

# LabVIEW DSC Automates Fuel Cell Catalyst Research

## Customer

HydrogenSource (South Windsor, CT) develops, manufactures, and sells fuel processors and hydrogen-generation systems for the fuel cell and hydrogen fuel markets.

## Challenge

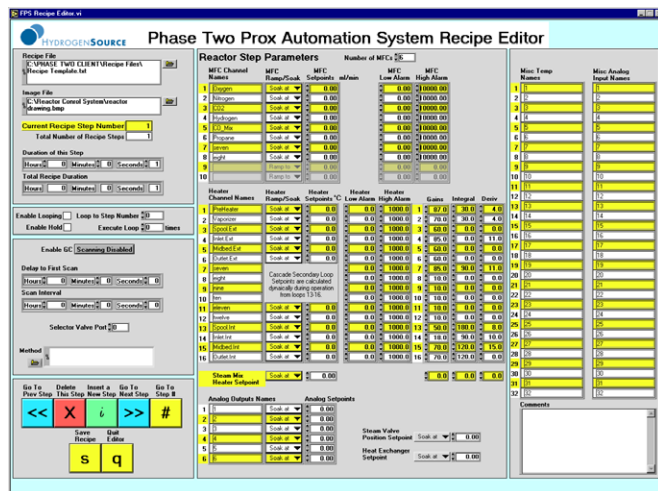
Automate complex and lengthy experiments, involving hundreds of controlled parameters, for the evaluation of chemical catalysts used in the production of hydrogen for fuel cells.

## Solution

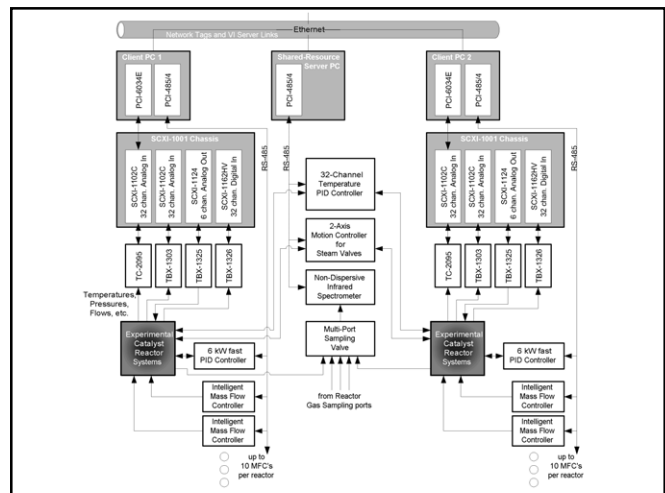
Develop a flexible, user-configurable control and data acquisition system to enable fully automated control of, and data collection from, a wide range of process control elements used in experimental catalyst reactors.

Key products used:

- National Instruments (NI) LabVIEW Datalogging and Supervisory Control module
- NI PID Toolkit
- NI PCI-6034E multifunction data acquisition card
- NI PCI-485/4 serial card
- NI SCXI-1001 chassis
- NI SCXI-1102C, SCXI-1124, SCXI-1162HV signal conditioning modules
- NI TC-2095, TBX-1303, TBX-1325, TBX-1326 terminal blocks



Automation system recipe editor



Dual reactor hardware configuration, illustrating client-server architecture

## Benefits

Having several versions of this system in operation for more than a year, HydrogenSource estimates that more than 10,000 man-hours of work, that otherwise would have been expended in manual control, monitoring, and data collection efforts, has been saved.

**To achieve similar results, contact our office nearest you or visit [www.bloomy.com](http://www.bloomy.com).**

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