

*Dedicated to Improving
Your Business Results*

**Case Study: Honeywell UDC3300 Controller and
MultiTrend Plus Paperless Recorder**

**Application: Furnace Temperature Control
Railcar Parts Manufacturer**

*Honeywell instruments replace obsolete equipment and allow
management to see furnace data in real time.*



Problem

Due to the critical nature of the heat treat process, and the fact that the products are being used in transportation equipment, the data must be available for years, and retrievable with a minimal amount of hassle. If the customer's end user has an accident, the customer needs to be able to confirm that their product was heat-treated to exact specification and meets all standards.

Existing instrumentation, over a decade old, was obsolete and no longer maintainable. Communications gateway from controller to PLC is outdated. Recording events on stripchart recorders meant dealing with the inherent problems of chart recorders: the ongoing costs of charts and pens, storage limitations for charts, and the time it takes to find and retrieve the right data from the chart archives.

**Current
Business
Result**

Because replacement parts for the existing instrumentation were not available, production shut-downs were a constant threat. And, since data was only available locally at the furnace, it wasn't readily available to others in the plant, so they went on without it... even when that wasn't the best thing to do.

Solution

Step 1: Replace the paper recorder with a paperless model that produces real-time display, stores data on a flash memory card, and sends data via Ethernet to a remote PC for real-time monitoring and display. Text messages (with job numbers, etc.) from the PLC5 is displayed and recorded on the paperless recorder at the furnace.

Step 2: Replace the old controllers with UDC3300 digital controllers with communications. Controller setpoints are sent from the PLC to the UDCs via Modbus RTU over an RS-485 network connection, reducing wiring costs.

Step 3: Connect the recorder to a PC in the office via Ethernet, making the same production data available to the management team as the operators see at the furnace.

**Customer
Comment**

In addition to solving our maintenance problems and potential production shutdowns, we now have more information available to operators as well as the management team.