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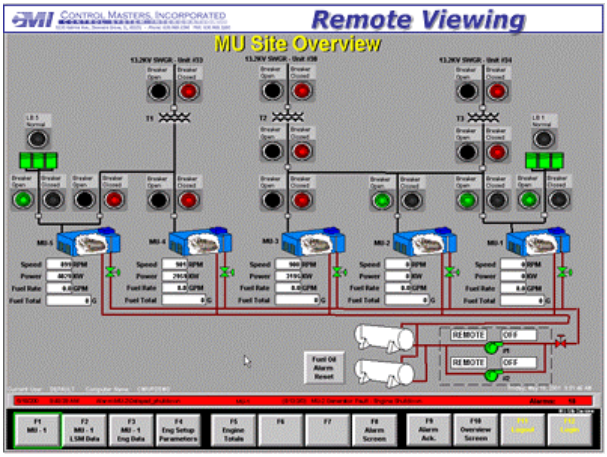
Control Masters Application Case Study

Remote Viewing & Power Monitoring



Technologies

Process Control
Power Monitoring & Management
Custom Report Generation
Sequential Data Logging
Remote Viewing & Operation Via RADS

Services

PLC Integration
SCADA / HMI Integration
Electrical Engineering
Network Design
Database Design
Control Panel Design & Fabrication
Consulting

Project Description

This project provided controls and data collection for 5 diesel generators. The primary purpose of the site is the long term testing of the engines. Power cogeneration is the secondary objective. The two larger engines each provide 4.3MW and the others each provide 3.2MW. The power generated can be feed back onto the Utility grid or it can be sent to a resistance grid to test the engines at frequencies other than 60hz.

The main control of each engine consists of one PLC5/80C for control and 2 racks of Flex I/O on Remote I/O for the numerous data collection points. The synchronization to the utility grid is accomplished with the A-B Line Synchronization Module. The fuel system and pumps are controlled from a SLC5/04 PLC.

All the PLC's are connected via ControlNet and tie into a set of redundant RSView workstations. The workstations provide the control and data logging operations. An additional workstation is connected via Ethernet to these workstations and utilizes the Active Display technology. Additional communications to the generator and transformer protection relays is done with Modbus protocol using a Lantronix Ethernet to Modbus RS-485 converter.