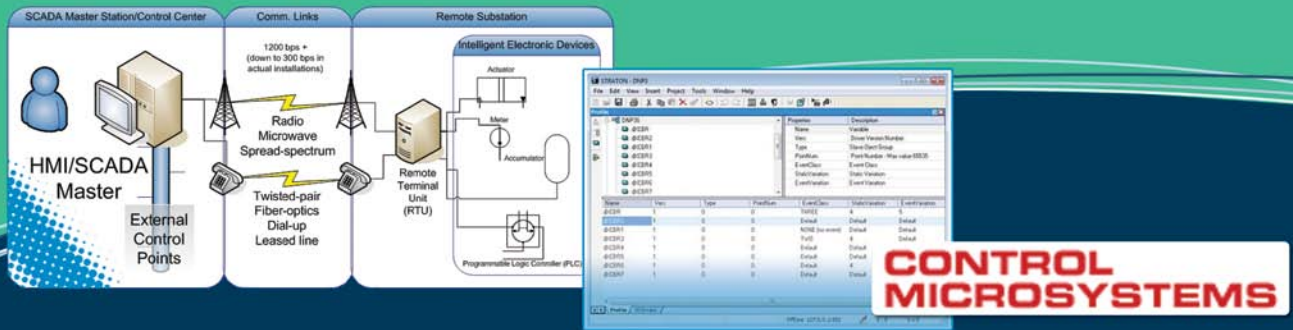


Success Story

City Water Control System Upgrade



Overview

Background:

The importance of a city's water distribution system properly functioning is imperative! AES Global, Inc.'s client was in dire need of a SCADA system overhaul.

- After a flooding disaster, our client contacted us about renovating their SCADA system to add remote pressure and flow monitoring points.
- DNP3 was a complete savior for our client, as DNP3 was able to outshine their competition by providing superior communication protocol.

**CONTROL
MICROSYSTEMS**

Success Story: Control Microsystems/DNP3

Overview:

AES Global, Inc. was honored to do a system integration of a local City Water Distribution Plant. Among the many automation solutions that we provided to our client was the utilization of DNP3 an open, intelligent, robust and efficient modern SCADA protocol.

DNP3 offers flexibility and functionality that goes far beyond conventional communications protocols. Among its robust and flexible features DNP3 includes:

- Output options
- Secure configuration/file transfers
- Addressing for over 65,000 devices on a single link
- Time synchronization and time-stamped events
- Broadcast messages
- Data link and application layer confirmation

Solutions:

- Redesigned our clients SCADA system with SCADAPack controllers using DNP3 allowing time-stamped data and store and forwarding functions; to incorporate multi-masters allowing them to control and see everything from 2 locations. AES Global, Inc. replaced all the controllers with DNP3 enabled controllers.

Products Used:

HMI

- ClearSCADA Host Software
- C-more Touch Screen and Software
- WIN-911 Alarming Software

PLC

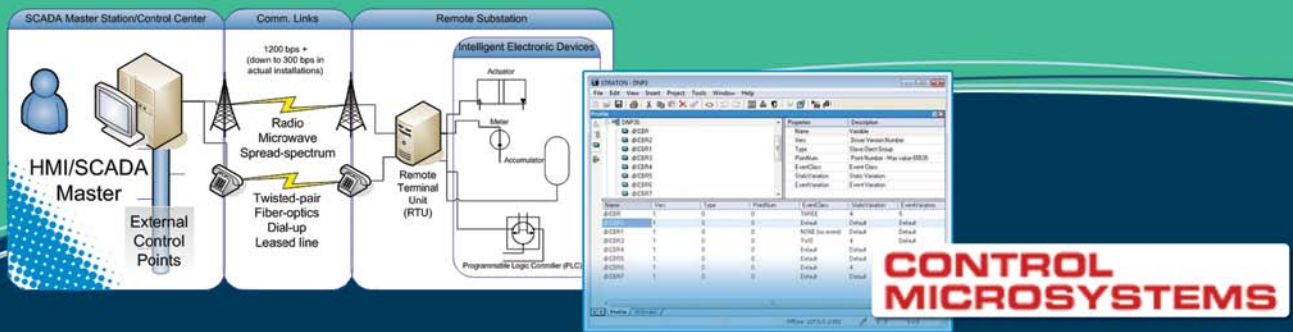
- SCADAPack 350
- SCADAPack 357
- TelePACE Software

Communication:

- DNP3 over 900MHz radio between PLCs
- DNP3 over Ethernet between Data Concentrator (Master) PLC and Host
- Modbus over Ethernet between SCADAPack 357 and C-more touch screen

- Using DNP3 we timed stamped communications to store and forward information.
- Provided control over entire system from two sites.
- AES Global, Inc. provided HMI software, allowing for local and remote control over their plant.
- We provided custom "As Built" drawings and system manuals to complete our system integration solution.

Success Story



Features DNP3 is an open, intelligent, robust and efficient modern SCADA protocol. It can:

- Request and respond with multiple data types in single messages
- Segment messages into multiple frames to ensure excellent error detection and recovery
- Include only changed data in response messages
- Assign priorities to data items and request data items periodically based on their priority
- Respond without request (unsolicited responses)
- Support time synchronization and a standard time format,
- Allow multiple masters and peer-to-peer operations,
- Allow user definable objects (including file transfer)

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

Special thanks to Sage Designs, Inc. AES's local distributor of Control Microsystems products!
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