



A Rockwell Automation Company

Amoco Canada Petroleum Company Ltd. Windfall Plant

The Client:

Amoco Canada Petroleum Company Ltd. operates the Windfall pipeline gathering system. The gathering system consists of 87 RTU sites. These sites include production well sites, dehydrators, compressors, disposal well sites, and gas plants. (The system is monitored by radio linked RTUs which provide information about flow rates, pressures and

temperatures.) The RTUs also relay information about site status and emergency conditions such as fires, H₂S concentrations, or equipment failures. They report to an HP-Netserver at a central monitoring station which has a DDE server connected to multiple IBM PC MMI Workstation.

The Requirement:

The original intent of the SCADA system was to provide a simple and accurate method of remote monitoring and control for the gathering system. The original monitoring system was a crude interface which required the operators to directly monitor DDE addresses for analog data and alarm conditions. The goals of the new Man Machine Interface package are to provide:

- a graphical interface for the operators;
- a comprehensive alarm system, this includes prioritization, notification, acknowledgement, and variable alarm thresholds;

- easy and accurate operator access to Emergency Shutdown of sites;
- sales figures and accounting capabilities;
- security levels with password authorized access; and
- historical logging capabilities for alarm event investigation.

The Design Solution:

Hinz was contracted by Amoco Canada to develop an MMI for the gathering system. The project consisted of designing a flexible monitoring system with a consistent graphical user interface.

To meet the requirements of the project, InTouch by Wonderware was chosen as the MMI development software. InTouch's powerful graphical capabilities easily provided the 90+ active objects required for the overall system general map.

The design pursued InTouch's ability to use indirect links to graphical objects. This proved to be a powerful and flexible way of generating a customized graphical interface for each site based on a single template.

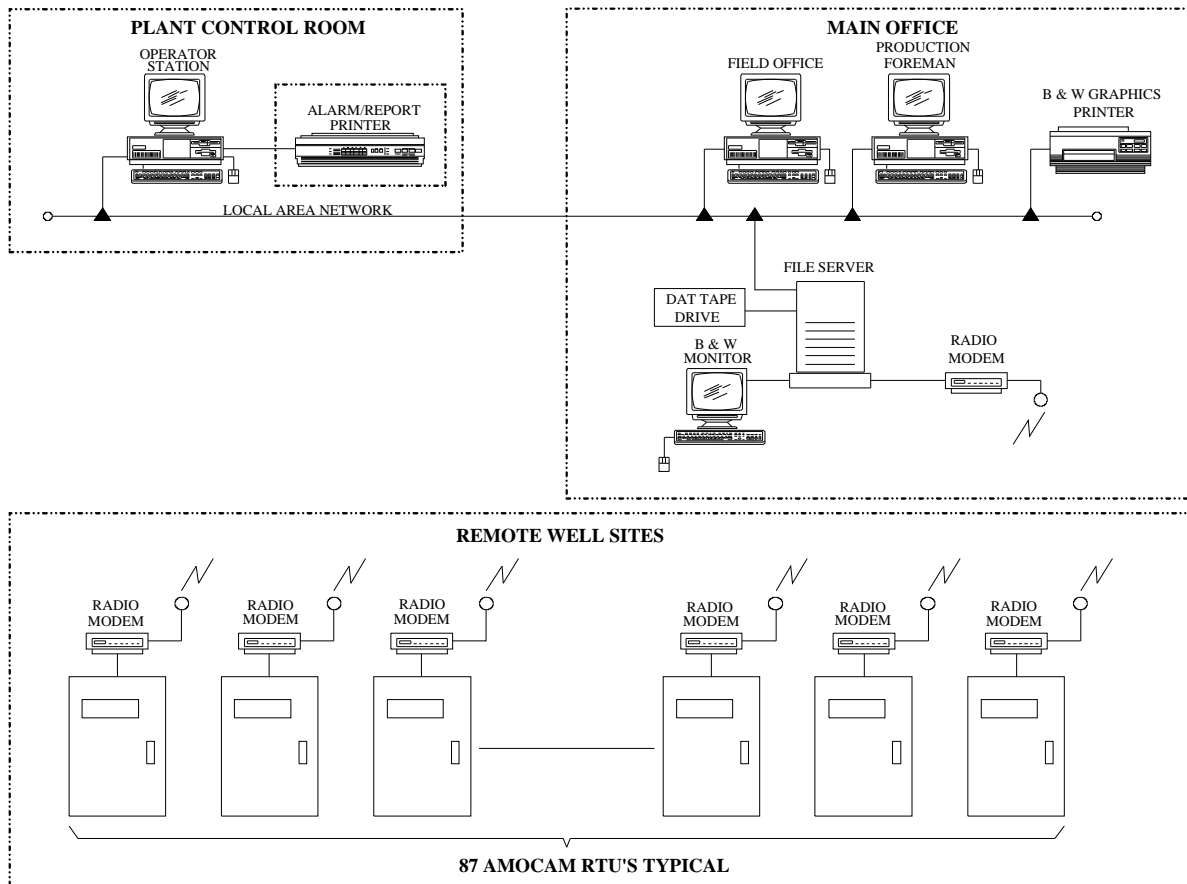
The MMI was roughly divided into three components.

The first was the monitoring system which provides access to alarm thresholds and acknowledgements. The second was the emergency shutdown system which allows the operator to select and verify the shutdown of sites. Finally, the historical logging system tracks all DDE variables and logs them to disk. These components were integrated with the security system which controls user access to all critical functions.



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System Specifications:

- 87 4000 Series and 700 Series AMOCAM RTUs
- 1 4D-66LM, PC-HP Netserver
- 1 PC Connect, DDE Server
- 1 InTouch Version 5.0 by Wonderware, MMI Package
- 3 486-66MHZ IBM PC, MMI Operator Workstations on PC-LAN Network
- 250 Screens
- 1500 Tag Databases
- 25 Scripts
- 900 DDE Analog Tags
- 360 DDE Discrete Tags
- 87 Alarm Groups

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

www.hinz.com