

# **Enterprise Asset Management Using SCADA, Workflows, Work Order Management Systems and GIS**

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## **ABSTRACT**

Enterprise asset management (EAM) is the optimal lifecycle management of the physical assets of an organization and is a broad term vendors use to describe software that provides managers with a way to view company-owned assets holistically. The goal is to enable managers to control and pro-actively optimize operations for quality and efficiency. It covers subjects including the design, construction, commissioning, operations, maintenance and decommissioning or replacement of plant, equipment and facilities. "Enterprise" refers to the scope of the assets across departments, locations, facilities and, potentially, business units.

There are a plethora of Enterprise Asset Management software solutions that provide the freedom to implement as much supporting functionality as you need to meet your asset management and other organizational requirements. Sure, you get maintenance scheduling, work orders and other functionality necessary for reliability-centered maintenance. One can extend one's EAM solution with human resources, purchasing, risk management, finance, and document management.

However, all of these solutions are missing the interface to an extremely important component and that is the Supervisory Control and Data Acquisition (SCADA) software that runs the plants!

SCADA has the keys to the kingdom for EAM with respect to operations and maintenance in the plants. All control system assets including PLCs, VFDs, SCADA Servers, Historian Servers, RTUs and Networks are typically manually accounted for in EAM. What if you could leverage a SCADA alarm that couples an electronic standard operating procedure (workflow) to auto-generate a work order (CMMS) that couples the asset to location (GIS)? Having historical knowledge of the alarm condition(s) may further enhance predictive analytics for similar scenarios. This paper highlights the success at a major Florida municipality that incorporated software tools that improved their operations and maintenance performance..

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## **ABOUT THE AUTHORS**

**Kerry Lee Schrank** *has been involved with automation hardware and software solution design and implementation in O&G, Power & Energy, Water and Wastewater applications for over 30 years. Kerry is currently an Executive Solutions Consultant with Gray Matter Systems in Florida where he is responsible for delivering data-driven solutions for complex challenges. Contact: [kschrank@graymattersystems.com](mailto:kschrank@graymattersystems.com)*