

### Automation Direct



## Overview

### Background:

The importance of controlled air temperatures within correctional facilities is a major concern throughout the United States. As it is a requirement to run air conditioning constantly, to insure inmates are in humane conditions and comfortable.

- Our client was concerned as their 20 year old backup generator system needed a major overhaul with updated HMI's and controllers.
- AutomationDirect was able to be our sole source vendor for our client's project, filling all of our system integration product needs.



## Success Story: AutomationDirect

### Summary:

AES Global, Inc. updated a local correctional facility's control system allowing our client to restore/upgrade functionality to their generator control system.

### Objectives:

- To overhaul, reverse engineer and custom design the backup generator control system.
- To restore load shed functionality to remote sites throughout the correctional facility.
- To provide a more user-friendly, easy to operate HMI.
- To upgrade the load bank simulator for testing sequences.

### Solutions:

- Replaced existing out of date backup control system with a low-cost/high-performance system that consisted entirely of AutomationDirect hardware and software.
- Programmed the AutomationDirect control system to respond to a power loss and have the capability of running on backup generator power within the fire safety regulation time.
- Setup Modbus communications over RS-485 to increase flexibility for remote load shed capability.
- Provided AutomationDirect C-More user interface which provided operators the ability to modify parameters, monitor system's performance and view/acknowledge alarms.

### Challenges:

- The backup generator drawings were incomplete making reverse engineering difficult.
- Factory testing was a challenge because of the high density I/O.
- Limited time on-site with the new backup generator control system, as inmates had to be on scheduled lock down during tests.

# Success Story

Automation Direct



## Over 6,500 Quality Industrial Control Products with AutomationDirect!

**AES Global, Inc. has turned to AutomationDirect as one of their premiere supplier of industrial automation products for electrical control systems. AutomationDirect offers PLCs, operator interfaces, AC drives, motors, stepper systems, sensors, motor controls, pilot devices, connection systems, enclosures and more.**

### About AES Global, Inc:

AES Global, Inc. Since 2003, has been providing sophisticated, Full-Service Engineering, Project Management and Enterprise System Integration, with innovative solutions to a multitude of industries.

### Services

- Full-Service Engineering
- Professional Engineers
  - Commissioning & Startup
  - Field Experience
  - Dedicated Teams
- Wireless Site Surveys

### Industries We Serve Include:

- Oil and Gas
- Utility/Water and Waste Water treatment
- Alternative Energy/Biodiesel
- Refinery
- Power plant / Steam Generation
- Manufacturing/ Light Industrial
- Commercial and Industrial HVAC
- Food & Beverage
- Chemical
- Construction
- Plastics/Packaging
- Cement/Mining/Minerals
- Building Products

### AES Global, Inc. provides a wide array of services to support your specific project needs including:

- Instrumentation
- Electrical
- Control
- Procurement
- Design/Drafting
- Project Management
- Panel Fabrication
- Network security
- Video Surveillance System & Software Configuration

# Quantum Automation

**Special thanks to Quantum Automation, AES's local distributor of AutomationDirect products!**  
**[www.quantumautomation.com](http://www.quantumautomation.com) | (714) 854-0800**

**Quantum Automation was the first and is the largest Value Added Reseller for AutomationDirect since 1991.**