

CUSTOMER SUCCESS STORY

Comtrol's DeviceMaster® RTS Facilitates Hydropower SCADA System Communication

Comtrol Corporation's connectivity equipment facilitates communication for a number of renewable energy applications worldwide. Recently, a large renewable energy production company needed a solution for connecting multiple sensors to a SCADA (supervisory control and data acquisition) system which would relay the sensors' data through an Ethernet connection to the control center.

The data could then be accessed remotely to effectively manage and monitor the company's kinetic underwater hydropower system.

The renewable energy system consists of a deployment of horizontal axis turbines underwater, which use tidal and river currents to generate clean energy without restricting the natural flow of water. The system produces cost-effective solutions in a variety of areas, including urban city settings to remote developing countries, and is invisible from the shore.

Sensors are installed directly in the water near the turbines to measure turbulence, temperature, strain and humidity, as well as to detect leaks and ultimately determine the efficiency and performance of the system. These sensors then input data to a SCADA system, which analyzes and monitors system conditions. Comtrol's

Rocketi.inx ESS328

DeviceMaster RTS 4-Port
SCADA System

SCADA System

Control Room

Corporate Headquarters

DeviceMaster RTS 4-Port and 16-Port play an important role in this data collection and transmission.

The DeviceMaster RTS 4-Port is installed directly into the SCADA interface box, to allow serial communication between the SCADA computer system and the multiple sensors. The sensors communicate through multiple serial protocols—RS-232, RS-422, RS-485—in which the DeviceMaster can reliably interpret and communicate.

The DeviceMaster RTS 16-Port is mounted along with multiple servers and electrical grid interfaces in the control room, which is about 30 feet from the water. An Ethernet connection between the DeviceMaster and the system server eliminates the need for extensive serial cabling, reducing the cost and complexity of the overall SCADA system. The DeviceMaster's rugged housings, wide temperature rating and port configuration provided this energy production system with the stability and flexibility required.



DeviceMaster ®

Serial to Ethernet Device Servers

The DeviceMaster® family of serial to Ethernet device servers enable superior device networking capabilities. Connect RS-232/422/485 serial devices to the network with DeviceMaster using your existing software applications. Supports native COM, TTY, or TCP/IP socket communications. Comtrol's DeviceMaster products feature enhanced security offering SSL & SSH management and SSL serial data stream encryption.

DeviceMaster, offers the industry's most extensive selection of products for network-enabling serial devices. Ranging from 1-port models that provide single-device networking to 32-port models that offer high-density connections for specialized applications.

The standard 1, 2, 4, and 8 port DeviceMaster RTS and PRO products are also **NEMA TS2 compliant**, withstanding temperatures ranging from -34° to 74° degrees Celsius, at no additional cost. The DeviceMaster has been ruggedized to handle extreme temperatures, operating voltage and humidity fluctuation, vibration and shock commonly experienced in severe outdoor environments.

ROCKETLINX ES9528 HIGHLIGHTS

- 28-port managed switch featuring 10/100-TX and 4-port gigabit RJ45/ SFP combo (10/100/1000BASE-TX, 1000BASE-X)
- 12.8Gbps switch fabric
- 8K MAC address table
- Supports jumbo frame up to 9,216 bytes
- Max 12 x 100M rings and 2 gigabit rings aggregation capabilities

- VLAN, GVRP, QoS, IGMP snooping V1/V2/V3, rate control, port trunking, LACP, online multi-port mirroring
- Management via console CLI, Web, SNMP V1/V2c/V3, RMON, HTTPS, SSH and NetVision
- Advanced security features support IP security, port security, DHCP server, IP and MAC binding, 802.1x network access control
- Event notification by e-mail, SNMP trap, syslog
- -25° to 70° C operating temperature for extreme environments
- Rackmount installation, low-power



PRODUCT SUPPORT & SERVICE INFORMATION

Warranty Information

Comtrol offers a 30-day satisfaction guarantee and 5-year limited warranty.

Sales Support

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Technical Support

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