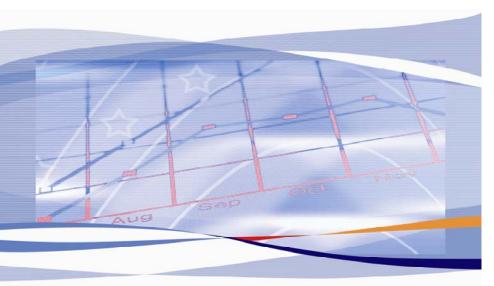


Project Management Solutions for the Industrial Equipment Industry

Integrate project management into your PLM process



Smart, Configure-to-Order (CTO) and Engineering-to-Order (ETO) manufacturers are turning to Lean Manufacturing techniques and Design Anywhere Manufacture Anywhere (DAMA) strategies for a competitive advantage. These strategic changes, though necessary, present many challenges. The resulting, widely distributed, complex supply chains can affect the consistency and quality of design and manufacturing processes.

This Program/Project Management solution helps CTO and ETO program and project managers deliver products faster. Management can make better decisions by accessing real-time information, via dashboards, on project status (e.g., schedule, resources, costs and benefits).

Globally dispersed users can increase productivity through more effective collaboration. This is based on their ability to access more accurate information, updated automatically. Also, pre-defined project templates improve predictability.

Project management is an integral part of the product development process. Much more than an oversight activity, it has significant input and output that impacts both the process and the product

What are the challenges?

In many enterprises, projects are handled with dispersed, rather than integrated, information systems. This often causes projects to become disconnected from engineering processes and allows product data-related information to become rapidly obsolete or duplicated.

Product data access is often limited only to an 'expert' community. But other decision makers in the enterprise also need quick and easy access to that same data. This lack of visibility of projects across the enterprise makes project status consolidation difficult.

These operational inefficiencies can lead to costly, corrective actions and make the change management process (i.e., tracking and propagation) more tedious and error-prone. By slowing access to project information, the decision-making process is also made more complex and time-consuming.

For example, new product introductions fail because of the following issues, all of which can be addressed with project management software:

- Insufficient phase/gate reviews
- Poor management visibility of troubled projects
- •Difficulty in finding current, accurate project information
- Poor decision making due to outdated or incorrect information
- •Unpredictable outcomes caused by inconsistent new product introduction processes and a lack of deliverable templates
- •Missed schedule deadlines due to resource bottlenecks



What does it take to successfully manage the development and delivery of complex products in a large enterprise?

Integration

Every enterprise should be able to leverage information from multiple sources and systems so that information is available, in a consolidated format, at decision time. This allows project, program, product and process managers to work on value-added analysis, rather than compiling and reconciling status reports.

Visibility

All compiled information should be accessible, on-line, from anywhere in the enterprise, regardless of physical location. This allows timely and more efficient decision making and project assessment by whomever is best suited to make those decisions and assessments. Users should feel confident that they are basing decisions on the most accurate and most current information possible, regardless of the source.

Clarity

Every enterprise should be able to present project information to all stakeholders in a meaningful way so that they can use the information to make more effective decisions. This information should be customized to the audience, based on the individual role or business purpose.

Learning

Every enterprise should be able to analyze, as projects are completed, development system performance data and use that analysis to improve future projects. The goal is to create a learning organization and continually improve business

processes. This involves critical performance metrics like shorter time to market, lower cost, and desired market response.

What makes IBM project management solution unique?

IBM Project Management solution helps project managers to identify problems proactively by making the details of project visible to the entire team. It also helps manage opportunity and product delivery projects and related schedules, resources and workflows—from the customer request to the delivery of the final product or service.

IBM Project Management solutions It provides the enterprise with a single version of the 'truth,' an accurate, upto-date representation of the project. It eliminates multiple databases, streamlining access to reliable project information.

Our solution offers exclusive
Compliance (Certification) Management
support. The ability to collaborate
quickly and easily helps enable the
overall certification process, approval
process and real-time resolution of
issues. It clarifies the certification
process for everyone involved. For
added reliability, test results and
certification compliance approvals can
be easily traced.

Enterprises need the ability to associate, integrate and track requirements from project inception to completion. As an example, the visibility of certification status enables faster corrective action of troubled projects. It also provides the ability to visualize the status and values of data objects in other business systems in real time.

These solutions integrate the management of resources into the work breakdown structure (WBS) to assure schedules are met and departments are working efficiently. A single dashboard consolidates all project metrics, targets and issues for quick assessment and instant overall project status.

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Key changes help improve business operations

With IBM Project Management solution, business operations can be improved in three ways. First, the early, formal iteration of product, process and support helps prevent certification delays and improves product quality, while helping to control unit cost. It can also increase support margin and innovation capacity.

Next, the virtual validation and learning curve support provide earlier design, manufacturing process and support process iterations.

Finally, IBM Project Management solution consolidates program data sources to facilitate discovery by everyone involved. This can greatly reduce communication breakdowns and help preserve program and enterprise knowledge. It also minimizes last minute (i.e., costly) 'surprises' and wasted effort.

What are the components of this solution?

ENOVIA Program Central Solution:

- •Provides real-time access for rapid analysis and decision making.
- •Optimizes staffing plans with realtime utilization reports.
- •Drives a phased-based, decisionmaking process using process templates.
- •Facilitates access to processes and data within a secure environment.
- •Coordinates the planning and execution of projects in real-time.
- •Simplifies management of complex collaborative projects involving teams of prospects, customers, suppliers and partners.

ENOVIA Program Experience Solution:

- •Enables collaboration on task deliverables with real time reporting.
- •Reports the status of assigned project risks.
- •Captures ad-hoc project risks.
- •Allows project assessors to conduct independent project audits.

Business function	Management requirement(s)	Solution benefits
Executive Oversight	Confidently secure enterprise objectives by gaining the clarity and visibility needed to make enterprise-level decisions	Better organize products. Define new product releases that fulfill customer and market needs. Develop increased visibility to project inter-dependencies. React proactively to issues identified by early warning signs. Improve resource decisions with real-time visibility into assignments.
Product Management	Focus efforts on successful delivery of products rather than reporting status to multiple programs	Organize products available to the market Define new product releases that fulfill customer and market needs. Easily navigate to projects to view schedule status and deliverables. Communicate product release plans to internal organizations. Support the development of new products and parts.
Program Management	Confidently make effective decisions ensuring successful program delivery.	Identify required prototype and production builds and track their delivery. Define and manage costs and business benefits for each project. Organize a multisite project team that includes members from around the world. Remind team members of upcoming, or late, tasks. Align project assignments with the organization's functional capabilities. Mitigate project risks.
Project Creation and Leadership	Provide the framework for product and project managers to successfully deliver innovations to market.	Create realistic schedules based on lessons learned from previous projects. Create new project from standard business processes or from a previously successful project plan. Create a secure, single source to easily store project information, improving collaboration and quality. Schedule the phases, gates, milestones, activities and review processes. Standardize a formal list of business skills to classify employees' capabilities.



Choose IBM—the PLM leader

IBM's PLM expertise and leadership continues to be valued by our clients. Today, we are so much more than a PLM application software vendor.

We have expanded our scope to include the integration capabilities that organizations need to manage the complexities of the entire value chain. IBM is the only company that can deliver the complete PLM solution. Our unmatched combination of consulting, applications, middleware, hardware and services, coupled with a broad knowledge of industries and IT solutions, equips us to build complete PLM solutions to fit every business—large and small. This is the IBM difference.

When you choose IBM as your PLM partner, you are choosing:

A PLM leader

IBM leads the development of PLM. Our value proposition is built on a foundation of decades of world-class IBM technology expertise, supported by thousands of IBM engineers and developers in 40 different countries and eight US national medals of technology. This expertise is valued across the globe, and has enabled us to develop links with business partners that continue to evolve and improve the value we can add for our clients.

An unrivalled commitment

Our unmatched annual investment in Research & Development—the key to innovation—stands at approximately \$5.5 billion. This is testament to our commitment to helping your organization succeed in a world of change. In 2006, IBM innovators contributed to 3,261 patents awarded to IBM—an average of 10 patents a day. United States Patent and Trademark Office statistics show that IBM has generated more patents than any other company for 14 consecutive years.

A world-class manufacturer

IBM possesses deep industry experience and knowledge of the challenges you face. As a primary user of PLM, we understand your business processes and have the support of a global team of engineers to help tackle your real world issues—and keep you ahead of your competition.

Breadth of offerings

We can impartially recommend PLM offerings to suit your organization, and employ and integrate the solution with your extended enterprise.

For more information contact your IBM Representative, IBM Business Partner, or visit the IBM PLM Web site at:

ibm.com/software/plm

IBM Corporation Software Group Route 100 Somers NY 10589 USA

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