

SIXNET[®]

APPLICATION STORY

Contact Information

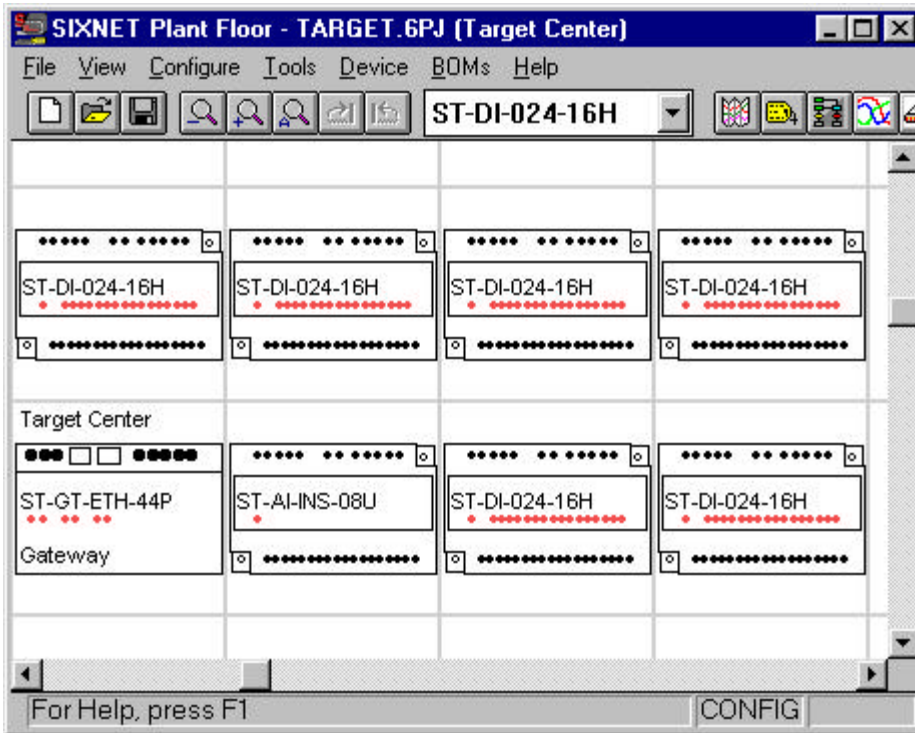
SCS Integrator: Twin Cities Industrial Control
 Name: Craig Ross
 Phone: (612) 557-6648
 Fax: (612) 557-6408
 E-mail: craigtic@aol.com

Target Using Scalable Control Systems for Building Automation

HVAC, fire alarms and Uninterruptable Power Supplies are all being monitored in the Target Stores corporate data center in Minneapolis

SYSTEM OVERVIEW

Discount chain Target Stores has a facility in downtown Minneapolis that it uses to store and process all of its corporate data. At least two floors of computer mainframes record and read back information – prices, inventory, memos – for all of the Target stores in the United States. Fail-safe methods are necessary to protect the mainframes and ensure that the information is secure.



With a SIXTRAK Ethernet Gateway and seven modules, Target Stores watches over all the critical systems surrounding its corporate data banks in Minneapolis.

Problem: Target Stores needed a total system created to allow it to monitor its critical data center.

Solution: A SIXNET Scalable Control System in partnership with Citect automates the monitoring of everything surrounding the data banks.

Prior to the installation of their SIXNET Scalable Control System, Target's data center had separate systems for monitoring HVAC, fire alarms, power supplies and building temperatures.

Many times, inspectors walking around the facility would have to physically encounter an excessively heated room – where for example, the air conditioning has stopped running.

When rooms get hot, computers can stop working, potentially losing data or being seriously damaged. The resulting financial consequence can be quite serious.

The SIXNET Scalable Control System now prevents that from happening.

Now, technicians and operators get the warning long before the problem hits a critical level. Now they can send maintenance personnel to fix the problem with the HVAC or power distribution. Now they have a Scalable Control System monitoring the building processes so they don't have to worry about down time.

The SIXNET Scalable Control System is automatically monitoring everything surrounding the data banks – status alarms, fire alarms, power failure, battery levels in the Uninterruptable Power Supply, temperatures – keeping the building systems running and alerting operators if one of them falters or fails.

If the rooms begin to get hot for some reason, operators want to know about it. Any glitches in power, operators need to know about it. The facility is staffed around the clock 365 days a year, and staff members need to respond instantly if there is an alarm.

The integrator picked the SIXNET system because of its seamless integration with Citect. That means that SIXNET and Citect are more than just compatible. They operate as a pre-integrated system – sharing tags and data effortlessly. The flexibility and compatibility with Citect allowed the installation to go quickly and cleanly. The tag names entered during initial system configuration were automatically loaded into Citect through the common Shared Resource Database. This one-step operation saved the integrator valuable time, and increased the accuracy of the system configuration so that it could be done perfectly the first time.

One PC in the data center's computer room monitors the building's systems. On the monitor is a Citect screen that has the layout of the floors and the locations of alarm panels. That PC is connected via an Ethernet network to the SIXTRAK Gateway controlling the I/O modules which monitor 80 I/O points.

The integrator, who built the custom enclosure in the power generation room, liked the fact that SIXTRAK I/O was DIN rail mounted, easy to program and configure and installed quickly and easily.

The Citect SCADA software performs trending and monitors alarm levels. When an alarm occurs, the PC automatically brings up the Citect alarm screen and sends a single line about the alarm status to both a line printer and a computer text file. That alarm brings a quick response from the operators on duty, who can avert the problem in the data center before the failure becomes critical.

RemoteTRAK is an integral part of future plans for the facility, which call for monitoring highly distributed I/O points from small islands of data on different floors in the building. Up to two miles of wire can join data from these remote locations directly into the existing Scalable Control System. RemoteTRAK requires only two low voltage conductors, which may even be a spare wiring pair in an existing communications cable. The simple, low-cost wiring requirements of RemoteTRAK make it ideal for building automation projects such as this one.

Target is pleased with their Scalable Control System and happy to have such an effective means of monitoring such an important data center.

SYSTEM COMPONENTS

- ST-GT-ETH-44P Ethernet Programmable Gateway
- 6 ST-DI-024-16H High density discrete input module
- 1 ST-AI-INS-8U Instrumentation analog input module
- Citect SCADA software