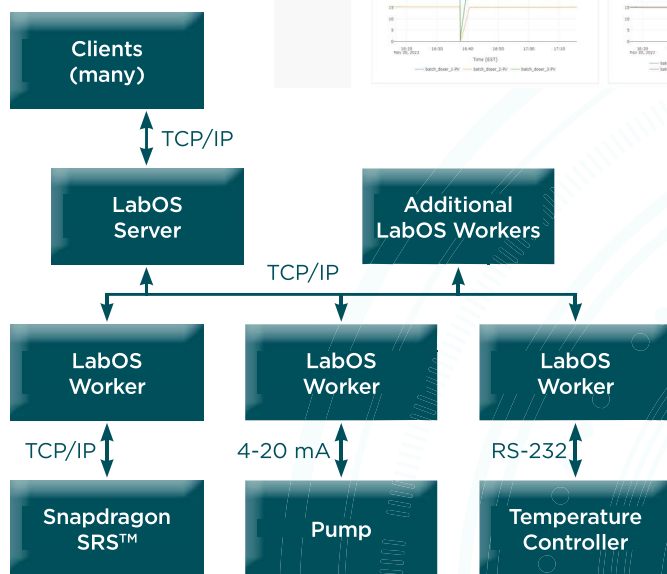
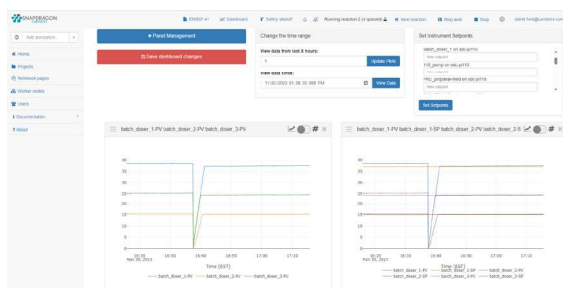


LabOS™ Software

Snapdragon Chemistry's LabOS™ software allows researchers to collect data and control a wide range of scientific instruments through a single unified interface.

LabOS™ grew out of a need for a simple system to control the wide range of equipment and sensors that are used in modern data-rich experimentation workflows. The architecture of the system is outlined below:

Example screenshot:



About Cambrex

Cambrex is a leading global contract development and manufacturing organization (CDMO) that provides comprehensive analytical and IND enabling services, as well as drug substance development and manufacturing across the entire drug lifecycle.

With over 40 years of experience and a team of 2,000 experts servicing global clients from North America and Europe, Cambrex is a trusted partner in branded and generic markets for API development and manufacturing.

About Snapdragon Chemistry

Snapdragon Chemistry specializes in active pharmaceutical ingredient (API) batch and continuous flow process development, utilizing state-of-the-art automation technology and proprietary equipment to solve complex process and analytical development challenges.

With R&D and manufacturing headquartered in Waltham, Massachusetts, Snapdragon's 70+ employees come with strong ties to the local scientific community, with 31 PhD scientists on staff.

Specifications

Client interface	Browser-based. Multi-platform, desktop and mobile.
LabOS Server	Typically 16 GB RAM with SSD running Ubuntu Linux.
LabOS Worker	Runs on Windows 10 or embedded devices.
Example devices integrated with LabOS worker software	Flow meters, pumps, temperature controllers, fraction collectors, online LC (Snapdragon Sample Relay System™), DC Power supplies (electrochemistry, photochemistry).
Worker communication protocols	HTTP, Modbus TCP, Modbus RTU, RS-232, RS-485, 0-10 VDC, 0-20 mA, and others. Integration with Windows API/SDK using .NET. Others possible on request.
Safety features	Alert SMS message if values out of expected range. Automated reactor shutdown to safe state.
Automation features	Software allows users to queue up a series of conditions to evaluate. For each condition, an automation routine will execute. Integration with automation controllers for additional capability.
Self-optimizing reactor	Integration with the SNOBFIT optimization algorithm is available.