

ENOVIA Semiconductor Accelerator for Enterprise Project Management



Product overview

ENOVIA® Semiconductor Accelerator™ for Enterprise Project Management enables companies to manage global IC development projects with real-time access to work-in-process IP. Organizations can concentrate critical resources on the most profitable products while standardizing on best in class business processes across the extended enterprise.

Key benefits

- Provide real-time access to project pipelines for rapid analysis and decision making.
- Expose resource bottlenecks in real-time with enhanced management visibility.
- Increase resource utilization and reduce conflict between project managers and functional group managers.
- Drive phased-based decision making processes using best-in-class process templates with predefined phases, gates and milestones.
- Improve execution and oversight of complex product development activities by decomposing projects into smaller manageable projects with visibility to sub-project dependencies.
- Facilitate access to processes and data within a secure environment.
- Coordinate and collaborate on the planning and execution of projects in real-time.
- Manage complex collaborative projects involving internal and external teams of prospects, customers, suppliers, and partners.
- Saves engineering resources and provides accurate project status for semiconductor design deliverables.

Product Overview

Semiconductor companies are facing a new set of business challenges. While the typical corporate goals of introducing more new products with increased functionality at lower costs or tighter market windows still exist, the rules by which these need to happen have changed. No longer can chip designers depend on new tools from electronic design automation (EDA) vendors to continually squeeze more performance out of their design processes, and staffing levels are continually under tight scrutiny.

In order to be successful, chip makers need to address a new set of business challenges. These challenges include:

- Managing a more disaggregated design supply chain, including resources spread across multiple locations, or even multiple companies
- Increasing the use of design partners, outsourced resources and third-party manufacturing sites
- Achieving more aggressive schedules and predictable results through better project management instead of adding new tools or resources
- Increasing profitability by designing chips that can be used in more than one product, which typically requires design platforms that combine hardware, software and more computational functionality
- Leveraging the benefits of industry best practices and corporate standards to streamline design processes
- Fully utilizing existing resources in the most effective manner by assigning the right resource with the best skills to critical projects when they are needed
- Enabling a collaborative design environment built upon effective communication and carefully planned design strategies
- Continuously improving design quality and team efficiency, enabled by collecting design process metrics
- Providing greater visibility and accountability into critical design tasks and daily events in order for management to make better decisions

All of these new challenges tend to leave managers with more to watch but with less ability to do so. This lack of

visibility leads to poor decision making, often resulting in costly re-spin due to the wrong or incomplete data sets reaching the mask shop, late delivery of chips, delivery penalties and potentially missed market windows costing millions of dollars.

The key to meeting these challenges is better project planning, execution and tracking. No given chipmaker is likely to experience all of these problems at once, but without good project management tools in place the risk of running into any of these challenges, and their resulting consequences, is dramatically increased. The use of good project management tools, and methodologies to use them, will significantly mitigate such risks.

ENOVIA Semiconductor Accelerator for Enterprise Project Management enables companies to create a competitive advantage by delivering products from concept to market faster. Through project pipeline dashboards, ENOVIA Semiconductor Accelerator for Enterprise Project Management provides management with real-time visibility into a project's status in terms of schedule, resources, costs and benefits. Ultimately, this allows for better decision making when analyzing which projects offer the highest potential return on investment.

ENOVIA Semiconductor Accelerator for Enterprise Program Management provides a direct linkage to semiconductor data managed by ENOVIA Synchronicity DesignSync Central or ENOVIA Synchronicity DesignSync Data Manager. Status of the managed work-in-process data automatically updates WBS task lifecycles. ENOVIA Semiconductor Accelerator for Enterprise Project Management also provides a number of pre-configured design flow templates, which allow semiconductor companies to begin new design projects using a consistent process across all design teams and locations. Templates can be used as-is or modified to include a company's best practices. The result is design teams working in a consistent, auditable fashion and reporting project status directly from their design tools for real-time accuracy without impacting productivity.

Product Highlights

Business Goals

Managers can define a business goal hierarchy to help identify which projects should be approved and funded based on how they impact strategy.

Advanced Resource Management

ENOVIA Semiconductor Accelerator for Enterprise Project Management enables companies to optimize global resource staffing plans for strategic projects and help reduce cycle times by implementing best-in-class business processes.

Project managers can define project resource plans by project phases or over a project timeline in either weekly or monthly time intervals. Plans are submitted to functional group managers for fulfillment.

During the resource planning definition process, a project leader 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 Dashboards

Management can leverage dashboards to get an aggregated high-level graphical view of project status by phase, risk, quality, issues, assessments, costs, and benefits.

Industry Standard Project Management Templates

Projects can be planned and implemented using pre-defined templates for familiar IC design. They provide a consistent manner in which to plan and measure project status and expected results. These templates can be used either “out-of-the-box” or as a model for customer-specific flows. The following templates are available:

- Digital IC Design Flow
- Analog/Full Custom Design Flow
- CMOS Manufacturing Process
- Design Flow
- Microprocessor Design Flow
- ASIC Design Flow
- Memory IC Design Flow
- FPGA Design Flow
- IP (Intellectual Property) Quality Checklists
- NPI (New Product Introduction) Business Processes.

The project template consists of a WBS defined with phases, gates, milestones, and tasks with dependencies and responsible roles. Project templates can also include folder structures for storing content, questionnaires, document templates, project budgets, resource plans, and bookmarks.

Work Breakdown Structure

Program managers can decompose complex product development activities into smaller manageable subprojects. Project leaders can then define schedules to organize global project teams into phase-gate activities that take into consideration assigned project member’s role and non-working days. ENOVIA Semiconductor Accelerator for Enterprise Project Management 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. ENOVIA Semiconductor Accelerator for Enterprise Project Management provides bi-directional integration to Microsoft Project for project managers that prefer using a Microsoft Project user interface for editing schedule information.

Phase Gate Management

Project leaders 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.

Product Line Management

ENOVIA Semiconductor Accelerator for Enterprise Project Management provides companies with the ability to organize and manage their portfolio of products and the planning and introduction of future products by executing development projects. Product lines and model hierarchies organize a company's family of products. Model hierarchies represent specific products available to customers. Product managers 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 the 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 their completion can be tracked through the project schedule.

Project Content

All project content and deliverables are managed and stored securely within controlled and uncontrolled folder and subfolder structures. Security is established on a per-project basis. Project owners and project leads determine individual access rights. 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 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.

Semiconductor Design Deliverables

As tasks are assigned and being worked, task deliverables can be directly linked to semiconductor data managed by one or more instances of ENOVIA Synchronicity DesignSync Central or ENOVIA Synchronicity DesignSync Data Manager. As a design deliverable progresses through its lifecycle, the system automatically updates the task status. 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.

Data-Driven Project Management

Designers will continue to work within their comfortable EDA design environment. Changes that they make to the design data will automatically drive updates to the project plan, enabling project and program managers to obtain real-time information when making critical decisions.

Project Financials

Project leaders can define a financial plan for each project. The project leader can also define the financial benefits the project will deliver over a defined timeline. Project leaders have the ability to toggle between multiple monetary currencies.

Team Collaboration

A project manager can institute standard reviews for project members using routes or workflows to circulate tasks, projects and files. The entire project team can be kept informed of important project information with online discussions. All team members can subscribe to, view and comment on the original discussion topic or any of the subsequent responses.

Issue/Risk Management

Issues are real incidents, inquiries or problems that are impacting your project negatively. Risks are anything that has the potential to impact your 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 are used to determine each risk priority and clarify which project risks need mitigation to help minimize these potential negative impacts.

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 of a product or process in which performance standards or specification limits must be met in order to satisfy customer needs.

Project Meeting Traceability

Project or program managers 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.

The Role of ENOVIA V6 and PLM 2.0

ENOVIA Semiconductor Accelerator for Enterprise Project Management supports PLM 2.0, product lifecycle management online for everyone, and the ENOVIA V6 values, which are:

- Global collaboration innovation
- Single PLM platform for intellectual property (IP) management
- Online creation and collaboration
- Ready to use PLM business processes
- Lower cost of ownership.



As a world leader in 3D and Product Lifecycle Management (PLM) solutions, Dassault Systèmes brings value to more than 130,000 customers in 80 countries. A pioneer in the 3D software market since 1981, Dassault Systèmes applications provide a 3D vision of the entire lifecycle of products from conception to maintenance to recycling. The Dassault Systèmes portfolio consists of CATIA for designing the virtual product - DELMIA for virtual production - SIMULIA for virtual testing - ENOVIA for global collaborative lifecycle management, EXALEAD for search-based applications- SolidWorks for 3D mechanical design and 3DVIA for online 3D lifelike experiences. For more information, visit <http://www.3ds.com>.

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