



International System Integrators

MILLWIDE SOFTWARE, OPTIMIZATION & CONTROL SOLUTIONS

1

WIELAND & SONS LUMBER CO WINTHROP, IA, USA

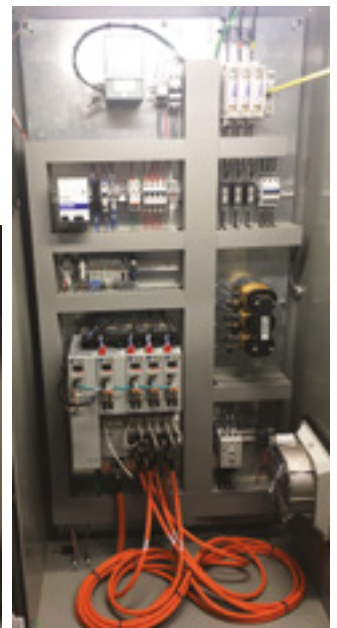
THE PROJECT

Wieland & Sons Lumber in Wintorp, IA was looking to upgrade the existing Silvatech Controls and optimization on their Crosby Edger. Automation & Electronics USA was selected for the upgrade and commissioned the system in June 2019.

The system consisted of top side scanners which were comprised of eight LMI Gocator 210 scanners with 1.10" spaced laser profiles to allow for high resolution 3D images.

The scanner profiles were then input into our new IRIS™ Edger Optimizer on the latest Windows 10 platform to provide accurate and reliable solutions to maximize each flitches value. The solutions were then transferred to the PLC system which consisted of the latest series Allen-Bradley 5069 CompactLogix processor running on v31. Flitch position control was achieved by using Allen-Bradley Kinetix 5700 series servo drives with Allen-Bradley servo motors with built-in encoder feedback. Saw and preview laser positioning was controlled using a Delta RMC150 hydraulic motion controller.

This project was commissioned in July 2019 by Joe Korac, Alex Trapski and Rainer Ansorge.



2

JORDAN LUMBER MT GILEAD NC, USA

THE PROJECT

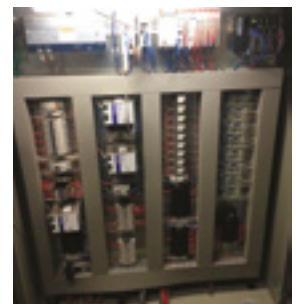
This was a batch kiln to continuous drying kiln (CDK) conversion complete with a brand-new controls package consisting of a PLC control panel and our DrySpec™ CDK software.

This is the third CDK that A&E has converted for Jordan Lumber.

This is one of our most advanced CDK systems as it is running on a server computer with ten independent remote computers scattered around the mill.

This project was commissioned in July 2019 by Alex Trapski and Reid Wells

(Reid is our new projects Engineer in A&EUSA - See under new staff section of this newsletter).



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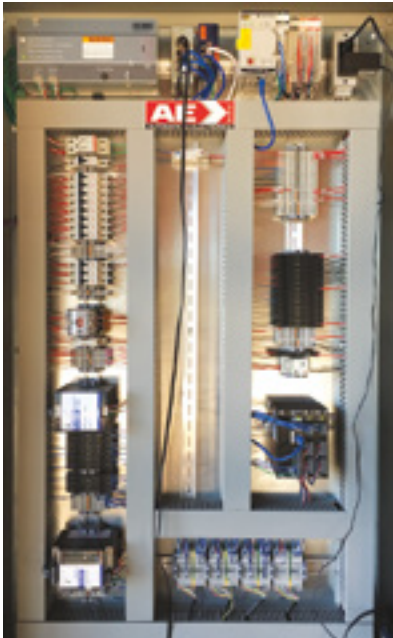
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RBM LUMBER
COLUMBIA FALLS
MT, USA

THE PROJECT

This project was to upgrade from an existing Silvatech Carriage networks to a brand NEW Automation & Electronics system.

The control system included a custom-built control panel and operator console. An Allen-Bradley 5069 series CompactLogix was used to run the system and a Delta RMC150 was used to control the hydraulic servo valves. Our latest networks software was implemented which now has the ability to save commonly used stacks for future recalls by a single button click.



Features include:

- Stacks for cant setting up to 40 boards.
- Last board repeat button (for quickly creating stacks)
- Six user configurable Stack schedules (for stack recall)
- Automatic cut position selection based on current position.
- Two memory positions (can have up to 10 on request).
- Active hydraulic servo diagnostics.
- Eight cant size buttons (can have up to 20 on request).
- Eight board size buttons (can have up to 20 on request).
- Multiple size button libraries (can store up to 5 different Cant/Board button arrangements)
- Adjustable hydraulic speed profiles.
- Suregrip joystick handles for easy operation.

This project was commissioned in July 2019 by Alex Trapski.



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SORRELLS SAWMILL
SPARKMAN
AR, USA

THE PROJECT

Sorrells Sawmill in Sparkman, AR, recently installed a brand-new Cooper Machine linear edger complete with top and bottom 3D scanning using IRIS™ Optimization.

This is a lineal edger incorporating both top side and bottom side scanning.

This is achieved by using four JoeScan scan heads setup in a diamond arrangement. Profiles are taken along the length of the board allowing for differential measurements to be taken which provide accurate board geometry for optimum solutions.

An Allen-Bradley 5069 series CompactLogix was used to run the system and a Delta RMC150 was used to control the hydraulic servo valves for board and saw positioning.

This project was commissioned in July 2019 by Joe Korac.



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CRIGHTON SAWMILL LEVIN NORTH ISLAND NEW ZEALAND

THE PROJECT

NEW Networks and EdgerView™ Crighton Sawmill in Levin have recently commissioned a Salem Edger and a Resaw. A&E were chosen to provide new networks controls for both the Edger and Resaw and also to intergrate A&E EdgerView™



A&E's EdgerView™ is a system that uses a camera view of a Flitch or Cant that is displayed on a monitor.

The operator lays his sawlines over the resulting image and then sends the board through the edger to be cut accordingly.

The advantage with this system is that there is no longer a moving laser bank.

Also the saws only moves once, thereby reducing saw-guide wear.



** Automation & Electronics Lance Mustard was the project and commissioning Engineer on this job.*

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WHITEHEAD TIMBER SALES MT GAMBIER SOUTH AUSTRALIA

THE PROJECT

NEW 3D Log Scanner

Whitehead Timber Sales in Mt Gambier, South Australia were in the market for a 3D Log Scanning and Sorting System for their Debarker line.



PIC: Whitehead Log Scanning and Sorting System

They had some very tight performance tolerances to meet and the system had to be very accurate with regards to length and diameter.

This particular line processes 3.6-6 metre logs, 150mm-650mm diameter. It was imperative that a very accurate log length was to be determined by the scan. The requirement was to scan the envelope of the log, which then, in turn, determines the optimum cut pattern yield from that size.

Several round-table discussions at A&E in Mt Manganui resulted in Project Manager Rainer Ansoorge fronting an idea that was eventually adopted. A&E would use a Scanmeg HD1000 scanner and a photo-eye array to "snap shot" the length. The 3D scanning was handled with four Joescan JS-25WX scanners. A&E's "LogView" optimisation program was customised to suit Whitehead's requirements.

The new 3D system triggers a combination of photocells together with a light curtain scanner to obtain a very accurate length.

The system determines the maximum dimension, shape and overall diameter of the log scanned. Depending upon the resulting shape and length, the log will be sent to the appropriate sawline.

An installation that uses a light curtain and then verifying the results with an encoder is a first for Automation & Electronics.

General Manager of Whiteheads, Colin Wooldridge says that they have used A&E for projects before and in this instance, they required a tailored software solution to suit their needs. "Automation and Electronics were able to offer constructive suggestions in regard to the critical log length that the system was required to measure" Colin said.

"Their willingness to obtain the correct solutions for us and their generally co-operative, friendly and professional manner made choosing A&E an easy decision" said Colin.

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WOODWORK COMPANY “Luli” China & Thailand

THE PROJECT

New CDK Installations

Since the last newsletter in March this year, A&E have been busy with new Windsor CDK installations in Asia - In Weifang, Shandong Province and also Trang Province and Satun Province, Thailand.



Luli 1 and 2: Both showing the immensity of the wood storage building next to (and dwarfing) the new kiln.



Luli 3: The new kiln in place

Luli 4: Site transport at Luli, Weifang



Satun MF Thailand: On site at the Thai Satun installation - Trang Blessing 1 and 2: Traditional blessing on site by Thai Buddhist Monks.



THAILAND PROJECTS

The two Thailand installations were an interesting proposition, in both cases these were for drying Rubberwood (we assume that as trees they were “tapped out”).

In addition, some upgrades were also carried out at Trang at time of the kiln installation.

AUTOMATION & ELECTRONICS NEW VERSION

A&E BLADEVIEW™

Many clients have been running a saw deviation system on their Headrigs.

A&E Bladeview™ has been in service for many years as a standalone item with LCD display and LED Alarm indicators.

A&E recently released a new Windows 10 PC based system which provides a much more user-friendly display and interface.

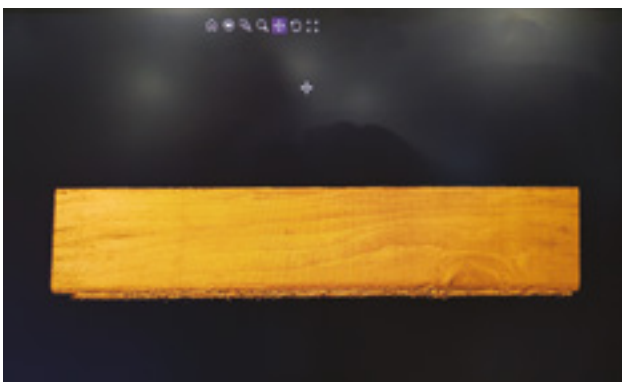
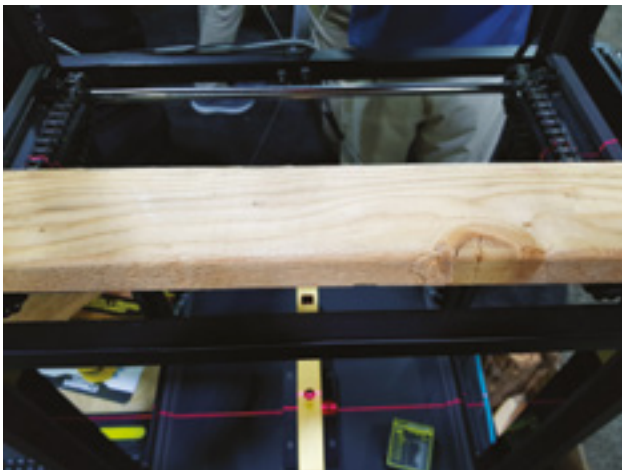
The software also offers continuous trending of the saw deviation/behaviour along with future enhancements that will incorporate saw identification, integration with the Headrig optimizer/feed speed verification and interface with new generation sensing systems.



AUTOMATION & ELECTRONICS NEW PRODUCT

JoeScan

JOESCAN REVOLUTIONARY NEW JS-50WX SCANNER



The first geometric scanner to do transverse and lineal scanning in the one sensor offering total spares compatibility for your Trimmer, Edger and Lineal Log scanner.

The dual camera capability allows the scanner to see steep angle wane and around obstacles like chain flights.

PIC TOP LEFT: Photo of board 160952

PIC BOTTOM LEFT: Scan actual raw data photo 160938 from the new JS-50WX

LINEAL + TRANSVERSE 3D LASER SCANNER



- Dual cameras find steep wane
- Pre-calibrated QuickLock mount
- Single cable connection
- Single PC system
- Extended laser life

**SIMPLE. RELIABLE.
COST-EFFECTIVE.**

International Systems Integrators

AUTOMATION & ELECTRONICS NEW PRODUCT

ALLEN-BRADLEY® COMPACTLOGIX™ 5480 CONTROLLER

Logix performance and a commercial operating system in a single platform.

5480 Controller offers the benefits of Logix control with Windows®-based computing.

With a commercially available CPU and a Windows 10 IoT Enterprise operating system running independently of the Logix control engine, it provides a high-performance architecture with the ability to run 3rd-party applications.

End users and OEMs are inventing ways to collect data from machines and turning it into valuable information closer to the plant floor. This ability to make decisions at the machine level helps to enable our Connected Enterprise vision.

Enhanced Performance, Flexibility And Troubleshooting

Features:

- Built upon our high-performance architecture, which was first introduced with the ControlLogix® 5580 and CompactLogix 5380 controllers
- Uses Studio 5000® environment and development tools
- Provides Logix real-time control and an instance of Windows 10 IoT Enterprise operating system on a single platform
- Increased performance provides faster scan time execution and motion loop updates, therefore, better machine throughput and increased production
- Embedded Logix security with FactoryTalk® Security
- User authentication and authorization

Uses:

- Analytics, data gathering, and predictive computations
- Cloud Gateway, Data concentrator
- Machine and Line Control
- Integrated control and visualization
- Control and 3rd-party machine vision



HEALTH & SAFETY POLICIES

In a recent Health & Safety review, all Automation & Electronics NZ Ltd employees were advised that when required to attend customer sites for the purposes of sales, repair or commissioning of equipment, that customer is responsible for ensuring that their site Health & Safety policy and procedures are compliant with the Health and Safety at Work Act 2015 and that Hazard Identification and necessary procedures are in place.

Should an Automation & Electronics NZ Ltd employee identify a hazard on the customer property that is deemed unsafe, after advising site of the issue, the Automation & Electronics NZ Ltd employee is permitted by Automation & Electronics NZ Ltd management to leave site until such time the customer has rectified the hazard and made it safe.

We see this policy as having a mutual benefit for ourselves and our customers so that we can improve our Health & Safety systems to comply with current legislation and in turn ensure the safety of our staff and the staff of our customers.

A&E EXPO STANDS 2019



PIC: Our stand at the Atlanta Wood Expo June 2019

Earlier this year: Automation & Electronics were at the Atlanta Wood Expo in the USA in June, together with major shareholder TS Manufacturing.

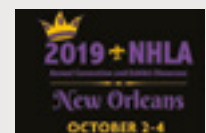
COMING UP:

NHLA: (National Hardwood Lumber Association) Convention & Exhibition New Orleans, USA
2nd-4th October

WOODTECH: Rotorua, New Zealand - **11th-12th September**

WOODTECH: Melbourne, Australia - **17th-18th September**

HMA NATIONAL CONFERENCE & EXPO: Nashville USA - **March 2020**



Welcome to: Dave Alexander

JOB DESCRIPTION AT A&E: Workshop Electrician

Previous Job History/Education:

Dave has been an industrial electrician for a number of years. Firstly, in Whakatane and then he moved to Mount Maunganui. Dave worked for Tauranga City Council and was then employed at BOP Fertiliser Works which changed its name to Ballance Agri-Nutrients. He was with Ballance for 9 years before becoming self-employed and contracting out to Tauranga City Council, Flour Mill, Ballance, Baykels and other Industries.

Family Details: Dave is married to Lou and has a son, Brendon, daughter in law Anna, and two grandchildren, Brad and Bella.

Interests: Family, Spearfishing, Travel (local and overseas), Biking, Walking, Socialising and Boating.



Welcome to: Heyward 'Reid' Wells

JOB DESCRIPTION AT A&E: Controls Engineer

Previous Job History/Education: Reid graduated from Kennesaw State University, Georgia, in December of 2017 with a Bachelor of Science in Mechatronics Engineering from the Southern Polytechnic School of Engineering and Engineering Technology.

Shortly afterward, he started working at Fulghum Industries, Inc. as a Mechanical Design Engineer where he used AutoCAD and Solidworks to design and draw mechanical components for radial log cranes, wood chippers, and debarkers for the pulp and paper industry. His controls work at Fulghum involved the development and implementation of a crane anti-collision system using WAGO controllers.

Family Details: Reid has been married for 1 ½ years to Amber.

Interests: Reid enjoys playing videogames, hunting, fishing, camping, hiking, riding trails in and working on his Jeep. He also likes riding motorcycles, cooking with his wife, walking and playing with his husky, watching good movies, listening to music, playing bass guitar, and flying RC planes, helicopters, and drones.



Welcome to: Elroy Dalefield

JOB DESCRIPTION AT A&E: Graduate Software Developer

Previous Job History/Education:

Elroy was born in Palmerston North. He achieved his Bachelor of Science with Honours, majoring in Computer Science from Victoria University in 2019. Elroy was a researcher at Victoria University for 2 years and has been a volunteer at Digital Seniors in Masterton.

Interests: He enjoys movies, board and video games and cycling.



AUTOMATION & ELECTRONICS EXPO AWARD

2019 BAY OF PLENTY EXPORT AWARDS

A&E WON THE SHARP TUDHOPE LAWYERS "BEST MEDIUM TO LARGE BUSINESS" AWARD



Team pic: L-R: Those available on the day were: Mike Steel; Wendy Hayman; Dave Alexander; Brian Smith; Ken Woods; Tom Douglas; Glenn Purcell; Lance Mustard and Sarah Muir.

In June this year Automation and Electronics won a prestigious award in the Bay of Plenty area where their New Zealand head office is based. A&E won the title of "Best Medium to Large Business" from Export New Zealand - Bay of Plenty.

What does that mean to me you may well ask? We like to think that it underpins our innovation and continued commitment to providing the best and most cost-efficient Automation Solutions to assist your company and your industry.



PICTURED: Brian Smith (Director) and Glenn Purcell (Engineering Manager)



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