

# CASE STUDY

Orenco Systems® Incorporated

## CANYONVILLE, OREGON

### As Canyonville Developments Grow, Orenco's TCOM™ Panels Adapt

Members of the Cow Creek Band of the Umpqua Tribe of Indians have called their economic strategy a “thousand-year plan.” To support development of its Seven Feathers casino resort in Canyonville, Oregon, the tribe has implemented long-term projects for protecting and restoring the environment.

Orenco control panels are part of the water and wastewater treatment infrastructure that sustains the Seven Feathers development and the growing resort community around it. And as the system has grown, Orenco's panels have been reconfigured to work with an increasingly complex monitoring and control system.

In the small town of Canyonville, the tribe has developed the Seven Feathers casino, hotels, an RV park, and other businesses. In 1994, Orenco supplied controls for the original recirculating sand filter that treated wastewater from the casino and the adjacent hotel.

When the tribe built a truck stop, a second hotel, and an RV park, it initiated the Creekside Development Project. Operated by CH2M Hill OMI, the project supplies water, wastewater, and greywater treatment to these facilities and the rest of Canyonville.

In 2004, the tribe purchased seven of Orenco's TCOM panels for Creekside's new 0.5-mgd water and 0.5-mgd wastewater systems. The panels were programmed for peer-to-peer networking via a fiber and Ethernet network, with operator control and monitoring via TELNET.

*Originally configured for peer-to-peer networking, Orenco's TCOM panels now serve in a SCADA system that controls water and wastewater treatment for a casino resort complex, as well as the rest of the community.*

As the system grew, a SCADA system using Allen Bradley's RSView® software was purchased. Orenco reprogrammed its panels to work within the new system. No new hardware was required. Now Orenco's TCOM panels communicate alongside various PLCs and other devices under RSView's supervision.

Even though the TCOM panels are integrated into the RSView SCADA system, there has been no loss in the panels' original functionality, and they can still be remotely accessed via TELNET. This means that if a problem arises, Orenco's electrical engineers can still call the panel to diagnose the problem or adjust the programming. The TCOM panels also retain their paging capabilities, which supply backup to the SCADA system's paging function.

“There's no doubt that when you buy something from Orenco, it does exactly what Orenco says it will do,” said Brian Boswell, senior project engineer for the system. “I can't imagine trying to run our wastewater and potable water plants without relying on Orenco's TCOM telemetry panel and their knowledgeable programmers.”



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### Features of Orenco's TCOM™ Remote Telemetry

- Automatic call-out to pagers during alarm conditions or when panel detects trends that could lead to system failure
- Ability to maintain logs for system conditions and events, such as Pump Run Time, Pump Cycles, and Alarm Conditions
- Downloadable logs into a \*.dif or ASCII format for simple conversion to common spreadsheet or word processor programs
- No proprietary computer software needed for remote monitoring and control. VT100 protocol allows remote access and control from any computer modem (Mac or PC) with a simple communications program (e.g. Windows® HyperTerminal\*)
- Multi-level password security to ensure that only qualified personnel can remotely access site
- Simple interface using status, reference, and control parameters (Points). Points are viewable/editable by the operator
- Program logic (Rules) consists of simple conditional "If...Then" declarations
- Schedule Functions to control digital "Points" based on date or day of week/time
- Automatic Daylight Saving Time adjustment
- Optional graphical interface software to view system status and permit interactive system control
- Optional Automated Data Collection software for gathering alarm conditions
- Ability to upload new programming remotely
- Ability to upload firmware updates remotely



### Capabilities of Orenco's Controls Division

Orenco Systems® manufactures standard and custom panels for wastewater, water, and industrial applications. We offer:

- Quick turnaround on both high-volume and one-off projects
- Low prices on quality components due to volume buying power
- In-house design, programming, documentation, and support
- Value engineering of your designs
- OEM manufacturing

For complete specifications and options, see this product's Technical Data Sheet, ATD-CP-TCOM-1, available from [orencocontrols.com](http://orencocontrols.com) ([www.orencocontrols.com/products/custom\\_tcom.cfm](http://www.orencocontrols.com/products/custom_tcom.cfm)) or from Orenco's Document Library at [orenco.com](http://orenco.com).

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\* Windows® HyperTerminal not available on Vista