WIRING
Your
Assets for
Success

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Introduction

Does your control system (e.g., SCADA, BAS, HMI, Historian) pass critical asset performance data, such as run-time readings, energy consumption and operating condition, on to your Enterprise Asset Management (EAM) system?

If you answered "no," you are not alone. Our experience reveals that the majority of industrial and facility control systems do not communicate and share data with the EAM system. This is unfortunate and places the maintenance organization at a disadvantage.

The Problem

Asset performance data fuels predictive, condition-based and reliability-centered maintenance strategies. Capturing run-time readings, energy consumption, condition and qualitative data in the EAM system on a *real-time* basis can save time, reduce maintenance costs and im-

prove asset reliability. Obtaining quick and efficient access to asset performance data should be mission critical for every asset management operation.

However, asset performance data contained in the control system rarely makes it to the EAM system, which tracks maintenance and repair activities. **The most important information about the asset – its run-time, energy usage and condition information – never gets to the place where it is needed most: the EAM system and into the hands of the maintenance organization.**

Therefore, maintenance organizations are required to perform activities with an incomplete picture of asset health. Handicapped by a

lack of real-time asset performance data, this problem creates a significant informational gap between the operational and business layers of the organization, compromising both production and asset management operations.

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The Solution

The fix seems readily apparent.
- Integrate the EAM system with the control system.
- Pass asset run-time, energy usage and condition data directly to

the EAM system for tracking, alerts, auto work-order generation, and analysis.
- Achieve a one-stop shop in the EAM system for all asset maintenance and cost information.
- Utilize the EAM system they way it was intended: a data repository, a hub for which **all** asset data, past and present, are captured, tracked, and analyzed.

Easy, right?

No, it has not been that simple. To date, system integration has historically been perceived as complex, expensive, risky, and only in the realm of the large company IT departments or system integrators. Different types of databases, table structures and system constraints have added costs and headaches to the process of getting systems to communicate. These difficulties have spawned an effort toward system consolidation (a one "software jacket" fits all approach), implemented at the expense of system functionality and the user base.

However, this environment is rapidly changing. Advancements in technology, service-oriented architectures, and the use of open XML (Extensible Markup Language) communication standards are bringing down the costs and simplifying system integration efforts.

Maintenance organizations can now realize both the benefits of best-in-class EAM system functionality and the sharing of critical asset information without breaking the bank and causing IT migraine headaches. Connecting maintenance systems to operation control systems is fast becoming a standard within reach of all sizes of businesses. Database management technologies and platforms are now making condition-based maintenance a reality, not just a lofty concept preached at maintenance excellence seminars. Technology is driving this reality and revolutionizing how maintenance organizations manage their assets.

Client Example

Stratum recently integrated the Des Moines Waste Water Reclamation Authority (WRA) EAM system with their SCADA (Supervisory Control and Data Acquisition) system. Abnormal equipment readings set off e-mail alerts and auto-generate work orders to notify their maintenance department of the potential problem. This helps keep assets running at their peak efficiency. Addi-

tionally, their energy usage data is converted to dollars and associated with the asset's maintenance costs. Now EAM can report to WRA the total operating costs of the asset.

By connecting the EAM to their SCADA system, WRA expects to improve the operating efficiency of their blowers and main pumps, which will translate into $41,584 of savings per year.

Summary

Integrating the EAM software application with external data sources is critical to the long-term success of the asset management operation.

Getting EAM and the operation control system to communicate allows maintenance to be performed based on objective evidence of need or the condition of the asset—not solely on historical work orders and worst-case failure rates. This communication improves equipment effectiveness, increases labor productivity, and helps capitalize on the full life cycle potential of equipment.

Wiring the EAM system directly to the performance of your assets has never been easier and more affordable. Connecting EAM to the operation control system places the right data into the hands of the right people, at the right time, supplying maintenance organizations with all of the data they need in order to optimize their asset management operations.

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