

Productivity Gains through Highly Accessible Information



The design of the EnergyWitness™ database and user interface enables maximum access to, and interactivity with, the data. It allows users to “work the way they think” and operate at the “speed of thought.” Highly accessible information must meet these three criteria:

1. All data must be collected and available at all times
2. The data must be well organized with multiple views to meet varying user needs
3. Data retrieval must occur within a few seconds of the user’s request

The following table shows the huge productivity gains possible through EnergyWitness and the accessibility of information it offers by comparing current approaches to the EnergyWitness approach for several common operations and engineering tasks.

Task	Time Required to Complete Task	
	Current Technologies	EnergyWitness
View/report the equipment profile for a building on campus (# of AHUs, heating/cooling systems, economizer, exhaust, VAVs, etc.)	Likely 2 - 8 hours of information gathering from disparate sources.	One minute. Choose the tab for the building in question and the information is right there.
Determine how well each piece of equipment in a building is actually running.	A few weeks. After setting up some trends and/or using data loggers, and assuming that no additional data determined to be necessary, analysis and answers can be achieved.	Minutes. You can instantly start to review dozens of trend groups and reports. Reviewing a 100K ft ² building takes approximately 10 minutes. And, you could build several new reports and save them in the system at the same time.
List all meters for all utility types on a building and show its consumption, demand charge, and billing history.	1 - 8 hours. The list of meters alone is likely to take 20 minutes. Someone probably has a spreadsheet with billing history, demand and consumption details are often a different story.	30 seconds.
Investigate repeated hot and cold calls from a specific room to determine what has been going on for the past couple of months.	Never. It is highly unlikely that all data points for the room are currently being trended—that data is lost forever. Going forward one can set up trends and wait weeks or months hoping the issue repeats itself and no needed trend logs were missed. Meanwhile, occupants are still uncomfortable.	Five minutes and you’ll have reviewed the last two months of data and be able to start drawing conclusions. Full analysis is complete in 20 minutes to three hours, depending on the complexity of the actual root problem.

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	Current Technologies	EnergyWitness
Find the root cause of an alarm coming from the control system.	Two weeks, assuming the proper trends are set up to do the analysis and the alarm condition repeats.	20 minutes on a slow day. All the data is available immediately to perform diagnostics.
Determine if an air handler is supplying all the VAV boxes per design requirements, in terms of air flow and balance.	<p>1 - 3 months to hire a balance and testing company or find time for in-house staff to do the checks.</p> <p>7 - 10 days if anyone thought to use data to answer the question in the first place, then define the necessary trends. Run trends for 7 - 10 days, then export the data into Excel (where you may need to time synchronize the data) and perform calculations.</p>	<p>5 - 10 minutes to assemble the trends, export the data to Excel, define calculations to have a comprehensive understanding of the air flows, balance, detected leakage, etc.</p> <p>(It would only take 10 seconds if this analysis was desired on a regular basis and previously added as a calculation.)</p>
Perform a detailed energy study of the mechanical and electrical systems in a 200,000 ft ² building.	3 - 4 months to secure resources (internally or external firm), collect data, collect utility bills, and perform analysis. Even then, likely to miss a lot due to limited data collection for the building itself and other components (i.e. physical plant) that affect it.	3 - 4 days to provide a detailed, well-documented analysis with issues identified, prioritized, and estimates for effort to resolve and likely savings. Analysis is fully informed with all building operational data and related systems.

To arrange a demonstration to see for yourself how all this is possible, contact Interval Data Systems at 617-744-1091 or info@intdatsys.com. We will be glad to prove our claims.



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