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.

• Any Questions?
Thank you!

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