

Project Portfolio Analysis for Internal IT

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EXECUTIVE OVERVIEW

Project Portfolio Management (PPM) has become a critical component in the Information Technology (IT) business lexicon. It provides structure and consistency to the processes associated with the planning, prioritization, management and control of project portfolios. PPM has become the core tool to align business strategy with business execution in project-driven organizations. And over the past few years, PPM for internal IT has taken on increased importance given the regulatory climate that revolves around information and corporate governance. It has also helped to bridge the “great divide” between technology and business executives — as the tool that can clarify and demonstrate the value technology investments bring to the business.

This paper introduces PPM for internal IT, and shows how corporate IT departments are using it to better align IT strategy with business strategy, improve performance in project-based work, and enhance corporate governance. Oracle Project Portfolio Analysis is the application that supports PPM. IT project portfolio management holds the potential to transform traditional IT cost centers into value centers by linking specific IT project results to the strategic objectives of the firm.

INTRODUCTION

Over the last decade the proliferation of business applications, including ERP, Supply Chain Management and CRM, in addition to Internet technology and associated web applications, have increased the project management burden on IT organizations and made prioritization and business decisions regarding technology challenging to say the least. Additionally, there is increased scrutiny now to cost-justify expenditures, unlike the 1990s where upgrades and new projects ran fast and furious with little control on spending and limited return on investment (ROI) requirements. Today quantifying the total cost of ownership (TCO), including system maintenance costs in steady state — is fundamental to organizations’ planning and budgeting efforts. Furthermore, regulatory changes like Sarbanes-Oxley Act of 2003 (SOX) have added to the IT project mix — increasing the need for greater discipline and control within IT organizations. With seemingly exponentially increasing information requirements coupled with reduced budgets and staff, no organization currently feels these increased pressures like internal IT. These departments are challenged with objectively deciding where to invest limited

The double-digit growth in IT budgets seen during the late 1990s has not returned, and organizations remain focused on IT cost savings, careful prioritization of discretionary IT projects and less-expensive IT alternatives (for example, offshore outsourcing).

Gartner: 2004 IT Spending and Staffing Survey Results, 29 October 2004, Barbara Gomolski.

resources, and then communicating in actual business terms the return on their investments. In order to reach their goal of optimizing their project investments to meet corporate strategic objectives, IT executives are turning to PPM solutions to better plan, prioritize, manage and control these investments.

IT Projects Live in Silos

“The Enterprise Technology Trends Survey (ETT Survey) results point to strong momentum among professional services companies, retailers and wholesalers, and banking organizations. More and more companies are focusing on development and implementation of new strategic applications with the goal to improve the organizations’ competitiveness. There is a pronounced shift from a short-run to a long-run rationale for IT investments. IT investments are increasingly evaluated and justified on the basis of their contribution to the longer-term objectives of the organization”.

North America Packaged Application Software 2004-2008 Anna Toncheva, IDC report December 2004, IDC #32347, and Volume: 1

Many IT projects are defined, initiated, and funded by individual functional departments creating islands of data and independent applications or tools and thus create a new need for bridges between them, expressed through data warehouse or enterprise application integration (EAI) projects. In the past, there was localized decision making and no overall justification for the alignment, TCO or benefits to the organization as a whole. Other IT projects involve hardware and software acquisitions, contractors and outsourcing. Trying to prioritize them all in a holistic sense has been impossible because of the lack of comparability, and different data sources used. Furthermore, the choice of criteria on how to best prioritize them according to overall organizational objectives has certainly been debated but not solved.

For example, financial reporting on the distribution of IT budget expenses by resource or activity category does not reveal whether an enterprise is spending appropriately for its overall needs. To be effective, reporting should:

- Aggregate expenses across all present and proposed future projects.
- Define and report the fit with short and long-term strategic objectives across projects, with measurable results
- Track the outcomes of past and current projects – which are fundamental to the success of managing the whole organization.

Why Traditional IT Project Management Fails

These various challenges suggest the need for a more comprehensive process for deciding IT project investment tradeoffs. In practice, the need for a single source of truth for all projects under consideration is required to support this new view of value creation for the IT project portfolio. The shared project portfolio allows many users to collaborate on decisions regarding project performance evaluation and balancing the tradeoffs when considering future investment scenarios.

Part of the reason for these challenges is that the project data is scattered or hidden and developed in isolation, and it is partly due to the adversarial nature of vying for scarce resources that has a cultural history within every organization. That problem percolates up to the board of directors who must scrutinize many disparate requests, and struggle with alignment to corporate objectives, without the benefit of an application with pre-defined objectives, weighting and a defined submission and approval process. What is needed is a way to bridge these two worlds: of IT project risk on one hand; and of management investment criteria on the other hand. PPM is that bridge.

Increased Accountability for IT Project Results

"Time has a funny effect on value... At the beginning of the year [budget cycle] most organizations view technology as strategic, by the end of the year it becomes a cost"

- Amir Hartman, Managing Director and Co-founder of Mainstay Partners

Traditionally, it has been very difficult to hold IT and CIO functions accountable for the impact of their project decisions. This situation is due to many factors, including the management of many vendor relationships and the complex systems integration requirements. Furthermore, the emergence of hidden costs and the uncertainty of indirect benefits make project evaluation difficult. Even the terminology of technology has served as a communication barrier. Executive management teams do not always share the terminology depth and therefore have been at a disadvantage in dealing with the details and "reasons for roadblocks" while monitoring technology projects.

By standardizing a framework for project value, one that is known to executive management and project leaders, management will be better able to monitor successful outcomes comparing all projects and project managers with more coherent and business-relevant criteria.

By using Project Portfolio Management, the linkages for each project to cost and benefit goals, and specific corporate objectives can be tracked throughout the project lifecycle. Moreover, all projects are associated with a portfolio, a selected set of projects that have an aggregate affect on the overall organization. This collection enhances the visibility and accountability of IT management and allows executives to easily monitor results.

PROJECT PORTFOLIO MANAGEMENT FOR INTERNAL IT

Project Portfolio Management (PPM) is a suite of software designed specifically to support a process used to track, evaluate and rebalance the set of projects that define the best use of scarce resources to optimize value creation according to the strategic goals of the firm. Although there is no single formal definition for PPM, we introduce this concept and apply it to the internal IT function of organizations, both commercial enterprises, government agencies and non-profit organizations managing a large number of technology related projects at any one time.

Introducing a PPM process should leverage a single source of truth: that is a single repository for collection of current project data and future project proposals. This grouping allows fact based tracking and reporting, and centralized workflow for successful collaboration on project evaluation, staffing, and resource reallocation.

With the continuing depth and breadth of technology innovation, systems and applications for automating processes and collaboration across the ubiquitous internet, we expect that technology will play an ever increasing role in strategy and performance management going forward, and hence the need to evolve and leverage a PPM process for control and optimization of project-related decision making. Properly implemented, PPM will scale with any organization's changing needs over time.

PPM Process Overview

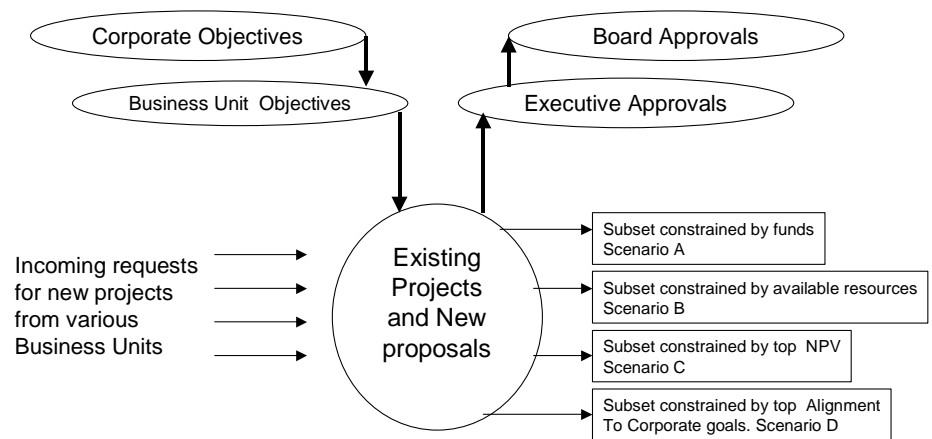


Figure 1. The PPM process connects project managers, proposals, evaluation criteria, scenario modeling, and the review, selection and approval process.

PPM Process Outline

The framework below offers an example outline for the steps in defining a portfolio and achieving some of the benefits from the PPM. Typically, the process will have feedback loops and different user communities including project managers, an evaluation committee, employees generating proposals, and more. Much of that detail will vary by industry and company, and is omitted here.

1. Define individuals or a group who runs the PPM process to enable collaborative decisions across the executive management team
2. Leverage a framework of existing corporate goals with different time horizons
3. Understand the ranking, importance, and challenge of these corporate goals
4. Defining the criteria for project evaluation and gain consensus on those criteria
5. Collect resource, cost, timeline information on existing projects underway
6. Enter proposed future projects with as much information as possible
7. Form a portfolio containing all projects and new proposals
8. Develop scenarios which are ranked subsets of existing and proposed projects based on differing criteria (financial and non-financial)
9. Define and adhere to a collaborative process which considers the rankings within those scenarios to arrive at a chosen scenario

10. Support the chosen (approved) scenario by promoting its decision and the reveal the implications for other current and proposed future projects, including reassignments or re-allocations of resources and capital, and decommissioning certain projects
11. Monitor the success of that scenario across time, with its various projects and project managers
12. Maintain visibility to insure value contribution over long periods of time after the projects are completed, live and operational; with differing user communities and changing business conditions. Within Oracle Project Portfolio Analysis, ongoing monitoring continues to reference the financial plan to track these changes in relative value contribution. Additionally, a new portfolio can be established to hold only projects that are in production and are monitored for maintenance investments and sustainable returns over time.

In Oracle Project Portfolio Analysis, scenarios are views into the project portfolio with distinct ranking and constraints to limit the view from the set of all projects held. This allows the user communities to compare different scenarios under different criteria and consider each scenario separately.

Defining Project Selection Criteria

Another key challenge for most organizations undergoing many IT projects is the lack of consistent criteria for evaluation and acceptance of projects. That in turn leads to a lack of comparability, and difficulty in canceling projects and reallocating resources.

Since the criteria are not specific and standardized, there appears to be no way to make well-informed and timely project decisions. This leads to long-term cost overruns. By selecting a software application to perform this task, you effectively standardize the criteria and enable the process of project evaluation and reallocation. To truly be effective the PPM application must have visibility to all existing projects and new proposals in one place, and this is a primary requirement to solve the project portfolio management challenge.

PPM offers greater visibility, process consistency and control

"One hundred percent of the large projects the respondents scheduled and completed in 2002 were completed on time and on budget.

This proves that projects of this size (more than \$1 million), when allocated resources for monitoring and reporting on time and budget through the project cycle, tend to be completed on time and on budget. In the \$500,001 to \$1 million range, 78 percent of the projects tend to come in on time and on budget.

For "small" projects (\$100 to \$500,000), however, the success rate drops dramatically. According to the respondents, only 28 percent of these projects were delivered on time and on budget. Clearly, the small-size projects are the most difficult to manage, mostly because there are so many of them. Managing them successfully is rarely achieved with point tools used for PPM. Visibility into how each project affects the resource pool is nonexistent."

Gartner Project Portfolio Management: The IT Project Report Card, May 2004.

Depending on portfolio size, size of the project management IT team, and the organizational structure the cost and efficiency of doing project and proposal evaluation is highly variable. The tangible costs include gathering data and reporting means to compare the various results and alternatives. This may require extractions of data (ETL tools and processes), use of spreadsheets and ad-hoc methods of centralizing the data for decisions including manual work. The intangible costs of ignoring or improperly prioritizing projects can entail:

- Allowing past projects to continue regardless of future benefit and value
- Allowing resources to remain on past projects even though they are transferable to future projects of higher value or more urgency
- Incorrect accounting for corporate finance events where IT assets and projects are concerned
- Insufficient planning for corporate strategy where changes to applications and infrastructure are required to enable the strategic change
- Incorrect ROI methodology for future planned corporate or organizational change
- The cumulative affect of bad investment decisions that could cripple strategic outcomes of the corporation, leading to loss in shareholder value.

Oracle Project Portfolio Analysis provides automated processes to support the collection of project description data, to re-prioritize the portfolio on different criteria, and to submit alternative scenarios to the reviewing members for approval. The visibility and consistency allows a scalable process to replace hundreds of man-hours of data gathering, extraction, and report-building that would otherwise involve many people dedicated to those supporting roles. Once the process workflows are setup, and the existing body of projects is loaded, the tracking for future project performance and selection is automated, with all new proposals accumulated in the common repository. The project history becomes centralized, and the selection criteria can progressively change, yet be applied uniformly across all projects at any given time. Long term, this process becomes a critical asset to managing the investments in technology for any organization. Project portfolio management is strategic for executives and boards to ensure the scarce resources of capital and labor are aligned and optimized to enhance shareholder value.

PPM also improves IT Governance

As new rules and regulations come to the forefront, executives must improve upon their information capture and dissemination processes to assure the transparency, accuracy, and timeliness of reporting. PPM offers IT and the rest of the enterprise the foundation from which to build information-based processes to monitor and

control various corporate initiatives. This foundation improves upon existing IT governance initiatives in that it adds:

- A structured approach to project evaluation, selection and funding.
- Standardization of project-related business processes
- Consistency of analysis and an audit trail

The net result is more visibility, control and understanding of information as it relates to the financial well being of the enterprise. It also provides structure and clarity for both internal and external audits associated with project-based initiatives. Because the portfolio acts as an inventory of IT projects, it gives a chance to identify overlapping, outdated, or redundant projects. Measuring performance and monitoring project execution leads to accountability, changes in staff behavior, and the ability to audit the use of invested funds.

The adaptability of the Oracle Project Portfolio Analysis solution using strategic alignment metrics allows for matching goals to the control objectives of external governance frameworks, such as COSO and COBIT. Information Systems Audit and Control Association have published one: "Control Objectives for Information and related Technology" (COBIT). COBIT is in its third edition and comprises 34 high-level control objectives and 318 detailed control objectives designed to help businesses maintain effective control of IT.

Another standard is from the Information Technology Infrastructure Library (ITIL). It is primarily designed to identify best practices and manage service levels. Organizations such as the U.S. Navy and Procter and Gamble have used this standard and realized substantial savings. These two standards differ, with COBIT being strong in metrics and controls and ITIL focusing on processes, especially help desk issues. These standards provide an existing framework and incorporate best practices of other successful organizations.

- COSO (Committee of Sponsoring Organizations of the Treadway Commission): a framework for enterprise risk management (ERM) from an organization of the same name and authored by PricewaterhouseCoopers (<http://www.coso.org/>)
- COBIT (Control Objectives for Information and Related Technology): a control-objectives framework aligned with COSO that helps IT organizations translate COSO guidelines into specific actions (<http://www.isaca.org/>)
- ISO 17799: a framework from the International Organization for Standardization that focuses on information security controls (<http://www.iso17799software.com/>)
- ITIL (Information Technology Infrastructure Library): a supplement to COSO and COBIT that recommends best practices for the management of IT services (<http://www.ogc.gov.uk/index.asp?id=2261>)

- Industry-specific standards offered by such organizations as HIPAA (Health Insurance Portability and Accountability Act, <http://aspe.hhs.gov/admsimp/>), NIST (National Institute of Standards and Technology, <http://www.nist.gov/>), and Basel II (<http://www.bis.org/publ/bcbsca.htm>)

Greater enterprise integration yields greater results

PPM gains greater acceptance and increases corporate benefits as it is further integrated with existing and future enterprise applications. As an increasingly greater portion of corporate spending becomes more “project-oriented” it becomes more critical that decisions made within the project portfolio are reflected in the information delivered to other systems. For instance, large purchase requisitions associated with IT projects must be visible to other organizations for planning, sourcing and procurement. As resource requirements change it is important to manage the skill sets and staff availability to meet project commitments. And project changes mean changes in budgets, forecasts and cash flow. Each of these information sources is critical to executives with responsibility for financial control.

CONCLUSION

Implementing a PPM application and its associated process offers many potential benefits to IT organizations regarding planning, control, budgeting and performance management. PPM elevates the tasks of managing projects to that of supporting strategic objectives with specific projects. PPM as a process requires a single source of truth, and substantial integration points to other source systems, such as HR, payables and receivables to be valuable and reasonable to deploy. A PPM application must be configured to support the existing organizational culture as well the future (changed) process goals. The product architecture must fit as part of an integrated approach — to leverage existing data sources, user responsibilities and roles, and to offer automation and collaboration through workflow processes.

For Further Information

<http://www.oracle.com/applications/project-management.html>

- Chris.Rigatuso@oracle.com
- Edward.Kempf@oracle.com
- David.Hofferberth@oracle.com
- Matthew.Kaminski@oracle.com



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Author: Chris Rigatuso

Contributing Authors: David Hofferberth, Ted Kempf

Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:
Phone: +1.650.506.7000
Fax: +1.650.506.7200
oracle.com

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