Program execution management

Enhancing executive insight into program performance by providing real-time dashboards

Benefits
- Facilitates program monitoring, program control and program-related communications throughout the enterprise
- Improves program efficiency by rapidly providing decision makers with substantive product, process and program knowledge on a real-time basis
- Reduces costs by enabling management to more efficiently allocate program resources
- Provides continuous visibility to target-related performance knowledge
- Improves productivity by enabling managers to schedule and allocate their resources more effectively and level these resources across workflow-driven development processes
- Reduces management risk by enabling executives to comprehensively understand program status at any instance

Summary
Teamcenter® software dramatically enhances program execution management by enabling executives, product managers and program managers to increase their visibility into program performance, broaden their control over program execution and more accurately account for program execution. To facilitate this new approach, Teamcenter combines its unsurpassed knowledge management, process orchestration and project management capabilities with real-time dashboard functionality. Teamcenter’s next-generation solution provides total visibility to the most up-to-date and complete program information, including a program’s rolled up performance metrics, process metrics, custom strategy-specific KPI and risk analysis metrics.

Real-time solution for a new generation of performance management initiatives
To meet today’s demands for increased corporate accountability, Teamcenter provides a single program execution management solution that integrates Siemens PLM Software’s world-renowned knowledge management, process management and project management capabilities with executive dashboard functionality that heightens a company’s ability to monitor, control and improve the performance of individual take-to-market programs.

Traditionally, executive managers leveraged one set of systems to perform project management (planning and execution) and another set of systems to perform
As a result, your Teamcenter-driven program plan-and-execute solution can:

**Easily facilitate best practices** – such as "stage-gate" management – by allowing you to tie project tasks into information workflows. This high-level process orchestration enables companies to extend the value of workflow to the overall new product development process while facilitating integrated project and resource management. As a result, companies are able to reduce the implementation burden on key personnel at the same time they extend the transformational scope of the workflow initiative.

**Eliminate last-minute unexpected surprises** by enabling program managers to monitor a process and examine its deliverable state (in essence, providing managers with a better feel for a project by allowing them to evaluate both its current status and the tangible data or documents that validate its delivery).

**Increase the visibility of everyone** who participates in the product lifecycle. For example, Teamcenter enables engineers to know when and where dependent information will be coming from, as well as understand the project’s time and resource constraints. Similarly, project managers have insight into the engineering and manufacturing world, where they can see what pressure points are building up.

In functional terms, Teamcenter’s program execution management solution enables management teams to:

- Create, maintain and monitor project schedules that reflect fine-grain tasks, dependencies, milestones and start/finish dates
- Connect these schedules into automated processes that reflect repeatable rules, user roles and workflow definitions
- Directly relate these processes to the product/program data generated by these processes
- Leverage templates to rapidly facilitate process automation and improvement
- Provide decision makers with immediate real-time access to the most up-to-date program data

Teamcenter’s unique and powerful integration between project management, process management and knowledge management transforms today’s isolated environments from plan-then-status to a plan-and-execute solution that delivers 24x7x365 program visibility.

Program execution management

**Features**

- Real-time access to changes
- Collaborative build scheduling
- Web-based user interface
- Automatic generation of tasks that reflect project-schedule details
- Ability to leverage Teamcenter’s process management capabilities to assign resources to project tasks
- Automatic reflection of event updates in project status reports
- Ability to display process-related progress in dashboard views
- Ability to relate project tasks to the requirements that drive them
- Visualization and management of resource workloads
- Validation of resource demand through group-level histograms

**Robust color coding/visual markers:**
- Color-coded tasks and project-level status
- Automatic color-coded updates for past due items
- Visual markers on linked tasks
- Visual markers on automated email notifications

**Executive dashboards:**
- Project/program-level status and progress reporting
- Earned value reporting
- Resource allocation status
- Budget versus actual status
- Baseline reporting
- Export to spreadsheets
- Highly configurable (known information refresh rates to presentation cache)
- Microsoft Project Desktop integration

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Teamcenter is especially adept at enabling these various lifecycle participants to work with their desktop tools of choice – and eliminate the need for expensive cross training or data centralization while compressing the time it takes for individual users to complete their program management tasks. By integrating with Microsoft Project Desktop to consolidate multiple Microsoft projects into a virtual workspace, users can view the interdependencies among projects, perform critical-path analysis and examine costs and resources at the program level.
The report goes on say that project and program management play a significant role in helping companies achieve their product innovation initiatives. Then, the report provides the following basic definition.

A project management collaboration platform is used to define project milestones and (project) groups, (as well as to) enforce performance against these goals. Advanced project management tools include data management event-alerting and advanced workflow capabilities. Project management is key to process standardization and collaboration.

**Use case**

Teamcenter’s program execution management solution facilitates a variety of use case scenarios.

**Improved decision-making**

Teamcenter’s dashboard provides executives and managers with extensive tracking and reporting capabilties. Executives can receive summary updates that highlight the status of all teams and projects. All stakeholders can request big picture views to multiple project schedules in easy-to-read Gantt format, as well as cross-project management reports that present.

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Features continued

- Work breakdowns/schedules
- Generic resource assignment
- Links to knowledge/process management
- Project cost parameters
- Email notification
- Task-level notebooks
- Risk and issue databases
- Scripting of Teamcenter-managed deliverables and criteria
- Orchestration of Teamcenter-managed workflows

Teamcenter products

- Engineering process management
- Enterprise knowledge foundation
- Portfolio, program and project management

Equally important, Teamcenter provides executive dashboards that are directly linked to decision-making metrics and analysis tools. This improved visibility enables management to more accurately predict what issues will arise during the execution of individual projects, as well as provide a tangible basis for guiding their business decisions.

**Business context**

Project and program management is directly related to today’s highly prized product innovation and product development initiatives. Consider the Aberdeen Group’s 2004 assessment of the role of these transformational improvements in the consumer products industry. (Consumer) companies are looking to implement product innovation and development to fuel the recovery. Aberdeen’s *Product Development in the Consumer Industries Benchmark Study* found that more than three-quarters of consumer companies view new product development as a leading driver for revenue, profit and market share growth. And more than two-thirds of these firms will rely on new products to contribute a growing portion of total revenues over the next three years...

(However), most consumer products companies have not effectively aligned and standardized product development processes company-wide; and nearly a quarter of responding companies lacked any formal product development procedures at all. Consumer companies also reported only limited use of automation to manage product data and support product development processes...

With this in mind, the Aberdeen Group’s comprehensive list of “recommendations for action” included a recommendation that companies “establish common metrics and procedures for measuring product development project milestones and performance.”

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environment-wide project information. The executive dashboard facilitates visibility to consolidated resource and cost information, as well as best practice analysis. With 20 out-of-the-box reports delivered in dashboard format, users have access to all vital information, including custom views oriented for executive decision-makers.

**Extended stakeholder involvement**

Teamcenter brings all program team members together in a highly interactive environment, where they can communicate and share project-related information on a real-time basis. Teamcenter is ideal for enterprises comprised of widely dispersed users and highly diverse information assets. Essentially, Teamcenter’s program execution management solution is one of several lifecycle process solutions that leverage Teamcenter’s unified approach to enterprise collaboration. These processes are especially adept at enabling all of the participants in the product lifecycle to work in concert across multiple lifecycle phases in order to bring an enterprise’s products to market and support its customer base.

**More predictable schedule, cost, resource and risk analyses**

Teamcenter enables program teams to create, maintain and monitor project schedules that reflect fine-grain tasks, dependencies, milestones and start/finish dates. These tasks can be managed in automated processes that users activate and close using Teamcenter’s process management capabilities. Team members can monitor these schedules in real time by accessing interactive views, including Gantt charts that can be edited on a collaborative basis.

Teamcenter enables users to plan and manage product-related projects by taking advantage of a robust series of organizational breakdown and resource management capabilities. Entitled team members can define each project in terms of its related work tasks, associated tasks, the resource required to execute each task and the skill sets needed by the resource in question.