Emerging Technologies

PRODUCTION PROCESS TRACKING AND REPORT SYSTEM

Brief Description:

Emerging Technologies, LLC. was called upon to develop production process tracking and report system for a manufacturing production line. The customer-provided specification called for an easy to use software application that could help them track the process of multiple components and assemblies in a production line to eliminate the need for physical paperwork and minimizing potential operator error.
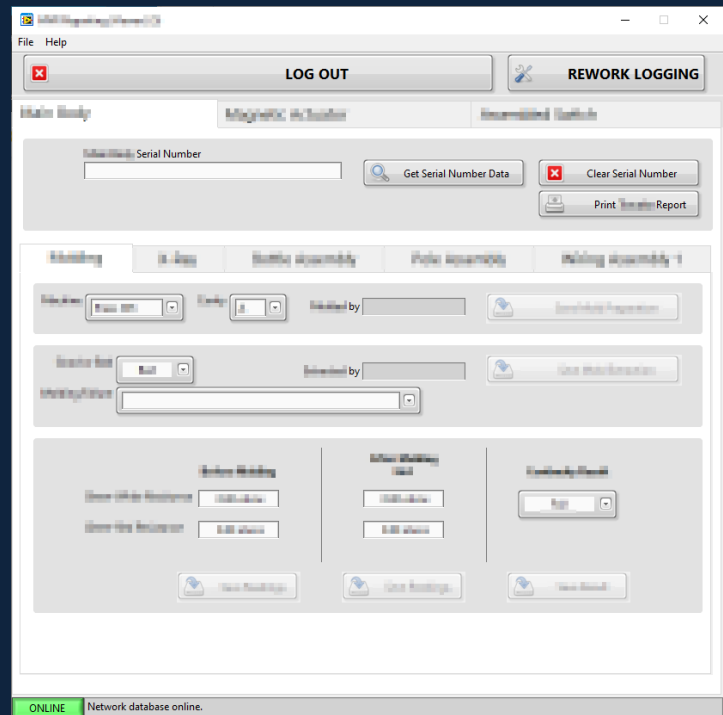
The system consists of a centralized database and a client application. The centralized database was installed on a new server computer that would be installed near the production line. Multiple data protection strategies were employed to minimize the risk of data loss.

The client application was one standard application that could be installed on computers at each manufacturing station or at an employee's desk. Each installation could be configured for its specific task and other common settings, such as version-controlled report templates to ensure each station prints the same style of report for the component or assembly.

Emerging Technologies, LLC. prepared a design package for customer review prior to programming of the application. The design package included schematic diagrams and software documentation. Once approved by the customer, the equipment was fabricated, software programmed and verified, and then the system was commissioned at the customer site.

Customer Benefit:

The customer is able to store information as components and assemblies are manufactured on their production line. The new system saves time and money by forcing data entry to follow the process, preventing usage of scrapped products or missed data entry. Serial numbers can be looked up to view their history and components.

ET Responsibilities:
- Functional Specification Generation
- ✓ Design / Engineering
- ✓ Fabrication
- ✓ Programming – Software
- Programming – Firmware
- Circuit & PCB Design
- ✓ On-Site Commissioning
- ✓ Post Commissioning Support
- Other

Technologies:
- Embedded Computers
- Microcontrollers
- ✓ Visual Software
- Control Software
- Data Acquisition
- Computer Based Control
- ✓ Communications – Ethernet
- ✓ System Integration
- Other

Special Features:
- ✓ Barcode scanner input capability
- ✓ MySQL database integration
- ✓ National Instruments LabVIEW software
- ✓ Data backup and recovery
- ✓ Historical tracking of assemblies and components
- ✓ Product scrap and rework tracking

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