FEATURED

- Dalton Electrical signs up as first System Integrator Partner
- Successful Thermoforming Machine Upgrade by Dalton Electrical Ltd
- 5 things you should consider when planning your digitalisation journey
- INTRODUCING... Peter Gillespie - Industrial Connectivity Manager

GET CURRENT AUTOMATION

SEPTEMBER - OCTOBER 2020

Dalton Electrical signs up as first System Integrator Partner

Dalton Electrical, a specialist industrial electrical contractor, have been based in Auckland for over 50 years. Their services cover everything from installation, scheduled servicing, 24/7 breakdown support, as well as component level electronics repairs and automation.

In the last two years Daltons in-house automation team has experienced an immense amount of growth. In addition to undertaking plant-wide systems installations, the team frequently utilise their diverse skill-base to tackle reverse-engineering, and machine upgrade projects.

Bespoke system designs and innovative solutions have become a specialty of Daltons, upgrading older machines with new controls systems to breathe some new life into aged equipment, often resulting in increased machine throughput and ease of use.

"Dalton Electrical has a long-standing relationship with CSL, being an approved installation partner for Weidmuller signal, data, and surge products for nearly 10 years. When CSL recently announced their partnership with Siemens to distribute the Digital Industries products in NZ, we were keen to build on our existing relationship"
Thomas Fuscic
Automation Manager, Dalton Electrical.

Daltons and Cuthbert Stewart have worked well together for nearly 10 years in their traditional electrical markets. With both companies increasing their automation offerings, it made sense to work together to provide solutions to this market niche.

"Joining the CSL/Siemens System Integrator Program means that we can offer Siemens Digital Industries products to our customers as competitive and complete automation solutions, confident that there is local stock and support from the helpful team at CSL." **Thomas Fuscic** - *Automation Manager, Dalton Electrical.*

Cuthbert Stewart is excited to welcome Dalton Electrical on board as our first System Integrator partner. *"To realise the full potential of the Siemens Totally Integrated Automation Solutions, having strong integration partners is essential. We're very excited to welcome the team from Dalton Electrical to our Partner Program and look forward to working closely with them on challenging automation projects"* **Phil Elliott** - *CEO, Cuthbert Stewart Ltd.*

Both companies are excited to be working together to bring turn-key automation solutions to the local market.

CSL
CUTHBERT STEWART LTD

GET CURRENT
AUTOMATION
SEPTEMBER - OCTOBER 2020

Successful Thermoforming Machine Upgrade by Dalton Electrical Ltd

Dalton Electrical had been maintaining and servicing an older thermo-forming machine for many years. Although the machine was still mechanically robust repairing electrical components had become arduous and sourcing replacement components was challenging.

These difficulties resulted in focusing on how the electrical and control systems could be upgraded to take advantage of the life left in the mechanical components and continue to get value from the asset.

The existing system consisted of an obsolete Siemens TI 505 PLC Rack, a PC with custom motion control software, that was utilising profinet to communicate with a third-party servo drive. Daltons proposed the best upgrade pathway was to consolidate all the existing control systems into one modern PLC.

Solution

After considering an upgrade package proposed by the American machine manufacturer the machine owner decided to go with the local solution proposed by Daltons. The advantages of reduced lead-time on both hardware and software, confidence in Dalton Electrical's ability to provide a consolidated solution, and their commitment to continued support made this a logical decision.

The Siemens Simatic S7-1200 Fail-Safe CPU was chosen for the task. This was selected because of its capability to replicate the existing, bespoke profinet communication with the servo drive, replace the existing PID controllers used to manage external heating, and providing the flexibility to include a machine safety upgrade all in the same unit.

In the main rack relay output cards were used to integrate the control system with the existing 110VAC control circuits, while thermocouple inputs and solid-state outputs are used to migrate

Corey Westhall, Automation Engineer, Dalton Electrical Ltd

the external heating control into the PLC. For the safety aspect Simatic ET200 Safety remote IO was installed on a separate rack.

An Industrial PC running Ignition Edge software was used for operator control and feedback as well as datalogging. Once the solution was agreed upon the project took a week to complete.

Improved Performance

As well as an increase in product throughput the resident Engineers have commented that the mechanical operation of the machine is much smoother. The new control system allows finer adjustment of the hydraulic control and timing making these improvements possible.

The customers management team have been impressed with the real time and historical production data that is made available by the PLC on their network.

This project is testament to the capability of both the Daltons engineering team and the Siemens Simatic Automation Portfolio.

5 things you should consider when planning your digitalisation journey

Digitalisation, the Industrial Internet of Things and Industry 4.0 are all commonly used terms in todays world, but sometimes it can be difficult to see the value. Essentially these terms refer to connecting the machines and information produced in a production process to IT systems and the internet. However, just connecting these systems together does not in itself provide value - value comes in what is done with the information and remote access once this link has been established. This can look very different from business to business. The five points outlined below should be considered when deciding how to approach your digitalization journey.

Openness

Firstly, consider openness. Selecting an open platform is that is flexible and can work with any number of other systems and data sources is important. This provides the ability to extract information from internal IT systems, giving the ability to communicate using different protocols and allowing easier integration of existing plant and machinery. In addition to internal information openness adds the capability to use external data such as weather information or a customer's stock levels for analysis or planning purposes.

Ensuring the platform selected is open to receiving information from various sources in any number of different formats will help to ensure the best use of the existing data, and the flexibility to include other sources of information available in the future.

Contextualisation

Data is only valuable when put into the right context. Otherwise it is just data. Knowing the cost of electricity a facility is using each day can be useful in the context of budgeting for power expenditure. However, to calculate the cost of production additional data would be required. Factoring in labour cost, materials consumed, as well as other fixed and variable costs is required to get a true reflection of production cost.

Contextualisation is where the most value can be found and where it is likely the return on investment becomes apparent. Easily being able to view and compare various pieces of information separately, as well as part of the whole assists in making intelligent decisions on a day to day basis, and when looking for areas to make improvements.

Security

When considering anything to do with data, security is an aspect that should always be considered. In addition to the advantages of production and process lines becoming more connected to IT systems, and the internet there is also inherent risk. Considering security is important to ensure

Continued next page...

that the right precautions are taken to protect your production process from outside interference and keep valuable information secure. An extreme approach might be to completely isolate systems from the outside world. This approach would come with sacrifices such as not being able to remotely monitor or make changes to a process, or not being able to use and compare information from different sources. On the flipside having no security between IT and OT systems might allow anyone with access to your IT system to make changes to the production process.

Security is about risk management. It is important to consider the implications of any security measures taken, or not taken, to ensure the most value is gained from the information, with a suitable level of security measures in place.

Scalability and Flexibility

Digitalisation should be viewed as a continuous journey, not as a single exercise. What is valuable and relevant to your business now will almost certainly differ in future. The ability for an IOT platform to be easily utilized in different manners, scale to the expansion or contraction of an operation and ensuring it is continuously developed and supported should all be considered when investigating options.

Investing in a tool that will become obsolete due to lack of development, or one that does not scale to match the operation may provide short term benefits, but the value could diminish rapidly in the everchanging modern world.

Customisation

The ability to customise a digital platform can prove to be invaluable, so long as that customisation remains flexible enough to keep up with changing business requirements. The easier a platform is to alter, the more likely it will remain valuable in the long term. For example, the ability to customise and manipulate a dashboard easily, change the way the information is presented and what data is being analysed can help to provide the right information to the right audience. CEO's require different information to a production manager and these needs are subject to change as the business evolves.

The ability to customise a solution to meet the unique requirements and drivers of various roles within a business is invaluable in both the short and long term of a businesses digital journey.

Conclusion

Digitalisation can be a complex topic, with a lot of providers coming up with solutions in their individual niche markets. Having an overarching platform that is open, flexible and secure are important considerations when deciding how a company will approach this journey to ensure that it proves to be of value both now and into the future.

CSL
CUTHBERT STEWART LTD

GET CURRENT AUTOMATION

SEPTEMBER - OCTOBER 2020

System Integrator Program

A tailored program providing service and support to System Integrators delivering Siemens solutions.

From personalised skill development and training opportunities through to access to software and hardware tools, the CSL System Integrator Program in partnership with Siemens provides the ultimate support and platform for local System Integrators.

SKILL DEVELOPMENT

Unlock training and hands-on workshops specially designed to fully utilise the capability of Siemens technology.

TOOLS

Access to software and hardware tools to enable market leading integration and project delivery.

SERVICE AND SUPPORT

Service and support including online, phone, remote access.

CUSTOMISATION

Program developed together with our in-house specialists that aligns with individual needs and requirements.

Join our program

You're exclusively invited to apply to join our program.

Simply visit **www.csl-online.nz/siprogram** to register your interest and one of our friendly team will soon be in contact!

S7-1200 PLC Starter Kit & HMI Special Offers!

The intelligent choice for automation solutions in the low and middle performance range.

Enjoy up to **75% in savings** on starter kit & HMI add-ons!

SIMATIC S7-1200 Starter Kits from CSL make it quick and easy to implement simple automation tasks. The three kits on offer have been tailored for the local NZ market and allow flexible and efficient implementation of different tasks, from engineering with the TIA Portal software or the integration of HMI Panels, to solutions for fail-safe applications.

SPECIAL PRICE
$399

FREE 1 day training with every starter kit purchased

To complete your kit, select from the below HMI add-ons:

SPECIAL PRICE
$399
[Kit Total $798]

HMI option **1**

SIMATIC HMI, KTP400 Basic, Basic Panel, Key/touch operation, 4" TFT display, 65536 colours, PROFINET interface, configurable from WinCC Basic V13/ STEP 7 Basic V13, contains open-source software.

SPECIAL PRICE
$599
[Kit Total $998]

HMI option **2**

SIMATIC HMI, KTP700 Basic, Basic Panel, Key/touch operation, 7" TFT display, 65536 colors, PROFINET interface, configurable from WinCC Basic V13/ STEP 7 Basic V13, contains open-source software

SPECIAL PRICE
$899
[Kit Total $1298]

HMI option **3**

SIMATIC HMI, KTP900 Basic, Basic Panel, Key/touch operation, 9" TFT display, 65536 colors, PROFINET interface, configurable from WinCC Basic V13/ STEP 7 Basic V13, contains open-source software.

CONNECT WITH US
We'd love to hear from you!

ASK CSL: 0800 288 423
WWW.CSL-ONLINE.NZ
SUPPORT@CSL-ONLINE.NZ

CSL
CUTHBERT STEWART LTD

CSL
CUTHBERT STEWART LTD

GET CURRENT
AUTOMATION
SEPTEMBER - OCTOBER 2020

MEET OUR TEAM

INTRODUCING...

Peter Gillespie

Industrial Connectivity Manager

Born, bred, and based in Taupo, Peter is our Industrial Connectivity Manager at CSL. He has been part of our team for 13 years and counting.

With his background in control systems he is the perfect person to lead our industrial connectivity range in the marketplace. In his own words "Great people to work with, along with great brands and cutting-edge technologies" has enabled Peter to make some great in-roads into the New Zealand Automation market. He has worked hard with Weidmuller to establish the U Remote range of remote input/outputs for automation systems as a viable solution. With 18,000 I/O points thus far installed he is certainly making in-roads.

Along with partner Jane and adult children Bex and Matt, most of all the family enjoys holidays both overseas and throughout New Zealand "family holidays are the best memories".

Working hard with our great customers makes this all possible. When not working or taking vacations you'll find Peter in his garage restoring '70s vintage motocross motorcycles, or out fishing on the lake.

peterg@csl-online.nz

Weidmüller

I/O System IP67

High-performance for your decentralisation

More flexible automation solutions with u-remote

In both machine and plant construction, sensors and actuators from the entire machine have to be connected to the control unit. Depending on the machine, the size and also the count of the signals may be very large so that fieldbuses and IO systems should be used to collect the signals locally. The u-remote IP67 product family solves this problem by means of IP67 protected encapsulation at the very point where the sensors and actuators are located.