SCADA SMART WATCH

The Progression from Basic Automation
evolving to cybernetic style control

Extreme Endeavors

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Message from the President

Throughout the years, automation has made people more efficient and productive in their workplace. Since Ford created the first assembly lines to build new cars, technology has been ever-evolving and now automation is being rolled out in the water industry.

Extreme Endeavors has been utilizing IoT systems to automate water control throughout West Virginia since 2004. We work with all major cell phone carriers and regional internet providers and integrate our IoT hardware at tank sites, pump stations, and water production facilities, providing clean drinking water around West Virginia.

Our developments have been funded by the rural water districts themselves, and with each project, we advance the technology to a new level.

We currently have over 1000 IoT Products in the field and Automation software solutions that have superseded all other control systems, yet we know we have only scratched the surface of what can be achieved with the IoT Revolution.

Mike Masterman
President,
Extreme Endeavors

Challenges

Extreme Endeavors understands the challenges you face as Water Operators.

We know you are expected to work on the repair of a leak, schedule your meter readings, communicate with the public, and make sure your water system is delivering water to its customers all at the same time! So, our goal is simple –

Making Your Life Easier!

We know water operators don't always work in the most glamorous of locations

How many times have water operators been in a 6-foot-deep ditch, standing in a foot of water and mud, realizing they need to turn off a pump? Next, they reach into their pocket for their smartphone, either pulling it out and dropping it in the mud or realizing they left it in the truck?

Let's not forget social etiquette. It's not always appropriate to check your phone if you are in an important conversation with someone or a meeting?

Figure 1: Water Main Break, Typical Scenario Where a Cell Phone is Not Optimal for Use

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SCADA and Water Automation

To understand the future of Supervisory Control and Data Acquisition (SCADA), it is important to understand the evolution of computer automation.

It all started with a simple computer controlling a device, based on a sensor or reading. This led to the development of embedded devices, Programmable Logic Controllers (PLCs), with encoded intelligence, enabling automation and the transfer of data to computers.

The power of the internet brought about the rise of the network revolution in automation, allowing information to be published on any website. Bringing costs down and dramatically increasing the functionality of SCADA technology.

Developments in cellular networks have resulted in more flexible applications and provide the mechanism for water operators to monitor their SCADA systems on their cell phones.

Extreme Endeavors is taking the next step in the revolution and driving the human to machine interface further than ever thought possible (unless you were watching a James Bond movie).

Current Technology

Many water operators have already seen technology evolve. Gone are the days of turning pumps on by hand, new technology means you can now use a simple pressure switch to turn your pumps on, tank levels can be monitored from a computer screen, or to a cell phone interface.

SCADA Smart Watch

Introducing SCADA Smart Watch, giving you fully accessible control! So now instead of juggling with your phone all you need to do, is simply glance at your watch!

Extreme Endeavors went to the ends of the earth to develop this product. The major challenge was displaying so much information in such a small area. Our global team of engineers and graphic artists have made sure that this interface not only provides the water operator with the required reporting information but also the functionality to control the system

Figure 2: Extreme Endeavors SCADA SMART Watch

The watch face provides the Human to Machine Interface (HMI), allowing you to manage your system. Program on and off times for your pumps, receive alerts for any malfunctions – all from your SCADA Smart Watch.