



Fasten Your Seatbelts for EH&S Dashboards

Many of us use digital dashboards as part of our daily routine. For example, we log on to yahoo.com, msn.com, or similar sites to get our daily dose of news and financial information. We make airline, rental car, and hotel reservations all from a single Web site. If we need to find something quickly, we use a Web site's "search" feature. All this without leaving our desk! This month's column examines the use of dashboards to deliver environment, health, and safety (EH&S) data. Digital dashboards can provide "one-stop shopping" for operations personnel, management, and EH&S professionals.

WHAT IS A DASHBOARD?

Your car's dashboard has a cluster of digital or analog displays that provide a quick overview of your car's status. Once you become familiar with the location of the speedometer, tachometer, fuel gauge, and odometer, a single glance at the dashboard lets you know your current operating conditions—speed, rpm, fuel level, and total miles driven. With multiple onboard computers, cars can compute gas mileage, the number of miles remaining until it's time to refill the gas tank, and the average speed for the current tank of gas. Some late-model cars even use global positioning systems to pinpoint where we are and to tell us how to get to our destination.

Likewise, a software dashboard is a user interface—often accessed using a standard Web browser—that feeds application and business process data to users. While one dashboard differs from the next in terms of its "look and feel," each typically cuts across multiple applications, data formats, and systems to deliver appropriate data to end users, often through simple hypertext links. Some dashboards use a text-based interface, while others rely heavily on icons and graphics to

quickly point the user to the desired data. Dashboards typically "push" specific types of data and metrics to end users, according to predefined job roles or user preferences. For example, a facility EH&S coordinator needs data specific to certain production units or operations, a plant operations manager needs data for all units and operations in the facility, and corporate EH&S staff need data summarized by business process.

WHY USE A DASHBOARD?

There are several reasons to use a dashboard to display EH&S data. First, a dashboard can reduce or eliminate the need to navigate through complex EH&S management information systems. The software allows users to view, in one place, data, analytics, and metrics relative to their job roles. Second, a dashboard provides a seamless view of data from different sources, independent of technology platform. Third, it often provides links to useful data or systems, such as regulatory databases, agency Web sites, or material safety data sheets (MSDS), which may not be integrated with other corporate systems. Fourth, a dashboard requires little or no software other than a standard Web browser. This is a great advantage over client/server management information systems that require some files be stored on the user's (client) computer to access the application (server) computer. Web browser-based dashboards allow users to access data any time, anywhere, from any computer with an Internet connection. Finally, a dashboard provides real-time access and instant insight into the business. It helps people focus on value-added activities to help make better business decisions.

Tech industry watchers point out that our systems need a good tune-up. "Things are happening in the enterprise and we don't see them in real time, or we receive old data and we

suffer for it," says David McCoy of Gartner Co. Meanwhile, Henry Morris, IDC, notes that not everyone is sold on instantaneous data analysis, and that poor business decisions can be made in haste: "The ability to pull data from different places and provide a view of different operational systems at once is a really nice thing to do. But do we really need it for every type of decision we make in business?" (Business Activity Monitoring Gets Boost, *InfoWorld*, July 26, 2002).

WHAT'S IN IT FOR ME?

EH&S dashboards can bring together data from different stakeholders inside and outside the organization. Dashboards are well suited to capturing data relevant to regulatory agencies, manufacturing, and support operations into a single framework for calculations, reporting, communication, and follow-up. While the content differs, common elements include an EH&S activity calendar, EH&S metrics, and links to pertinent reference materials and specific EH&S functionality. Dashboards are even more powerful when they use graphs and charts to display metrics based on key performance indicators (KPIs), such as operating conditions, compliance with recordkeeping and monitoring requirements, and amount of emissions generated.

Traditionally, EH&S business intelligence has been based on historical information flowing one way—from operations to EH&S professionals to management. If KPIs are well thought out and integrated with data analytics tools, a dashboard can alert EH&S and business managers to trends using forward-looking metrics. Operations, EH&S managers, and business managers can see the same data instantaneously and make informed, coordinated decisions. This helps businesses manage their risk proactively, rather than reacting to historical data months after the fact. Dashboards can also help EH&S professionals become more productive by allowing them to view data from multiple operations in roll-up (summary) reports. This is particularly helpful for making comparisons based on specific date ranges, geographic locations, or business lines.

EH&S dashboards should be carefully thought out to address business needs. They should be specific to job roles and responsibilities rather than "one size fits all." According to Robert Johnson, president and CEO of Environmental Support Solutions, "[Digital dashboards] are extremely valuable and are a great tool; however, there are a lot of companies that have developed dashboards with a lot of bells and whistles, but that have a very weak system behind them...Buyers should

be aware of what they are buying" (personal communication). Prospective buyers should ask themselves the following questions when considering dashboards:

- *What EH&S content will the dashboard deliver?* Determine whether the dashboard is generic, tied to proprietary software, or somewhere in between. If the dashboard is tied to proprietary software, you might get locked into a product line that lacks the specific EH&S features and functions your organization requires.
- *Who are the intended users?* Understand how the dashboard will serve users at every level of the organization: at the plant level, within facility and corporate staff groups, and all the way up to CEOs, who require quick snapshots of rolled-up data.
- *Will you need one or more customized dashboards based on the above user types?*
- *How will the dashboard be deployed within your organization?* Look at the technology behind the dashboard. Can users access the dashboard via a simple Web browser or will they need software "cookies" or client software loaded on their machines?
- *If the dashboard is tied to proprietary modules, what is the quality of individual multimedia modules?* Will these meet your needs?

- *If the dashboard is more generic, how easy will it be to customize it to meet your needs?* Can you customize it yourself?
- *Who will maintain the dashboard?* Will the software vendor update it, or will you need to make programming changes with in-house or contract labor?

Dashboards can offer companies one-stop shopping for EH&S data. With the array of dashboards available today, make sure that the dashboard software you choose is not all flash and no substance. Today's digital dashboards make EH&S software more user-friendly than in the past, and emerging technologies such as portals will make using EH&S applications even more seamless. So, fasten your seatbelts! ☺

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