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Efficiency Extra Edition

T2E3 Newsletter
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Contents of a Performance Monitoring System

"I long to accomplish a great and noble task, but it is my chief duty to accomplish small tasks as if they were great and noble."

-- Helen Keller

Considering what to include in your Performance Monitoring System

When planning for a Performance Monitoring (PM) system, the first item to identify is the objective of the system. For many systems, the objective turns into a great and noble task. But, it is the small tasks which must be accomplished first, in a great and noble manner, in order to create a successful program.

The small tasks in this case, are choosing the contents of the PM system.

What data is needed to accomplish your performance monitoring objectives? Gross and Net Electrical Output, Fuel Flow rates, Fuel Heating Values, to name the most obvious. But, if you are also looking at corrected performance, there are many pressures and temperatures which will also be needed for the PM system to perform its duties.

How will this data be collected? Manually? Electronically? Consider the following:

- If electronically, will the system be able to read from your existing data sources?
- Will there be additional expenses related to interfaces between the performance monitoring (PM) system and the data sources?
- Note that data sources may include: Third party historians such as OSI-PI Database; Central control systems (DCS); Prime mover control systems (i.e. GE Mark VI); PLCs or other remote systems; Utility/Revenue metering; Market pricing indices; Corporate information systems; and More.

Once the data has been collected and entered into the PM system, the results need to be saved and archived for long term use.

Where will results from the performance analysis be saved?

- Will you need additional hardware, software or licensing to add all the results to the archive?
- Will the archive be online (extra hard drives, either internal or external), or offline (i.e. tapes)?
- Will the results be available to everyone who needs access to them, *when* they need them?

Additional items to consider when choosing a PM system include:

Trending: Do you need to include trending capability in the system?

- How easy is it for the user to add additional or custom trends?
- Will you be able to trend raw data next to calculated data?
- Where are the trends built?
- Can they be saved for viewing with any time-set of data?
- Can they be used to view *live* data, including both raw and calculated values?

Reports: Do you need any pre-built reports included in the system?

- How are reports formatted?
- Is there a set of standard reports included?

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Announcements

- **Read Tina's Blog:** www.t2e3.com/blog
- **LM6000 Seminar** Scheduled for April 3rd & 4th 2008; in San Diego, CA www.t2e3.com/LM6000.php

Products & Services

Analysis Tools

Excel Workbooks, Macros and **Add-Ins**:

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- Compressor Efficiency
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Performance Monitoring Program Design, Support and Evaluation

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- Can the user setup custom reports as needed?
- Is there an option to schedule the reports to be created automatically?
- Is there an option to create them manually?
- Can reports be sent to an email distribution list or a network printer?

Special Requirements: Are there any special requirements for your system? Is the selected hardware and software sufficient to cover these additional needs?

These are only some of the items that need to be considered when designing a performance monitoring system.

Next Month: What to expect for long-term maintenance of a Performance Monitoring System

If you have any questions on this or any other article from T2E3, please contact me via phone (425-821-6036) or email (tinat@t2e3.com).

LM6000 Performance Seminar to be held in San Diego - April 3 & 4

Planned to be convenient for attendees at the 2008 WTUI conference (www.wtui.com).

No, it's not too late, but space is limited.
Call Now to Reserve your Seat!

Contact T2E3 or visit the T2E3 website for more information:

www.t2e3.com/LM6000.php

T2E3 Provides Services for Power Generators

Including the following:

Analysis Tools & Software – from customized spreadsheets to add-ins for Excel or complete compiled programs, T2E3 can develop software tools and analyses to support all your performance monitoring needs, including integrating your existing tools with available site data systems, to create online systems providing data and results in real-time.

Training – both public seminars and customized options are available. Highly interactive sessions increase attendees' knowledge and understanding of the thermodynamic cycles, instrumentation and analyses needed to improve equipment performance and reliability.

Performance Test Support – if your site is required to perform annual capacity or PPA performance tests, having Tina Toburen from T2E3 on site to direct the testing can lead to a smoother test execution with more consistent performance results. Professional reports can also be produced to communicate the results to all required parties.

Site Marketing and Dispatch Support – Do your marketers and/or dispatchers understand the operation of your facility? Do they constantly dispatch the plant at loads which are difficult or impossible to maintain? T2E3 can help you build tools and training programs to help all parties understand the expected changes in performance due to ambient conditions and operating constraints. These tools can also lead to a greater understanding of the long-term economic outlook for your facility.

Unlock the potential of your operation. Call for more information on how we can work together, today!