



KEEPING CURRENT

Electrical/Electronic engineering
technology report

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Integrate data to foster rapid, fact-based decision-making

How can we develop products faster

and more effectively, decreasing our time-to-market? This is a question that many CEOs are asking. Time-to-market simply measures how quickly you get your product from concept into the customer's hands. In the competitive market of high-tech product development, your time-to-market can make or break your business.

One way to mitigate delays to market is to better manage your company's development portfolios and projects, using a digital nervous system (DNS). Here are some highlights of how project management information systems (PMIS) can act as components of a DNS and provide business intelligence.

The challenge

Fundamentally, making fact-based business decisions to better manage your business requires having the right information at your fingertips. In this age of computers you might expect that would be a no-brainer, however, that is not necessarily the case. Many companies struggle to get the right information to the right people at the right time.

The digital nervous system

Microsoft CEO Bill Gates recently published *Business @ the Speed of Thought — Using a Digital Nervous System*. In his book, Gates highlights the need for companies to create these systems to help them do better business. Creating a DNS requires the integration of data from various information systems (project management, sales, financials, manufacturing etc.) enabling rapid, fact-based decision-making. The concept is right on the mark — companies must have their finger on the pulse

of their business. One way to start is to better manage their projects.

Project management information systems

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Many of us in technical fields are familiar with project management (PM) software. These tools help generate schedules and work breakdown structures, track assignments for resources (people or equipment) and help provide visibility into project costs. Historically though, these tools functioned like stand-alone spreadsheets that simply provided a form to enter data and make calculations. With the advent of PM tools using database technology, we now have true project management information systems (PMIS). Using the DNS analogy, an organization's projects are like hands doing work while the PMIS acts as the brains, relaying data, coordinating, processing and presenting information for analysis.

The benefits

The following is a short list of some of the benefits that can be realized using a PMIS:

- **Rollups** — Using a PMIS, project and portfolio metrics can be rolled-up (aggregated) enterprise wide. This enterprise wide information provides management with a view of the total costs of all projects across the business.

- **Track project inter-dependencies** — Tracking project inter-dependencies is crucial — if one project is delayed, other projects that rely on it may also be affected.

- **What-if scenarios** — By modifying the end dates or available resources to a project, you can see the effects on other projects in your business. This is useful when you need to analyze what's in your company's pipeline (product development organization) and what projects could be added or cancelled.

- **Resource availability** — Another crucial piece of information is resource use and availability. Knowing how your resources are applied in one project is important — knowing how they're applied on many projects is even more important. If you know when your resources are coming off one project, you can accurately determine your capability to take on new projects.

Information policy

Implementing such systems is tremendously beneficial, but they must be used properly. Too often in industry, information systems are implemented and later abandoned because the data quality is poor. There's an old saying: "garbage in, garbage out". Successful use of any information system is contingent on having an information policy in place dictating what information is to be gathered, who is responsible and how that information can be used. ■

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