



On Campus at Solebury School  
in New Hope, Pennsylvania



## Customer Success Story

# Solebury School New Hope, PA



Main Campus Map via HMI/SCADA Application

### About Solebury School

Solebury School is a coed, college preparatory, boarding and day school, for 220 students in grades 7-12. Founded in 1925, Solebury's beautiful 90-acre campus is located on Phillips Mill Road, two and one half miles north of New Hope, in the heart of historic Bucks County, PA, mid-way between New York City and Philadelphia. The school prides itself on its small size, the individual attention given to students and the deep mutual respect between faculty and students. A rigorous academic program with honors and AP courses, an ESL program for International students, a Learning Skills program, and a full range of arts, athletics and activities are further distinctions of the school.

The school sought an automation solution for energy management as well as for centralized control, operation

*"We have used ICONICS software products almost exclusively on our installations since 1991. Their consistent high performance and value are always major factors in the success of our projects. The versatility and fully customizable nature of the software allowed us to adapt perfectly to the varied technical issues we encountered on the Solebury campus and to precisely tailor the HMI to fit the needs of their personnel."*

**Walter L. Horigan**, President  
Vortechs Automation, Inc.

and maintenance of various systems including HVAC. Solebury School approached Vortechs Automation of Huntingdon Valley, PA for the project.

### ICONICS Software Deployed

Solebury School selected ICONICS industrial automation software solutions based upon Vortechs Automation's recommendation. Among the products utilized are ICONICS' GENESIS32™ V9.1 Web-enabled OPC-integrated HMI/SCADA suite, AlarmWorX™32 Multimedia (MMX) distributed enterprise-wide alarm notification system, and ScheduleWorX™32 calendar-based scheduling tool.

### Project Summary

After a survey of the campus, the engineers at Vortechs Automation were sure they could help Solebury School save on energy costs through the automation of its ex-

isting heating and cooling systems. Specifically targeted were the school's science and math building, gymnasium, boy's dormitory and maintenance facility. The new Direct Digital Control (DDC) system now consists of approximately 50 KMC controllers linked together in several RS-485 sub-LAN groups, all connected to the campus Ethernet network. GENESIS32 V9.1 was selected for the industrial automation software suite's HMI function.

### Benefits of the System

The ICONICS software and KMC OPC Server reside on a PC located in the campus' main server room. Remote HMI is available to campus users through two browser

and helps meet the school's aim to be a "good environmental citizen". As soon as ScheduleWorX32 was introduced by ICONICS, the school and Vortechs Automation knew it would be a great fit for their project. Solebury School's equation for comfort, convenience, control and cost-savings is proven with Vortechs Automation and ICONICS.



*Cooling Tower Monitoring/Control at Solebury School*



*Floor Plan for Solebury School's Abbe Science Center*

nodes, located in the business office and in the maintenance office. Real-time data is logged to Microsoft Access. Historical data can be presented in graphical form on an equipment-specific basis. TrendWorX™32 reports, part of GENESIS32's functionality, are defined for total electrical energy consumption. Alarms are broadcast to the appropriate operators using email or text messaging. The system also includes a number of customized items including a sewer line backup detector in the main gym, occupancy sensing tied into lighting controls and water detection on the floor of the server room.

Scheduling is an important requirement for Solebury School. It's directly related to anticipated cost savings

### Key Features

- Full Point and Click Control - of 4 (and counting) buildings
- Centralized Scheduling - that allows the entire school year to be programmed in advance. The school has a rolling block schedule that does not repeat on a weekly basis.
- Energy Management - using prioritized load shedding activated by real time utility meter data.
- Pre-emptive Alarming and Central Control
- Integration with existing Microsoft Windows XP and Windows Server 2003 installations throughout the campus.