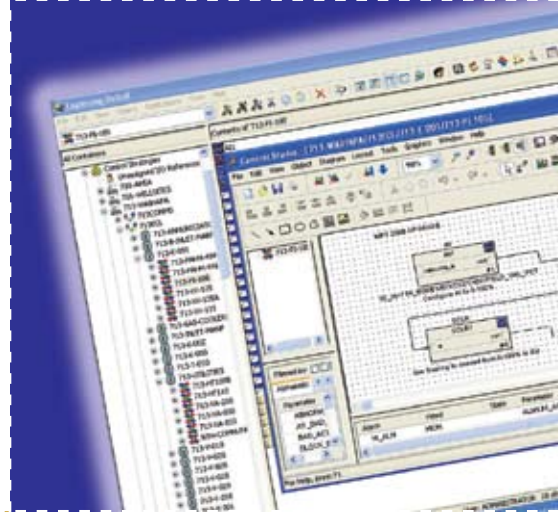


ECL

ENGINEERING CONTROL LIMITED





ENGINEERING CONTROL LIMITED

Introduction. Who we are...

Established in 1997, ECL is a leading petrochemical open systems integrator. ECL's mission is to provide our clients with:

- Increased profit through improved plant performance, availability and safety.
- Appropriate 'best of class' control solutions.
- Professional, focused and effective, technical skills.
- Long term commitment to our client's goals.

ECL has been rewarded with 100% loyalty from our client base since conception in 1997. We consider our commitment to supporting our clients through their challenges the key factor in this achievement.

ECL

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Core Business. What we do ...

The core business area of ECL is the provision of control system consultancy services.

Typical applications include:

- Turnkey design, build, installation and commissioning of an automated control solution.
- Specialist control philosophy, development and documentation to complement a client's process requirements. Sequential Function Charts, Functional Descriptions, Cause and Effects, Logic Diagrams, Operations and Maintenance Manuals.
- Functional Safety system design, consultancy, peer reviews & SIL studies.
- Innovative design of controls for prototype plant and equipment. Our experience in this field has been employed to develop flexible solutions using industry standard control techniques.
- Design and implementation of robust control solutions using advanced control techniques to improve equipment productivity and reduce down time.
- Utilisation of new technology: OPC, Database connectivity, Fibre Optic communications.
- Control System Auditing: Power Management, Controls Systems Integrity and Safety Reviews.
- Periodic Preventative Maintenance and Support Contracts.



Supplier Relationships. Whom we represent...

As an open systems integrator, ECL has built up a network of arrangements with suppliers and can offer a fully engineered solution using the 'best of class' technology most suited to the application.

Examples of some of our commercial relationships are listed below:

- Rockwell Automation Systems Integrator
- Hima Specialist Qualified Partner
- Emerson Process Management trained expertise in DeltaV, RS3 & Fisher-ROCs
- Suppliers of Modicon, Siemens and Omron PLCs
- Suppliers of WonderWare and iFix SCADA software
- Citect SCADA Systems Integrator

In addition, we also have commercial accounts with a diverse range of technology suppliers that enable us to supply most popular equipment brands at competitive rates. Please contact us for more details.

Client Base. Whom we work for...

The ECL client base includes significant providers of petrochemical exploration, processing and transmission capability both in New Zealand and Australia. ECL's client list includes the following:

New Zealand based companies:

Bridge Petroleum
Chevron / Caltex
Contact Energy
Dow Agro Sciences
Fletcher Construction
Fonterra
Methanex NZ
Origin Energy (NZ)
Shell Todd Oil Services
Tanker Pacific
Todd Energy
Transfield Worley
Vector

Australian based companies:

RioTinto / Alcan
Hima Australia PTY Ltd
Upstream Petroleum PTY Ltd

Please contact us if you wish to know more about our involvement with these companies.



Sample Projects. Where we're coming from...

As ECL has grown as a company, so has our capacity. Recent petrochemical projects include:

Origin/Technip – Kupe Production Station: Ongoing commissioning of DeltaV/Fieldbus PCS & SIS systems.

Origin/Technip – Ahuroa Gas Storage: Turnkey design & commissioning of DeltaV PCS & Hima SIS systems.

Hima Australia – Rio Tinto Gove G3 Alumina Refinery Expansion: Extended commissioning of DeltaV/Fieldbus PCS & Hima SIL3 SIS systems over 2 year period.

Upstream Petroleum Australia – Anzon Oil Basker/Manta Project: Subsea controls specification, integration and commissioning five subsea well completions and subsea manifold.

Fletcher Construction – Pohukura MCC Controls: Intelligent MCC controls based on ControlLogix/DeviceNet technology integrated into DeltaV DCS.

Swift - Waihapa PS DCS Upgrade: Upgrade of an onshore oil & gas processing site from Rosemount RS3 to Emerson DeltaV.

Bridge Petroleum - Radnor PS DCS Controls: Yokogawa CS3000 control of a relatively simple wellsite, separation, and oil storage/load out facility.

STOS / Swift / Vector – SIL3 Wellsite & Pipeline Gas Compression Stations: Local and Remote controls for a number of gas/condensate separation and gas compression. Local controls typically reside on a SIL3 Safety PLC to handle process and safety loops. All code, engineering and documentation typically completed to 61511.

Vector – Kapuni PS Boiler Controls Upgrade: Upgrade of 3 Boilers on Gas Processing site to IEC61508 SIL3 rating.

Vector – Kapuni PS LPG Upgrade: Upgrade of an existing facility to include a new 100T LPG Bullet & new automated tanker loadout and site access database controls.

Swift / Dow / Greymouth - Operator Paging Systems: SCADA and Alarm Paging systems to enable operators in the field to receive alarms.

Swift / Todd / Methanex - Pipeline Communications Upgrades: Upgrade of remote block valve stations, PLCs, SCADA, Leak Detection & Communications.

ECL's work outside the petrochemical industry includes work for the Dairy, Rendering, Wastewater Treatment, Milling and Industrial clients, samples include:

Scott Base WWT: Turnkey automation solution for a containerised Waste Water Treatment Plant for Scott Base, Antarctica.

Super Heated Steam Drier: Automation operational design, coding and commissioning for prototype technology rotary drier.

Mast Autoclave: Supply of automation controls for 50m long autoclave for curing yacht masts.





Quality Management. Ensuring your success ...

As a Q-Base certified company, ECL makes a continuing commitment to quality and training and has invested in the following training initiatives:

- Telarc Q-Base Quality Management training, certification and ongoing assessment.
- Telarc Q-Safe Health & Safety Management System.
- IEC61508/11 Certified Functional Safety Expertise certified by TUV Rheinland.
- Industry Specific training courses run by: Rockwell Automation, Emerson Process Management, Hima, Custom Controls, Citect and Industrial Automation.
- Internal assessment and development of applications for new technologies such as OPC, Web based monitoring, Paging, modular code, and shop floor to office connectivity and control.

In addition, ECL's management team continue to invest time and resources into business, quality and safety initiatives that enable us to work closer and more efficiently with our clients.



Capabilities. How can we help you?

ECL has successfully taken on projects ranging from complete fixed price turnkey Instrument and Electrical solutions... through to Periodic Preventative Maintenance contracts for national Petrochemical companies... through to supply of engineering labour to assist clients during times of peak demand.

We consider ourselves New Zealand's premier open systems integrator with respect to:

- Control Systems Consultancy, Engineering & maintenance.
- Control Systems Technology Consultancy & Supply.
- Control Systems Integration.
- Functional Safety Consultancy & Engineering.

We would be pleased to talk to you regarding your requirements and to discuss ways in which we can use our diverse experience base to your advantage.



Q-BASE





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