

Major Newspaper Modernizes Press Roll Handling Systems

A large southeastern newspaper* needed to update the control systems of its press roll handling. The existing systems were outdated, and proprietary replacement parts were becoming increasingly difficult to find.

Main Objective

The client required a more integrated and data-driven solution. The desired specifications included a system with control over all equipment — from the laydown area to reel stands — in order to target specific paper types and manufacturers to specific reel stands.

Customer Results

MAVERICK met the client's challenges by supplying press roll handling controls that use RFID to track all rolls and delivery units. Meeting all time and budgetary requirements, the project provided an integrated open-architecture control system with capabilities that exceeded the client's expectations for integration, operability and reporting.

Application Description

■ **Control System:** The system gives the client the necessary control over all equipment, as well as paper requirement and consumption control with a focus on stabilizing paper movement. The hardware provides a flexible and open architecture consisting of industry-standard protocols designed to handle future upgrades and additions.

An Allen-Bradley PLC handles the control of all towveyor drives, accumulator stop zones, laydown lanes, loaders, stripping stations and support equipment. All I/O are wired directly to the PLC I/O rack from the existing PLC termination strips. This reduces maintenance and troubleshooting time, and ensures consistency with legacy equipment.

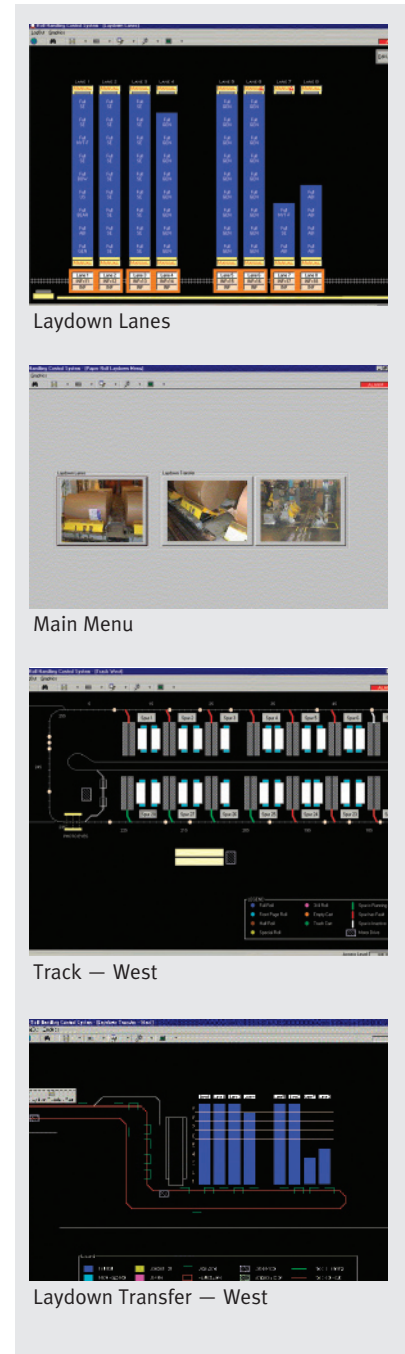
■ **Material Tracking:** The new control system allows reel stand-specific paper targeting, and ensures that all presses are fed evenly without certain units being starved.

New absolute encoders added to main press loops allow for tracking accuracy. All remaining movement drives are fitted with proximity switches that provide chain travel information.

■ **Job Handling:** The system is equipped to handle multiple jobs spanning one or more presses. These jobs can be configured from scratch or recalled from templates and customized to meet current requirements. As these jobs are in progress, the system constantly conducts an ongoing material needs analysis, and automatically dispatches paper from the laydown area to the press tracks where needed. All job-related information is logged to enable detailed reporting on all job-related activities.

■ **Operator Workstation:** The operator workstations consist of PCs running a Windows-based graphical interface to provide:

- Newsprint functional overview
- Laydown lane configuration, lane contents, individual roll type / manufacturer editing, equipment fault knowledge
- Accumulator stop zone configuration, content editing, fault acknowledgment
- Stripper stand status
- Press track status, operational mode control, fault acknowledgment
- Press and spur configuration, status, fault acknowledgment
- Job creating, editing, saving, status control
- Active and make-ready job status, on-the-fly editing
- Newsprint requirements and roll dispatch control
- Real-time alarms and alarm history



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