

What's New? What's Coming?

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Basis of this Presentation

- In Part: Predict the future
- Not here to make a sales pitch.
- Interviewed many vendors (not all)
 - Some were open, some not.
- Asked each one: What's New? What's Coming?
- Summary of their responses

What's Not New

- End of (Support) Life
 - PLC
 - Allen-Bradley 5 series and predecessors
 - Allen-Bradley SLC (Slick)
 - Support is “gone or you can’t afford it”
 - Sensor (Carriage)
 - Factory Support for L4/L400 ended 6 months ago
- These are unpleasant but real issues for your mill that you’ll likely deal with, sooner or later.

What's New?

- A replacement for the L4 / L400 (6 inch) is available.
- Grade Mark Readers: now available as all digital devices.
 - Fewer parts and PC based
- Increasing Vendor support with on-line / remote access to the electronic equipment
 - Troubleshooting, software upgrades
 - Faster response time to solve issues
- Improved VFD's, incorporation of Machine Vision
- Improvements in PLC programming software
- Required Internet Access. Invest in security.

What's Up and Coming?

- Improved / Expanded use of Machine Vision
 - Sequencing
 - More Automatic (trained labor shortage)
 - Quicker learning time for new operators
 - Fewer devices on the machinery
 - Managing backlogs better
 - Cross up Detection
 - Safety
 - Expect many improvements and new applications

Machine Grading / Inspection

- One vendor is currently inspecting Alder
- Multiple vendors have stepped up their scanners to include HD color, more measurements, including end cameras.
- Another vendor is making a full court press to develop HW lumber inspection capabilities.
- End scanning of logs on carriage to incorporate cracks, et.al. into the optimization.

Optimization Developments

- Denser Measurements
- More Accurate Measurements
- Faster Solution Times
- Incorporation of Machine Vision
- New Sensors
- Simpler Designs
- Scanning in sun-lit environments coming...

What's New in Controls

- Connectivity
 - **Secure Access** to monitor status and performance via mobile devices
 - Higher-Speed access for Vendor support and troubleshooting
 - Greater access to individual components
 - More coordination between control systems
- More Speed
- Smaller Devices – easier to mount
- Smarter Devices – more functionality
- Less hardwiring – faster installation

Increasing Automation

- Obviously.
- Smaller manufacturers are increasingly incorporating more automation.
 - More consistent and productive flow
 - Inspired by a lack of a consistent workforce
- A variety of sawmill-useful sensors are friendlier, smarter, faster, and lesser cost at an increasing rate (with exceptions)

Growing Applications of Vision

- Camera Density, Speed, Accessibility is Up.
- Computer Vision
 - Inspection / Grading
 - Sequencing
 - Replacing limit switches and whisker switches
 - Smart staging of material
 - Tallying
 - Measurement of each board in a layer being placed at the Stacker
 - Bark Detection

Mechanical

- Profiling of sideboards during breakdown with chip heads in hardwood.
- A push towards all electric
 - A fully electric resaw is available
- Improved speed of optimization and controls allow faster production cycles:
 - Logs, cants, flitches, and boards.

Mechanical (cont.)

- Building a better Bundle
 - Vendors are responding to customer interests in less air in a bundle of RW lumber. Green and Dry.
 - One approach is with a short tray sorter to maximize lumber / minimize air by building courses close to the desired package width at the stacker.
 - Bundle appearance also improves.

Mechanical (cont.)

- Curve Sawing being done in Hardwood successfully.
- Gangs: Shifting pocket technology striving for smaller center piece.
- Concerted efforts to eliminate hydraulics.
- More throughput using more Machine Vision

In Conclusion

- Be aware of electronics no longer supported.
 - Equipment without hydraulics more prevalent.
 - Machine Vision is a fast growing part of sawmill technology.
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- Any Questions?

Thank you!

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