IBM Enhances its Advanced Project and Portfolio Management Capabilities Using IBM Rational Portfolio Manager

Overview

■ **The Challenge**
Although IBM® had standardized its project management methodologies, business units throughout the company used a variety of tools to support their project management efforts. In order to improve the overall efficiencies of its business processes, IBM went in search of a solution that could deliver the functionality, security, scalability, and usability a global company requires.

■ **The Solution**
IBM is centralizing its project data by standardizing on IBM Rational® Portfolio Manager. This solution's robust features include portfolio management, capacity and resource planning, project management, time and expense management, process templating and automation, project document management, and project collaboration.

■ **The Benefit**
Rational Portfolio Manager is helping IBM improve employee productivity, reduce expenses, improve the flow of data, make more informed decisions, and gain better control over its projects.

As the world's largest information technology company, IBM is a recognized leader in the development and manufacture of some of the industry's most advanced solutions and technologies. With more than 300,000 employees located around the globe, IBM develops solutions that help companies large and small embrace innovation and take advantage of the new era of on demand business. It also supports its customers with consulting and delivery services that help ensure each solution is successfully implemented.

A key to IBM's ongoing success has been its focus on building a project-based culture within both its internal product development groups and its external service delivery organization.

Since project management is a highly valued discipline, IBM has committed to creating project management methodologies and practices that are second to none. But in recent years, IBM realized that while standardized methodologies were in place, there was no standardization around the tools that each business unit, geography, and individual project team used to support its project management efforts. The result was unnecessarily high maintenance and training costs and an inability to effectively share project data within and outside project teams.

"The IBM Project Management Center of Excellence (PMCOE) is charted with providing a consistent approach to project management across the whole company," explains Tony DeBellis, Manager, Project Management Technology, IBM Global Services Business Transformation Enablement Organization. "As such, the PMCOE wanted to examine IBM's various project management activities and find a way to harness those into a single investment stream for the

company. We wanted to find a solution that would help us improve our overall project management processes, reduce operational expenses, enhance customer satisfaction, gain more control over our projects, and improve the flow of data across the company."

Searching for a Solution

In 1999, IBM went in search of a commercially viable solution that could deliver the functionality, security, scalability, and usability a global company requires. Armed with a checklist of portfolio and project management capabilities consisting of approximately 260 items, a team of IBM project management experts began an extensive six-month evaluation process. The process, which included usability and scalability testing, gap analysis, and a "bake-off," narrowed the field from eight solutions to five and then to two.

In the end, IBM chose the PMOffice Enterprise Project Portfolio Management Solution from Systemcorp. "We chose PMOffice because we felt it was truly a best-in-breed, repository-based solution that could support our global businesses," states DeBellis. "Not only did it offer the best usability capabilities, but it also provided the best coverage of the project management processes we were looking for."

Based on the internal success of the product and the fact that more companies are becoming project-based cultures, IBM saw PMOffice as a strategic addition to its existing software product portfolio. In

November 2004, IBM acquired SystemCorp and incorporated the product into the Rational Software brand as IBM Rational Portfolio Manager where its capabilities continue to evolve.

Application Management Services

More than 3,000 employees within the IBM Application Management Services (AMS) organization use Rational Portfolio Manager to centralize their global project management efforts in a single, repository-based solution.

In the past, AMS personnel needed a variety of tools such as IBM Lotus® Notes® and Microsoft® Project to manage projects. Today, Rational Portfolio Manager enables personnel to use a single tool to store, share, and manage all of their project management information, including project plans, task assignments, work products, issues, risks, and change requests. In addition, AMS customers are able to securely view select project data.

And since project data can be easily rolled up to the program and portfolio level, management can quickly identify troubled projects and take corrective action immediately. This consolidation of data also enables AMS to respond to customer requests, provide status, and identify resource options in real time.

The system also allows users to access IBM prescribed project management methodologies and stores each person's individual competencies so that project management can readily see what resources are available globally to support a project at any given time.

Using Rational Portfolio Manager, AMS has reduced the amount of time required to report out on its projects, improved the ability of management to allocate resources, increased productivity, and helped it provide a better quality of service to its clients.

Creating Value Across the Corporation

Yet no matter how many of the product features are utilized, Rational Portfolio Manager is delivering value at the corporate, business unit, and project/engagement levels, according to DeBellis. Rational Portfolio Manager is helping IBM improve employee productivity, reduce the number of troubled projects, eliminate costs associated with maintaining various tools, and enhance its overall project management capabilities.

For example, by standardizing on Rational Portfolio Manager, IBM has developed a set of training and support materials — including standards and practices, guidance documents, Web-based "how to" documents, just-in-time distance learning modules and internal sales collateral—that are used company wide. Each individual business unit can then customize these materials if necessary to support its unique business requirements. Standardized training is also offered to various project members, including individual contributors, project managers, and business unit managers. This training has been developed to support IBM's certification and project management curriculum goals. "In IBM Global Services, project managers are expected to complete a minimum of 40 hours of training a year," explains Dick Rothen, Manager, Application Management Services, Americas

Tools and Technology. "We have built our training so that it aligns with our corporate IBM project management certification program and the certification standards of the Project Management Institute. We believe this training helps build the skill set of each individual and enhances the vitality of the project management profession as a whole."

Making Better Informed Decisions

Like any successful company, IBM depends on having the most up-to-date and accurate information available in order to make informed decisions about its business. Rational Portfolio Manager helps ensure that IBM management has access to the information they need, when they need it. Work management and team collaboration features enable team members to communicate, store, and share project information—including change requests, issues and risks, project schedules, task assignments, time and expense data and project documents—in a single repository. This eliminates the need for program and project managers to manually

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Global Services Public Sector Strategic Outsourcing

In July 2003, IBM and the State of California signed a 10-year contract for the application development and outsourcing of the state-wide "Child Support Enforcement" system, a system that will ensure millions of children throughout the state receive vital financial support.

IBM Global Services Public Sector Strategic Outsourcing organization has management responsibilities for all facets of this project, which has several hundred employees, 60 integrated subprojects, and more than 13,000 tasks.

To support this project, IBM uses Rational Portfolio Manager extensively to record timesheets, support resource allocation, and report out on the milestones, deadlines, and automated earned value of the project. Fifteen different reports are generated from this data and delivered to select audiences that include the State of California and IBM management.

Rational Portfolio Manager is helping the outsourcing team better track all personnel activities, more accurately report the status of the project, and determine if project milestones are being met consistently.

send documents for review and approval or manually collect data from team members on a weekly or monthly basis. At the same time, portfolio management features such as investment maps, scorecards, and multi-dimensional OLAP pivot charts roll-up project information into executive dashboards that enable IBM management to review the overall health of their portfolio of projects, while drilling down into specific project details as needed.

According to Rothen, the ability to enter data once and roll it up to the program or portfolio level, helps maintain the integrity of the project data, reduces redundant efforts, and makes it easier to report on the current status of each project. "Once a month, we have a project management review with our director to analyze all the projects in process, provide a health status of each project, and determine where changes have to be made," he states. "Prior to Rational Portfolio Manager, the meeting would take approximately six hours to complete – and those hours didn't include the time it took to assemble the required meeting information that was stored in different tools, on people's laptops, or in multiple databases. With Rational Portfolio Manager, not only have we reduced the amount of time the meeting takes, but we have virtually eliminated the time required to gather and consolidate the data

since materials are stored in a central location."

Improving Resource Allocation

The product's capacity and resource planning features enable IBM to better balance project workloads and ensure that the correct personnel resources are assigned to the right projects. Since Rational Portfolio Manager stores pertinent information on all team members—including skill sets, competencies, availability, experience

and knowledge—management have immediate access to the information they need when assigning or reassigning personnel to specific projects or tasks within a project.

"As a geographically distributed organization, we use Rational Portfolio Manager to create a borderless resource environment," explains Joe Londa, Rational Portfolio Manager Deployment Manager, Engineering and Technology Services. "In the

Engineering and Technology Services

The IBM Engineering and Technology Services (E&TS) division works closely with companies to design, develop, and manufacture innovative electronics products such as the world's fastest supercomputer (Blue Gene®), pacemaker programmers, custom chips, industrial equipment, and PDAs.

E&TS implemented Rational Portfolio Manager to address several operational issues, including resource management and resource optimization concerns. Previously, project teams were using a host of tools, with documents and artifacts being stored on individual PCs and databases.

Today, Rational Portfolio Manager supports more than 200 projects and 100 proposals. Approximately 900 E&TS personnel located worldwide use Rational Portfolio Manager to perform portfolio analysis and management, resource planning, project management, financial tracking, labor claiming, and risk management activities.

Rational Portfolio Manager has helped E&TS gain better control over each project, allocate resources efficiently, enhance communication between project teams and management, and improve its change management processes.

past, the various groups within our organization did not share the same competency definitions, which oftentimes made it difficult to source the correct person for a particular project. In addition, various managers maintained spreadsheets of personnel data that had to be updated on a regular basis. Oftentimes, we would end up calling or e-mailing team members to find out the type of skilled personnel available, which wasted valuable time and energy. Rational Portfolio Manager has made decision making easier, helped us staff projects faster, and helped us gain a better understanding of the competencies we have in the entire organization."

Rational Portfolio Manager is also helping IBM keep better track of what projects personnel are working on, which is particularly important when assigning or reassigning resources. "Rational Portfolio Manager delivers the quality data we need to understand what resources are on a project at any given time – data that we sometimes lacked," states Bruce Morrison, Project Manager for Rational Portfolio Manager Deployment, Engineering and Technology Services. "In one instance, our management team discovered that for one month there were eight extra headcount on a project that the project manager wasn't aware were assigned

to the project. With Rational Portfolio Manager that type of occurrence just doesn't happen anymore."

Efficient Project Management and Reporting

The project management features available in Rational Portfolio Manager enable IBM project managers to track all personnel activities against given tasks, balance resource loading, and calculate schedule and budget variances in real time. The system can be set to include a forecast, estimated, and actual start and finish date for each activity, allowing management to easily review progress towards deadlines and take action where deadlines may be in jeopardy. This means that each assignment can include the actual time spent, estimated time to complete, and percent of the work completed —critical data for reports viewed by management or customers outlining the progress of a project.

"When working on a large project, it is important to regularly report out on the effort undertaken and the milestones achieved," says Nancy Kastell, Schedule Manager for Child Support Enforcement Project, IBM Global Services Public Sector Strategic Outsourcing. "Using Rational Portfolio Manager, we were able to develop a baseline schedule, capture

the time spent on each component of the project, and determine if we were meeting our deadlines. We are also able to create automated earned value reports that accurately show the time spent on an activity versus the scheduled effort that was forecast. From my experience, earned value is one of the best ways to measure exactly where you are in a project at any given time, yet it is not something that is easy to create in other tools."

Supporting Process Execution and Reuse

With thousands of projects underway at any given time, being able to create templates to share and reuse project work breakdown structures, project engagement models, process guidance, and project work products is an essential way that IBM can reduce costs and ensure projects are completed on time and budget. Rational Portfolio Manager enables project teams to not only share project work products, but also company-wide or industry-approved methodologies that ensure the integrity of every project. Using "drag-and-drop" functionality, project managers quickly start new engagements by selecting project engagement model templates for their project type that include a complete set of process guidance work breakdown structures and work

product templates associated to tasks. This results in project managers and team members never having to start a project from scratch.

"For our organization, Rational Portfolio Manager has become a repository for all of the project management enablers that exist within IBM," states Rothen. "Using the drag-and-drop capability, our teams can pull over the pertinent tools and templates, like our IBM Global Services methodology, Engagement Support methodology, or Worldwide Project Management Methods, into their projects to share with each of their team members. This functionality also means that these tools and templates are easily reusable from project to project, helping us save time, eliminate duplication of effort, and maintain a high level of quality from project to project. This tool has really opened up a window to the entire delivery world."

Addressing Security, Compliance Requirements

With any IBM project, project teams must be able to deliver information such as status reports, milestones, and resource usage data to all interested parties, including customers and upper management. While open communications is important, maintaining project data in a secure way is paramount. Rational Portfolio Manager helps ensure its project data is secure through a robust security system that allows

project teams to set levels of access by audience to project data, including reports, reusable assets, core skills and competencies of personnel, design documents, risk management data, and peer reviews.

Rational Portfolio Manager is also helping IBM meet customer expectations, internal audits, and external compliance regulations by supporting industry-standard practices and enabling the company to maintain better control of its project documents. "Recently our organization participated in an ISO 9001 review process," says Londa. "Through the use of Rational Portfolio Manager we could easily demonstrate a sound control process for all of our project documentation because of the secure way we are able to collect, manage, and store our materials."
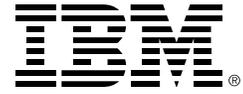
In addition, companies expect that IBM will utilize high-quality project management processes based on proven industry standards for each of its projects. Rational Portfolio Manager addresses this expectation through its support of CMMI processes and the nine knowledge areas and thirty-seven project management processes that make up the Project Management Institute (PMI) Project Management Body of Knowledge .

Looking to the Future

With the adoption rate of Rational Portfolio Manager rising steadily

– with between 500 and 1,000 new users each month – IBM believes it will continue to achieve real results from using this comprehensive, standardized tool across all its business units and project teams.

While individual organizations have gained considerable benefits from deploying Rational Portfolio Manager, many of these organizations recognize these benefits represent only the tip of the iceberg. "We believe we have just scratched the surface of this tool's functionality, and we are determined to expand the use of this tool throughout our organization," concludes Rothen. "We believe capabilities like workflow and collaboration can only make our project teams more successful. So we are actively replacing our older technologies with Rational Portfolio Manager and working hard to get the word out about this valuable solution."

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