



**Dassault Systèmes V6 Program
Management**

“Streamlining Program and Project Management”

May 2010

A CIMdata Report

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*Produced by
CIMdata, Inc.*

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Dassault Systèmes' V6 Program Management

“Streamlining Program and Project Management”

Dassault Systèmes V6 Program Management Solution supports an organization's portfolio creation and execution across the extended enterprise. It provides access to intellectual information, standard templates, and processes for managing all aspects of project delivery for all project stakeholders. This Program Management Solution helps improve a company's capability to create their strategic plan, develop the products and services needed to bring that plan to fruition, manage the risks, and streamline the throughput of innovation.

1. Introduction

This paper provides CIMdata's perspective on the ENOVIA V6 Program Management Solution from Dassault Systèmes. This solution supports global collaborative program management. This report describes how this solution delivers value to the enterprise. The following sections address:

- *Industry Situation and Challenges*—a brief review of the challenges faced by companies that use a program management methodology to drive the creation and delivery of products.
- *Benefits of a Program Management Practice*—a brief discussion of the benefits associated with the use of an enterprise-capable program management solution.
- *ENOVIA Functionality*—describes how the ENOVIA V6 Program Management Solution meets the challenges of implementing a program management methodology and what specific functionality provides discipline to the organization.
- *Summary and Concluding Comments*—a brief summary of the paper along with concluding remarks.

2. Industry Situation and Challenges

Bringing products and services to market faster while maintaining or improving quality in a competitive arena is a constant pressure every business faces. Coupled with a global footprint, the task of managing projects and programs within the organization has never been more critical. Companies that once considered project and program management not an important part of core competencies now believe these methodologies to be necessary for long-term survival and innovation. Solutions that support these initiatives provide a foundation for

portfolio management, schedule and resources management, and information visibility are also essential to streamline processes and increase execution capacity in the organization.

Adoption of program management methodologies and supporting solutions is not without challenges. According to Gerald Kendall and Steven C. Rollins, from *Advanced Project Portfolio Management and the PMO*¹, there are many practices still ingrained within organizations that lead to problems with program management. They include:

- Projects are initiated without coordination and collaboration among functional executives.
- Resources are multitasked among projects in order to satisfy all functional managers, and consistent processes are not followed.
- More time is spent on reviewing and reducing costs of a project than on reduction of cycle times.
- There are frequent conflicts over deadlines and resources within the organization, where visibility to their status is not available.
- Imbalanced portfolios tend to be managed from a supply side of the portfolio equation, and not the market-driven side.

3. Benefits of a Program Management Practice

Solutions to these issues go beyond individual project management skills and lie in a strategic approach to program execution and control. Starting with a way to decide, document and communicate the portfolio of initiatives an organization executes is a place to begin to change these practices. Initiatives, tied to the strategic plan, must be focused by market drivers, not by the level of

¹ Gerald I Kendall, PMP and Steven C. Rollins, PMP, *Advanced Project Portfolio Management and the PMO*, J. Ross Publishing, Boca Raton, Florida, 2003.

resources available, which are supply-side constraints. The portfolio should be a balance of both market-side and supply-side projects—that is, those that grow the business and those that increase the efficiency of the business. This forms an information source, which shows what the organization is focused on, when each project is initiated, when the project will be completed, who is involved, and how it will be executed.

Once the choice of product mix that supports the strategic direction of an organization occurs, the next step is to understand the organization's capacity to deliver. When there is insufficient market demand, the number of projects in the pipeline increases due to pressure to find additional streams of revenue. Project managers then find themselves faced with projects initiated with limited resources, taking longer to bring to market, and increasing risks to quality². Conflicts occur over resources, which end up multitasking and pushing deadlines. Kendall and Rollins state that within most of the organizations they have reviewed, the number of active projects an organization is pursuing is completely out of line with the resources available. Although counter-intuitive, a reduction in the number of active projects has led to more projects being completed per year. A tool to document what resources are used when in the portfolio lineup will help not only coordinate resources across projects, but optimize the throughput of the portfolio.

In addition to resources, cost and time management are cornerstones to program management. Managing costs to budgets across a program or across new product introductions is the goal of all executive leaders. Having timely, accurate, and complete information to make decisions on resource allocation is key. However, as stated above, focusing on cost at the expense of throughput can sub-optimize the delivery of projects. While adherence to budget is important, adherence to schedule is equally desirable, and visibility of the status of both of these key indicators will help the stakeholders make decisions long before the project derails. Questions that need to be answered are:

- How many projects can we complete?
- How fast can we complete them?

A tool that tracks the organization's key metrics, such as schedule and cost targets, and makes them visible to executives will help reduce risks to project outcomes. Decision support tools wrapped around portfolio management give organizations a competitive advantage by delivering the right product to market.

² IBID.

Standardized processes for product delivery also help. Having a known, documented, standardized process to execute projects will enable predictable delivery times and costs. Starting with a standardized process will give the project manager a framework to accurately document changes, predict their impacts, and communicate changes in timing to the stakeholders. A Program Management Office (PMO) can define these repeatable delivery processes and then customize tools for their program managers to use. Working with a robust technology, the PMO can structure tools that support the individual project managers in the field, and streamline the delivery of information to upper management. Setting up a PMO helps managers work together and collaborate. The PMO defines repeatable processes and support tools, provides governance, and monitors the interrelationships of the various project portfolios. It brings the organization into the next level of maturity, and tools that support the PMO are critical to this maturity.

Execution creates a mountain of information that is generated as tasks are completed and products developed or services preformed. This information is actually intellectual property and needs to be managed in the context of the program so that its utilization can be maximized to support decision-making. What is needed is an information system, geared to the organization's delivery or development process, and which easily provides status of the project at hand, preserves the intellectual property for future use, and can analyze trends in any metrics for decision-making.

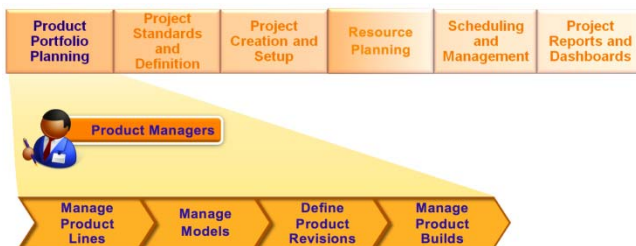
A tool that supports portfolio creation and delivery, standards of PMO, management of resources, risks, and timelines across the enterprise, and provides accurate, current, easily-accessible and viable information for status and decision support is needed to facilitate innovation in the organization.

ENOVIA provides a suite of products that brings together the benefits of coupling portfolio management with program management. They are: ENOVIA Live Collaboration (CPF), which is the foundation for extended enterprise storage and for sharing program information, ENOVIA Program Central (PRG) which helps create and control portfolios and projects, ENOVIA Collaboration for Microsoft; an integration with Microsoft Office and Project, and ENOVIA Program Experience, a lightweight interface for project team members to use to update tasks status and view information. These products can manage complex programs across the extended enterprise with real-time access to product and process intellectual property. Through these products, innovation is supported throughout the enterprise.

4. The ENOVIA V6 Program Management Solution

As mentioned, program management is supported by a number of ENOVIA products. These include ENOVIA Program Central (PRG), ENOVIA Program Experience (PGE), ENOVIA Live Collaboration (CPF) and ENOVIA Collaboration for Microsoft (MSF). These help organizations to ensure program management discipline and help enable innovation. Each is described more completely below.

4.1 Portfolio Management and Execution



In order to provide the correct context for the organization’s projects, a portfolio management system that ensures visibility to what programs are active and their status is needed. ENOVIA Program Central (PRG) is such a product. It has capabilities to create, manage, configure, and track product and service initiatives across functional areas. This capability has been developed specifically for product and service managers and contains the tools that support their tasks. The Product Portfolio Planning area of ENOVIA Program Central can manage complex programs and projects that rely on collaboration across global value chains of employees, customers, suppliers and partners.

Improved planning and decisions about which opportunities to pursue can be made when clear information about ongoing and potential projects exists along with how projects interact on the global company roadmap. ENOVIA Program Central can also keep track of changes to these decisions as they arise in product revisions, schedule slippage, cost, and resource changes. This change management capability lowers potential risks by keeping information current and available to all stakeholders. Any affected parties can then make their issues known earlier in the process.

The Product Manager can use this solution to collaborate and coordinate with other managers and tie the initiatives in the suite to the strategic plan of upper management. Visibility and decision support is improved by tight

collaboration during alternative selections and resource performance target development.

4.2 Supporting the Program Management Office

ENOVIA Program Central helps the program management office define, control, and manage the execution of projects.



ENOVIA Program Central’s Project Standards and Definition application is provided for PMOs to use for creating and maintaining standard templates, processes, and procedures for their project managers. These can be in the form of schedule templates that are populated with control gates for validation or quality checks, or they can be defined for full development lifecycles from which tailoring occurs for different product lines, services, or software creation. This drives phase-based decision-making, using process templates with predefined phases, gates, and milestones.

Providing these templates to project managers gives them a baseline level of criteria that management demands to see as they evaluate opportunities. From these criteria, or set of key indicators, all stakeholders are provided with status information consistently across the organization. This streamlines reporting and other repetitive tasks for the project manager leaving him free to focus on delivering a quality product.

Other streamlining efforts, such as having a standard set of calendars across all projects, and managing global resource skill definitions at the PMO level, will provide economies of scale. Skill definitions can be disseminated by the Human Resources department to assure compliance to job titles. Most important however, a global resource pool managed at this level gives the organization a consistent base on which to level resources across programs. While these scheduling tasks may seem trivial, standard schedule gates, current resource information, and global calendars create accurate schedules. Coupled with controlled vocabulary in which one set of field values is used consistently across programs, information retrieval for stakeholders will be precise, reliable, and relevant for reporting and for other uses. When these capabilities are owned by the PMO and managed in a product such as

ENOVIA Program Central, the level of program management maturity within the organization rises and delivery times improve.

4.3 Cost, Resources, and Schedule

ENOVIA Program Central also has core capabilities to support cost, resource, and schedule development and management.

4.3.1 Schedule and Costs

The project leader can use standard definitions and templates to create the project cost plan and project repository. The project repository is a common place to store all evidence of tasks completed or decisions made. Using a single source of program data for the organization streamlines retrieval efforts and helps support project audits.



ENOVIA Program Central supports these tasks by:

- Providing internal and external project members with a common environment from which to collaborate on project content via project folders.
- Allowing updates to assigned WBS task status.
- Supporting data entry to update assigned project issue status.
- Managing check-in, check-out and collaboration on task deliverables.
- Routing documents and deliverables for comments and approvals.
- Promoting and reporting status on assigned project risks.
- Capturing, resolving, and reporting status on assigned project issues.
- Supporting financial reviews and approving project financial budgets (costs and benefits).
- Optimizing staffing plans with real-time utilization reports to assess availability of key skills across all projects.

Additional project management tasks such as communication planning and risk planning use basic Microsoft Office tools to document and communicate critical information to the stakeholders. ENOVIA's

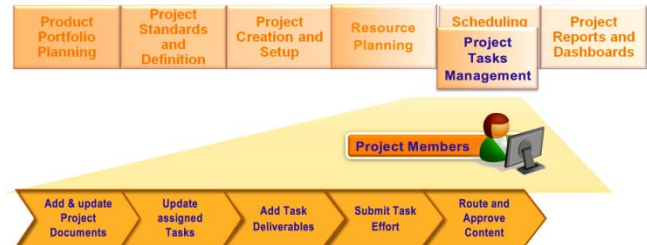
Collaboration for Microsoft integrates these familiar tools into ENOVIA Program Central, streamlining creation, storage, and sharing of program and project deliverables. MS Project schedules can also be imported, allowing project managers to work with schedules in the ENOVIA products if that is their preference.

4.3.2 Resource Planning



Resource planning is another critical task for the project manager. The resource planning application provides both the initial setup of resource pools by the PMO, and a resource assignment process embedded in the product. Here the resource manager can allocate resources across the portfolio, optimizing throughput and eliminating conflicts among functional managers. ENOVIA Program Central provides these benefits through tools which publish resource status and resource conflicts in reports for decision makers.

4.3.3 Schedule Status



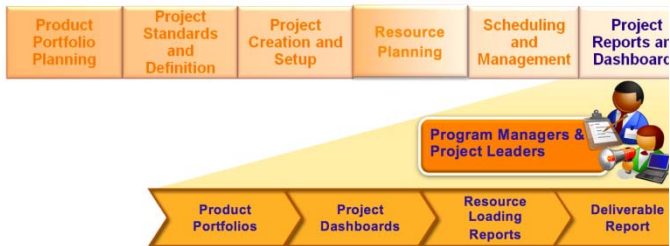
Managing the scheduled completion of tasks and capturing hours of effort expended by the project team is the basis of status information seen by upper management. Using a tool to organize the input of this information is critical to creating accurate and current updates on milestones, key indicators such as cost and schedule adherence, and deliverables. This is what feeds the dashboards, and the more automation in this area, the less time needs to be spent on these non-value-added repetitive reporting tasks by the team. ENOVIA Program Experience provides a collaborative environment for global project team members to access, manage, and report on their task assignments.

ENOVIA Program Experience provides:

- Internal and external project members with a common environment in which to collaborate on project content via project folders.
- Team members with the ability to update assigned WBS task status.
- Check-in, check-out, and collaborate on task deliverables.
- Routing of documents and deliverables for comments and approvals.
- Capture, resolve, and report status on assigned project issues and risks.
- Financials reviewers with the ability to review and approve project budgets.

4.4 Decision Support

The ENOVIA Program Experience interface delivers decision support capabilities by presenting critical information to stakeholders.



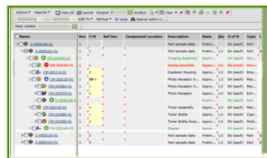
Every executive is looking for decision support tools that utilize current information that is tied into their strategic plan. While the executives view this information through the ENOVIA Program Experience interface, ENOVIA Live

Collaboration delivers this content by providing both tailorable and out-of-the-box reports on the portfolio projects that are currently active within the program pipeline. This portfolio of active projects, which has been instantiated within ENOVIA Program Central, includes the most current data from a single integrated source. With a single point of knowledge and intellectual capital available, monitoring and controlling the key indicators within this product is easy and accurate. Providing this executive dashboard is critical for maturing an organization’s portfolio development. Figure 1 shows a number of views of ENOVIA Live Collaboration capabilities.

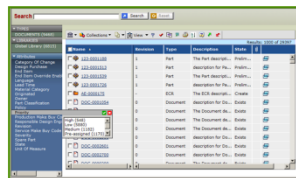
5. Summary and Concluding Comments

The business benefits of program management coupled with portfolio management are numerous, ranging from communication of the vision throughout the organization to adherence to the strategic plan. The old saying of “plan the work; work the plan” becomes real when companies, who put so much time and effort into defining a strategic direction back up their commitment by providing their organization with tools to make it happen. A tool that supports portfolio creation and delivery; the standards of the PMO; management of resources, risks, and timelines across the enterprise; and provides accurate, current, easily-accessible and viable information for status and decision support is critically needed to facilitate innovation in the organization and drive the strategic plan.

Rich Interface Experience
An intuitive user interface for



Advanced Full-Text Search
Find, analyze, and refine vast volumes of product information using an intuitive search



Collaborative Workspace
Virtual workplace enables ad-hoc collaboration



Metrics Reporting
Drive continuous business process improvements to operate more efficiently using pre-built metrics reports.

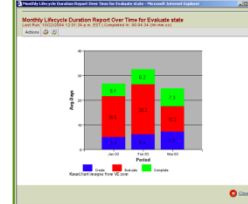


Figure 1—Live Collaboration Workspaces

ENOVIA V6's suite of products, including Program Central (PRG), Program Experience (PGE), Live Collaboration (CPF) and Collaboration for Microsoft (MSF), provides the tools needed to support all stakeholders in program and project management roles. In this environment, the project manager, executive sponsor, PMO, and team members all have access to the information needed to plan, execute, monitor, and control projects and programs. With these products, adherence to standards, quality gates, budgets, and schedules are maintained. The use of these tools lowers risks, and improves efficiency by making resource allocation visible across the enterprise.

Because ENOVIA V6's Program Management products and IP Life Cycle Management products all run on a common platform, they enable access to, and visibility of engineering and design data as project task deliverables. This helps ensure a streamlined project process across different program disciplines. It also allows project managers to create design tasks that are accessible directly by designers from within their CATIA V6 design environment. This is a key enabler for the management of design and engineering programs.

The resulting value is that project managers can focus on delivery and spend less time on reporting activities. This increases the throughput of the organization and results in more projects being completed in less time. When these projects are tied to a system that manages the strategic plan with the correct mix of market-driven and supply-driven projects, company managers are guaranteed that their organization is doing the right thing, improving innovation, competitiveness, and profitability.

About CIMdata

CIMdata, a leading independent worldwide firm, provides strategic consulting to maximize an enterprise's ability to design and deliver innovative products and services through

the application of Product Lifecycle Management (PLM) solutions. Since its founding more than 25 years ago, CIMdata has delivered world-class knowledge, expertise, and best-practice methods on PLM solutions. These solutions incorporate both business processes and a wide-ranging set of PLM enabling technologies.

CIMdata works with both industrial organizations and suppliers of technologies and services seeking competitive advantage in the global economy. CIMdata helps industrial organizations establish effective PLM strategies, assists in the identification of requirements and selection of PLM technologies, helps organizations optimize their operational structure and processes to implement solutions, and assists in the deployment of these solutions. For PLM solution suppliers, CIMdata helps define business and market strategies, delivers worldwide market information and analyses, provides education and support for internal sales and marketing teams, as well as overall support at all stages of business and product programs to make them optimally effective in their markets.

In addition to consulting, CIMdata conducts research, provides PLM-focused subscription services, and produces several commercial publications. The company also provides industry education through PLM certificate programs, seminars, and conferences worldwide. CIMdata serves clients around the world from offices in North America, Europe, and Asia Pacific.

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