

## **So you have a SCADA, what's next?**

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### **KEYWORDS**

SCADA, AMR, GIS, CMMS, Water, Wastewater, Integration, Historians, Data Visualization

### **ABSTRACT**

SCADA systems, AMR systems, GIS systems, Maintenance Systems, Historians, and other systems generate a huge amount of data. However, it has been difficult for utilities to combine, correlate, and verify this data into easy to use reports to enhance utility operation. Decreased tax revenue, increased pressure from unstable energy costs, and the ever growing regulatory environment, is making this level of operation a necessity.

To overcome this, many utilities have developed procedures to manually correlate this data. The result is usually a labor intensive process with questionable accuracy.

This presentation looks how to effectively develop software tools to coordinate these seemingly disparate sources of data. Often called a water management suite or integrated software environment, this overarching tool can fit over a utilities existing including SCADA, Historians, and other systems. A water management suite gathers data from all of a water utility's various systems and contextualizes the data to create usable reports on efficiency and effectiveness. The output is verifiable results with just a few clicks. The result is a more efficient operation, and greater savings in energy and other forms of efficiency.

One utility saw dramatic improvements in their ability to mass balance their distribution system. Before their custom-built water management suite was implemented, the task mass balancing took weeks of manual labor to calculate it for just a single fixed point in time. Afterwards once the new software system was installed, system mass balances could be ready within an hour, and after just a few clicks. This utility also had verifiable data to confirm and contradict various 30 year old operational assumptions. This led to changes in the way the system operates, and as a result they could optimize their operations. Also, efficiency statistics have led this utility to understand what chemicals are best for flocculation and filtration. Their new system also gave the data so they could purposely optimize when sources of water to use depending on the time of day. This paper is presenting in a how to format that emphasizes what features a utility should consider when developing a software based water management suite.

### **About the Author:**



**Grant Van Hemert, PE** is a water and wastewater applications specialist for the Schneider Electric Water and Wastewater Competency Center. He has 17 years of experience in water and wastewater automation, power, and efficiency. Mr. Van Hemert is the past chairperson for the AWWA Instrumentation and Control Committee.