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Solution Profile » Manufacturing

Customer Requirement:

Accurate machine run time data was needed to determine why production goals were not being met

Banner Solution:

DX80G9M6S-PM8 Gateway
DX80N9X6S- PM8L Node

Why Banner?

Long-range bidirectional wireless system supports six discrete inputs and six discrete outputs for each Node

Customer Benefits:

Improved Performance – Accurate machine run time information allowed the customer to manage the machine downtime

SureCross PM8 Gateway

SureCross Wireless I/O Network:

- Long-range wireless network communicates through entire plant
- Operates using 10 to 30 V dc
- Reliable data transmission via FHSS technology and TDMA control architecture
- Bi-directional communication between the Gateway and Nodes with fully acknowledged data transmission

Learn More:

Visit *www.bannerengineering.com* for product information and to locate a distributor

- SureCross PMx Gateways and Nodes

Banner Wireless Enables Calculating Machine Run Time

Accurate machine run time data is collected and logged at a control location

Background

During normal operation, operators load a welding machine with the frame components to be welded. The loaded parts enter a robot welding cell and a completed frame exits. The operators unload the completed frame and load more components in preparation for the next welding cycle.

Challenge

Production goals were not being met. Operators blamed machine downtime for the failure to meet production goals and maintenance personnel blamed operators for working too slowly.

To determine where the problem was, this facility needed to accurately measure and report machine run time back to a control location.

Solution

PLC logic added to the welding machine now turns on an output when the allocated process time is exceeded. This output is wired to an input of a PM8 Node. The Node's input is transmitted back to a PM8 Gateway connected to an HMI that logs overage time. Accumulated overage time is totaled for each shift and operator.

Accurate work time is gathered at the welding machine and wirelessly transmitted back to a central control location for logging without running new data wires.

Based on real-time data collection, the facility managers were able to accurately verify when the delays were the result of machine down time and when the delays were the result of operator inefficiency.

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