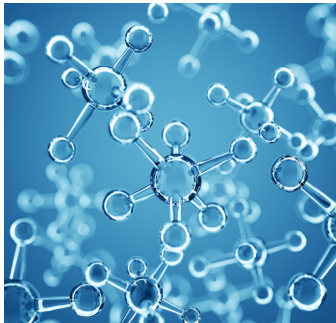


# MKS AUTOMATION PLATFORM FACILITATES CATALYST DEVELOPMENT



## About the Customer

The customer is a global specialty chemicals company and a known leader in sustainable technologies. In operation for more than a century, their expertise in advanced materials and technology drive their ability to provide innovative, high-value solutions for customers that also respect natural resources.



### THE CHALLENGE

The customer maintains a Technology Center where they conduct fundamental and applied research for the development of new catalyst chemistries and applications for a broad swath of industrial and automotive technologies. The development and testing of these new catalysts requires sophisticated and specialized catalyst synthesis and testing equipment including unique custom-built experimental systems that incorporate lab scale furnaces and gas mixing manifolds configured to create appropriate process environment and chemistry.

The customer needed a mass flow controller (MFC)-based gas mixing system to create precisely controlled experimental gas ambients within which catalyst performance could be tested under different conditions of temperature, pressure, and total gas flow. In the Technology Center, the MKS MultiGas™ FTIR Gas Analyzer is currently used for compositional gas analyses. The customer found the PC interface of this analytical solution very effective and wanted a similar interface for all their MFCs, allowing them to operate the MFCs and gas analyzer from the same PC.



## MKS AUTOMATION PLATFORM FACILITATES CATALYST DEVELOPMENT

### THE SOLUTION

Following review, the customer determined that the MKS Automation Platform provided the optimal solution for their PC-interface requirement. Because they currently employ a National Instruments LabVIEW® interface on their laboratory PC that connects to the PAC CM (Communications Module) over Ethernet, incorporation of the MKS Automation Platform enabled set point control and read-out of the MKS MFC devices by the existing LabView interface resident on their laboratory PC. The MKS PAC Automation Platform provided the customer with a one-stop shop for device plus control integration and ease of use with many control platforms.

In addition, the customer needed to upgrade another system to replace an existing array of MFCs and MFC control units with a PC-based control platform. While this could be done directly by networking the MFCs to a standard PC, the customer was drawn to the simplicity of the MKS Automation Platform that offered “plug and play” capability, custom software, and a single source supplier for all system components.

### THE BENEFITS:

With the MKS PAC Automation Platform, the customer was able to integrate different control platforms, including LabVIEW, within their laboratory. Researchers now have a seamless integrated solution that meets both their process control and analytical experimental requirements while controlling all devices from a single user interface.

### LEARN MORE

To learn more about how MKS Automation Platform can help you improve productivity in your testing/research operations, go to: [www.mksinst.com/f/mks-custom-automation-platform](http://www.mksinst.com/f/mks-custom-automation-platform)