OPTIMIZE PROCESS EQUIPMENT PERFORMANCE
Redefining Materials and Chemical Processing Productivity For Tubular Goods with Real-Time Operations Control Software

Collecting and understanding overall equipment effectiveness (OEE) data and other key metrics can improve product consistency, reduce production costs and help advance best practices. In the tube and pipe industry, where there is a greater emphasis on damage control, manufacturers are looking for ways to limit downtime, avoid “bottlenecking” and prevent safety hazards.

Automation Engineering Corp.’s Finishing Room Information System (FRIS) is a remote SCADA system that monitors and records events on the finishing room shop floor. With real-time production information, FRIS provides centralized monitoring to meet all the quality requirements of today’s market leaders within the Oil Country Tubular Goods industry.

• Respond faster to bottlenecks and unintentional downtime with corrective action through a rapid response ANDON alert system.
• Decrease scrap, rejects and parts inspection by monitoring entry, loading, processing and unloading of materials.
• Improve consistency with order fulfillment by statistically verifying past production quantities by shift, day, week, month, batch or order.
• Rapidly pull SPC charts and data tables via any web browser on a PC, tablet or smart phone, and receive real-time email and text messages when unexpected conditions occur.
• Allow authorized users to make edits from the plant floor, with all edits logged as events so no history is lost.
• Trace, report and implement best practices to improve plant performance and avoid adverse manufacturing situations.
• Import and export data using your own existing management tools.
• Meet federal regulatory compliance measures with a complete electronic records system.
• Assess production capabilities to conduct product changeovers or to take on new business.
• Lower operator errors with a product data management system that includes an easy to use human machine interface.
• Prepare for equipment upgrades and maintenance by monitoring machine data collection points and sensors.
DATA SHARING MADE SIMPLE FOR SCADA MONITORING

As you compare operations and performance software, consider the data you really need and how it is shared. How confident are you about increasing operational efficiency? Will the information you gain help you prioritize and deploy an action plan for continuous improvement? Will your software allow you to regulate user privileges so operators and decision makers can focus on information that is pertinent to them?

Automation Engineering Corp.’s FRIS allows all stakeholders to share information via Intranet, Internet, email and text messaging. From any web browser, PC, tablet or smartphone, employees can remotely monitor cycle time, downtime, production and other processes within the finishing room.

FRIS is extensible, scalable and synchronizes time across your entire finishing room. Process and product information are instantly available within AEC’s condition monitoring system.

BEGIN TRACKING YOUR FINISHING ROOM

- Manufacturing Cells
- Employee/Shift Performance
- Downtime/Stoppage
- Equipment Failures
- Scrap/Rejects
- Historical Data
- Safety Records
- Inventory
- Order Fulfillment
- Product Transfers
- Time-to-Volume
- Production Quality
- Predictive Maintenance
- Length/Weight
- Identification
- Communications

Designed as a “front end” data collection system, information is easily made available using existing analysis tools and resources. FRIS communicates with current control systems and converts PLC communication protocols, making it easier than ever to collect process information. Data is accessible via FTP, SQL database or any other SPC tool. You can also share data with ERP, CMMS and Excel to identify opportunities, measure results, set priorities and engage your team.
FRIS is a plant floor visualization system that includes a full range of industrial signal products, including ANDON lights and an annunciator module. From the shop floor to the boardroom, large screen monitors and touchscreens can be transformed into an andon board to monitor productivity. Personnel are also notified of problems via SMS text messaging and email.

FRIS can allow more than 50 registered users, plus guests, per the requirements of your organization. Access rights can be assigned based on training and qualifications and can be integrated with an employee ID or badge.

With your machine data collection (MDC) software, you can gauge which line operators, maintenance technicians and production supervisors are having the greatest effect on your downtime. Those employees with the greatest potential to cause downtime are also your most valuable resource to aid in continual improvement.

**USING A SYSTEM PLATFORM DESIGNED SPECIFICALLY FOR THE PIPE FINISHING PROCESS**

While there are many SPC system platforms, only a few are highly scalable for the tubular goods industry. There are even fewer software providers that design their solutions specifically for the pipe finishing room.

Automation Engineering Corp.’s FRIS architecture monitors how many tons of pipe your line produces everyday. Using real-time production information, FRIS automatically and manually tracks, locates and identifies pipe through the finishing process. It gathers real-time information on downtime, equipment efficiency, cycle time, and predictive maintenance of CNC, DNC and material handling equipment. FRIS can also process data collection,
length and weight, stencil, stamp, color band and bar code identification of the pipe. Data collection can come from a variety of sources, including existing PLC, HMI and standalone I/O. FRIS also allows for the integration of barcode and RFID scanners, and webcam and camera images.

Automation Engineering Corp. not only provides a system platform for seamless information exchange and collaboration, it also designs, manufactures and installs handling equipment for the tube and pipe industry. Traditional product data management (PDM) systems track production, consumption and labor for many manufacturing processes. This can lead to connectivity challenges and poor data exchange. FRIS offers open data source connectivity to all your control systems within the pipe finishing room, including transfer systems, threading tables, conveyor systems, turning rollers and more.

FINISHING ROOM PRODUCTIVITY BEGINS WITH AEC

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