Microsoft Project Server 2010
A look at Demand Management

A whitepaper for stakeholders in a program ecosystem

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Executive Summary

This whitepaper is written from an end user's perspective to discuss the Demand Management capability in Microsoft® Project Server 2010, also known as Project Lifecycle Management (PLM). Demand Management represents a deliberate attempt to reconcile and combine multiple lifecycle management tasks within a single, unified approach. The specifications, assumptions, delivery, and costs dictate the project demand curves. The project demand curves will take a variety of shapes depending on the traceability path of related projects within any given portfolio.

Microsoft Project 2010 was built with the business user in mind. Leveraging advanced technology that allows end users and project stakeholders the ability to:

- Capture all requests
- Control work using integrated, user-driven workflows without requiring software programming skills
- Build the business case for the work

This whitepaper is written for Department Managers, Division Directors, Program/Portfolio Directors and all who are responsible for overseeing multiple initiatives that involve diverse stakeholders and are tied to cost or corporate measurements. It is for Project Management Offices (PMOs), Project Managers (PMs), Product Managers and Domain Experts, Auditors, Line Managers, Project Sponsors, and Functional Managers who would like to:

- Build, prioritize, and complete new projects for their business
- Align project selection with business objectives
- Operate with existing resources and use them effectively, efficiently, and in a secure environment
- Ensure timely completion for projects by passing them through stringent phase-wise approvals

Introduction: Are You Microsoft Project 2010 Ready?

As your organization prepares to spend significant money on new tools to help you better manage projects, how prepared are you to achieve a return on investment (ROI)? Return on investment related to project and program campaigns increases as the complexity of program demands increase. The

complexities that must be managed in order to successfully execute projects and programs are perhaps the single greatest challenge facing leadership today. Program complexity is the combined nature of multiple, unique information paths all operating at a variety of phases and stages and all requiring different levels of departmental involvement across the company.

Convergence theories, along with other economic and business system concepts, are pushing companies to embrace a more democratized project and program management system. Cross-sectional/cross-departmental analysis of challenges and requirements determination within an organization often proves to be a serious obstacle. Regional or departmental convergence of the adjusted processes often is not feasible. Project management and related business systems are modeling emerging economic systems in that as the theoretical economic models are moving away from the atomistic agent as a decision maker acting in isolation to the socialization of that persona with other stakeholders in the system, so are project management environments recognizing the need for requirements demand generation and capturing more of the stakeholder expectations.

Leveraging Demand Management for project convergence means that there are strengths and weaknesses in the different approaches to project management systems. On one hand, classic project management supports a strong governance model and best practices, and its maximum efficiencies lies at the lowest level common denominator. However, corporate globalization initiatives and related agile planning leverage a decentralized approach, more of a 'think global/act local' approach.

Project and Portfolio Management (PPM) movements and related technical infrastructures are adopting more of the human-input converged with tools and processes. Large enterprise companies (over 1000 employees) have struggled with maintaining control and accountability across the portfolio when launching PPM campaigns that cross departments and product lines. Small and mid-sized organizations (up to 1000 employees) have found it nearly impossible to wholly adopt user-input, product requirements and process capabilities integration into PPM campaigns. The conflict is that as stakeholders are providing the 'push' for use requirements, process cycles and capital capacity provides the controls --- sometimes referred to as project 'bottle-necks'. Companies of all sizes would love to provide virtually infinite delivery and quality to stakeholders – but it is just not possible to make everyone happy.

As an example, a United States automotive Original Equipment Manufacturer (OEM) had a vehicle line that offered so many options that it was impossible to offer every possible vehicle combination to customers. The obvious question is why they were offering options that are not compatible with one another? Perhaps the program requirements were different across the various commodity departments? The following table (Figure 1: Capital versus Social PPM) shows the strengths and weaknesses of two conflicting theories often found in economic and governmental models as it relates

to PPM. One side depicts the perspective of a monetary-focused system that is more of a 'survival of the fittest'. The other is a perspective of embracing all social elements for a common good.

Capitalistic-based PPM: Revenue-driven	Socialized-based PPM: Human-driven
Desperate resource use	Full resource utilization
Wide skills pool	Baseline skills pool
Business/process cycles	Predictive evolution
High Product/Output efficiencies	Market disparity
Strong Balance sheet efficiencies	Internalized equity
Client-focused measurements	User-focused measurements

Figure 1: Capital versus Social PPM

Many times, projects are decomposed to a point that the goals and objectives stated in the charter have a marginal impact (the project is barely unique). Conversely, many projects are killed, or simply fail and surpass any estimated costs and time objectives because they were too unique.

As a decision-maker in either a large or small/mid-sized organization, wouldn't it be a huge benefit to finally leverage technology that addresses the need of using diverse resources, budgets and requirements while maximizing the business lifecycles? Demand management is a part of PPM that is becoming known as unified project management (Figure 2: Example Unified Project Management and related stakeholder classes)

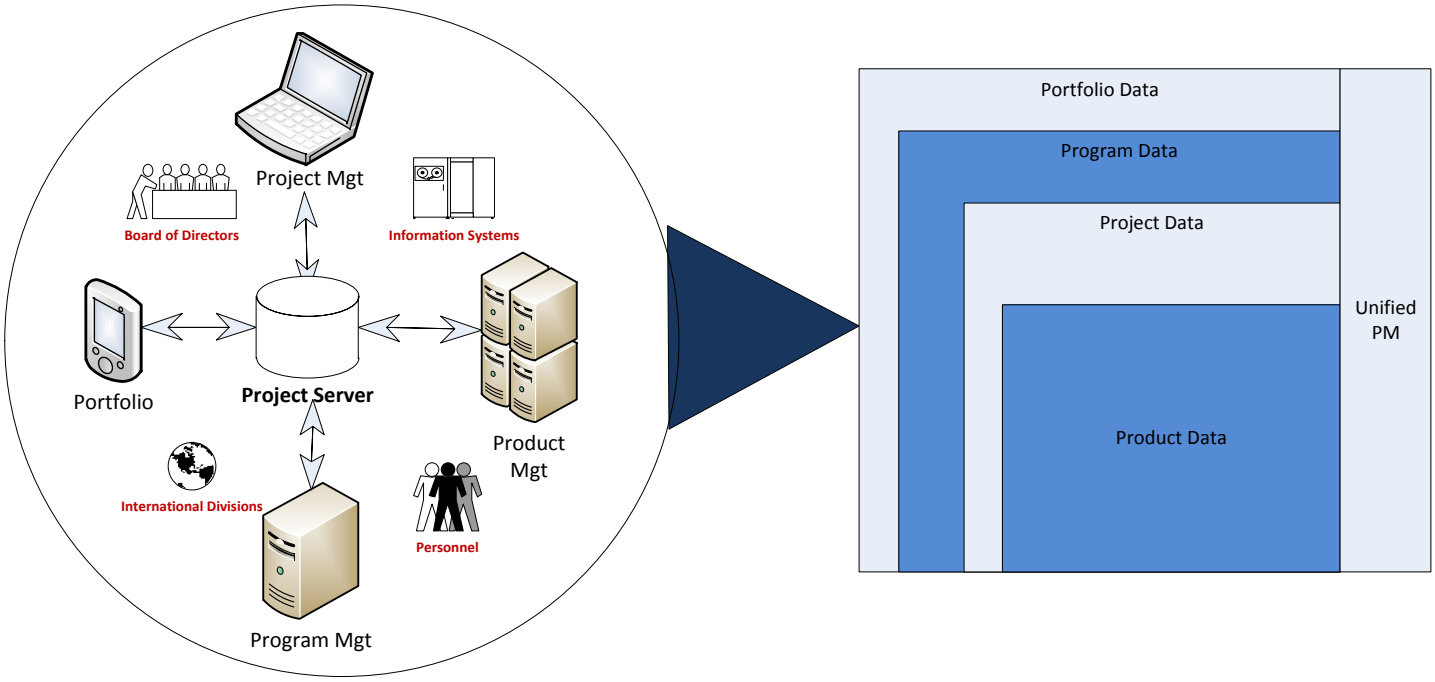


Figure 2: Example Unified Project Management and related stakeholder classes

Demand Management Overview

Demand Management as a unified practice has been designed to optimize the consolidation of a significant number of essentially related processes and capabilities. Demand Management as a lifecycle management reference supports many PLM variations, and is recognized across a number of industries --- examples of PLM variations include, but are not limited to:

- Program lifecycle management
- Portfolio lifecycle management
- Project lifecycle management
- Product lifecycle management
- Process lifecycle management
- Supply chain management
- Risk management
- Issue tracking
- Conflict management

- Cost management
- Communication management

Demand Management also offers a unified view of all work in a central location. Its purpose is to quickly help organizations gain visibility into projects and operational activities, standardize and streamline data collection, enhance decision making, and subject initiatives to the appropriate governance controls throughout the PLM.

Large to small/mid-sized companies need to be able to perform regional analysis or project iteration analysis. The analysis should include different levels of requirements, as well as different regional impacts, different composition of produced goods and other product-specific characteristics. Often times, companies are finding their projects are controlled using the equilibrium relationship (e.g.: change management, earned value management); recognizing that deviations from equilibrium results in scope creep, higher project costs and/or decreases in profitability related to the project.

The Microsoft Enterprise Project Management Solution 2010(EPM) provides flexible Demand Management capabilities to help organizations accomplish the following:

- Build governance workflows to subject different types of work requests—for example, a help desk ticket, or a project of any size—to the appropriate controls throughout the lifecycle of the issue or project
- Standardize and streamline data collection by using configurable forms and business case templates
- Capture all requests in a central repository to enhance visibility

Microsoft Project Server 2010 gives organizations the tools they need to help them define, standardize, communicate, and enforce governance processes to control all types of work, project and operational, throughout the lifecycle of any initiative. A workflow platform that is both rich and flexible makes it easy to define the right level of controls in any organization. For more information regarding Microsoft Project Server and Demand Management, refer to the Microsoft Project web site (http://www.microsoft.com/project).

To be Project 2010 ready, you should read this document if you:

- Want to manage a waiting list of services/projects in a more scientific way
- Want to understand priorities of your team, department and organization
- Prioritize your list of clients or projects
- Manage Project Lifecycles and associate workflows with it
- Would like to maximize use of limited resources, identify priorities and reduce project delays

- Want to ensure that the projects or contractual volumes are appropriate for meeting the needs and objectives of the organization
- Would like to have complete visibility to the business process and ability to measure its outcome
- Categorize projects within the same organization that have a similar project lifecycle
- Would like to align strategic objectives of the organization with projects in the pipeline
- Standardize the method of managing complete project lifecycles from selection to implementation
- Would like to manage all project aspects from ideation to completion in one central collaborated environment
- Communicate and provide project insights to all stakeholders
- Capture lessons learned and use it as knowledge base
- Provide easily accessible reports and dashboards to Senior Management

This paper will not cover:

- The internal architecture and components of Project Server 2010
- How to deploy Project Server 2010
- How to implement, configure and customize Project Server 2010
- Detailed feature-based description of the product
- Developer capabilities of the product – programmability, VBA object model, class libraries, developing workflows etc.
- Updates from the previous version of Project Server
- Integration for Project Server 2010 with other Line of Business (LOB) applications

If you are looking for Project 2010 technical resources please refer to TechNet (http://technet.microsoft.com/projectserver) and MSDN (http://msdn.microsoft.com/Project).

Demand Management in a Corporate Setting

User Empowerment

It is inaccurate to think that only Project Managers (PMs) have project management skills or use project management methodologies. Any person who needs to manage multiple tasks, involving multiple persons and has a deadline to meet can use project management.

Unfortunately, many organizations restrict the usage of project management tools to PMs and Information Technology (IT) Departments, as the tools are often viewed as too rigid, and require additional costs for skills and competencies. This practice is limiting the benefits of Project Management because other departments are deprived of the efficiency gained by using Project Management techniques and tools.

Most users are also unwilling to learn an extra tool for managing projects. Projects are subject to spatial dynamics where users or stakeholders end up managing projects on paper, in Outlook or Excel, or even a mobile phone calendar. All these methods are inefficient and even inaccurate in some cases.

This means that Microsoft Project is useful not just for PMs, but also for:

- Sales and Marketing (campaign management, brand management, event management, product lifecycle management, market research, public relations)
- Human Resources (training and development scheduling, recruitment planning and execution, appraisal execution, organizational development planning, growth planning)
- Finance (budgeting, variance monitoring, investment planning, mergers and acquisition planning, IPO planning and execution, following compliance and disclosure procedures)
- Top Management (strategic planning, monitoring initiatives across departments, cash flow monitoring, resource planning, expansion planning, managing value lifecycle, crisis management)
- Manufacturing (process improvement, capacity expansion planning, building new factories, quality management, defect management, Kaizen)
- Any role (manage complex interdependent tasks efficiently)
- Home Users (planning parties or weddings, building/repairing a house, managing personal finance, tracking investments, buying/selling property, managing cash flow, orchestrating moving from one residence to another)

Ideally, companies are yearning to tap the potential user base across all domains. However, as of now, only subsets of PMs use a formal tool and, as such, projects are often not seen as co-interrelated within the corporate lifecycles. The evolution is now underway as easy-to-use interfaces and features of project management tools are such that any user at all levels will find it apt for its planning, tracking, reporting, and resource management capabilities.

Creating projects by leveraging Demand Management/PLM enables the users in the enterprise to play their respective role as a stakeholder, while tapping the centralized resource and business controls environment. Demand Management assumes participation from a variety of end users, and Microsoft's Fluent User Interface (UI), also known as The Ribbon, in both the Project Professional and Project Web

App (PWA) 2010 makes it very simple for users to trace required features. (Please note that in Project 2010, PWA's acronym has changed from Project Web Access to Project Web App. This change reflects that PWA has a richer set of features that does more than merely access information. The name change also aligns more consistently with other Office 2010 Web Apps.) The rich client capabilities introduced in Office 2007 now are available in the browser and on the Project client versions. The Excel-like look for creating and editing schedules, SharePoint-based Web App, and browser-based editing empowers users to self-service their business needs.

Profiles of the Corporate Candidate

As a project stakeholder, you may be asking yourself a few of the follow questions:

- Does your company need this new system?
- How will your company benefit from Project 2010, and/or does it really need it?
- What size of organization typically adopts a Demand Management tool?
- What if your company is small to mid-sized, or does this pertain only to large companies of over a thousand employees?

The truth is that companies of various sizes have strategic and tactical needs. These needs are directly linked to stakeholder class requirements (e.g.: customers, shareholders, employees, etc.) Different requirements, processes, and skill-sets often delineate the types of projects companies launch. Typically, the main differences between companies with a staff of 72 versus a company with a staff of 52,000 are the number of digits in the balance sheet. Companies of all sizes have the need to remain competitive, current, solvent, and valuable to its customer base as well as accountable to its shareholders. Additionally, every project failure, regardless of company size or project specifications, has a negative impact to that organization's bottom-line, not to mention hits on intangible assets, such as credibility, morale and customer perception.

Demands on companies today are as complex as ever before. Corporate debt may reach all-time highs, and profit margins continue to be squeezed in a growing global economy. Managing and forecasting resource capacity, ensuring quality delivery to customers and meeting shareholder expectations means innovation and planning has become a fundamental activity that has to be efficient and effective. Organizations embracing project systems using previous versions of Microsoft Project Server today can select and prioritize projects, obtain better insight into complex, interdependent projects and reduce project risk. So what does Project 2010 provide companies? The following is a customer example of how a large organization initiated a PPM solution, and how Project 2010 with Demand Management capabilities has and will continue to add value.

Microsoft Human Resources, which supports the 93,000 employees of the global software company, wanted to make better strategic decisions about its portfolio of projects. As Human Resources developed new portfolio management processes, it worked with a pre-release version of Microsoft Project Server 2010, tailoring the software to fit the business processes of its five Human Resources Centers of Excellence (COEs) (for the full Microsoft Human Resources case study please refer to: http://www.microsoft.com/casestudies).

In early 2007, the Human Resources Department decided to improve the way the COEs delivered projects. "We had more than 200 projects running," says Bruno Lecoq, Director of Business Process in the Operation Excellence COE at Microsoft Human Resources. "To complete all of them—and deliver them at the right time—was mathematically impossible."

HR Generalists sometimes felt overwhelmed by the sheer number of projects, says Joan Wissmann, Manager of Compensation/Benefits/Performance Management (CPBM) COE Project Management at Microsoft Human Resources. "One day an HR Generalist might get a request for help delivering a training program. The next day, a request to explain a new benefits program. Then the day after that, a request to work on recruiting." If HR Generalists felt overwhelmed, their participation could lag, which meant that programs did not perform as well as desired.

The Microsoft Human Resources Department has used Project Server 2010 to collect information more easily and to compare and evaluate projects more effectively. The department has pared its project portfolio from 200 to 25, while bringing about greater transparency, accountability, and collaboration. Many users are not even aware that they are using Project Web App, because of the ways that Human Resources has adapted Project Server 2010 to the traditional processes and workflows at each COE. They accrued the following benefits:

- Better information collection
- Fewer, better-scheduled projects
- Transparency and accountability
- Richer ways to compare projects
- Improved collaboration

Leveraging for Improved Project Creation

So what is an information traceability path? There is an old saying that water runs the path of least resistance. Changes in path and behavior are based on obstructions and other external factors. Governance (or information inflection points) ensures that the path is accurate, or if additional

'obstruction(s)' need to be introduced. Demand Management is a process for the creation and control of the information path(s) converging with corporate strategic objectives. Demand Management enables project/program/portfolio management processes, setting the tone for the evolution of the campaign(s). Each information path follows its own lifecycle, whether it is organic, synthetic or synthesized with other lifecycles. Each path has to be an inbound and an outbound component through the following program states:

- Create
- Select
- Plan
- Manage
- Closure

The advantage of understanding and using the Create, Select, Plan, Manage and Closure processes is that it provides a simple framework for improving Demand Management capabilities. After evaluating your organization's capability maturity for each phase in the Create, Select, Plan, Manage and Closure framework, you can identify areas for improvement by assessing your current state and defining your future state. Furthermore, this assessment can be organized into three areas of evaluation – people, process, and tools. Typically, a phased approach for implementation is needed to allow for proper adoption across the enterprise.

Information traceability paths, as a project or task delivery system, have many elements. The elements are things such as assumptions, risks, stakeholder requirements (or functional requirements), time/cost restrictions, quality/regulatory requirements, and so on.

Essentially, you want to leverage the corporate information system and create connections between 'what is' and 'what needs to be'. PPM processes tie in to the strategic planning by effectively realizing business strategies and subjecting varying initiatives and work to the right level of control. These processes unify disparate lines of business and drive accountability and traceability. To name a few methodologies:

- Product development lifecycle
- Risk management process
- Strategic and tactics portfolio
- Issues management
- Process improvement techniques

Information paths also have iterations; iterative in nature means that more is known as progress is made along the path.

Project/Program Lifecycles: Demand Management Variations

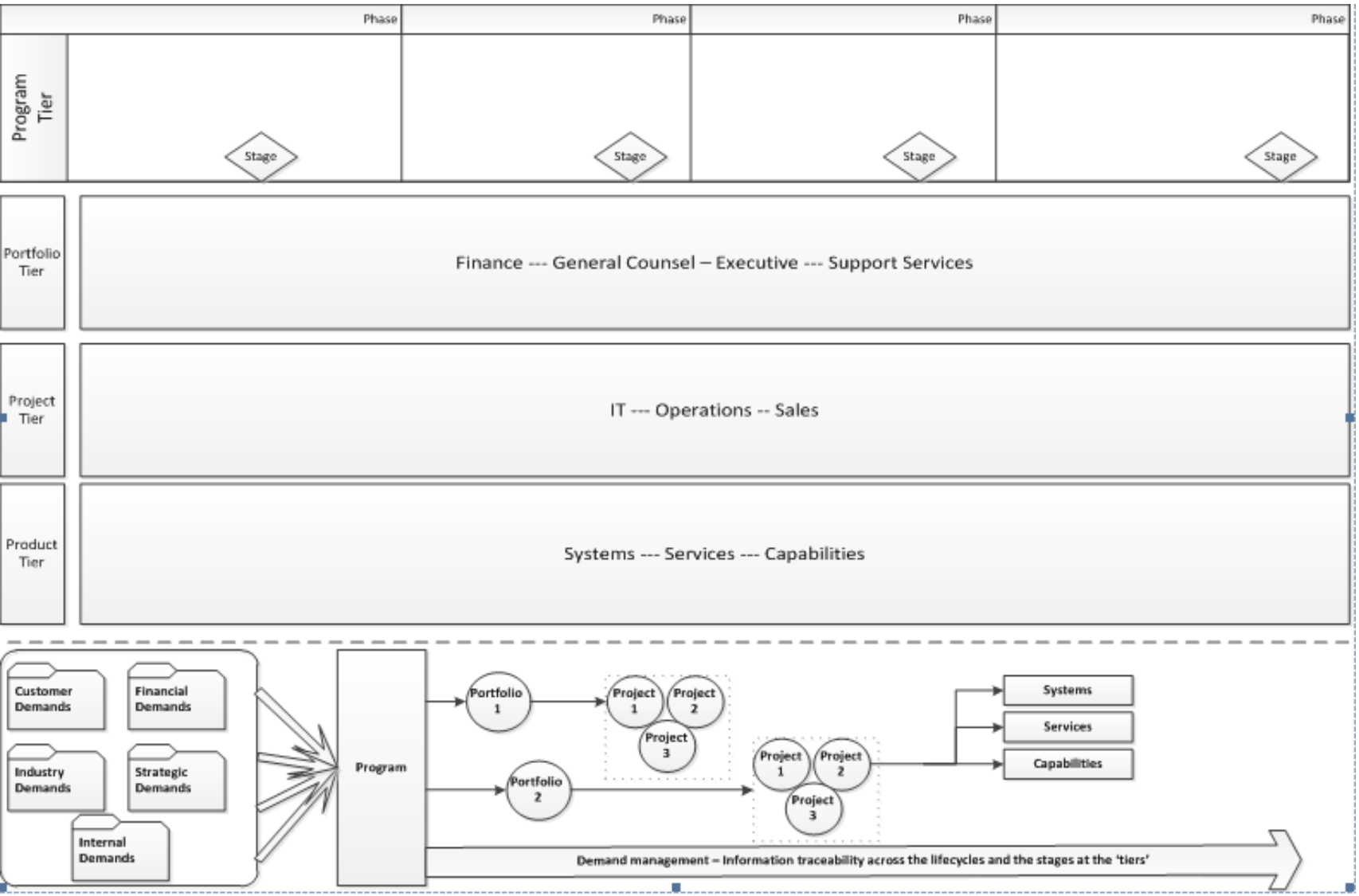
These Demand Management or PLM variations can be viewed as a hierarchy within a single, unified enterprise context. Specifically, unified context allows for the application of a common semantic foundation which in turn allows the coordination of all related data within a single PLM repository. PLM supports active working processes and capabilities already familiar to those practitioners of various PLMs.

As the hierarchy (Figure 3: Demand Hierarchy) is examined a little closer, some obvious conclusions arise. Products, systems, or even services can be viewed more or less synonymously as capabilities. A project might consist of one or more capabilities (or capability modules). A portfolio might consist of multiple projects, multiple products/systems, or a mix of both. This allows for the ability to group all of these elements together and maintain the relationships between them either through reporting chains, requirements or departmental situations.

Demand derives from written, verbal, or assumed requirements. Requirements represent the information between consumer and producer, between management and developers, and between planning and execution. Visibility emerges by leveraging a lifecycle framework that integrates all of those interests and participants.

PLM enables instant visibility and reconciliation of the many seemingly diverse program elements that exist across a complex enterprise. This usually occurs through visual tracking and automated reports, which illustrate the potential issues and interdependent relationships between requirements and other program elements. No matter how many systems or component/vender organizations are involved, if there is a centralized single-instance PLM framework, then the various processes and lifecycles associated with an enterprise can be holistically tracked and managed.

Consolidating all of these processes and data centrally eliminates the single most critical problem facing PMOs today which is the ability to both see the big picture and drill down to specific details in an automated fashion. Today's PMOs are essentially integrated on the fly and are top heavy with manual processes.


Phase
Phase
Phase
Phase
Program Tier
Stage
Stage
Stage
Stage
Portfolio Tier
Finance --- General Counsel – Executive --- Support Services
Project Tier
IT --- Operations -- Sales
Product Tier
Systems --- Services --- Capabilities
Customer Demands
Financial Demands
Industry Demands
Strategic Demands
Internal Demands
Program
Portfolio 1
Portfolio 2
Project 1
Project 2
Project 3
Project 1
Project 2
Project 3
Systems
Services
Capabilities
Demand management – Information traceability across the lifecycles and the stages at the 'tiers'

The key to PLM is to understand that the PMO runs on information. That information must be easily accessible, transportable, translatable and available directly to the decision-makers without going through layers of expert interpretation first. This doesn't mean that other people don't add value to the information, there will always be a need for diverse input, views and skills in the PMO.

Project/Program Phases and Stages

Project Server 2010 includes intuitive Demand Management capabilities that enable multiple stages of governance workflows, helping to ensure that projects are subject to appropriate controls throughout their entire lifecycle.

Each workflow may include a series of phases which in turn includes stages. The phases and workflows establish a blueprint for your organization's governance framework and help ensure all projects achieve the necessary deliverables and receive managerial sign-off before moving to the next stage (

Figure 4: Project Lifecycle Flow). This audit functionality keeps stakeholders aware and accountable as projects move from business case creation to consideration to implementation.

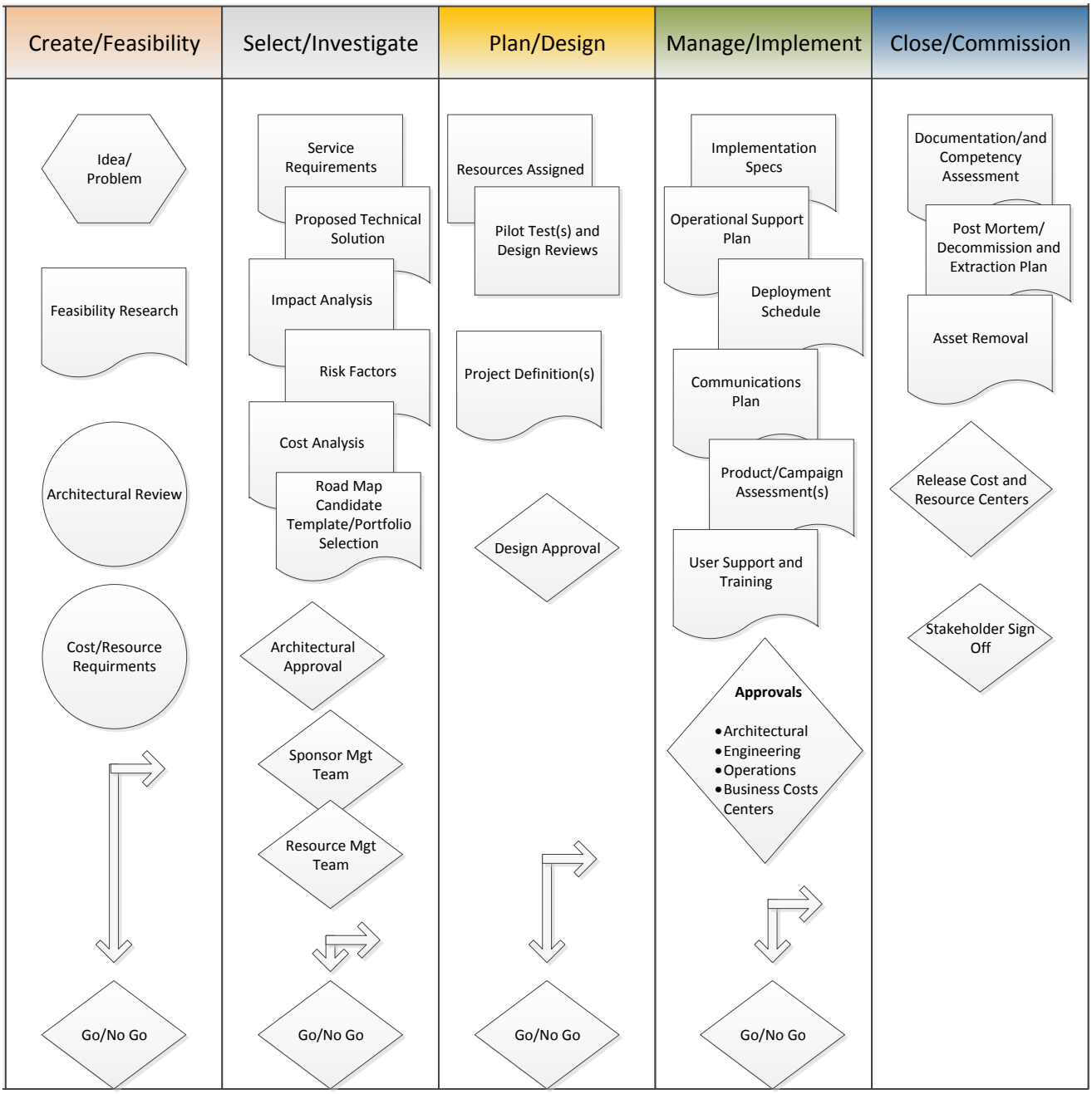


Figure 4: Project Lifecycle Flow

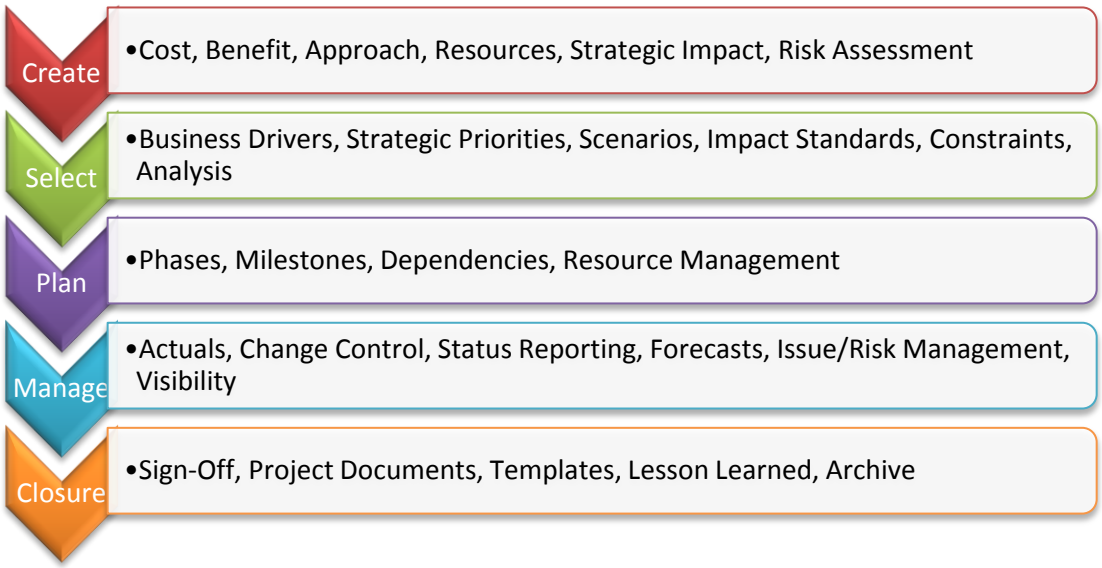
Project Server 2010 also provides the flexibility of creating custom workflows and templates mapping the organizational governance structure. For additional details refer to Microsoft Development Network (MSDN) for Project (http://msdn.microsoft.com/project).

Phase: Phases represent a collection of stages grouped together to identify a common set of activities in the project lifecycle. Examples of phases are project creation, project selection, and project management. The primary purpose of Demand Management phases is to provide a smoother user experience where users have the option of organizing stages into logical groups (e.g.: create, select, plan, manage, close).

Stage: Stage represents one step within a project lifecycle. Stages at a user level appear as steps within a project. At each step, data must be entered, modified, reviewed, or processed (e.g.: propose idea, initial review).

At a technical level, each stage represents a step where data is entered, calculated, or artifacts are approved/rejected before the workflow can move to the next step.

Let us understand each of these phases in detail (Figure 6: Project Lifecycle Phases):



The Create Phase

The Create phase, also known as Initiation, starts with a business idea that is defined in project terms. The business idea should be defined in complete and standardized ways. This will become the baseline for project funding approval. Furthermore, the workflow will control the data completeness and approvals.

For example: The PM from the IT division enters a new request in the Project Center view. They select Software Development as a Project Type (Figure 7: Project Server 2010 -- New Enterprise Project Type). The Project Center provides a single, wizard-like interface for initiating all types of work, thereby streamlining the Project Initiation process.

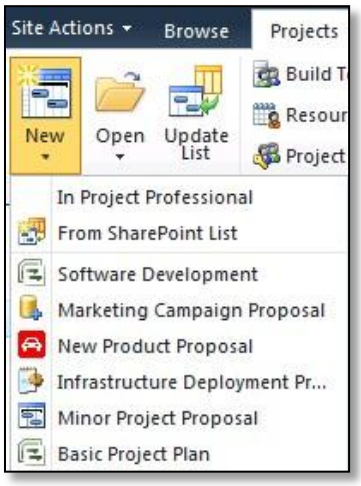


Figure 6: Project Server 2010 -- New Enterprise Project Type

The PM enters all the required project details like Name, Department, Start Date, Owner, etc. The project template can be associated with a governance workflow, under which the project is subject to the controls and business logic already associated with the workflow. The workflow dictates what happens next. The request could be routed through an initial approval checkpoint or it could simply move to another stage that includes additional forms and deliverables to be completed by the project team.

(For additional details refer to http://msdn.microsoft.com/project)

The key capabilities of the Create phase are:

- Capture all requests, from work orders to discretionary projects – Consolidating requests in a single central repository providing visibility and control to your organization's entire workload. This is required for maintaining a single source of truth for work demand and for making informed allocation decisions.
- Standardize metrics, valuation criteria, and templates – Standardization allows for consistent methods in evaluation and decision-making. Structured templates, consisting of standard metrics and valuation criteria, support an end-to-end flow of information throughout the PPM process. This flow ranges from business case creation to portfolio and project reporting.
- Control investment through governance workflow – The proper evaluation of business cases includes validation of the information provided by the appropriate authority, business case review by key stakeholders, and approval from the appropriate governing bodies. Routing and tracking business cases can be simplified through structured workflows. These review

and approval processes can vary depending upon the investment type (e.g.: big or small project) requiring a unique review and approval workflow for each type.

The initial requirements/business cases are now all completed and we move on to the Select phase.

The Select Phase

The Select phase facilitates alignment of financial decisions with an organization's strategic goals or business drivers for projects. The question is what are business drivers? Business drivers (often referred to as strategic objectives) are the factors in the industry or the broader business environment that either impact the financial institution or provide opportunity for business expansion. The strategic responses identify the business priorities or initiatives designed to take advantage of those drivers. The technology initiatives identify the key areas of focus to provide the infrastructure and tools to support the business initiatives. A driver is an objective that projects can be measured against. For example:

- Regulatory change and compliance
- Competitive threats
- Changing customer preferences
- Revenue growth
- Operational efficiency
- Develop global risk model
- Build IT governance strategies
- Improve technology framework and infrastructure
- Expand multi-asset-class trading
- Foster consolidation and rationalization of vendors

Apart from business drivers, there can be other quantitative metrics and constraints that impact a selection of projects from the portfolio. Based on the project descriptions and business driver definitions the optimal combination of projects to be funded is selected. This "selected" combination of projects will maximize the amount of strategic benefit from the portfolio, subject to constraints.

Continuing with our example:

The PMO in conjunction with the executive team of the IT division defines a set of actionable, measurable, and unique business drivers. A rough rule of thumb is that an organization should select between six and twelve business drivers. Using the Project Server 2010 Driver Library, PMOs can capture and communicate business drivers defined by the executive team. Using the New Business Driver form in Project Server 2010 it is easy for PMOs to publish drivers.

The following drivers are defined by the team (Figure 7: Project Server 2010 -- Strategic Impact):

- Improve customer satisfaction
- Improve product quality
- Increase service quality
- Enhance customer level training
- Outsource customer service
- Expand into new market

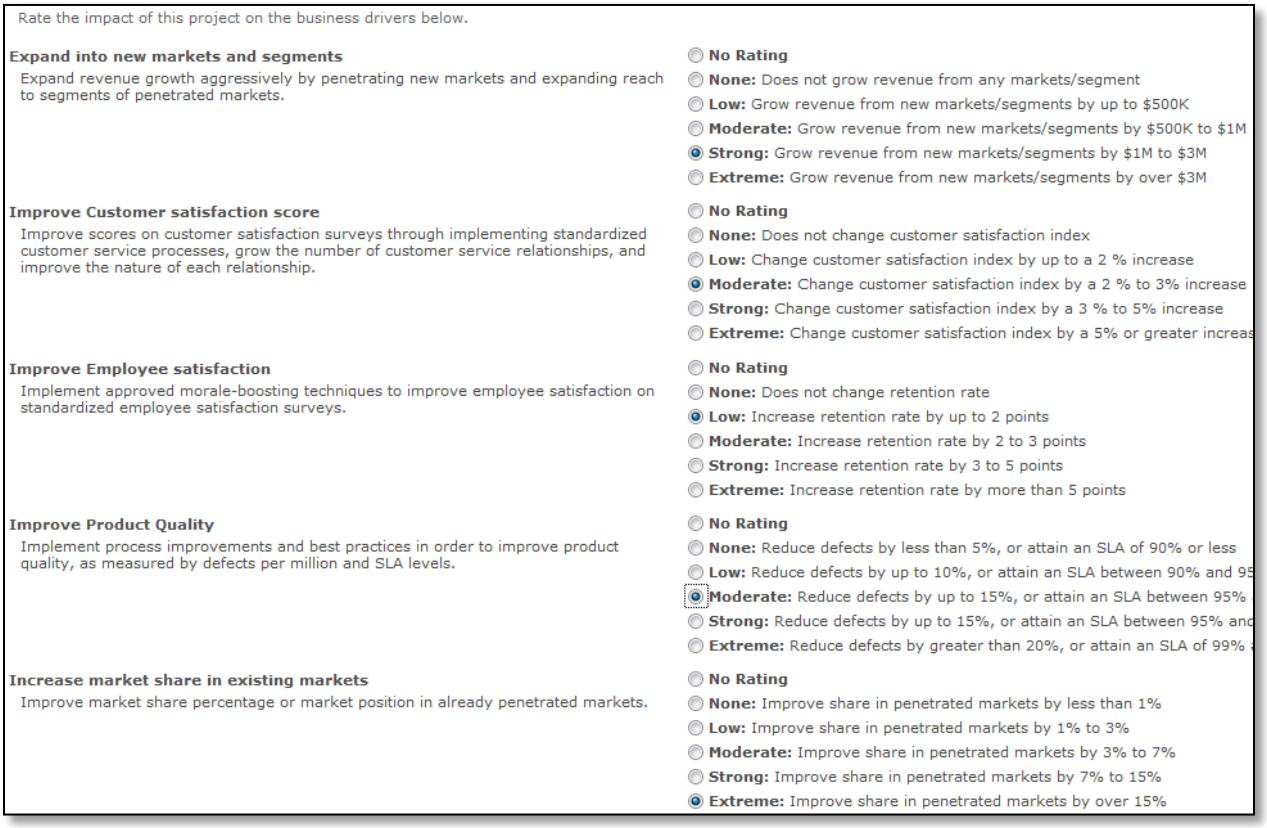


Figure 7: Project Server 2010 -- Strategic Impact

Using the input from the pair-wise comparison assessment, Project Server 2010 derives a relative priority score for business drivers. The team can then use the normalized score to assess the relative importance of each business driver. In addition, Project Server 2010 provides a consistency ratio score that indicates how consistent a team's responses were in the pair-wise assessment.

After engaging the executive team to better understand and communicate its strategic priorities, the next steps are to prioritize competing requests and to select the optimal portfolio of projects under varying cost and resource constraints.

Project Server 2010 includes a new capacity planning feature for conducting resource constraint analysis that works in conjunction with cost constraint analysis to connect value optimization with resource utilization. The powerful resource-centric analysis helps PMOs identify the organization's surplus and deficits at the skill level like the status of all generic resources. This helps the organization schedule projects to better utilize available resources, and to model headcount scenarios to ensure the organization can effectively staff, execute, and realize value from the selected portfolio.

Key capabilities of the Select phase are:

- Objectively prioritize business drivers and drive consensus – Open discussion of business strategy and prioritizing strategic objectives with governance bodies contributes to a better aligned organization and leads to more effective decision-making discussions.
- Derive varying priority scores to evaluate competing investments – By comparing objective priority scores (e.g.: financial valuation, strategic alignment score) across projects, fact-based decision-making discussions are made possible.
- Identify portfolios that align with strategy and maximize ROI – Maximizing portfolio return starts with optimizing the selection of projects to pursue. Portfolio selection that includes consideration of strategic alignment and financial return helps ensure that long-term health is not compromised for short-term gain.
- Adopt a rational, rather than emotional, portfolio selection methodology – With structured project portfolio valuation criteria, discussing points of contention can be focused on specific key factors. The overall structure and visibility of the entire project portfolio illuminates the impact of forcing in 'pet' projects as the implications of tradeoffs quickly surface.

This completes the select phase and we now move onto the Planning phase.

The Planning Phase

Once a project is approved for funding it progresses to Resource Allocation, where it starts requesting the skill set or competencies it will need over time. This phase deals with creating a thorough project plan and identifying resources.

The Resource Pool feature compares the total human resources required by all projects to the total resources available. The PM records phase-level start and end dates, milestones, and dependencies. When the project completes the Planning phase and moves to the Manage phase, the "planned" dates are saved as a baseline, leaving the forecast and actual dates for tracking.

Companies and groups within organizations will have a stronger link with strategic planning and the governing requirements to launch and manage projects across the portfolio(s).

Continuing with our scenario:

The Analyst moves forward in the portfolio selection wizard to the Cost Constraint Analysis view after successfully prioritizing competing project requests as outlined in the preceding section. The PMO team determines the optimal project portfolio under budget and business constraints using powerful what-if analysis tools. For example, Efficient Frontier and Strategic Alignment charts are embedded in the Cost Constraint Analysis view to provide valuable insight. The Cost Constraint Analysis view displays competing project requests in priority order (based on their strategic value), and indicates the total cost estimate to complete all projects in the portfolio. Project Server 2010 automatically creates a baseline scenario that shows the organization can gain 100 percent of the portfolio value if it funds every project on their wish list. This baseline scenario is plotted on the Efficient Frontier chart and is used as a benchmark to compare all subsequent scenarios (please refer to the following whitepaper for more information: Microsoft Project Server 2010 – A Look at Portfolio Strategy).

The team performs what-if analysis to easily model different scenarios by further refining cost constraints or by forcing projects in and out of the portfolio. The cost constraint analysis provides a chart that helps dynamically assess how well the selected portfolio aligns with the business strategy.

After the cost constraint analysis the team moves toward resource utilization and capacity planning. The projects selected in the cost constraint analysis are automatically carried forward to the next step in the portfolio selection analysis. Based on available resources, the system dynamically determines which projects can be fully staffed and displays them in a grouping of selected projects.

The key capabilities of the Planning phase are:

- Identify gaps between overall resource availability and demand at the skill level – Predicting resource utilization is a key input for capacity planning. Without proper capacity planning, an organization will have very limited capability to pursue long term strategic initiatives. This is a portfolio-level capability.

- Finalize and release roadmap and headcount requirements to maximize resource utilization – A release roadmap communicates the results of capacity planning and provides direction to PMs and Resource Managers. Using the release roadmap, PMs can coordinate resource assignments and clarify priorities with resource managers. This is a key step where decisions and priorities translate into an actual schedule. Resource Managers and PMs need this visibility to avoid resource conflicts. This is a benefit realized across all divisions within the organization.
- Search for team members with availability and assign to project – With the appropriate resource management capabilities in place, PMs can quickly assess the fit and availability of resources to projects and project tasks and make specific named resource assignment decisions. This is a key point where the detailed project planning, resource management, and portfolio decisions and priorities converge and transition into action.
- Finalize plan and baseline before moving into execution – Establishing a baseline plan is critical to ongoing management of a project. With a baseline plan, expectations are set across all project stakeholders.

Once the planning and resource assignment activities are over we move onto the Manage phase.

The Manage Phase

The Manage phase involves the ongoing monitoring of the selected projects and programs. Quality delivery of projects is typically measured by the project's performance in delivering on scope, within budget and on schedule. Naturally, tracking of projects is focused on monitoring forecasted deviations in scope, budget and schedule. During the Manage phase, PMs update their project plans with new forecasts and actual dates, and with phase-level percentage completion. PMs can also enter actual cost and resource quantities for the current period.

PMs can compare the current versions of the status, cost, and resource tracking data to evaluate the progress of projects, programs, and custom portfolios from month to month.

Continuing with our scenario:

The selected software development project is then managed, tracked and executed in Project Server 2010. All team members update their task/timesheets on a periodic basis. The PM is notified and accepts/rejects the updates. Any change in the plan, as compared to the baseline, is noted as variance. The PM takes the necessary steps to ensure timely completion of the project and that it is within the identified targets.

Key capabilities of the Manage phase are:

- Collaborate to effectively deliver selected projects – During project execution, there are always minor deviations from plans due to situational changes or the emergence of issues. Collaboration helps to address and avoid these deviations by bringing the right people together to work on a task or issue. Effective collaboration is a prerequisite for a high performing team.
- Proactively monitor portfolio performance and visualize trends – Visibility into the overall project portfolio performance provides executives with a mirror of their organization and a true picture of what the organization is doing to realize its strategy. This is an important perspective that feeds recalibration of priorities and goals.
- Drill down to the project level to assess risks, issues, and status – This facilitates better coordination within the project team and with project stakeholders.
- Track and compare budget, actual and forecast values, and make corrective actions to improve project performance – Tracking and forecasting project activities enables a project team to identify deviations from the plan and to take corrective action.
- Re-optimize the portfolio to maintain alignment with business strategy – An organization's business context fluctuates as the delivery of the project portfolio progresses. Market forces can produce new priorities. Business health can change assumptions about dollar or resource constraints and killed projects affect both resources availability and strategic alignment. Periodic ongoing re-optimization of the project portfolio is needed to ensure project portfolio delivery continues to be aligned with the organization's strategy.

Once the project is implemented the last part would be to take care of its closure.

The Closure Phase

Every project requires closure. For large or complex projects, it's a good idea to close out each major project phase (for example: design, code and test, or training) individually. The closure process can also help by identifying lessons learned on projects that are canceled or deferred before completion.

By definition, a project has a beginning and an end. But without a formal closure process, project teams can fail to recognize the end, and then the project can drag on—sometimes at great risk and expense.

Continuing with our scenario:

The software development project is implemented well within time, however went a little over budget. The team is now busy working on the following activities as a part of project closure

- Finalize project documents– Project closure begins with wrapping up administrative documentation and providing a support plan for product maintenance. Much of a project's documentation is created over the life of the project.
- Capture the knowledge–The project has produced documents that will be helpful during future projects, in troubleshooting the product, or in a future audit. Documenting of this valuable information is often deferred or overlooked because team members become busy with new projects, but the longer you wait, the less likely you are to capture all of the important data.
- Document what you have learned– Some of the most valuable knowledge that is captured is in the form of lessons learned by the team.
- Get final sign-off– Schedule a meeting with the project's sponsor and key stakeholders to get their final sign-off on the project. A formal sign-off documents that the sponsor is satisfied, objectives have been met, and the project is truly complete.
- Communication – While project communication is always essential throughout the cycle of any project or initiative, it is imperative to establish a specific plan for obtaining end-user input, as needed and where feasible. Therefore, a key component to a successful close is establishing and maintaining open lines of communication with the appropriate groups. The end users comprise the group of those who will be utilizing the software in real-time business applications. They have the critical business knowledge as to ways in which the software can be created or functionality that can be incorporated so that the result will be a valuable tool with the capability to enhance their business functions.
- Continuing support – By extending continuing support to the end users, they have more confidence in the software program as well as in their chosen developer.

Formal project closure ensures that the team has met its objectives, satisfied the customer, captured important knowledge, and been rewarded for their efforts. The team is now confident to move on a new project.

Key capabilities of the Closure phase are:

- Match the deliverables with stated goals of project
- Capture critical knowledge
- Archive project documentation as knowledge assets
- Ensure the team is satisfied and feels a sense of completion
- Release project resources

Thus the Create, Select, Plan, Manage, and Closure phases complete the project lifecycle.

Consolidate Your Project/Program Approach

Large companies benefit from a matrix-style system of project support by scaling projects based on size, revenue, and other strategic factors. Typically, longer and more expensive projects secure executive sponsorship and corporate governance while smaller projects are of an agile style or rolling-wave planning environment. Small and mid-sized companies typically will view most initiatives as projects because of their limited resource pool and operating capital. Many times though, things get done through more ad-hoc and/or reactive means. What is missing for both large and smaller companies is the ability to channel all campaigns through project lifecycles in order to consolidate all costs, resource usage and requirements. Project Server 2010 supports integrated project and portfolio management capabilities. Demand Management using the tightly integrating project and portfolio management capabilities within the Enterprise Project Management Solution provides for a consistent user interface, common data storage and centralized administration. Improving and extending existing capabilities across the solution now enables companies to incorporate (just to name a few):

- Project portfolio management
- New product development/project lifecycle management
- Internal workflows/approvals
- Regulatory and/or compliance management

The existing features of Project Portfolio Server 2007 are now included on a single Project Server 2010 platform. This seamless unification of two products into one consolidated offering makes end-to-end project and portfolio management easier than ever.

As an example, using Project Server 2007 with Portfolio Server 2007: A Branch Banking Division of one of the leading financial services organization in South Africa with 680 branches saw the need to better align projects at its branches with its business strategy, and to gain a single view of multiple projects in every branch. Having already implemented the Microsoft EPM Solution with Microsoft Project Server, the Branch Banking was also looking for enhanced portfolio management functions. It chose the Microsoft Portfolio Management solution as the best for future growth, given its acquisition of the Microsoft Office Project Server. The 2007 solution gave the Branch Banking PMs an end-to-end integrated project and portfolio management tool that helped to deliver new business value and ensure excellence in project execution.

They could achieve better collaboration amongst the PMs and the management team. The solution was also deployed for an IT Development Division which had more than 450 users. Migration to Project Server 2010 will be a much shorter journey as the company will be able to migrate all the data and

processes from the previous version directly to Project Server 2010 (please refer to the Upgrade and Migration Resource Center for Microsoft Project Server 2010 for more information).

Looking ahead, organizations similar to the Branch Banking Division cited above will be able to leverage Microsoft Project Server 2010; in this case offering international financial organizations unified views of all work in one central location using the Project 2010 Demand Management capabilities. With Project Server 2010 the Project and Portfolio Management Department(s) can:

- Build governance workflows to subject different types of work requests to the appropriate controls throughout the lifecycle of the issue or project
- Standardize and streamline data collection by using configurable forms and business case templates
- Capture all requests in a central repository to enhance visibility

One unified Project Server 2010 system can run through the entire lifecycle of the projects right from selection to implementation. The following is a quick example of the steps:

- Create custom proposal templates
- Create a Web page to submit proposals
- Define the lifecycle for a project
- Create the approval process for a proposal
- Assess proposals through business strategy alignment
- Approve proposals
- Create project schedules and assign resources for proposed projects
- Define business drivers
- Prioritize business drivers
- Capture project proposals
- Create analyses and prioritizing projects
- Analyze portfolios based on high-level cost constraints
- Analyze portfolios based on high-level resource constraints
- Commit selection decisions and communicate to portfolio stakeholders
- Create a central repository for project data

All of this and more using one centralized, collaborated environment can be easily achieved.

Project/Program Governance

In many organizations there remains a gap in the governing surveillance of project activities. Companies typically operate on the basis of a global or regional matrix of product groups and market territories.

The following is an illustration of common principle business activity via business centers (Figure 8: Principle Business Activities):

Figure 8: Principle Business Activities

Associated with each of these business centers is a corresponding internal department. The key to improving and delivering shareholder value is to understand the requirements, or demand, since everything else flows from this process of demand creation. Years of research and focus of each of these business centers have provided companies with considerable tools and methodologies to improve the performance of each business center which this paper will not go into detail or judge. However, communication and connectivity in relation to each other outside of their respective boundaries has been lacking.

Demand Management is really the requirements elicitation to determine the goals, objectives and business drivers that will enable information paths from the beginning. This is essentially doing top-down and then bottom-up planning.

Let's assess a scenario where your organization in the energy industry has to meet a strategic target for operational profitability. The target for operating profit is set as an output from portfolio planning and strategic planning. For our scenario, we will start at shareholder return and set the outcome of an operating profit at a specific target level (for instance 12%). Shareholder value related to operating profit is based on economic formulas such as capital costs associated with staff/resources, tax, interest and expenses, along with formulas such as Weighted Average Cost of Capital (WACC) or similar which is the capital charge or the amount of money that investors expect as a minimum return from the business (matching the opportunity cost of their capital). Top-down planning using the aggregate of shareholder

value/operating profit leads us to financial expense inputs (taxes, invoicing, operating costs, etc.). It also has financial revenue input such as sales (gross profit, volume, pricing, and market share), distribution (shipments, timing, inventory) and other corporate investment channels.

Now that the top-down planning is complete (essentially a backward pass at a portfolio level), we have some direction to the thresholds and requirements that executives are looking for from projects based on shareholder input. This means that as projects progress through the various lifecycles, stages, phases and departments, there is a direct link to the strategic objective.

Project Proposals and Strategy

Now that we have done some top-down planning, and a backward pass at the portfolio level, it is time to work forward and begin bottom-up planning. In Project Server 2007, project data was dispersed throughout the organization. Even when captured as elements of a project/program, the data resided in a variety of systems, sources and forms. Specifically, targets and requirements for example may have been cascaded down to the PMO via email, notes or data fields in other business systems. New information and change control in Project Server 2007 without a Portfolio Server environment meant using web forms, Office documents, or other non-project system components to elicit changes/updates to requirements. Proposals and activity web-forms within Project Server 2007 incorporate enterprise level fields, but the governance and initiation of tasks and projects still unfortunately resided outside of the Project Server environment (organically). Using our example, as a commercial organization serving the energy industry, we will be required to provide evidence for decisions and status of the projects. Having all the data, workflows and lifecycle stages attached to each project will be a significant benefit.

Project Server 2010 now combines the Proposals feature of Project Server 2007 and the Builder module of Portfolio Server 2007 to give more flexibility and ease of use in one place. This will help the Program/Project Managers to strategize, prioritize and choose the right projects.

A PM need not begin proposal creation right from scratch. Preloaded SharePoint lists or even Enterprise Project Types (EPTs) can be used as a starting point for proposal creation. Furthermore, the proposals/projects can be grouped department-wise. Thus a PM from the Human Resources Department now has quick access to proposals belonging only to his or her department.

To bring about more standardization and regulation, templates can also be created for project plans and a project workspace site. A proposal can hence have not only a fixed Enterprise Project Type and workflow, but it can also have a fixed set of pre-defined activities (which can be further grouped, linked, marked as milestones, etc.) and a workspace for collaboration. An EPT represents a wrapper that

encapsulates phases, stages, a single workflow, and the Project Details Pages (PDP). Each EPT represents a single project type. Normally, project types are aligned with individual departments, for example, marketing projects, IT projects, HR projects, and so forth. Using project types in Project 2010 now helps to categorize projects within the same organization that have a similar project lifecycle.

These proposals can be created and edited directly from the web. A project can have multiple stakeholders who would like to participate in adding tasks to specific phases of a project. Additionally there might be some changes with more inputs coming from the team members. Web-based editing will allow more room for individual stakeholders to contribute their share of information without being required to have Project Professional on their machine.

Once all summary information, deliverables, resource information, and cost estimates are captured for a proposal it is then submitted for approval through a workflow. It is then upon the Approver to access all aspects of a proposal and approve or reject a proposal.

Let us consider a scenario where an HR Manager is provided with a list of project initiatives that have to start according to fiscal year targets. For instance:

- HR payroll shared service
- HR employee information
- Training records tracking
- Performance management
- HR management system

It is not an easy job for HR Managers to firstly pick up the correct project for implementation and secondly implement them in the correct order. A number of strategic objectives revolve around selection and prioritization of projects. Factors like business drivers, resource availability, and investment decisions all combine to determine the project kick off order (business drivers examples may include increasing customer satisfaction, increasing employer satisfaction, better team collaboration, grow revenue, etc.)

Project 2010 capabilities help the HR Manager to select, prioritize, plan, track, manage and execute these projects end to end. The tool will help determine each proposal's impact on business drivers and other proposals, in turn generating a priority score. To begin with each of these proposals can be associated with fixed templates and passed through predefined workflows. The HR Manager can have multiple intermediate Approvers approving the proposal(s) through multiple stages. Once approved, the proposal will become a potential project and tracked and managed through PWA capabilities. This leads to a more scientific way of project selection based on existing data analysis.

Familiar Platform

Corporate executives face challenges daily from shareholder requirements to market changes and overall delivery of strategic objectives. However, one of the biggest challenges is the corporate culture itself. Conceptual process improvements and rich technology options have to pass through cultural adoption. If the people do not understand what they need to do, or why --- it won't get done! In Project Server 2007, Windows SharePoint Services was integrated with schedules to provide collaboration, document management and project workspace capabilities. The value companies both large and small realized was that SharePoint encouraged end user adoption. The organic user adoptions, along with consultative educational competency development, lead to high performing project environments.

Microsoft Project 2010 will see continued investments in Project Standard, Professional, and the EPM Solution along with collaboration and end-user experience improvements. These investments will provide executives, portfolio analysts, managers, and team members with productivity tools to effectively manage all work (non-project and project) throughout its lifecycle, and ensure alignment with the organization's business strategy.

At a high level, the goals of Microsoft Project Server 2010 are:

- Integrated project and portfolio management capabilities
- Scalable collaboration for both small teams and enterprises
- Extended platform and integration with related Microsoft technologies

With Project Server 2010 now you can have a greater control of how to manage and present your projects:

- Ribbon-based Interface – As mentioned earlier the Project 2010 (UI) has been completely revamped based on the Office Fluent or "Ribbon" UI. The Office Fluent UI denotes complete elimination of the overloaded menu and toolbar design model of previous Project releases. Project's extensive capabilities are now organized into logical, easy to find groups that help you accomplish actions efficiently rather than choosing features. The ribbon is available on the Client and on the Web as well. This not only helps the users to locate useful, hidden features but also navigate easily from one option to another in a more systematic way.
- Team Planner –PMs have always struggled with seeing clearly and quickly what their team is doing at any given point in the project schedule. PMs also struggle with finding a quick and

painless way to do something about problems that they discover with Team Planner, the PMs now have greater visibility into, and control over, their team's work.

- Manual scheduling – With manually scheduled tasks, dates are completely controlled by the users. It supports for both top-down and bottom-up scheduling.
- The Timeline –The Timeline view is automatically displayed above other views, showing a concise overview of the entire schedule. You can add tasks to the timeline and even print it for an attractive summary report of the entire project. Additionally, you can easily paste it into an e-mail or presentation for an instant report.
- Printing views and reports– A printed view is more than simply a pleasant way to present project information. It can at times be the most effective way. These views can now be printed such that they present the exact information that you want to share.
- Save a plan to PDF or XPS – the Project files can now be saved in popular PDF or XPS formats for viewing without other people having Project installed.
- Unified Demand Management capabilities – This combines the easy to use interface and full-fledged governance workflow module.
- Extended platform and integration with related Microsoft technologies which allows end users to use full tool set of Microsoft Office and other Microsoft enterprise products
- Collaboration –PMs can now collaborate on Project Information vision areas by using project deliverables, risks, issues, document library, project workspace, task list synchronization, and publish and import between Project Professional 2010 and SharePoint Foundation 2010.
- Single entry mode for timesheets and task status - Unified view for Time and Task Progress Tracking for team members helps them update all activities from one single view.
- Departmental custom fields –Also known as Departments, this feature enables you to define, at a resource, task, or project level, which fields are required or not required. This helps to filter information displayed throughout PWA, so that information is focused on what is applicable to each department.
- High level reporting and business intelligence using Excel Services
- Resource constraint analysis– The Resource Constraint Analysis can help reconcile demand/availability gaps while encouraging investment in projects that are the most strategically aligned.
- Web-based editing –Now you can create projects, edit the schedule, assign resources to tasks, and publish the plan, all from the comfort and convenience of your browser.

Project 2010 will provide companies the benefit of a familiar look and feel for each end user. However, this is never a replacement for considering the proper level of education, knowledge development and transfers, along with competency development.

What if your business plans need to consider compatibility with a previous version of Project? Let's say you are a leader of a mid-sized organization, and successfully implemented a small Project Server 2007 environment. Although the costs were not astronomical, it was still considered a capital-level project when you take into account the training, services, and process impacts related to the implementation. The move to a more robust portfolio and program management platform is part of your company's strategic objective, but there is concern with yet another major technology introduction to the company's resources and department managers. The departments and various project stakeholders are finally getting used to the Project Server capabilities, and your company is realizing the ROI benefits from the improvements.

Project 2010 is compatible with previous versions of Microsoft Project. You can create files in Project 2007 or earlier and then open and edit them in Project 2010 in a reduced-functionality mode. For further details refer to Backwards Compatibility Mode (BCM): http://technet.microsoft.com/en-us/library/ee662496(office.14).aspx

What if your strategic objectives had your company migrating when the new technology was released? Now let's say you run a large division within a global corporation. You started your PMO tool initiative back with Microsoft Project Server 2003. You remember the migration to Project Server 2007, and documented the need to ensure a robust plan for any future migrations.

Project Server 2010 is a major release that involves fundamental architectural changes. It is vital that you plan the migration carefully and meticulously. Migration is about taking data from Project Server 2007, fixing things up and then saving it to Project Server 2010. At the end of migration, you will have Project Server 2007 and Project Server 2010. Project Server 2007 to Project Server 2010 is a migration process, not upgrade. For further details refer to: http://technet.microsoft.com/en-us/projectserver/ee691958.aspx

Project Scheduling

Project scheduling is critical to project management. A schedule essentially drafts timing and sequence of project activities. Scheduling can be inaccurate, as it tries to predict the future. While it is not possible to know with certainty how long a project will take, there are techniques that can increase your possibility of being close in your estimating. If you are close in your planning, you can manage the project to achieve the schedule by increasing some efforts and approaches to meet required deadlines.

Project 2010 now makes it more flexible for PMs to create schedules by introducing the user controlled scheduling option. In the Project 2007 version, all tasks were schedule-based on a critical path mechanism. As a user you enter only the task name and all other details like duration, start and finish were auto-filled. This approach was best to create dedicated project tasks. However many times, a project begins with just a random informal list of activities. These activities are at a very high level and do not have a fixed schedule in terms of start and finish dates. It's possible in certain cases that the PM is awaiting definite inputs. Such activities can then be manually scheduled.

Project 2010 now offers manual scheduling, giving complete flexibility to the PM's in terms of data to be entered in start, finish and duration columns, and nothing is auto-filled by the tool. Going one step ahead, the PM can enter any text based information in these columns (e.g.: "Awaiting confirmation from Senior Mgmt.") Unlike auto-scheduling, manually scheduled tasks will not get rescheduled with changes applied to the project plan (Figure 9: Project Server 2010 - Project Scheduling).

Task Mode	Task Name	Duration	Start	Finish
	Gather Requirements	2 days	Thu 04/03/10	Fri 05/03/10
	Analyze	3 days	Mon 08/03/10	Wed 10/03/10
	Develop	8 days	Thu 11/03/10	Mon 22/03/10
	Review	2 days	*Awaiting Confirmation*	

Figure 9: Project Server 2010 - Project Scheduling

In the Project Server 2010 environment a Project schedule need not always be created and edited in Project Professional. It's possible that for a long project there are multiple stakeholders associated, who would like to give inputs and create tasks for some parts of the schedule. This is very much possible with the advent of web-based project editing. Web-based schedule editing gives the PM the privilege of creating projects, editing the schedule, assigning resources to tasks, and publishing all from the browser.

Once a schedule is created the PM can share it with the team members. This can be easily done by exporting the data to SharePoint and using the SharePoint platform for joint collaboration on the schedule. If there are any modifications made to the plan by team members the PM, at any point, can sync the changes back into the project. Thus a faster collaborative mechanism to collect information from the team member through the SharePoint interface is available.

Resource Planning

Resource availability, skilled resources, and suitable staffing are the key aspects a Resource Manager or PM has to deal with. If organizations exceed the size of their staff it will carry surplus or underutilized staff. Alternatively, if the opposite misjudgment is made, staff may be overloaded, making it hard or impossible to meet production or service deadlines at the quality level expected.

Resource planning is one of the key characteristics of Project Management. Resource plans help the managers identify the quantity of material and human resources required to deliver a project. A comprehensive resource plan is essential to ensure all resources for the project are identified for forecast resource budgets and project expenditures.

Microsoft Project 2010 offers a range of features to plan and manage resources:

- Team planner
- Resource pool
- Resource leveling
- Resource plan
- Resource analysis

Let's say a Resource Manager would like to have complete insight and visibility to his or her team's work. The Team Planner view now gives a complete list of assigned and non-assigned activities and also locates problems related to over allocation. The easy to use, interactive interface allows the Resource Manager to drag and drop activities from one resource to another or move it further in time.

Additionally, the most suitable resource can be picked up from the central repository called the Resource Pool. The Resource Pool captures all information related to skill sets, departments, availability, capacity, calendars, etc. The Resource Pool gives complete visibility to the Resource Managers and PMs and allows them to pick the right set of resources from the pool for each project.

As a part of the Project Initiation phase a very high level requirement of resources can be captured in the Resource Plan. These plans are useful when a Resource Manager is not sure of actual tasks and actual resource needs, but just wants to represent requirements at a very broad level.

The resource plans that are created can be used for resource analysis. If there is any variance in terms of demand and availability it can be easily detected. This favors the Resource Managers and PMs to prioritize projects for selection based on resource availability.

Thus end-to-end resource management in terms of capturing resource details, analyzing availability versus demand for project selection, and resolving over allocations can all be managed now with Project Server 2010.

The Enterprise Project Type

The most basic premise of the agile movement is that trying to over-regulate processes subverts the core goals of innovative and rapid development, thus the process paradigm becomes a bureaucracy or ideology more than a facilitation medium. PLM views process management as it views all other elements of PMO business –elements within a larger whole that cannot be easily separated from one another without losing the relationships and contexts necessary to make the larger organism work. Product Lifecycle Management, for example, is becoming especially dependent upon the successful implementation of agile processes, given the ever-decreasing sales and product development lifecycles. In many ways, Program Lifecycle Management represents a compromise between agile development or deployment concerns and more extensive or complicated oversight capabilities.

While there are five key elements or PLMs embedded within Program Lifecycle Management, there are also a number of related corollary processes, which include:

- Enterprise strategy
- Configuration management
- Change management
- Earned value management (EVM)
- Risk management
- Requirements management
- Enterprise architecture
- Enterprise governance
- Acquisition management
- Compliance management

The exact mix of which of these processes will be employed and blended within PLM in any individual enterprise is dependent on the nature of those organizations. For example, Department of Defense (DoD) PMOs will be much more likely to focus on EVM, given the trend toward greater oversight and regulation being tied to EVM systems. Financial organizations or healthcare enterprises may be more focused on various privacy and compliance issues. All of these concerns will likely show up in three places: strategy, requirements and governance.

The following steps illustrates the flexibility and rich user interface Project Server 2010 offers as we walk through a proposal using EPTs:

Let's say a corporate Director needs to launch a new project. They would select the project type from the available options in Project Server 2010, or start from scratch (Figure 11: Project Server 2010 -- Select New Project).

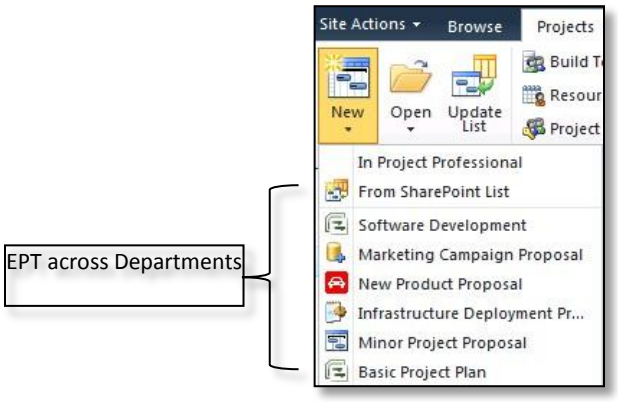


Figure 10: Project Server 2010 -- Select New Project

The Project Details allows for the Director to select the targeted department (Figure 11: Project Server 2010 Proposal Details)

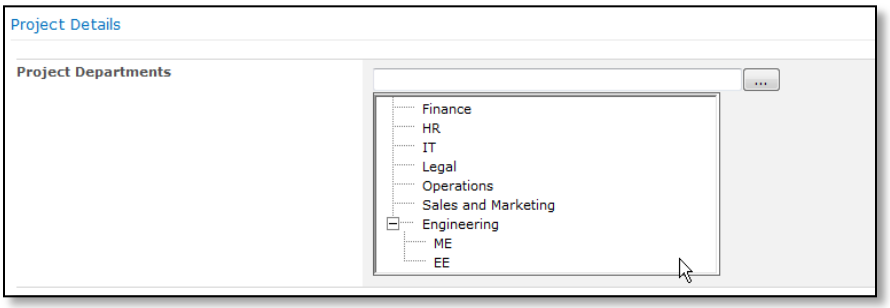


Figure 11: Project Server 2010 Proposal Details

The next step allows the Director to define business objectives, needs and costs. Notice the red asterisks making each section a required field (Figure 12: Project Server 2010 Proposal Summary).

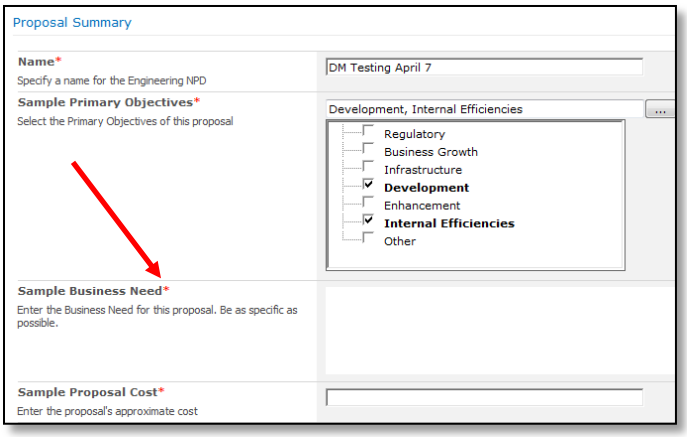


Figure 12: Project Server 2010 Proposal Summary

In this example, the Director did not have all the information, and tried to push the proposed project through. Because the required fields were not completed, the Project Server workflow stopped the progress (Figure 13: Project Server 2010 Submit Proposal Error).

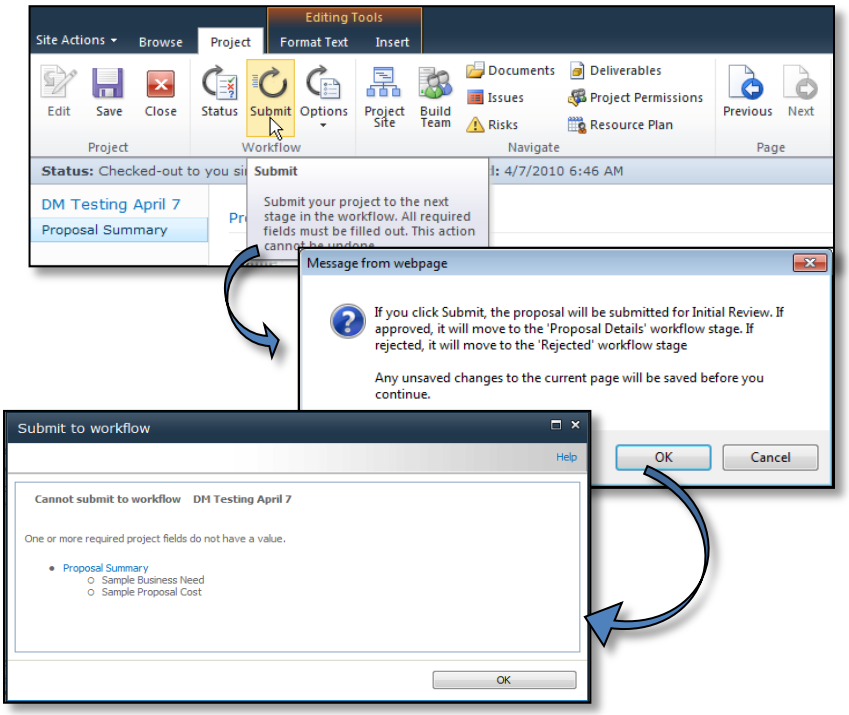


Figure 13: Project Server 2010 Submit Proposal Error

The Director decides to change the type of project this will be, and is able to either select a predefined EPT, or start from scratch (Figure 14: Project Server 2010 Change EPT).

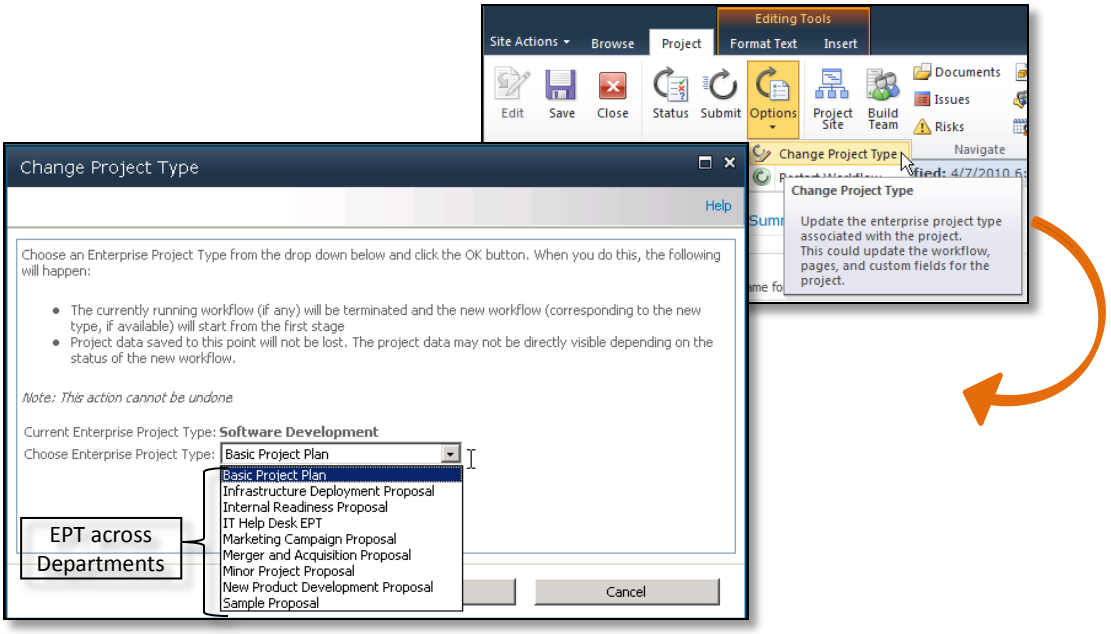


Figure 14: Project Server 2010 Change EPT

Companies of all sizes face increasing levels of information and demand on their business infrastructure while striving to be nimble enough to quickly respond to changing markets. Project success is dependent on an understanding of what needs to be done. Microsoft's Demand Management leverages the multiple PLMs organizations may be using. Often, an organization will initially target launching one kind of project, but may learn that a different type of project is needed. The EPT enables streamlining of the data collection which improves cycle times. Project Server 2010's EPT provides a single location and best-practice template for capturing new requests. User-driven project initiation provides an intuitive and repeatable framework that drives efficiency and reduces the time it takes to create and submit both simple and complex requests.

Departments

A Department is a pre-defined custom field in Project Server 2010 allowing different groupings from base logic (e.g.: Finance, Sales, IT, etc.) to more complex groupings (e.g.: by regions, common methodologies, governance architecture, etc.) so they can have their own set of custom fields that will

be visible only to the specific group. Its primary purpose is to act as a filter for projects, resources, their custom fields, EPTs, and drivers. A Department controls what data appears to users within given areas of Project Professional and PWA, easily assisting EPM Administrators or PMs to tailor views and usability for different sets of users. Note that Departments are not meant to function as a security feature of Project 2010.

Workflow

During the project lifecycle, many stakeholders (e.g.: PM, project sponsor, etc.) would benefit from having visibility into the status of the projects from a workflow perspective. Typically, PWA's Project Center offers customized views to filter and group the projects based on specific status, such as: group all projects in the planning phase.

Project Server 2010 dedicates a Proposal Stage Status page to each project, designed to provide a single portal for all workflow information, and to intuitively guide users through the workflow (see Figure 8). The page effectively communicates the main stages and deliverables included in the workflow, and assists with driving adoption and acceptance of the process. The Status page displays:

- The name of the current workflow stage that the project is in
- The status of each deliverable required to be completed for the current phase
- A table of all stages in the workflow, with their corresponding deliverables
- Approval and rejection comments

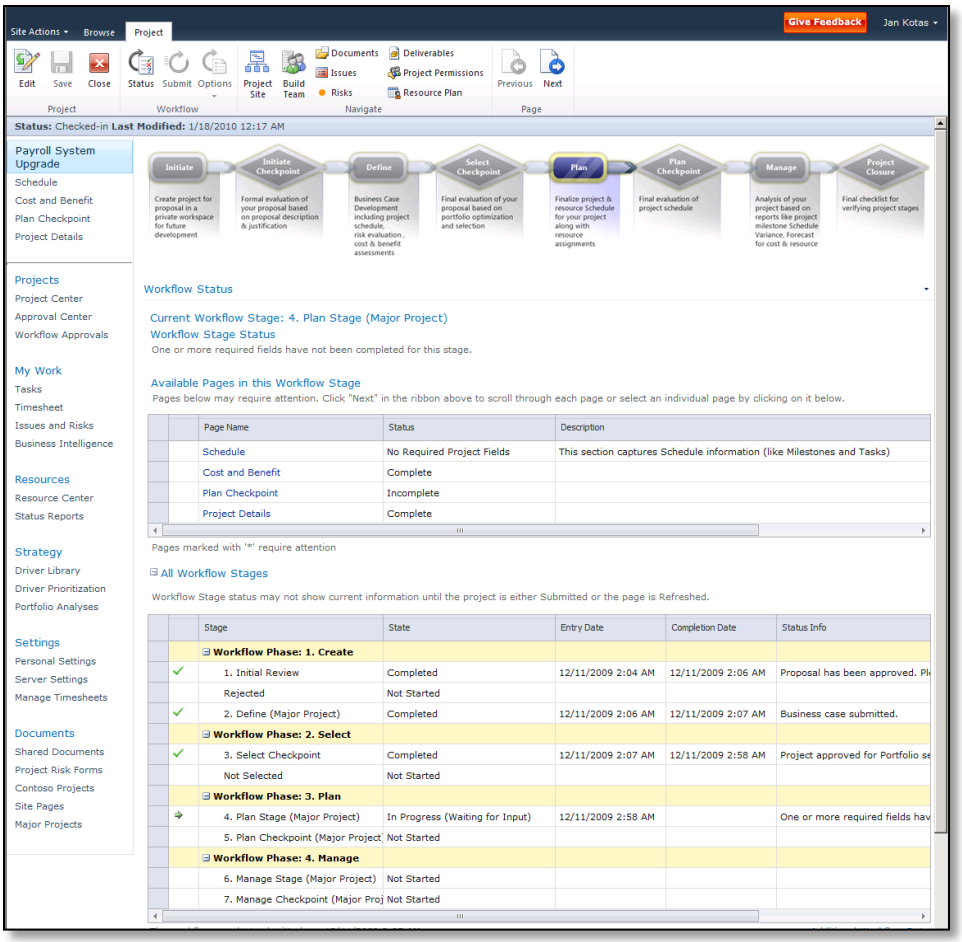


Figure 15: Project Server 2010 – Proposal Stage Status page

Although there is some sample workflows included out-of-the-box with Project Server 2010 (**Error! Reference source not found.**), and Visual Studio and SharePoint 2010's workflow engine offer additional capabilities for those willing to get into application development. Workflow visibility and accessibility both out-of-the-box and through augmenting the technology allow organizations to adopt industry lifecycles and workflows, such as Agile, PRINCE 2, PMBOK, etc. These can be a simple approach or highly complex so organizations of all sizes can take advantage of this feature.

Lastly, Project Server 2010 features stakeholder classification with benefit from the rich user interface to leverage the workflow elements. In addition, these tools facilitate integration with LOB systems, and help PMOs easily refine workflows to improve performance based on lessons learned and empirical data. Reference Project Server 2010 workflow based on SharePoint 2010 workflow

http://msdn.microsoft.com/en-us/library/ee767690(v=office.14).aspx. For more information about Project Professional 2010 and Project Server 2010, please refer to the EPM Product Guides at http://www.microsoft.com/project.

Conclusion

With Project 2010, Microsoft did an amazing job integrating various robust project management tools while expanding extremely user friendly UIs. Microsoft added extra configuration parameters, introduced new functionality and improved Office integration. Most noticeable are the improvements for program managers and the online scheduling and workflow features. The Microsoft EPM Solution provides flexible Demand Management capabilities to help organizations accomplish the following:

- Build governance workflows to subject different types of work requests—for example, a help desk ticket, or a project of any size—to the appropriate controls throughout the lifecycle of the issue or project.
- Standardize and streamline data collection by using configurable forms and business case templates.
- Capture all requests in a central repository to enhance visibility across the enterprise.

The Microsoft EPM Solution gives each stakeholder (user) within their organizations the tools they need to help them define, standardize, communicate, and enforce governance processes to control all types of work, project and operational, throughout the lifecycle of any initiative. End users representing stakeholder classes having transparent access to a workflow platform that is both rich and flexible makes it easy to define the right level of controls in any organization. No programming or technical know-how beyond Microsoft Office applications is needed to create, select, plan, manage and close projects and programs.

Organizations manage projects differently depending on a variety of factors including project size, impacts and other strategic and corporate influences. Project Server 2010 governance capabilities help PMOs quickly define and automate multiple workflows to manage different types of projects—for example, business projects, marketing and sales campaigns, research, operational deployments, as well as IT projects—throughout project lifecycles, and create event-driven workflows to control other activities, such as, issue and risk management, change management, document approval, and so on.

In summary, the Project 2010 Demand Management end user experience:

- Is simple to use
- Collects information in Stages

- Provides convenient sections/tabs for viewing and organizing information
- Offers an interface similar to SharePoint
- Creates proposals with or without a schedule
- Is powerful, robust, and flexible
- Offers one place to enter various types of work
- Contains enhanced support for templates
- Tracks initiatives from start to end
- Utilizes workflows to easily automate processes
- Aligns demand requests with corporate strategy

Glossary

Business Drivers: Factors in the industry or the broader business environment that either impact the financial institution or provide opportunity for business expansion. The strategic responses identify the business priorities or initiatives designed to take advantage of those drivers. The technology initiatives identify the key areas of focus to provide the infrastructure and tools to support the business initiatives. They can also be an objective that projects can be measured against commonly known as Strategic Goals.

Demand Management: A unified view of all work in a central location. Its purpose is to quickly help organizations gain visibility into projects and operational activities, standardize and streamline data collection, enhance decision making, and subject initiatives to the appropriate governance controls throughout their lifecycles.

Earned Value: The value of work performed expressed in terms of the approved budget assigned to that work for a schedule activity or work breakdown structure component.

Earned Value Management (EVM): According to the PMI PMBOK® Guide—Fourth Edition**,** a management methodology for integrating scope, schedule, and resources, and for objectively measuring project performance and progress. [i] Performance is measured determining the budgeted cost of work performed (e.g.: earned value) and comparing it to the actual cost of work performed (e.g.: actual cost).

Enterprise Project Types (EPTs): Project templates that represent various types of projects and non-project work within the portfolio. For example, you could represent a software development project or a marketing campaign.

Governance Workflow: Each project template is subjected to the appropriate controls throughout its lifecycle and determination of which online forms are displayed at each stage in the project lifecycle.

Phases: Represents a collection of stages grouped together to identify a common set of activities in the project lifecycle. Examples are: project creation, project selection, and project management. The primary purpose for Demand Management is to provide a smoother user experience where users have the option of organizing stages into logical groups.

Project: A temporary endeavor, having a defined beginning and end (usually constrained by date, but can be by funding or deliverables), undertaken to meet unique goals and objectives, usually to bring about beneficial change or added value.

Project Detail Pages (PDPs): Configurable online forms used to collect or display project information, such as, descriptive data, cost estimates, strategic impact assessments, and so on.

Project Management Office (PMO): An organizational body or entity assigned various responsibilities related to the centralized and coordinated management of those projects under its domain. Responsibilities can range from providing project management support functions to actually being responsible for the direct management of a project.

Stages: Represents one step within a project lifecycle. At a user level they appear as steps within a project. At each step, data must be entered, modified, reviewed, or processed.

Program: A group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually. They may include elements of related work outside of the scope of the discrete projects in the program.

Portfolio: A collection of projects or programs and other work that are grouped together to facilitate effective management of that work to meet strategic business objectives. The grouped projects or programs may not necessarily be interdependent or directly related.

Abbreviations Used

Abbreviation	Meaning
COE	Centers of Excellence
DoD	Department of Defense
EPM	Enterprise Project Management
EPT	Enterprise Project Type
EVM	Earned Value Management
HR	Human Resource
IPO	Initial Public Offering
IT	Information Technology
LOB	Line of Business
OEM	Original Equipment Manufacturer
PDP	Project Detail Pages
PIR	Project Initiation Request
PLM	Project Lifecycle Management
PM	Project Manager
PMO	Project Management Office
PPM	Program Project Management
PSI	Project Server Interface
PWA	Project Web Apps (formerly known as Project Web Access)
ROI	Return on investment
SME	Subject Matter Expert
TM	Team Member
UI	User Interface
PMI®	Project Management Institute
PMBOK®	Project Management Body of Knowledge
WACC	Weighted Average Cost of Capital

References

Microsoft Project 2010 Resources

Product information

- Main product site: http://www.microsoft.com/project
- Project Team Blog: http://blogs.msdn.com/project

Interactive content - Videos & Sessions & Webcasts

- http://www.microsoft.com/showcase/en/US/channels/microsoftproject
- http://www.microsoft.com/events/series/epm.aspx

Project Professional 2010 and Project Server 2010 Demo Image:

- Download: http://go.microsoft.com/?linkid=9713956
- Hosted Virtual Lab: http://go.microsoft.com/?linkid=9713654

IT Professional related

- TechCenter @ TechNet: http://technet.microsoft.com/ProjectServer
- Admin Blog: http://blogs.technet.com/projectadministration

Developer related

- Developer center @ MSDN: http://msdn.microsoft.com/Project
- Programmability blog: http://blogs.msdn.com/project_programmability

Additional questions? Project 2010 Forums!

- http://social.msdn.microsoft.com/Forums/en-US/category/projectserver2010,projectprofessional2010/

SharePoint 2010

- http://sharepoint.microsoft.com

Demand Management Webcasts

- **Project Server 2010 Demand Management (Part 1 of 4): Overview**
- **Project Server 2010 Demand Management (Part 2 of 4): Create and Select Phases**
- **Project Server 2010 Demand Management (Part 3 of 4): Plan, Manage, and Close Phases**
- **Project Server 2010 Demand Management (Part 4 of 4): Test the Theory and Review**

Other

- Project Management Institute: http://www.pmi.org
- Project Management Body of Knowledge:http://www.pmi.org/Resources/Pages/Library-of-PMI-Global-Standards-Projects.aspx

- Prince 2:http://www.prince2.com/

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[i] **A Guide to the Project Management Body of Knowledge (*PMBOK® Guide)*—Fourth Edition:** http://www.pmi.org/Resources/Pages/Library-of-PMI-Global-Standards-Projects.aspx