Project + Lifecycle Together

BY
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Tying project management with product lifecycle software creates a bigger picture

The engineer doesn't get much say in deciding which products his company launches. That job is usually left to the executives, managers, and marketers, and to their trusty project portfolio management software.

Project portfolio management software helps analyze each project in a company's overall portfolio of activities to determine which ones should go forward and to manage those projects from concept to completion. Executives and managers can view project reports, run analyses, and get financial numbers via the software, which can act as a repository for all project information.

Most of what's been written about project portfolio management, or PPM, pertains to the value it can bring to consumer-goods companies. But engineering companies are now stepping forward to integrate their PPM and product lifecycle management systems for more close-up project planning, said Jim Brown, president of Tech Clarity, a research and consulting firm in Media, Pa. By tying the two systems, engineering firms are better able to manage time spent on specific projects, to get an overarching and realistic view of where the project stands, to stay on the schedule and to meet specific goals, Brown said.

The tied systems also allow engineers to get a broad view of the project that extends beyond their engineering piece.

Problem is, few vendors offer the tools for this kind of integration, so it's up to engineering companies themselves to create a bridge or to further exploit the planning capabilities already existing within their PLM systems, according to the technology users.

According to Brown, PPM software is usually called upon by staffers charged with setting product strategy and with laying out the steps that will bring the product to fruition.

"The real purpose of PPM is to make sure the investments companies are making in engineering and product development will drive profitability for the company," he said. "It's a decision-making tool to help choose where to invest a company's limited resources.

"It's not that companies don't have enough good ideas," Brown said, "but that they can have trouble trying to decide which ones have the most value to the business."

In engineering companies, where the project status is inevitably tied to the engineering department, closing the loop between theoretical plans and engineering progress can make for big budgetary savings and offer important insight into product planning, he added.

That explains the move toward further integrating product planning, by marrying PPM and PLM.

In a recent paper, *Product Portfolio Management in a PLM Strategy,* published by Tech-Clarity Inc., Brown quotes Sharon Trauth, a technical staff member at Sandia National Laboratories of Albuquerque, N.M. "For Sandia Labs, we need an integrated planning process," Trauth told Brown. "We need the ability to see what needs to be done, understand how that is funded, and then we need to take action."

Many engineering companies that don't yet have a PPM system are now considering implementing one to plan their product mixes, said Richard Bourke, founder of Bourke Consulting Associates, an engineering and manufacturing software consulting firm in Laguna Woods, Calif.

"In the light of recent economic unpleasantness, companies have had to sharpen up their thinking about which products to bring forward. And what better method to look at what to bring forward than PPM?" Bourke said. "From the software market's standpoint, PPM is taking off, and

I won't be surprised if it makes it way more and more into engineering companies very soon."

But at engineering companies where PPM and PLM systems are already in place, team members charged with the project portfolio have realized that by linking the PPM software and the PLM system engineers, executives and mangers can better ensure each product milestone is met and the product will be delivered on time and within budget, Brown said.

And if the project is lagging, the linked systems will give executive team members an important heads-up.

PPM can also be called upon to plan for the engineered tools and technology necessary to bring future products to market, Brown added.

"So an automotive company would be looking at what technologies to develop down the line, whether that's a new braking or steering technology. They're not necessarily developed for a specific car, but more in parallel as part of their technology development program," Brown said.

"If in five years you want a product car that's a roving multimedia center, what are the technologies you'll need to have in place to get there?" he added. "The company should have a roadmap for the types of new systems and new materials they might want to use and then those are developed in parallel with products that will use the technologies in them."

ALREADY TIED?

Still, there is a huge question—the elephant in the room, if you will—being bantered around in the chat rooms and forums frequented by technology analysts, technology vendors, and engineering types: Isn't PPM, ipso facto, already a part of PLM? The conversations become fraught and quickly take a turn for the technical and the jargon filled.

For instance, one recent poster to a forum debating the subject wrote: "The best solution is to use both tools—PPM and PLM—narrowly and seamlessly interfaced. But as far as I know and at this time, that doesn't exist and we have to work using the poor PPM features of PLM tools or to customize an interface between our preferred PPM and PLM tools."

Brown calls for closer ties between the two systems, no matter how this is achieved.

The project tracking capabilities inherent in PPM systems are the most easily and most likely aspect of PPM to be aligned with PLM, he said.

"Consider integrating PPM to PLM to get a realistic view of existing products and projects—closing the loop between planning and reality," Brown said.

Project tracking is critical to bringing projects in on time and on budget, he said.

"By monitoring progress at a granular level, including planned deliverables, project status can be based on real progress," Brown wrote in his paper.

Also, by linking the two systems, planning documents are visible to both engineers and product developers throughout the life of the project, he added.

Finally, closer ties between PLM and PPM help ensure

projects achieve their expected value. Project requirements can then be tracked throughout the project and tied to the deliverables that meet the requirement.

Technology vendor Oracle of Redwood Shores, Calif., supplies both its Primavera PPM and its Agile PLM software. The two can be configured to work together, though they aren't formally integrated, said Richard Sappé, industry strategist for Oracle's Primavera global business unit. Even without such integration in place, Sappé sees a spot in the engineering world for project management software, particularly when it comes to time management.

"The traditional approach to project management is that you set a deadline for different stages, like design," Sappé said. "But the challenge we're seeing is around distributed design teams. It's not as simple as a design manager, a project manager, and the team gets together and looks at where everything stands. Now there's a lot of collaboration around tracking and managing distributed teams."

PPM software tracks teams. It also give managers and executives a window into time spent on each stage of the project. That way, managers can get a good idea about how long similar, future projects will take to complete and can study how the project could be streamlined in the future, Sappé said.

Take the example of the flight structures division of B/E Aerospace Inc., a Willington, Fla., company that reconfigures aircraft interiors. B/E Aerospace's division managers brought together data from many different sources to get an overall look into how a reconfiguration project was proceeding, according to Kaushik Sheth, program planning and controls manager.

The best solution is to use both tools— PPM and PLM— narrowly and seamlessly interfaced.

Unfortunately, the division relied on several disparate project management systems to get that overall look.

"To handle the multitude of interdependent activities that make up each aircraft reconfiguration project, we needed a more proactive project management approach," Sheth said.

The division recently brought in the Oracle PPM system to replace several of those project management systems, Sheth said. By establishing a single source of project data, managers integrated project schedules from a number of different areas to better plan and control the approximately 10 projects that run at once. They also can get a view into all the deadlines for those 10 projects to see that they're hitting targets and running on time, Sheth said.

The new system enables managers to better lay out and plan specific projects in advance, rather than react to what's going on as the project proceeds.

With more integration of PPM and PLM and with engineering firms realizing the value PPM can play, engineers can expect in the not-too-distant future to routinely get an overall look at where their project stands. ■