

Application development for purge and trap equipment

The Client

The company is a leading manufacturer of instruments for chemical analysis in food and beverages, pharmaceutical, and petrochemical industries. Customer's analytical instruments are used for sample preparation, detection, and measurement of chemical compounds.

The Challenge

The customer wanted their entire product line to be revamped. The objective was to have a common high-level architecture and implementation platform consistent across product lines resulting in economy of scale. The further goal was to generate reusable software resource pool reducing the development time and minimizing development related risks.

The Solution

The Purge & Trap sample concentrator product transfers and collects volatile organic compounds to and from Gas Chromatographers. The software developed by our team is meant for configuring, operating, and monitoring the Purge & Trap sample concentrator.

Some of the features include:

- Configuring the system and storing the data
- Setting up various parametric data for the Purge & Trap, sampler, and Gas Chromatography operations and storing the data
- Regulating the operations via system core and state machine
- Monitoring the real time status of the ongoing operations interacting with the system core state machine and presenting the information both graphically and textually
- Providing a host of Diagnostic functions for regulating or monitoring the state of the product and peripheral instruments
- Logging all functions performed and the results both locally into an XML based file system and also on a centralized MS-Access database
- Generating reports from the stored data offline
- All operations on the product can be regulated by the administration of a Security and Audit Trail system.

The Benefits

- The entire product line was re-aligned for greater effectiveness and competitiveness in the market.
- Our focused skills and methodologies ensured a solution that was robust, reliable and delivered to specifications.
- Global delivery capabilities ensued in significant cost reduction

The Technology

