



A Rockwell Automation Company

Midwest Food Products Inc. Weigh Scale Project/Powerhouse Upgrade

The Client:

Midwest Food Products Inc. located in Carberry, Manitoba, (40 kilometers east of Brandon) is a corporation controlled by Nestle Canada Inc. and Simplot Canada Limited. Midwest Food's main

product is French fries, potato patties and powdered potato flakes for customers such as McDonald's and Wendy's.

The Requirement:

Hinz has completed a number of projects for Midwest Foods. Below are two typical examples.

Weigh Scale Project—W00MFP548

The product management system required product throughput in lbs/hr for performance analysis and tracking. This required several belt weigh scales with a communication interface to the plant Ethernet system.

Powerhouse Upgrade Project—W00MFP533

Midwest Foods wished to replace the existing HMI in the powerhouse with a new Wonderware HMI. The replacement would make the powerhouse conform with the company standard of using Wonderware.

The Design Solution:

Weigh Scale Project—W00MFP548

Schneider Automation's Modbus Ethernet Bridge modules were used to Interface Miltronics BW500 weigh scale integrators with the plant Ethernet network. Each integrator unit is paired with a bridge unit and a 24VDC power supply. The power supply is for the bridge. The Miltronics RS232 Modbus port terminals are hard wired to the terminal ports on the Modbus bridge. The bridge is connected to a switch port of the plant network using standard 10Base-T cable and connectors.

Communication protocol in the bridge is configured through Hyperterminal with a special cable from the PC COM port to the Modbus port on the bridge. Each bridge is assigned a unique TCP/IP address for which the standard Wonderware Modbus driver can poll.

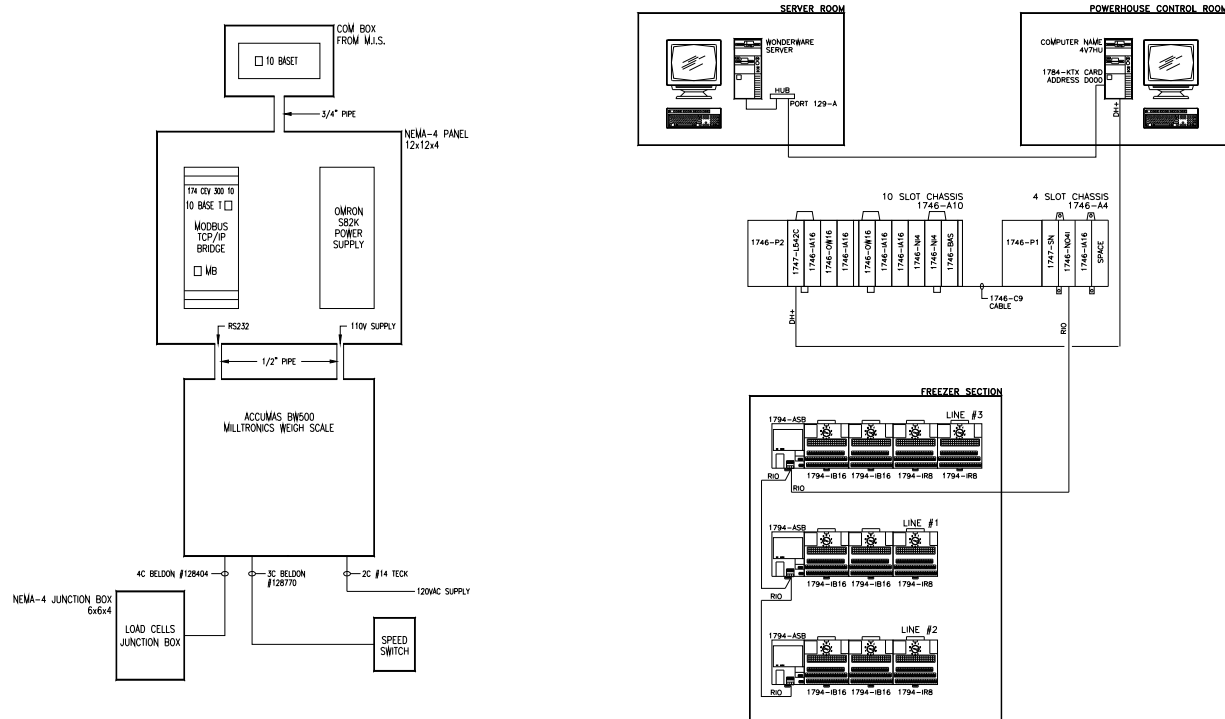
Powerhouse Upgrade Project—W00MFP533

The computer was upgraded to Windows NT 4®. To be consistent with the rest of the plant ,the HMI package was Wonderware InTouch 7.0. The existing SLC 5/04 received a firmware upgrade. Additional field hardware was added to allow the PLC to monitor the freeze tunnel fans and newly installed temperature probes. The application was set up to duplicate as closely as possible the control method of the ControlView that was replaced.



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System Specifications:

Weigh Scale Project

- 3 Milltronics BW500 Weigh Scale Integrator
- 4 HPS load cells
- 3 MD-256 Speed Sensor
- 3 Modicon 174 CEV 300 10 Modbus Ethernet Bridge
- 3 Omron 582K 24VDC power supply

Powerhouse Upgrade

- Computer: Dell Optiplex GMX1
- Operating System: Windows NT 4® Service Pack 5
- Communication Card: Allen-Bradley 1784-KTX

- HMI Package: Wonderware InTouch 7.0, Service Pack 2, Patch 4
- I/O Server: Wonderware Allen-Bradley 1784-KT for Data Highway Plus Version 7,3,0,2
- Control Processor:
- 1747-L542C, 5/04 CPU – 32K mem. OS 401 Series C

Additional hardware:

- 3-1794-ASB Remote I/O Adapter Modules
- 6-1794-IB16 24Vdc Flex I/O 16 Sink Input Modules
- 4-1794-IR8 24Vdc Flex I/O RTD Input Modules

For further information or to contact a Hinz office near you, please check our website at:

www.hinz.com