Comtrol
POWER TO COMMUNICATE

Case Study

Manufacturing communications

An international company producing circuit breakers for electrical distribution and industrial automation and control needed to improve its already high quality by guaranteeing the parameters of their fastening sub-assembly process.

The partly assembled circuit breakers travel down a conveyor line and are scanned with a fixed mount bar-code reader. The bar-code contains the bill number, identification of parts, and gives the instructions for joining two electrical boards and two steel plates. The metrics are then downloaded to the screwdriver to program the torque setting and assembly parameters. Once completed the number of screws inserted is verified, the torque of the screws is verified, and the angle at which the screws are driven is calculated in order to prevent cross threads. The process is complete when the circuit boards are scanned with a second bar-code reader for verification.

The screwdrivers communicate via the RS-232 Modbus ASCII protocol, while the bar-code readers communicate through standard RS-232

and PLCs communicate through Modbus TCP. All of these protocols were handled by Comtrol's DeviceMaster-UP providing a simple way to communicate between the devices and the PLC and eliminated the use of multiple interfaces into the PLC. Where necessary the diagnostic on the DeviceMaster UP web pages helped solve any device level communication issues, reduced downtime, and improved general maintenance.

Company
Circuit breaker manufacture

Application
Industrial communications

Products
DeviceMaster UP

Modbus SCII and Modbus TCP communications in an industrial production line.

This case study is an example of the work we carry out to deliver cost effective solutions to customers' problems. If you need help in this complex field, contact Comtrol first.

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