DASSAULT SYSTEMES

ENOVIA

PROJECT MANAGER

OBJECTIVE

Project Manager allows companies to target zero delays with their product planning and development processes to achieve optimal cycle times within scope, capacity and resource constraints. Organizations can concentrate on the most profitable products while standardizing on best-in-class business processes across the extended enterprise.

OVERVIEW

All companies are faced with ever-shrinking product lifecycles in order to timely satisfy the diverging needs of global markets. This has resulted in an increase number of concurrent product development programs, which necessitates adoption of concurrent engineering methods. However, this also increases complexity due to the parallel activity of various functional teams. Coordinating the various functional teams to prevent overloaded resources and bottlenecks is critical for optimizing cycle time.

If one looks at a classic product profit curve, it is evident why cycle time optimization is so important. All products incur upfront costs before revenue is generated. As a product grows and matures, revenue should make up for the upfront costs and profits should nicely accumulate. Towards the end of the product lifecycle, companies try to exit before revenues decrease below costs and profits erode. If product development management processes are adopted that allow cycle times to shrink then the product launch occurs sooner, which allows revenue to also be obtained sooner. In effect, this profit curve shifts left and can even increase because a company is able to capitalize on market opportunities sooner before competition can react.

Project Manager uniquely accomplishes zero delays by linking product development data to project execution. In effect, project management becomes data-driven by being linked with the product portfolio. When the two processes are disconnected with different technologies, there are multiple projects being defined and tracked, but they are not grounded in the reality of the product data that is being created as part of the project. As a result, it is difficult to understand or contain execution issues related to product planning decisions or portfolio issues related to execution problems.

With **Project Manager** and the **3D**EXPERIENCE® platform it is possible to permanently associate the definition and development of the product portfolio with the tracking of the projects used to govern it. The implications of portfolio decisions can be quickly assessed against the project schedule. As a result, a project manager is taking action to resolve issues with a full understanding of the impact to the product portfolio.

HIGHLIGHTS

DELIVERABLES PLANNING

Product Line Management

Project Manager enables users to organize and manage a company's product portfolio and execute development projects related to the planning and introduction of future products. Product lines and model hierarchies organize a company's family of products. Model hierarchies represent specific products available to customers. Users can associate product releases with development projects and organize them into portfolios. A portfolio provides visibility into a product line's road map, product release dependencies and real-time status of strategic project milestones to share with other organizations.

Schedule Product Builds

Prototype and production builds represent key milestones of the product development process. Multiple builds can be identified and planned for a particular product, and then their completion can be tracked through the project schedule.

PROJECT PLANNING

Business Goals

Users can define a business goal hierarchy to help identify which projects to approve and fund based on how they impact strategy.

Phase Gate Management

Users can manage a company's processes with a phase gate review process, which includes criteria for making decisions to fund or not fund a project. For historical traceability purposes, the project leader can schedule the gate review meeting date and capture the gate meeting details such as list of attendees, topics and artifacts, and final decisions.

Project Manager supports all phases of development, including the ideation phase in which organizations evaluate the likely value and feasibility of all potential new projects. Once each concept is approved, it is updated to a formal project and can be planned in detail.

Schedule Management

Users can decompose complex product development activities into smaller manageable sub-projects. Users can then define schedules to organize global project teams into phase-gate activities that take into consideration assigned project members' roles and non-working days. Tasks can be copied from projects or from project templates, including copying partial task structures. **Project Manager** provides bi-directional integration to Microsoft Project for project managers that prefer using a Microsoft Project user interface for editing schedule information.

Gantt Chart

Users can view the project schedule graphically. The phases and tasks are displayed as bar charts based on the timelines, and the milestones and gates are marked on it as well. It illustrates the start and end dates, and also displays the dependencies between tasks. It provides for an easy way to study the whole project schedule. Users can also edit the schedule from the Gantt view.

Engineering Project Management

For companies using **Collaborative Innovation**, it is possible to monitor design activity and navigate all project information from CATIA® using **Project Manager**. This allows access to outputs from design from the corresponding project tasks. Since **Project Manager** and **Collaborative Innovation** both run on the same technology platform , users can search for and associate engineering data as deliverables to assigned project tasks easily. Engineering tasks can be created as part of the project's schedule and are accessible immediately to the designer within his design environment.

Flexible Work Calendars

The work week, working hours and holidays vary across the globe. It also varies based on the type of task being executed and across organizations. The work hours per day in a week can also vary. **Project Manager** provides the ability to create flexible work calendars based on organizational and regional factors.

Exceptions can be created on a calendar. Exceptions can be for holidays or for work days and can recur on daily/weekly/monthly/annual basis. There can be a start and end effectivity date for each exception. A practical use of exceptions is for handling production cutovers that require extra work on a weekend of longer than usual hours for a set period. The same use of exceptions may be required if development or production is behind schedule. The company may choose to implement mandatory overtime temporarily.

Each task can be on a different calendar based on the location of the task assignee or the type of task. If the task does not have a calendar, then the calendar associated to the user's location is used, and if the location does not have a calendar the default project calendar is used. Tasks are scheduled based on the calendar to provide an accurate schedule that reflects the real life view for work plans.

Key Benefits:

- Connect project deliverables with the product portfolio to accurately communicate how a market opportunity will be met.
- Coordinate scope, schedule and resources to deliver the product portfolio within business constraints.
- Govern the project "invisibly" with in-context task management.
- Reveal risks based on real-time information.

Advanced Resource Management

Project Manager enables companies to optimize global resource staffing plans for strategic projects and reduce cycle times by implementing best-in-class business processes.

Users can define project resource plans by project phases or over a project timeline in either weekly or monthly intervals. Plans are submitted to functional group managers for fulfillment. During the resource planning definition process, users can define the estimated resource costs. Each submitted resource request identifies the business skills to ensure that the right people are assigned to the project resource request.

Functional group managers have real-time visibility to all submitted requests in order to assign available people within their organization or to even reject a request. Functional managers can also leverage a number of resource planning reports to help increase resource utilization, eliminate bottlenecks and improve resource assignment decisions.

Project Financials

Users can define a financial plan for each project. The financial plan includes the project budget and project benefit. The project includes project capital and expense categories and items, along with actual costs. The project leader can also define the financial benefits the project will deliver over a defined timeline. Users have the ability to toggle between multiple monetary currencies.

Project Access

The **3D**EXPERIENCE platform security model provides a common, consistent access model across all DS solutions. This applies to project data as access can now be defined not only for individual users, but also as a combination of organizations and collaborative spaces. Access can not only be defined on a project itself but also on individual objects within projects. For example, a given WBS phase can be made visible for a supplier for review or authoring.

The richness of the security model allows scaling from very simple SMB scenarios to OEM/Suppliers extended enterprise access needs.

All project content and deliverables are managed and stored securely within controlled folder and subfolder structures. Within a project, each folder and file maintains additional levels of security.

Lifecycle controls establish folder content baselines as a means of measuring project performance and historical references. Team members can establish a single environment for managing and sharing all project information —not just documents. By subscribing to folder and document events, members can become informed immediately as changes and additions occur. Reports provide a consolidated list of project-related content from either the work breakdown structure or from the folder structure.

Critical To Quality (CTQ)

To ensure that projects meet customer requirements, project teams can define and measure a project's CTQs. These are the key measurable characteristics in which performance standards or specification limits of a product or process must be met in order to satisfy customer needs.

PROJECT EXECUTION

Experiments

Project experiments allow users to create alternate plans for projects and check planning alternatives without affecting the master plan. Multiple alternatives can be created for a project in which the users can author the WBS with the same tools as for the master plan. The plan alternatives can be compared with the master plan to choose the best option. When settled on an option, users can push the experiment changes to the master plan.

Project Change Management

To control changes to a project plan, a change process between the master project and the experiment project is now available. Users can now request project changes by raising issues and associating experiments to these issues. The synchronization of the experiment to the master project requires approval of the changes from a project leader. The issue can be closed on experiment merge. Project leaders have now full control of the planning changes as the change process is now formalized through issues, experiments and approvals.

Task Deliverables

As tasks are assigned and being worked, task deliverables should be associated and managed in the context of the task. As a deliverable is promoted through its lifecycle, the system automatically updates the task status. After the tasks are completed, project folders store and categorize the deliverables for access controls and increased visibility. To keep task deliverables on schedule, project leaders can configure automatic reminders of upcoming or late tasks that project members will receive in their company email. Tasks can also require a review with the project manager or be automatically completed when the task assignee indicates it is 100% done.

Issue / Risk Management

Issues are real incidents, inquiries, or problems that impact a project negatively, and risks are anything that can potentially impact a project negatively. Issue management provides a context for capturing, tracking, and closing issues in the context of a project. Issues are identified, captured, classified, and assigned to project members for resolution. Risk management enables project teams to identify, quantify, analyze, and mitigate project risks. During the analysis process, risks need to be assessed and quantified in two dimensions. These two dimensions are impact and probability with ranges from 1-5. These dimension values help minimize these potential negative impacts by determining each risk priority and clarifying which project risks need mitigation. Risks can be copied from one project to another project.

Project Meeting Traceability

Users can capture meeting details to maintain artifacts for historical references. Managers can define meetings, and track who was invited and who actually attended. Agenda topics can be added to meetings with time durations allocated for each topic and associated document attachments for discussion. Issues that need further follow up and recorded decisions are stored as an outcome of the meeting.

Weekly Time Tracking

Users can enter hours worked on a project or a task during the week, and submit them to either the functional manager or project manager for approval or rejection. **Project Manager** provides time reports by project phase or by project member to track worked hours for assigned tasks. By capturing a user's time throughout the week in a time sheet, the project manager has accurate status information, can project future progress, identify potential risks, and take the necessary actions to readjust the schedule or resources.

My Calendar

The "My Calendar" view helps users to manage their assignments by providing a consolidated view of Project WBS Tasks, Risks, Issues, Meetings and Route Tasks. The user assignments can be visualized in daily, weekly and monthly views based on task due date and start date. From these views the users can directly access to assignment properties through right mouse buttons and work on their tasks.

Project Intelligence

Users can add feeds on projects and tasks within a 3DDashboard. With these widgets, the users can monitor project related information in context of other sources of information and from there decide the course of actions to be taken. The available widgets are "My Projects" and "My Tasks", which monitor projects that the user is involved in as well as assigned tasks. Tagging services allow users to quickly filter widgets and tables content based on already defined tags and to enrich project information with their own tags.

PROGRAM DRIVEN CHANGE CONTROL

Change Projects

Project Manager provides users a way to plan and manage complex product changes under change projects. Change projects can be used in conjunction with other program execution projects to provide visibility to the status of program level product changes which can have a significant impact on the overall program development schedule. Each functional department, including outsourced design partners or suppliers, can capture the impact, scope and cost of implementing the change for their discipline (e.g., software, mechanical, electrical) by leveraging project meetings and decisions. Meetings can be scheduled for the change project and official decisions can be captured against the change project or individual change tasks. Once the change project is approved, the change project and assigned change tasks track the impacted organization (manufacturing, engineering, or both) to enforce proper business rules during the implementation process.

Change Tasks

Change tasks are added to a project's work breakdown structure (WBS) to decompose and organize complex changes into manageable work packages. Change tasks can be used in conjunction with other type of project tasks to ensure that specific program change processes and procedures are followed. Change project managers can create one or more changes with a single change task, make resource assignments, and identify deliverables for each task.

Change Requests

Change requests are used as a formal mechanism to collect a number of product issues and request approval to resolve them with one or more change tasks / processes. An approved change request is the transition from informal issue management to formal change approval and control.

Change Task Deliverables

As proposed changes are approved, each impacted functional group (e.g., software, mechanical, electrical) is assigned a change task. The deliverable for the task is the completion of an approved change process (e.g., Engineering Change Order, Engineering Change Request, Action, etc.). As the change process is executed, the change task status is updated automatically to provide a change summary status at the task or project level. Change tasks control new feature changes to specific product revisions in a product portfolio instead of automatically applying the change to all products that use the previous feature revision.

GLOBAL COLLABORATION

Collaboration & Approvals

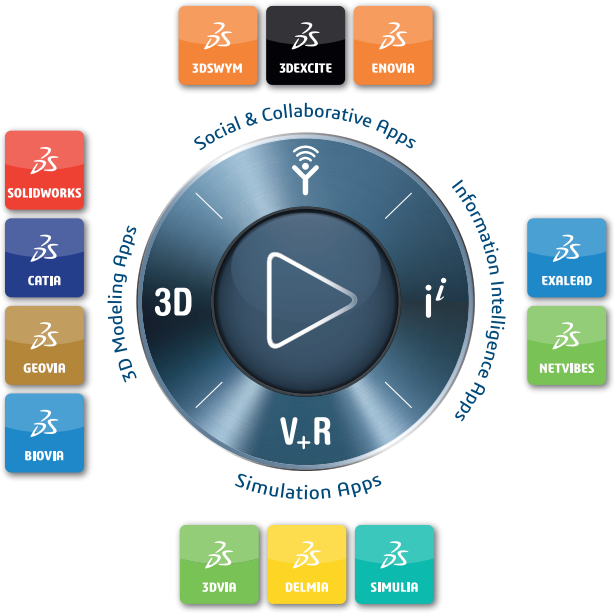
Users can benefit from a wide range of capabilities for global enterprise collaboration. Those capabilities include the ability to manage and organize shared documents and structured product data; they also enable the creation of digital workspaces for virtual teams to work together. Users can easily raise issues, organize meetings and track decisions. Any object lifecycle modifications can be formally approved using routes defined by end-users or from standard route templates.

Microsoft Integration

Users can create and access **3D**EXPERIENCE data from the most popular Microsoft applications: Word®, Excel®, PowerPoint®, Outlook®, Windows Explorer, and Windows Desktop Search. This capability enables enterprise-level collaboration while not disrupting the established productivity of end-users. With product content being managed in **3D**EXPERIENCE rather than on users' PCs, organizations are able to create, manage and review product content more securely.

Our **3D**EXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3D**EXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 190,000 customers of all sizes in all industries in more than 140 countries. For more information, visit **www.3ds.com**.



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