



A Rockwell Automation Company

## Continental Ozark—NORCO Pipeline, Inc. NORCO Pipeline SCADA System

### The Client:

NORCO Pipeline, Inc. is a subsidiary of Continental Ozark which operates an eight inch product line that delivers from Hartsdale, Indiana, to locations east and west (Toledo, Ohio, and Fort Madison, Iowa).

The details of the pipeline were as follows:

- 600 mile route
- 12,000 BPD of refined products in each direction

- Recent acquisition of a portion of a significantly larger pipeline
- Consists of 14 stations

### The Requirement:

An existing late 70's vintage SCADA system located in Independence, Kansas, needed to be replaced with a new SCADA system in Hartsdale, Indiana without interrupting normal pipeline operations.

- Replace late 70's vintage TANO RTUs with more flexible and powerful units.
- Provide automatic API-2540 volumetric conversions.
- Provide remote link from Hartsdale, Indiana to Fayetteville, Arkansas.
- Provide local display of critical variables at all terminals.
- Provide increased reporting of receipts, deliveries, over/shorts, and storage tank information.
- Utilize existing leased telephone lines.
- Provide redundant SCADA masters, with automatic failover.
- Provide batch tracking capability.
- Provide real time over and short calculations.
- Start of project to system commissioning must be within 90 days.

### The Design Solution:

The solution proposed was to replace the existing RTUs with small panel mounted programmable controllers that had communication capabilities. These PLCs would be linked by modem and analog leased telephone lines to a personal computer-based RealFlex SCADA software package in Hartsdale, Indiana.

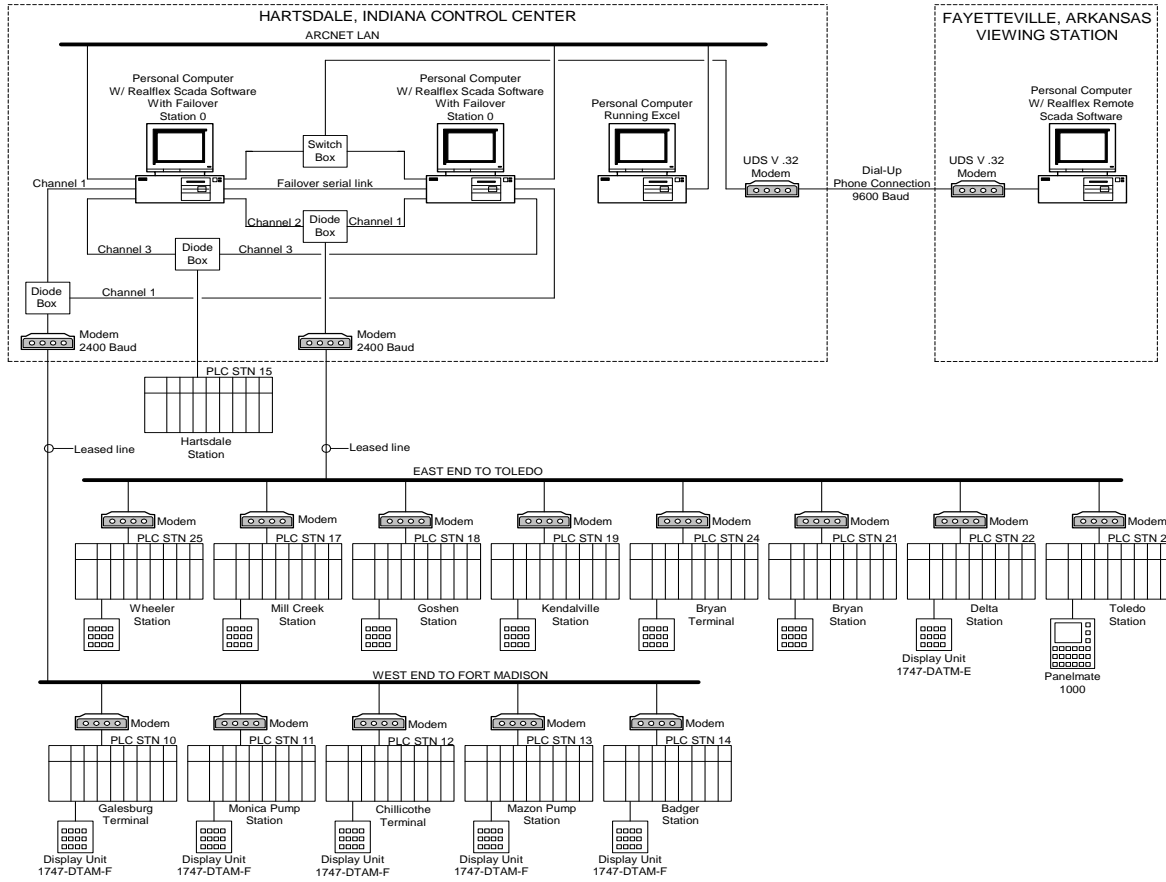
The operator stations included graphic screens for each station and terminal, plus operator data entry screens for tank data.

- The performance of the systems is such that all station data is updated approximately every 8 seconds.
- Engineering/Design and Configuration was completed in 60 days.
- 14 PLCs were mounted and pre-wired for quick change-out with minimal downtime.
- Configuration and functional testing was performed in Denver, Colorado.
- Commissioning was completed in 14 days.



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## System Specifications:

- BJ Software RealFlex SCADA software
- Built-in API tables for volumetric correction for tanks and flow meters
- Hot stand-by operator station
- Remote operator station in Arkansas
- DDE link to external spreadsheet for batch tracking
- Allen-Bradley SLC 5/03 programmable controllers selected for RTUs
- Drivers for Allen-Bradley SLC 5/03
- Gateway 486/66 personal computers
- PanelMate display unit for local monitoring
- DTAM display units for local monitoring

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

[www.hinz.com](http://www.hinz.com)