

Applied Sciences Group, Inc. – ISOVENT E-10003
May 31, 2011

Overview

Applied Sciences Group was contracted by Medical Conservation Devices to provide the project management, software design, testing and lead all engineering efforts for development of the IsoVent Controller E-10003. The IsoVent automates the administration of “fresh gas” and anesthetic drugs to patients more efficiently and with less medical staff.

The project was a collaborative effort between four corporate teams with specific skill sets to contribute to the product development process. Although the teams were separated geographically, coordination of many of the tasks were completed with little difficulty and in a timely manner in an effort to submit this device to the FDA for approval.

Applied Sciences Group developed the IsoVent with an embedded processor that controls various switches, indicators and mechanical gas valves within the device. In addition to the electro-mechanical components of the device, the processor has a power on self-test and calibration mode and a data logging mode with associated USB I/O device drivers.

Applied Sciences Group, Inc. (ASG) was responsible for all aspects of the software design, development and documentation process. These efforts included developing the software development environment, design, coding, coordinating the technical efforts and providing the systems engineering inputs, providing regular and timely communications between the teams. ASG was also responsible for quality control oversight that included support on FDA regulatory issues: including identification and implementation of appropriate standards and formal compliance testing.