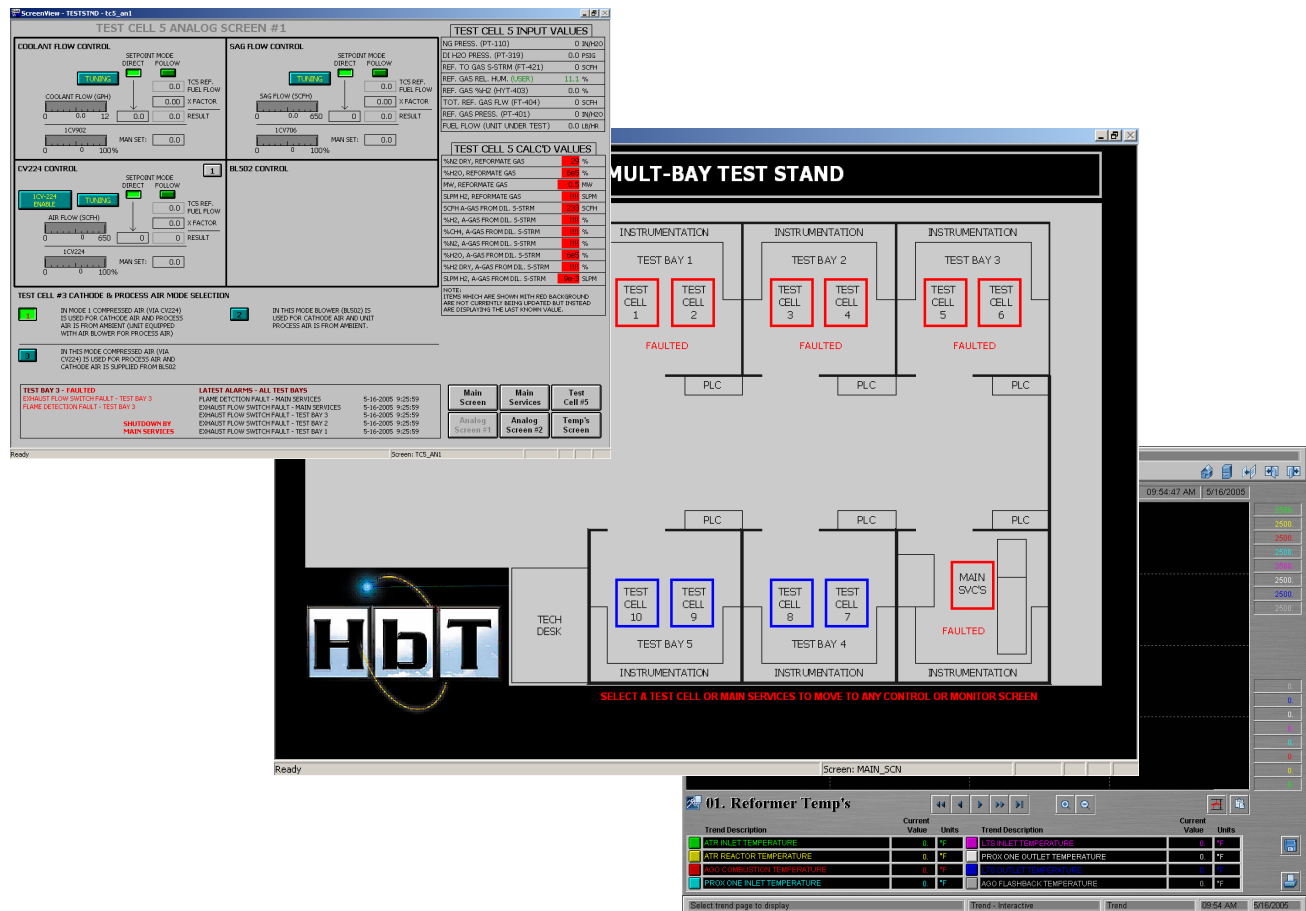


Overview

Hydrogen Burner Technology (HBT) was a research and development based company in the field of hydrogen reforming for fuel cell technology. HBT contracted Enterprise Automation's services for PLC programming, PC based control, CitectSCADA configuration, in addition to general engineering and start-up services. The Multi-Bay Test Stand project was a series of bays which simulated fuel cells to connect to their hydrogen reformers as part of R&D efforts. In addition to the control system, HBT needed to collect, monitor, and store significant amounts of data from each of the test bays.

Solution

Think and Do, from Phoenix Contact, was used to control this system. It was chosen for its ability to interact with the significant amount of Ethernet I/O involved in this job. CitectSCADA was utilized exclusively for its' trending capabilities. Enterprise Automation incorporated all of HBT's Ethernet I/O, safety interlocks, and gas analyzers to create an integrated control solution. Re-usable code was generated to make test bay and test cell duplication easier and more efficient. Enterprise Automation utilized CitectSCADA so that HBT personnel could collect, monitor, store, and export test stand data.



Technology

CitectSCADA communicated to Think and Do's OPC server which communicated via Ethernet to the Automation Direct I/O and gas analyzers via standard RS232 (serial) communications. A Dell workstation computer was used for the CitectSCADA and Think and Do software. This unit was placed in service 4th Quarter 1999 and was supported and upgraded by Enterprise Automation through 2003. HBT lost its investors after 9/11.