Asset Tracking and Revision Control for Automated Water/Wastewater Control Systems

Blair Sooley[1]*

[1]Trihedral Engineering Limited, 1160 Bedford Highway, Bedford, Nova Scotia, Canada, B4A 1C1,
(*correspondence: pcooke@trihedral.com)

FORMAT: 30 minute PowerPoint presentation

KEYWORDS

Utilities, Water, Wastewater, SCADA, Asset Management, Revision Control, Maintenance/Operations

ABSTRACT

Utilities realized years ago the value of maintaining good records. Systems run for decades, yet many changes will inevitably occur during their natural lifespan. Historically, these changes were managed with paper systems or in the minds of key employees. Information was stored across multiple systems again linked by the living-knowledge of staff. As the amount of information expanded and key personnel moved on, gaps appeared which resulted in costly "discoveries" as older systems were modified.

Today the common solution for dealing with physical assets is to deploy a GIS system. This tracks assets and key properties, but what about changes to the SCADA system? These systems also undergo change to reflect the physical systems they monitor. Over time, many people will work on the application both internal and external. Yet the reality is that this is not typically tracked in an auditable and recoverable fashion. There may be the shoebox of past versions after an upgrade, but they do not detail what changes were made; only that new and old versions exist. This is somewhat inconsistent with how the utility may manage changes to its other assets, but is the accepted norm until a new technology offers substantial improvements.

It is now incumbent on SCADA suppliers to accept the challenge and develop integrated tools to records all incremental system changes. Ideally, this audit trail will also facilitate a rollback to a previous version of the application. This will provide the benefits of stability and the ability to manage accidental or deliberate internal sabotage of an existing system. As more systems become networked, there is a challenge in managing complex applications while guaranteeing system integrity. System maintenance and maximizing uptime will be the next challenge facing the SCADA world.

About the Author:

Blair Sooley is an Account Manager/Pre-Sales Engineer with Trihedral Engineering Inc. He holds an engineering degree from Dalhousie University in Halifax, an MBA from St. Mary's University and has sat on the board of the Consulting Engineers of Nova Scotia. Blair has worked in the automation and controls industry for 17 years and has led projects in the United States, Canada and Southeast Asia. He holds SCADA seminars and webinars annually across North America.