



A Rockwell Automation Company

Illinois Petroleum Supply Corporation Hartford Storage Facility

The Client:

Illinois Petroleum Supply Corporation provides jet fuel to the two airports in the St. Louis metropolitan area.

They operate a jet fuel terminal in Hartford, Illinois, and a pipeline across the Mississippi River to St. Louis

Lambert International Airport.

They also operate a jet fuel terminal at the St. Louis Mid-America Airport at Mascoutah, Illinois, located at Scott Air Force Base.

The Requirement:

Illinois Petroleum Supply built a new terminal at Hartford that ties in to the Explorer products pipeline, a major Gulf Coast to Chicago pipeline.

The new terminal includes two new 60,000 barrel storage tanks for jet fuel, pumping facilities to transfer fuel to the Lambert pipeline, and a truck loading rack.

In the future, two more pumps will be installed to transfer fuel to the Mid America Airport.

Illinois Petroleum Supply wanted a transaction based terminal automation system and PLC based control system for their new facility.

The Design Solution:

Hinz provided its PC based Terminal Master® terminal automation system to manage and record deliveries of jet fuel from the terminal.

The system is used to produce transaction records for receipts from the pipeline based on the flow information received from the Explorer Pipeline.

The control system for the Hartford terminal consists of a Modicon Compact 984 PLC that performs data acquisition, pump and valve automation, and shutdown logic.

The PLC uses Modicon Momentum Block for remote

I/O at the Explorer Pipeline control room to meter and coordinate the transfer of fuel with Illinois Petroleum Supply.

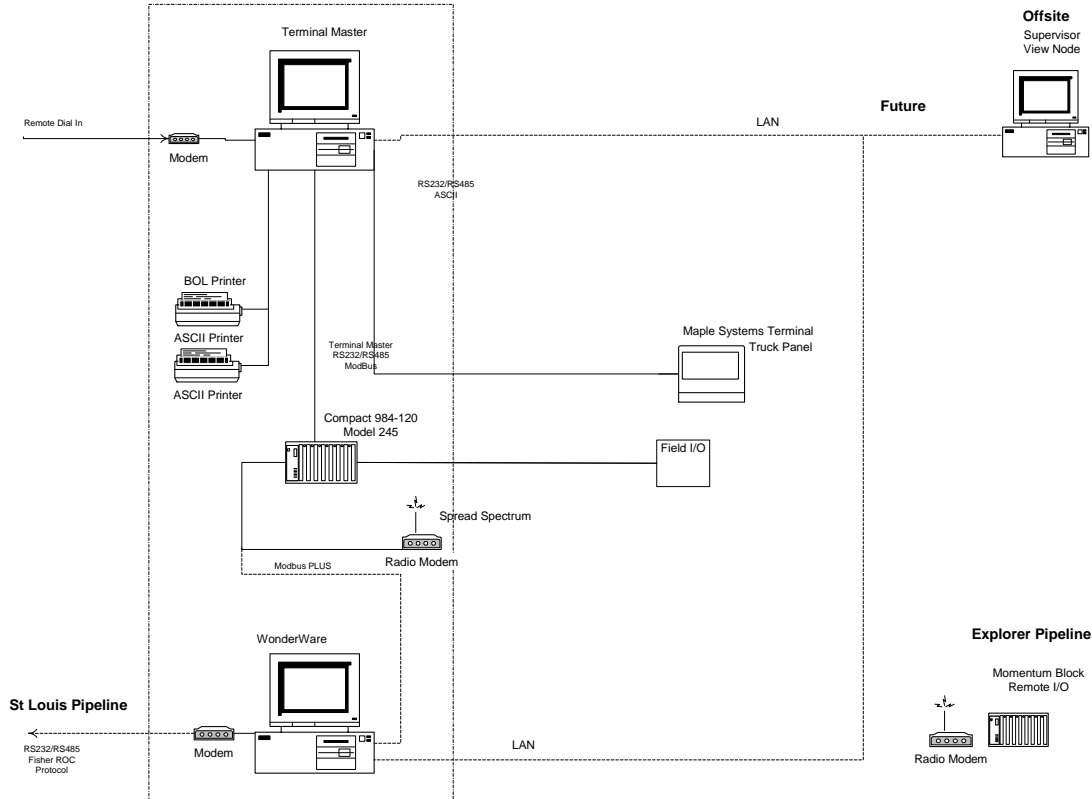
The Momentum Block is connected to the Compact 984 with Spread Spectrum radio modems. Wonderware software is used for the operations to monitor and control the pumps and valves. It also provides tank strapping conversions and API volume correction for the terminal.



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System Specifications:

- Daniels Bi Rotor + Meter with control valves, strainer, and accessories.
- Civacon Liberty Series Thermistor Rack Control Monitor.
- Modicon Compact 984-120 PLC mounted in enclosure with I/O modules pre-wired to terminal strips.
- Terminal Master software and PC.
- Maple System keyboard panel for truck driver interface.
- Remote panel at the Explorer Pipeline office for I/O communications.
- Panel at the ISP office to enclose the ISP PLC and Modem.
- Two printers for multipart documents, reports, and logging.
- UPS system for PLC and PC.
- Modicon Momentum Remote I/O Block, with M1 Processor
- Spread Spectrum Radio modems
- Tank Strapping
- API Volume Correction

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

www.hinz.com