

New Use Discovered for the “Missing Link”

Model 18/18+s Provide a Flexible Solution

Zetron's Model 18/18+ Control Link is a kind of “wireless conduit” that uses radio transceivers instead of wires and provides a versatile method of relaying alarm conditions, status changes, and remote control commands. Because it eliminates the recurring expense of leased telephone circuits or the exorbitant cost of burying conduit, it provides a cost-effective way to monitor remote sites.

Significantly cheaper than a full-blown SCADA system, the Model 18/18+ has the flexibility to function as stand-alone system or can be used with control programs such as National Instruments' Lookout™ to create multipoint-to-multipoint systems.

Kimball Communications of North Carolina is a two-way dealer that specializes in SCADA and telemetry. Company owner Dan Kimball told the Advantage that the Control Links' flexibility makes it a favorite choice for automating the operation of pumping stations and water tanks at small water authorities. Kimball cited a pair of installations his company performed where Model 18/18+ Control Links were employed at two different water systems with great success.

“We have one at the Givens Estate, a United Methodist retirement facility in Asheville,” Kimball said. “We also set one up for the town of Montreat. Both of these installations are in the western part of North Carolina.”

Kimball explained that the Givens Estate originally received water from the nearby City of Asheville and then pumped it up to a water tank at the facility. That system worked fine until Asheville increased its water pressure from 40 psi to a whopping 160 psi. At that pressure, the water simply blew past the pumps and overflowed the water tanks. The Givens Estate's initial solution was to resort to manual control of the water flow.



Kimball Communications technician, Ken McGill, puts the finishing touches on a Model 18 installation.

“Every day for two years someone from the Givens Estate had to go down into the pit with a large wrench to open a valve and let the water tank fill up,” Kimball explained. “An hour later they'd have to go back to shut the valve off.”

The City of Montreat was in a much better position. They already had an old Motorola telemetry and control system. However, the system was twenty years old, and keeping it running was becoming a headache.

Turn on the juice and get the water flowing:

Kimball Communications updated both water systems using a combination of Model 18 and

Model 18+ Control Links. The first installation went in at the City of Montreat.

“The Montreat system has two water tanks,” Kimball said. “We maintained the Motorola control system for twenty years, but it was to the point where we couldn't get parts for it anymore. Now we're replacing the old system step by step as the customer can afford

it—that's another reason why the Model 18 works so well. There's three Model 18+s and a single Model 18 on the Montreat system. On the Givens estate, there's two Model 18+s and one Model 18.”

“The Model 18/18+ is as solid as a rock.”

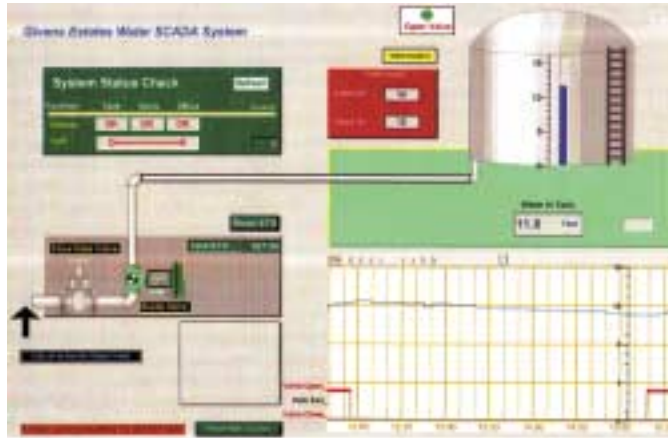
Dan Kimball

— Owner, Kimball Communications

Analog values:

The Model 18 handles up to 8 digital inputs. The Model 18+ handles 16 digital inputs/outputs and 4 analog inputs/outputs, making it ideal for monitoring analog values such as water levels in a tank.

"We put in Model 18s at a pump site to control the pump and let us know if it is running or when we have a peak power situation," Kimball said. "At the tank site we put in a Model 18 that sends a signal down to the pump saying 'I need water' when the levels drop. We've also taken a Model 18+ and run it from a mountaintop where the water tank is located down to a Model 18+ at the office where it is connected to a PC running the Lookout control program. This allows us to know what the pump status is and we can program Lookout to turn the pumps on and off through timers. Lookout provides graphs that show the customer how many hours a day the pumps were running, what their water usage was, and if they had any leaks. The Model 18+s allow us some



National Instruments Lookout™ software lets users create custom screens with pumps, valves and tanks graphically represented so they are quick and easy to read.



redundancy whereby, if the computer running the Lookout program were to fail, the Model 18+ itself would pick up and keep things working."

Dialing for dollars:

The Model 18/18+s' flexibility allows it to be used over conventional telephone lines, as well as through radios. Depending upon the application, this can

sometimes be an easier and less expensive solution.

"We sold a Model 18 to a customer who wanted to control a tank and pump," Kimball added. "He didn't want to buy radios and wanted to use dedicated telephone lines instead. I don't think many people are aware that the Model 18/18+ can be used that way, but it's cheap and reliable. If you have an in-plant application where you need eight different things turned on and off and only have a pair of wires to do it, using Model 18/18+s can be a pretty powerful solution. Kimball Communications has used the Model 18/18+ in six systems over an eleven year period. All six are still operational. The Model 18/18+ is as solid as a rock."

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