



Noble Energy Uses Extron Products for High Tech Oil Exploration

“The modularity and upgradeability of the DMS meets the client’s need for future expansion.”

Ed Logsdon
Vice President,
D.L. Adams Associates, Inc.

Houston-based oil exploration giant Noble Energy invests substantial resources in its oil exploration projects, such as the \$8 billion it has earmarked for drilling the Niobrara formation in Eastern Colorado. To support these expansive exploration efforts, Noble Energy hired AV Consultants D.L. Adams Associates, Inc. of Denver to design the AV systems for its new field offices in Greeley, Colorado.

Noble wanted to equip the offices with Supervisory Control and Data Acquisition (SCADA) workstations, an industry standard control system used for industrial processes. DLAA responded with a modular design, using Extron’s DMS 1600 DVI Matrix Switcher and TLP 700TV TouchLink® Touchpanel. DLAA Vice President Ed Logsdon says, “I selected Extron because of the reliability of the equipment and excellent support by the manufacturer.”

Client Needs

Noble Energy’s Greeley operations center will oversee operations that include drilling horizontally nearly two miles into the Niobrara shale, using SCADA customized software created to monitor and control a wide range of industrial activities.

The Greeley center’s SCADA room is 24 feet wide and 75 feet long, and contains six pairs of operator control stations, each with two operators. Each control station includes a PC tower with DVI output, thin client server with three DVI outputs, network switch and patch panel, and four 23-inch LCD displays, with a 47-inch LCD display above the four smaller ones. In addition, there is a 47-inch LCD positioned between each pair of control stations for viewing by both operators.



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Extron TLP 700TV TouchLink Touchpanel controlling a SCADA workstation

According to Logsdon, "Noble wanted to have flexible control of the displays with a simple, easily configurable, touchscreen interface able to accommodate future SCADA software and hardware changes."

In addition, the SCADA room is Noble Energy's showplace for visitors, with one end of the room made of glass so that guests can look into the room as they pass by during tours of the facility. Thus, the company wanted a clean look with no cables showing.

TLP 700TV TouchLink Touchpanel

DLAA chose to control the system with an Extron TLP 700TV 7-inch Tabletop TouchLink Touchpanel and IPL 250 IP.Link® Control Processor, because the TouchLink intuitive interface, field-labelable buttons, full-motion display and other features create an ease of use for Noble's SCADA operators. The TLP 700TV features a modern, compact, thin bezel design that also helps maintain the neat, showroom look Noble wanted for the highly visible SCADA room.

DMS 1600 Modular Matrix Switcher

DLAA chose the Extron DMS 1600 matrix switcher, a 4U enclosure. The DMS 1600 can accept various combinations of DVI boards, and has up to 16 inputs and 16 outputs. This allows one switcher to handle a paired control console, routing signals from two PCs and two three-output thin client servers, to eight 23" and three 47" LCDs. This greatly reduces the amount of equipment and cabling needed, and contributes to a clean, professional look for visitors.

DLAA configured the DMS 1600 frame with three 4x4 I/O DVI boards to create a 12x12 matrix. This was particularly important since, according to Logsdon, Noble did not know how many SCADA stations would be required. "The modularity and upgradeability of the DMS meets the client's need for future expansion."

Configurable Control Versatility

Once the system was in full operation and Noble had a chance to use the equipment, they realized how versatile the TouchLink system was and, according to Logsdon, "They wanted to add even more control features."

Knowing that the configurable TouchLink touchpanel did not require programming, Logsdon effortlessly anticipated the need for changes. "I included a revision to the menu as part of the bid specifications. Ceavco AV, the contractor, was able to easily change the menu."

Results

By using a single Extron DMS 1600 switcher for each pair of control stations, and being able to control all the associated equipment from a pair of TLP 700TV touchpanels, D. L. Adams Associates was able to achieve a clean, efficient design that was highly functional for station operators, and presentable for guests. In addition, the expansion capability of the DMS 1600, and the TouchLink-based system's ease of configuration nicely future-proof the system for anticipated SCADA hardware and software upgrades.



Extron DMS 1600 Modular DVI Matrix Switcher

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