

Microsoft Project Server 2010

A look at Portfolio Strategy

A whitepaper for stakeholders in a program ecosystem

Authors:

Tim Cermak, PM

Tim Runcie, MVP PMPP

Manmeet Chaudhari, MVP

Date published

June 2010



www.Advisicon.com

Example screen shots and product functionality are based on the Project 2010 Beta. Actual requirements and product functionality may change with the final release of the commercially available product and also may vary based on your system configuration and operating system.

Information in the document, including URL and other Internet Web site references is subject to change without notice. Except as expressly provided in any written license agreement from Microsoft, the furnishing of this document does not give you a license to any patent, trademarks, copyrights, or other intellectual property that are the subject matter of this document.

Table of Contents

Table of Figures.....	5
Executive Summary.....	7
Introduction to Project Portfolio Management.....	8
What is Project Portfolio Management?	8
Objectives of PPM.....	10
Phases in Project Portfolio Management	10
Importance of Project Portfolio Management	11
Difference between Project, Program and Portfolio Management	13
Project Management	14
Program Management.....	14
Portfolio Management.....	14
Challenges in Implementing Project Portfolio Management	16
Team for Project Portfolio Management.....	18
Project Portfolio Management to Manage Resources	19
Demand Management and the Art and Science of Strategic Execution.....	20
Project/Program Business Drivers	21
Overview of Business Drivers.....	21
Understanding Business Drivers	22
Examples of Industry Business Drivers	23
Using Microsoft Project Server 2010 for Project Portfolio Management	26
Introduction	26

Portfolio Analysis	27
Using Microsoft Project Server 2010 for Portfolio Analysis Scenarios	28
Define Business Drivers.....	28
Microsoft Project Server 2010 Business Driver Library	28
Departmental Association.....	31
Project Impact Definitions	32
Driver Status.....	33
Microsoft Project Server 2010 Prioritize Business Drivers	34
Prioritization Best Practices	35
Microsoft Project Server 2010 Portfolio Analysis	35
Creating a Portfolio Analysis	36
Prioritizing Projects	37
Using Cost and Resource Constraints to Perform a High Level Portfolio Analysis	38
Baseline	40
Portfolio Analyses ‘What-If’: Setting Cost Limits	41
Portfolio Analysis Cost Constraint and Project Selection: Forcing a Project In or Out	43
Portfolio Analysis ‘What-If’ -- Modifying Project-Level Cost Values	44
Project Interdependencies.....	46
How Does Microsoft Project Calculate Cost Constraint: Optimization Algorithm	47
Analyze Portfolio Based on Time-Phased Resource Requirements.....	48
Commit Selection Decisions and Communicate to Portfolio Stakeholders.....	50
Variations of Portfolio Management	52
Summary of PPM	54

Benefits of Implementing PPM	54
Why Use PPM?	54
How to Decide Whether PPM Is To Be Used or Not?	55
Who Can Really Use PPM?	55
What Should You Use PPM For?	56
When Should PPM Be Used?	56
Where PPM Should Be Used?	57
Glossary	58
Abbreviations Used	59
References	60

Table of Figures

Figure 1: PPM Prioritization Overview	9
Figure 2: Model of Successful PPM	12
Figure 3: PPM hierarchy	13
Figure 4: Top 10 Business Drivers, Strategic Responses, and Technology Initiatives in Retail Banking (2009) -- Source: TowerGroup	24
Figure 5: Project Server 2010 -- PWA Strategy Selections	26
Figure 6: Demand Management --- Project Lifecycle Management	27
Figure 7: Overview of Defining Business Drivers (basic model)	28
Figure 8: Microsoft Project Server 2010 -- Driver Library	31
Figure 9: Microsoft Project Server 2010 -- Driver Library Departmental Association	32

Figure 10: Microsoft Project Server 2010 -- Driver Library Impact Statements	33
Figure 11: Microsoft Project Server 2010 -- Driver Library Status.....	34
Figure 12: Microsoft Project Server 2010 Portfolio Analysis -- Create New Analysis.....	37
Figure 13: Microsoft Project Server 2010 Portfolio Analysis -- Impact Ratings.....	38
Figure 14: Microsoft Project Server 2010 -- Setting Cost and Resource Constraints for Portfolio Analysis	39
Figure 15: Microsoft Project Server 2010 Portfolio Analysis -- Baseline	41
Figure 16: Microsoft Project Server 2010 Portfolio Analysis -- Setting Cost Limits.....	42
Figure 17: Microsoft Project Server 2010 Portfolio Analysis -- Modify Constraints.....	43
Figure 18: Microsoft Project Server 2010 Portfolio Analysis -- Force Project In	44
Figure 19: Microsoft Project Server 2010 Portfolio Analysis -- Force Project Out	44
Figure 20: Microsoft Project Server 2010 Portfolio Analysis -- Modify Cost Levels	45
Figure 21: Microsoft Project Server 2010 Portfolio Analysis -- Moved In	45
Figure 22: Microsoft Project Server 2010 Portfolio Analysis -- Set interdependencies.....	47
Figure 23: Microsoft Project Server 2010 Portfolio Analysis -- Time-Phased Requirements	49
Figure 24: Microsoft Project Server 2010 Portfolio Analysis -- Resource Requirements	49
Figure 25: Microsoft Project Server 2010 Portfolio Analysis -- Resource Force In and availability bubbles	50
Figure 26: Microsoft Project Server 2010 Portfolio Analysis -- Purchase Resources.....	50
Figure 27: Microsoft Project Server 2010 -- Commit.....	51
Figure 28: Microsoft Project Server 2010 -- Commit Notification	51

Executive Summary

As much as Project Management is about doing projects right, Portfolio Management is about doing the right projects. If you pick the right projects – based on defined processes and objective data, the result is an enviable portfolio of high value projects: a portfolio that is properly balanced and most importantly, supports your business strategy.

This whitepaper is written from an end user's perspective to discuss the extensive Project Portfolio Management capability (also known as PPM) in Microsoft® Project Server 2010. It is not enough to complete individual projects, or even related programs on time, within scope, and on budget. Today's business environment requires that the work executed by an organization supports the organization's strategic business objectives and goals. This paper will explore the topic of PPM from the top down in identifying the importance of pertinent business drivers and how those form vision, goals, objectives, and the eventual roadmap to project selection. And from bottom up in illustrating the powerful features now within Project Server 2010 to be an indispensable tool in matching these drivers to the appropriate projects and programs.

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

- Identify and map key business drivers that encourage the concise definition of strategic goals and objectives for an organization
- Ensure project and program selection is an objective, data driven process
- Select, execute and manage the appropriate initiatives
- Illustrate the value of PPM no matter what type or size of organization

This paper serves all individuals across an enterprise from top level decision-maker executives, to mid-level managers responsible for moving endeavors forward, to in-the-trenches teams doing the actual task to task work on these endeavors. Every player has its important place in PPM. It is an enterprise-wide process that succeeds or fails as a result of its adoption and support. Great rewards happen from success, but let it fail at your organization's own peril!

Introduction to Project Portfolio Management

What is Project Portfolio Management?

Project Portfolio Management is the method for analyzing and collectively managing a group of current and proposed projects based on organizational demands, constraints and strategic objectives. However, PPM is more than simply categorizing projects in groups and managing the groups. Unique portfolios need to be created, and each portfolio of projects needs to be assessed in terms of its business impact, and alignment to the corporate strategy and related fiscal targets. Each portfolio should be in existence to achieve specific business objectives and deliver results. The central idea of the PPM process is to determine the optimal combination and sequencing of projects to best achieve the organization's overall goals while working with constraints imposed by management or external real-world factors.

Portfolio prioritization is where projects are analyzed in a PPM process that include elements such as the project's total expected cost, consumption of resources, timeline, and timing of benefits to be realized; along with the relationship or inter-dependencies with other projects in the portfolio (Figure 1).

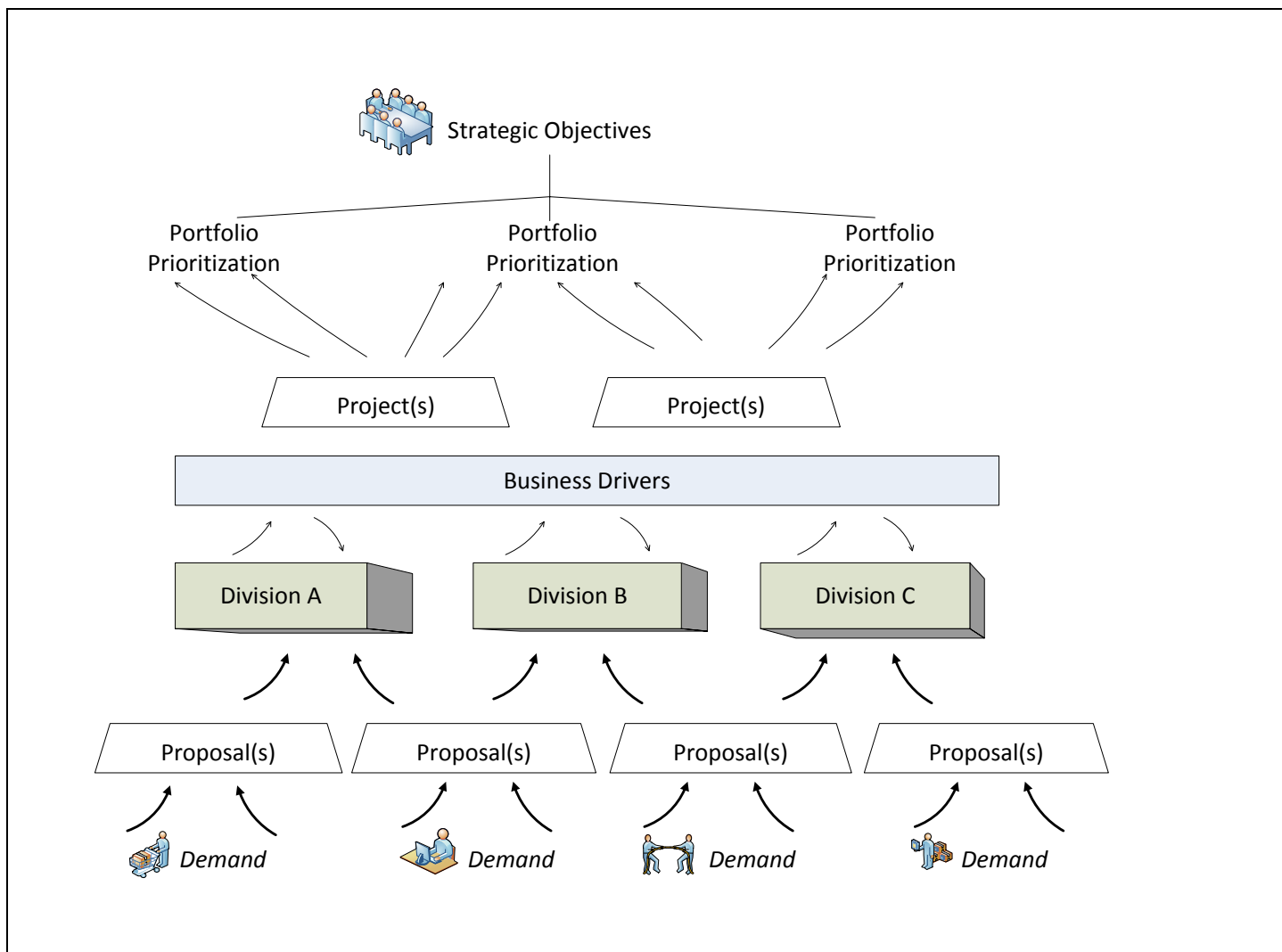


Figure 1: PPM Prioritization Overview

According to the Project Management Institutes (PMI) Standard for Portfolio Management, Project Portfolio Management is ‘...the centralized management of one or more portfolios, which includes identifying, prioritizing, authorizing, managing, and controlling projects, programs, and other related work, to achieve specific strategic business objectives.’¹

Project management expert and Microsoft Project Most Valuable Professional (MVP) Tim Runcie summarized it when he said: "PMO's require the proper understanding of strategic objectives balanced with the appropriate level of portfolio prioritizations and management of demand from all channels."

Objectives of PPM

While the portfolio methods vary greatly from company to company, the common denominator across firms are the goals executives are trying to achieve. The objectives of PPM can be listed as follows:

- **Optimization (Efficient Frontier)** - Allocate resources to maximize the value of the portfolio via a number of key objectives such as profitability, Return On Investment (ROI), and acceptable risk. A variety of methods are used to achieve this maximization goal, ranging from financial methods to business intelligence (BI) scoring models.
- **Balance** - Achieve a desired balance of projects via a number of parameters such as risk versus return, short-term versus long-term, and/or business growth or enhancements
- **Strategy Alignment** - Ensure that the portfolio of projects reflects the company's objectives and that the breakdown of spending aligns with the company's strategic priorities
- **Prioritization** - Obtain the right number of projects to achieve the best balance between the pipeline of resource demands and the capacity of resources available. The goal is to avoid a situation where there are too many projects with too few resources at any given time.
- **Feasibility** - Ensure the project goals and proposed projects are achievable given the projects already in flight

Phases in Project Portfolio Management

Portfolio definition/selection: Typically, PPM begins with the organization developing a comprehensive list of all its projects and enough descriptive information about each to allow them to be analyzed and compared. Such descriptive information can include project name, estimated duration, estimated cost, business objectives and benefits, how the project supports the organization's overall strategies, and so on.

Portfolio prioritization: After the proposed portfolio is created, the PPM process requires department heads to examine and rank each project according to business drivers, costs versus benefits and strategic impact. Some projects will be given higher priority and support, some will be given moderate priority, and still others will be placed on hold or dropped entirely from the list.

Portfolio review: Finally, the portfolio is re-evaluated by the portfolio management team on a regular basis to determine which projects are meeting their goals, which may need more support, or which may need to be down-sized or dropped entirely. Since the circumstances of each project and the business

environment can change rapidly, PPM is most effective when the portfolio is frequently revisited and actively managed by the team. However, PPM re-evaluation should be done less frequently than project-specific review and updating. You should plan PPM reviews based on a fiscal period, synchronized with strategic objectives review which may only happen a few times a year (usually twice a year).

Importance of Project Portfolio Management

Companies without an effective (PPM) process (project selection, prioritization, and review) face significant strategic delivery challenges. Certain risks may develop such as the inability to deliver projects that are aligned with the organization's strategy and exposing the organization to market pressures that may be catastrophic. For example, many of the problems that plague new product development initiatives in all industries and company sizes are directly related to ineffective Portfolio Management. Project Managers frustrated and struggling with a lack of resources or proper support to deliver their projects should be especially interested in PPM. These frustrations are symptoms of an unbalanced project portfolio. The frequent situation of "not enough of the right resources," may be a symptom of an unbalanced PPM where there may be too many project demands within the organization. Portfolio prioritization will enable an organization to better manage project demands, supporting the right projects, and killing or delaying the projects that do not meet current strategic objectives.

Robust project management lifecycles encourages Project Managers to complete high-quality project deliverables, on-time and within budget, and every Project Manager wants to work on projects that are perceived to be valuable. PPM can help Project Managers achieve both of these visions.

Can PPM influence corporate culture? Companies evolve as healthier and more competitive organizations when cultural change occurs. PPM invariably changes the culture of the business because it demands asking the right and sometimes difficult questions. Examples of what PPM addresses include but are not limited to asking the following questions (Figure 2):

1. Are we investing resources and costs on the right initiatives?
2. How can we maximize capacity?
3. What are the execution targets, and are we meeting those targets?
4. Change management processes; how can we handle the changes?
5. What are the pending values realized?



Figure 2: Model of Successful PPM

Following the model in Figure 2, projects should be reviewed and possibly delayed or stopped if the answer is no to any of the questions. This way the organization can ensure that they stay focused on delivering a strategy, goal or other defined benefits and that resources are deployed where they will offer the best return.

The ability to answer these questions accurately will determine how well PPM has been implemented in the organization.

Difference between Project, Program and Portfolio Management

From a project point of view it is important to highlight the difference between a Program and a Portfolio. The main difference being that a program generally deals with related projects and a portfolio deals with unrelated projects.

In a simplified sense, Project Management deals with a single, unique campaign that has a start and a finish with a focus on producing agreed deliverables, to an agreed schedule and budget. Program Management deals with multiple projects that collectively produce an agreed business outcome – i.e., the projects are inter-dependent or interrelated based on specific groups such as a department, a product line or geographical location. It is the management of these inter-dependencies against the delivery of the agreed outcomes that distinguishes Program from Project Management. Portfolio Management deals with a pool of projects aimed towards a strategic objective of the company, some of which may be independent to one another. We can visualize this by locating projects at the bottom of a hierarchy or pyramid with programs above related to their respective projects and the portfolio level at the top of the hierarchy (Figure 3).

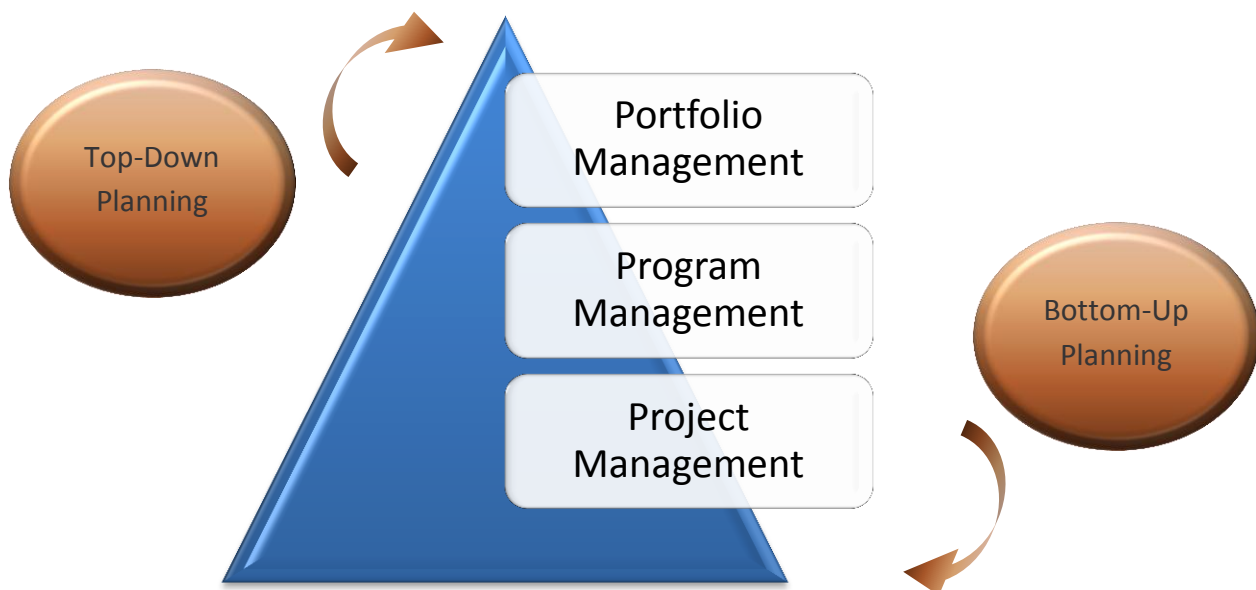


Figure 3: PPM hierarchy

Project Management

The broad term of Project Management encompasses a number of aspects involved in meeting the goals necessary to complete a project successfully. Project Managers must take into account essential elements which include resources, costs, time, scope, and quality; often referred to as the Project Management Triangle.

Resources are the people, materials, and equipment necessary to complete the project. People who might possibly be part of the project are employees, vendors, and subcontractors. Materials and equipment are dependent on the nature of the project.

The Project Manager is likely to be evaluated on whether or not the project is finished within budget, so costs are given careful attention. Contingencies such as weather problems, supply issues, or changes in design can have a negative impact on the project's final cost. In order to maximize profit the Project Manager must keep the actual cost at or below the estimated cost by remaining on schedule and effectively staying within the scope of the project.

Program Management

Program Management refers to the specific and coordinated efforts to group a series of similarly structured or interrelated projects; taking advantage of their cohesion for the purposes of garnering and gaining benefits. There are a number of elements and moving parts in Program Management. The early stages are crucial as it must be determined exactly where any particular overlaps and or redundancies may exist and on which there may be an effort to most effectively reduce those redundancies. This can include the utilization of supplies and equipment, as well as staff.

Portfolio Management

For companies of all sizes and market focuses, the creation of portfolios and portfolio prioritization provides the project management team and/or the key stakeholders with an invaluable resource when it comes to the essential and vital availability of project(s) status and proposals that may provide valuable insight and information throughout the project management lifecycle process. The actual technique of Portfolio Management is the decision makers taking control of all of the related portfolios into one centralized process and for the purposes of streamlining the process and making the information readily available. The portfolio management process includes the concept of identifying, prioritizing, authorizing, controlling, and managing the programs, projects, and any other predetermined project related work aligned to the defined strategic business objectives.

Now that the distinctions have been detailed between Project Portfolio Management, Program Management, and Project Management, an approach needs to be identified enabling the implementation of these three processes. Things to consider when developing your portfolio strategy are the enterprise project types, related workflows, stages and phases, key milestones, etc.¹¹Some key factors and how they affect choices made about implementing each may include, but not be limited to the following:

- **Industry:** Industry provides insights into the stability and consistency of operations. Some industries, like pharmaceuticals, are very driven by product lifecycles, albeit fairly long ones (~10 years) that include a major regulatory process. Consumer electronics companies are driven by much shorter project lifecycles and rapidly evolving technology, with little regulation. Construction firms are highly projectized and deal with very stable technologies and products.
- **Organization Size:** Generally, greater size requires more formal organization. Without structure, the relationships between strategy, portfolio management, programs, and projects can become blurred and disjointed. The two points of focus here are to have well-considered organizational frameworks for each of Portfolio, Program, and Project Management, and then to pay special attention to building strong ties among them for communication, collaboration, and information flow.
- **Operational Reach:** A more narrowly defined operational capability, such as found in a sales-focused or production focused organization, will tend to require less formality, and information will flow more freely among portfolio, program, and project management processes. In organizations that are well-integrated horizontally, containing well-developed core competencies in R&D, marketing, production, distribution, and the like, there will be natural separations that need to be managed. This will make Program Management especially challenging, since it is likely to cross those boundaries.
- **Strategy:** Like the various operational considerations, the strategy will effect organization of Portfolio, Program, and Project Management based on how complex it is. One key consideration not mentioned above is strategic alliances, which can greatly affect how tightly managed and how structured these processes need to be.

Challenges in Implementing Project Portfolio Management

The fundamental challenge of Portfolio Management is to allocate limited funds and resources in order to achieve maximum benefit for the organization.

Management's job isn't confined to maximizing project output. It has to start with defining and prioritizing the organizational portfolios: choosing and managing the right projects to match the strategy, overcoming resource constraints and project risks, with the ultimate goal of bringing the concept to successful execution.

Strategic objectives are governed by the company's Mission and Vision --- essentially where the company wants to be in the future. Lacking or un-prioritized vision is a waste of time and investment. Usually vision is created by the senior leadership team (e.g., Board of Directors, C-Level), and is decomposed into initiatives which is cascaded through the organizational chain for execution. The vision must not be limited and PPM enables agility allowing the company to get into position to execute the strategic plan; and having strategic agility is the organization's ability to quickly alter strategic plans based upon changing external factors or alterations in direction. For example, a certain company may place strategic emphasis on cost reduction in one year, and then turn to revenue growth or decreased time to market the next year, requiring different project focus.

What if the proposed projects carry a higher risk, but strategically align with corporate objectives? High-risk projects typically net a higher value, or "risk premium." This is contingent upon the company's or departmental risk tolerances and defining the overall risk level it is willing to handle and build its portfolios accordingly. Stable portfolios should usually include a combination of both high and low-risk projects.

Some of the common PPM challenges can be described as follows:

1. Customers

- Projects are often driven and defined by customers who set the milestones, schedules, etc. This leads to difficulty in defining what a project is internally as each case may be different.
- In some industries such as defense and rail there tends to be a monopolistic customer which will dictate the kind of projects. Project timescales reflect product lifecycles and can be up to 40 years long as seen in US State highway and overpass upgrades. Here the companies using PPM as a planning tool can be affected by customer prioritization.

- The other end of the spectrum is a three to four month project timescale (e.g., mobile sector or financial markets). Here companies using PPM process perceive the product lifecycle as too short to use the process.
- PPM Result: PPM processes are necessary and beneficial to the organization with projects of any size, as all projects should align with the organization's business objectives. Customers' requirements must be included in the consideration of project success factors, and how those requirements may impact achieving strategic goals.

2. Cultural – workforce

- Many times, objectives that have a lot of focus, like regulatory projects, lead to a 'big brother' impression.
- PPM Result: PPM makes it difficult to hide mistakes and fosters adoption through the organization hierarchy.

3. Cultural – management

- Management needs to take ownership of PPM. Often senior management does not buy into the process because there is a feeling they may get exposed.
- The process did not work before, or an "it is fine for them, but not for us" stance. They've heard more failure stories than success – success is found more within the IT sector and not yet enterprise-wide.
- Cultural hurdles are the biggest road block to implementing PPM. There is an underestimation at senior level as to how big these barriers are.
- PPM Result: If a PPM process is in place politics and manipulation around 'pet' projects becomes much more difficult. Having the background of senior management to scope adoption requirements is the key.

4. Knowledge

- There is too much reliance on consultants to solve the problem and/or there is a lack of knowledge from consultants in this area.
- PPM has been advocated by software consultants, but often they are not equipped to address issues around change management.
- The consultancy market for PPM tends to use a 'bus load' of consultants for large software deployment and this is a dead end.
- Some PPM vendors design at a very high level of maturity (e.g., level four of five), but the majority of companies are below level three.
- PPM Results: Implementation of PPM is a change management process which requires senior executives to support and champion the change. Organizations implementing PPM are looking for a confidence boost from consultants.

Portfolio Management bridges between strategy and execution. Budgeting and portfolio management processes that lack strong, objective methodology creates dubiety within an organization as to why one project received funding over another: political influences come to supersede merit. Objectivity will create confidence in the portfolio that otherwise would not exist. The weakness in the technique is not the technique itself, but in the data on which portfolio analysis is based, which becomes a question of organizational culture and maturity.

Team for Project Portfolio Management

Developing a portfolio to manage capital investment and meet strategic targets is a collaborative and interactive process that involves the Portfolio Manager and other representatives from the organization. The group of people participating should contain representatives from IT, finance, legal, support divisions, and the business; preferably the executives.

The essence of this group is that it represents a cross-section of the organization at large, not just IT and a few people outside IT that have a vested interest in the project under discussion. In fact, the optimal PPM team includes representatives from each business unit or stakeholder class of the company, since any project that is selected will take resources away from other business units' potential projects. This group should be a standing body familiar with the selection process, rather than an ad-hoc committee thrown together at the last moment.

The portfolio management team's focus is on identifying the organization's business strategies and assuring that all project work contributes to the realization of the respective strategic objectives.

The purpose of this group is to:

- Support the portfolio management information system used to do portfolio, project, resource and asset management
- Develop and maintain project management methodology and standards used to manage projects
- Visibly support the Project Management Office (PMO) in their efforts to manage the alignment of projects and programs with the portfolio
- Promote the use of portfolio management processes and tools throughout the Organization
- Provide a project management training program and mentoring opportunities for staff
- Set project prioritization criteria for Initiatives and Projects

- Make and support go/hold/cancel decisions
- Authorize Resource Assignments — reallocate resources as needed to keep the portfolio on track
- Authorize Project Change Requests — scope, time, budget
- Define and track strategic metrics — project and portfolio
- Optimize the Project Portfolio — align, value, balance
- Make and Communicate Decisions

Project Portfolio Management to Manage Resources

Often organizations find themselves (and/or their major departments) in a situation of trying to ‘do it all’. No group wants to be the ones that lets the company down, but simply cannot deliver everything. Business executives are in agreement that demand exceeds capacity most if not all the time. Thus, resources are one of the major constraints in a portfolio and demand management system, making resource allocation a critical component of PPM. Once it is determined that one or many projects meet business drivers and align to strategic objectives, the available resources of an organization must be evaluated for its ability to meet project demand. Effective resource allocation typically requires an understanding of existing labor or funding resource commitments, as well as the skills available in the resource pool. Project investment should only be made in projects where the necessary resources are available during a specified period of time.

Project Managers typically consider resources as people, but a resource is anything that has a total capacity which in addition to human capacity may include equipment that would also be subject to physical constraints. For example, IT hardware may not be readily available to support technology changes associated with the ideal implementation timeframe for a project. Thus, a holistic understanding of all project resources, the total capacity and their availability must be conjoined with the decision to make initial investment or else projects may encounter substantial risk during their lifecycle when unplanned resource constraints arise that delay achieving project objectives.

Beyond the initial project investment decision, PPM involves on-going analysis of the project portfolios so each investment can be monitored for its relative contribution to business goals versus other portfolio investments. If a project is either performing below expectations or is no longer aligned to business objectives, management can choose to terminate the project to mitigate further consumption of costs and redirect resources towards other projects that better fit business objectives. This analysis can typically be performed on a periodic basis to keep the portfolio updated for optimal business

performance. In this way both new and existing projects are continually monitored for their contributions to overall portfolio health. If PPM is applied in this manner, management can more clearly and proactively demonstrate its effectiveness to its shareholders or owners.

Implementing PPM across small or large organizations often presents challenges in gaining corporate-wide support because investment decision criteria and weights must be agreed to by the key stakeholders of the organization, each of whom may be incentivized to meet specific goals that may not necessarily align with those of the entire organization. However, as corporate business objectives manifest and align with the objectives of various departments and/or business unit sub-organizations, portfolio criteria agreement can be achieved more easily.

From a demand management perspective, PPM can be viewed as the upper-most level of business requirements management in the company, seeking to understand the business requirements of the company and what portfolio of projects should be undertaken to achieve them.

Demand Management and the Art and Science of Strategic Execution

In addition to managing the mix of projects in a company, PPM must also determine whether (and how) a set of projects in the portfolio can be executed by a company in a specified time, given finite resource capacity and capabilities in the company. We'll refer to this portion of Demand Management as the art and science of strategic execution. Fundamental to Demand Management is the ability to initiate, track and measure the allocation of resources and costs according to a strategic plan. To do this, a company must be able to estimate the effort planned for each project in the portfolio, and then execute through defined enterprise or strategic project types.

For most organizations the demand for new projects will occasionally outweigh its capacity to do them. Whether it's due to financial constraints or skills being completely exhausted elsewhere, sometimes you just have to say no. Saying no is easy, but executive 'pet' projects or compliance and regulation projects make it more challenging on deciding who to say no to.

Best practice advocates that projects that bring the highest return on investment from the scarce resources available must be pushed forward. Projects that drain resources and eat up the budget without acceptable value or ROI must be discarded, or at the very least, put on hold. Knowing which projects will deliver the highest return leveraging available capacity versus those that may sink a portfolio requires more than gut feel or shot-gun decisions. The following factors can serve as a guide to help executives to decide which projects should stay and which ones should go (examples include, but are not limited to):

- Give the projects a priority or ranking
- Define and apply business drivers, such as:
 - Clientele and employee targets
 - Market trends
 - Shareholder/stockholder requirements
- Benefits forecasting/estimating (1-5 years out); and Benefits year over year (which should increase over time)
- Costs forecasting/estimating (1-5 years out); and Cost year over year (which should decrease over time)

As one goes through the steps of assessing the business drivers and prioritization, you'll find that projects will naturally begin to fall into groups, whether it's because they all have the same priority, the same client, or are as a result of current market trends and so on.

Microsoft Project Server 2010 enables an organization to see the impact each project has on cost and resource constraints. Managing large numbers of people across multiple projects is a tricky balancing act, so being able to track the progress of staff or contractors is essential.

Project/Program Business Drivers

Business drivers are the factors in the industry or the broader business environment that impact the company in a way that affects its ability to remain in business and/or provide opportunity for business expansion. Business drivers can also be related to sub-groups within a company as well as at the enterprise level. For example, a department or product line may have specific business drivers pertaining to their group. Business drivers should be clearly defined before analyzing the value of a given proposal. Each business driver within an organization should be actionable, measurable, and unique. The strategic responses identify the business priorities or initiatives designed to take advantage of those drivers. Thus, those selected projects identify the key areas of focus to provide the infrastructure and tools to support the business initiatives.

Overview of Business Drivers

Companies of any size are 'driven' by core environmental factors that when quantified sets the stage for those unique initiatives that enables the organization to achieving the defined strategic objectives.

Environmental factors include, but are not limited to customers, employees, financials, geography, and operations. Business drivers are defined objectives that allows for quantification based on level of impact (e.g., low to extreme impact). At times, there may be business drivers that target meeting compliance and regulation while others may be risk mitigation or recovery based on lessons learned. Look at it is the coordinates that the company and its respective sub-groups use, where feasible, and can leverage to map out specific business objectives and plan the steps to get there.

Understanding Business Drivers

Identifying the business drivers is a relatively straight forward exercise when viewing the basics of business planning and remaining competitive (e.g., enhance customer satisfaction or increase operational profitability). However, what may seem like subtle differences between high performing companies and mediocre ones is really not that subtle when we peel back the layers and look at planning techniques. Top performing companies have much more specific business drivers that are feasible, understandable, and transparent through the organization. The high performing company's culture has essentially adopted those business drivers as a means for how they execute the business.

Whether you are a business owner or simply a stakeholder of influence, your company will be 'pushed' and 'pulled' in various directions, whether or not the key drivers have been identified and aligned with strategic objectives. Let's face it, no company can remain solvent if un-profitable indefinitely. Moreover, a company in the business to sell products or services cannot continue to exist without customers or staff to produce those products or services. Thus, just identifying generic business drivers is not enough to compete in your respective markets. There will be little means to truly capture what needs to be targeted and completed to meet strategic objectives. Organizations of all sizes and industry focus will need to define multiple business drivers' specific to departments, regions, products lines, channels of business, etc. Regardless of the size of your company, stakeholders from executives to managers to other leaders representing stakeholder classes require access to information that is immediate, accurate and illustrative to gain a visual understanding of what is happening in their business. Assessing the status is only part of the equation, and these influencing stakeholders need to perform 'what-if' scenarios to study trends and other elements impacting performance and enable them to make timely and effective decisions. Below are additional questions that need to be addressed when scoping business drivers:

- Did we realize a gain or loss unexpectedly? What actions (if any) need to be taken?
- Are fiscal year results and market trends showing a gap between the current business model and developing trends?

- Are all business units realizing the trends, or are there unique areas of the company seeing gaps?
- What is the impact of implementing changes; both introducing new drivers and eliminating current?
- Are we on track to meet expected results; have we crossed risk thresholds of missing targets?

In summary, business drivers are those elements representing the industry or relative business environment that may either impact your company or provide business growth opportunities. 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.

Examples of Industry Business Drivers

Regardless of the industry your company serves or the size and geographic location, you will need to define a balance of corporate level and group-specific level business drivers in order to create the platform in which a high-functioning project management and business cycle (Demand Management) can exist and thrive. Examples, your business driver(s) may be IT-specific, while others are related to HR or growth in specific sectors. Some may be ecologically focused or associated with very long-term goals. The essential component when defining business drivers is that they are agreed to by those who will be responsible to deliver to them, and they are aligned with strategic objectives governed by the mission and goals of the company.

Each calendar year, the Towers Group releases a whitepaper based on the banking industry, and includes a list of leading business drivers and related strategic objectives. It states that no exclusive one-to-one relationship exists between a top business driver and a top 10 strategic response or between a top 10 strategic response and a top 10 technology initiative. A strategic response may address multiple drivers, and a top 10 technology initiative may support multiple strategic responses.

Each business driver evokes one or more strategic responses required by an institution, which leads to the implementation scheme in the form of one or more technology initiatives. Schematically this may be shown as (Figure 4):

Business Driver => Strategic Response(s) => Technology Initiative(s)

Top 10 Business Drivers, Strategic Responses, and Technology Initiatives in Retail Banking (2009)

Business Drivers				
1. Current economic environment	2. Regulatory change and compliance	3. Competitive threats	4. Changing customer preferences	5. Revenue growth
6. Operational efficiency	7. Business growth/contraction	8. Customer loss/dissatisfaction	9. Fraud and financial crime	10. Information security
Strategic Responses				
Developing short/long-term strategies to mitigate losses	Increased oversight to ensure compliance	Targeted pricing and product initiatives	Focused investments/disinvestments in delivery channels	Improving customer acquisition, retention, cross-sales capability
Company-wide cost reduction initiatives; rightsourcing	Identifying and exploiting new market opportunities	Capital preservation	Increased cooperation with other banks and third parties	Tighter controls and increased audits of data access
Technology Initiatives				
Upgrade loan processing-modification/collections/foreclosure processing	Modify systems; deploy new processes for compliance	Improve analytics and performance management	Support new product and channel initiatives, divestitures	Enable a single customer view; improve customer analytics
Automate/streamline processes; employ software as a service (SaaS); outsource; consolidate systems	Implement core systems renewal, service-oriented architecture (SOA) capabilities	Automate problem tracking and resolution	Support improved fraud detection and risk analysis	Improve data access controls and data tracking; expand use of encryption

Figure 4: Top 10 Business Drivers, Strategic Responses, and Technology Initiatives in Retail Banking (2009) -- Source: TowerGroup

Other examples of major industry business drivers can be found with technology products manufacturers. These original equipment manufacturers (OEMs) generate multiple billions USD per year in revenue, and provide the technical infrastructure for the global economy. The following are a few examples of business drivers in this high-tech industry:

- Economic environment and corporate spending budgets (growth & gross margin impacts):
 - Global demand for systems, hardware, software and services
 - Create a diverse set of products and offerings designed to provide more consistent results in both strong and weak economic environments

- Having a mix of offerings with long-term cash and income streams, as well as cyclical transaction-based sales, but also by continually developing competitive products and solutions and effectively managing a skilled resource base
- Transform itself to take advantage of shifting demand trends, focusing on client- and industry-specific solutions, business performance and open standards
- Maintaining strategic fitment
- Internal business transformation and global integration initiatives:
 - Productivity to increase contribution margin
 - Drive greater productivity, flexibility and cost savings by transforming and globally integrating its own business processes and functions
 - Eliminating redundancies and overhead structures to drive productivity
 - Global talent acquisition and development; diversity and inclusion
 - Efficiency and effectiveness
 - Achieving management excellence
- Innovation initiatives:
 - Improve its ability to help its clients innovate
 - Improving customer satisfaction
 - Shaping and evolving the corporate culture
- Investing in growth opportunities:
 - Refocus its business on the higher value segments of enterprise infrastructure architecture—providing technology and transformation services to clients' businesses
 - Invest in growth opportunities as a way to drive revenue growth and market share gains
 - Partner channel development and loyalty

Using Microsoft Project Server 2010 for Project Portfolio Management

Introduction

Microsoft Project Server 2010 now features a 'Strategy' center referred to as the Portfolio Strategy (formerly known as Portfolio Server 2007) that includes the capabilities to develop a Business Driver Library, perform Business Driver Prioritization, and a Portfolio Analysis (Figure 5).

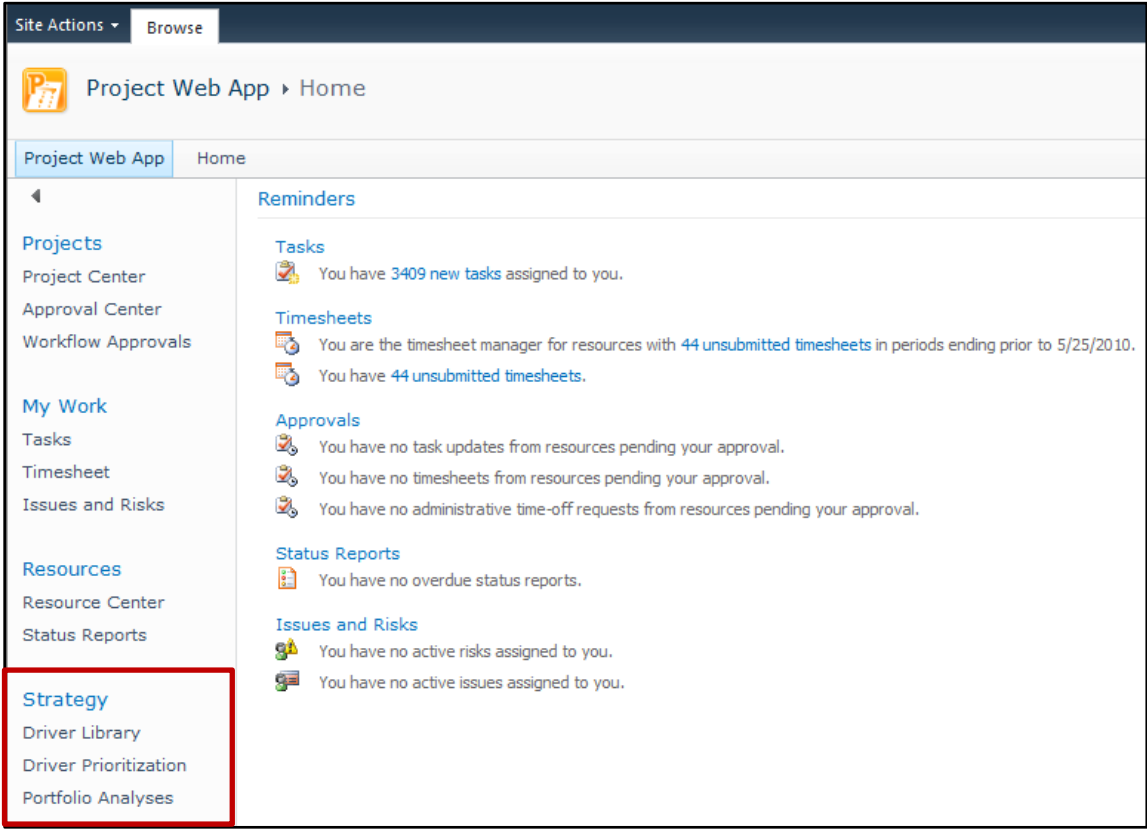


Figure 5: Project Server 2010 -- PWA Strategy Selections

The Portfolio Strategy assumes a project/program lifecycle is being followed (aka: Demand Management). As noted in the Demand Management whitepaper, the project lifecycle is Create > Select > Plan > Manage > Close (Figure 6). Before project proposals are captured, selected, and executed, a prioritized business strategy must be put in place by Leadership. The Strategize phase precedes project

proposal capture in this context. During the Strategize phase, leadership teams define and prioritize their organization's strategic goals, or business drivers.

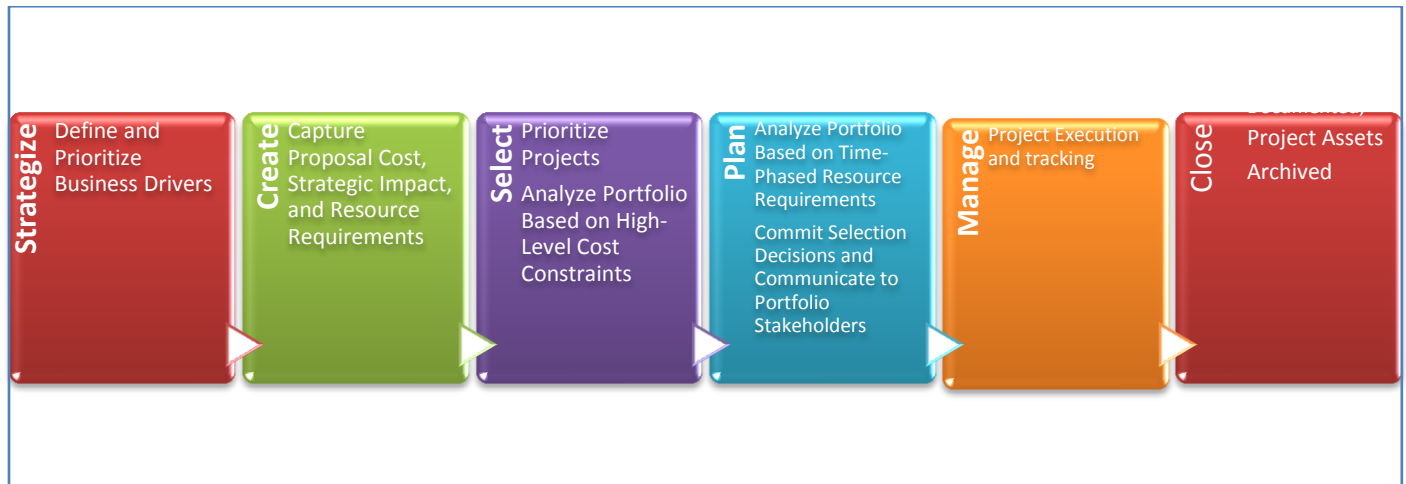


Figure 6: Demand Management --- Project Lifecycle Management

Portfolio Analysis

Referenced in the Microsoft Project Server 2010 Product Guide¹, the Portfolio Analysis feature set allows organizations to methodically select projects that will yield the most value for their dollar. The assumption is that the PPM methodology is based on investing in projects that best support an organization's strategic objectives given a limited set of cost and people resources. At a high-level, the feature set works as follows:

- Organizations define and prioritize their strategic objectives, or business drivers
- Costs are assigned to each project proposal, and a proposal's impact on each business driver is rated, generating relative project value/priority score across a portfolio
- Portfolios are constrained by cost categories, time-phased resources requirements, and project schedule. The Portfolio Cost Constraint Analysis engine selects projects that yield the most value with the lowest cost.
- Portfolio analysts can override the software's decisions, and pull a variety of constraint levers to maximize value based on a given organizational reality
- Final project investment decisions are reached and communicated to stakeholders

¹ <http://www.microsoft.com/project/en/us/project-server-2010-product-guide.aspx>

Using Microsoft Project Server 2010 for Portfolio Analysis Scenarios

Define Business Drivers

Project investments should be made based on how well they contribute to achieving the business goals of an organization. Business drivers should be clearly defined before analyzing the value of a given proposal. Each business driver within an organization should be actionable, measurable, and unique (Figure 7).

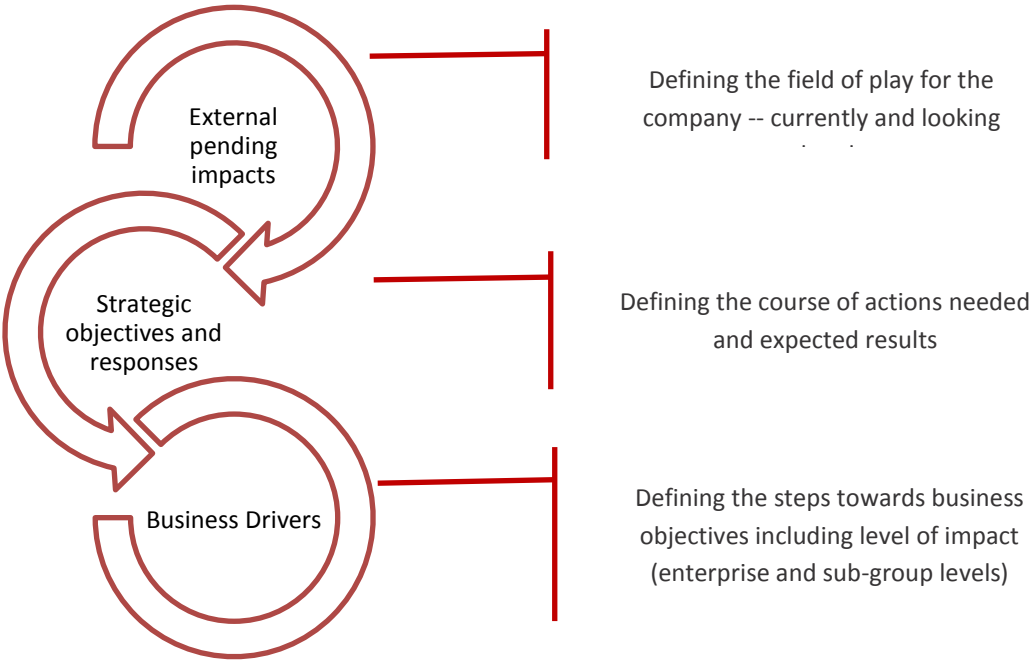


Figure 7: Overview of Defining Business Drivers (basic model)

Microsoft Project Server 2010 Business Driver Library

Companies of varying sizes struggle with strategic planning. Either there is a lack of insight into those factors impacting the business, or lack of cohesion at the executive level related to the direction of the company. However, as the strategic planning process evolves and matures, the dependency will grow in regards to having a centralized repository of business drivers. As we detailed, business drivers are recommended for both departments, as well as enterprise use (Table 1: Examples of Business

DriversTable 1). It would be nearly impossible to prioritize projects in a portfolio and meet strategic objectives without having a rich driver library allowing for the PPM team to add, delete and modify business drivers. Microsoft Project Server 2010 now has the Business Driver Library in the strategy center, and it can be accessed by clicking Portfolio Strategy > Business Driver Library in the Project Web App (PWA) global menu (Figure 8).

- New drivers can be added to the driver library by clicking the Driver ribbon group and selecting New.
- Drivers can be deleted by highlighting a driver in the list, then clicking the Driver ribbon group and selecting Delete. You cannot delete drivers used in existing driver prioritizations.

Examples of Business Drivers	
Strategic Business Objective/Goal	Business Drivers
Economic environment and corporate spending budgets (growth & gross margin impacts)	<ul style="list-style-type: none"> • Global demand for systems, hardware, software and services • Create a diverse set of products and offerings designed to provide more consistent results in both strong and weak economic environments • Having a mix of offerings with long-term cash and income streams, as well as cyclical transaction-based sales, but also by continually developing competitive products and solutions and effectively managing a skilled resource base • Transform itself to take advantage of shifting demand trends, focusing on client- and industry-specific solutions, business performance and open standards • Maintaining strategic fitment
Internal business transformation and global integration initiatives	<ul style="list-style-type: none"> • Productivity to increase contribution margin • Drive greater productivity, flexibility and cost savings by transforming and globally integrating its own business processes and functions • Eliminating redundancies and overhead structures to drive productivity • Global talent acquisition and development; diversity and inclusion • Efficiency and effectiveness • Achieving management excellence
Innovation initiatives	<ul style="list-style-type: none"> • Improve its ability to help its clients innovate • Improving customer satisfaction • Shaping and evolving the corporate culture
Investing in growth opportunities	<ul style="list-style-type: none"> • Refocus its business on the higher value segments of enterprise infrastructure architecture—providing technology and transformation services to clients' businesses • Invest in growth opportunities as a way to drive revenue growth and market share gains • Partner channel development and loyalty

Table 1: Examples of Business Drivers

Driver Name ▲	Department ▲	Status	Created Date	Created By	Modified Date	Modified By
Expand into new markets and segments		Active	10/29/2009	svcFarm	10/29/2009	svcFarm
Improve customer satisfaction score		Active	10/29/2009	svcFarm	10/29/2009	svcFarm
Improve employee satisfaction		Active	10/29/2009	svcFarm	10/29/2009	svcFarm
Improve product quality		Active	10/29/2009	svcFarm	10/29/2009	svcFarm
Increase market share in existing markets		Active	10/29/2009	svcFarm	10/29/2009	svcFarm
Reduce expense base		Active	10/29/2009	svcFarm	12/3/2009	Contoso Administrator
Standardize and streamline cross-functional processes		Active	10/29/2009	svcFarm	10/29/2009	svcFarm

Figure 8: Microsoft Project Server 2010 -- Driver Library

Departmental Association

A robust PPM strategy involves the ability for companies to perform portfolio analysis within a given department as well as at the global, or enterprise-wide, level. Microsoft Project Server 2010 has the ability to build business driver library with departmental drivers, where each driver is specifically associated with a department, or without a departmental association, which will render that driver as a global driver (Figure 9). Drivers with a departmental association can only be viewed by that department, whereas global drivers are available in every instance since these drivers apply to the enterprise as a whole.

Once a driver is associated with a department, or configured to be a global driver, proposals can then be prioritized by applying these drivers to the proposal to assess strategic impact. The result is a weighted prioritization based on the data of the business driver.

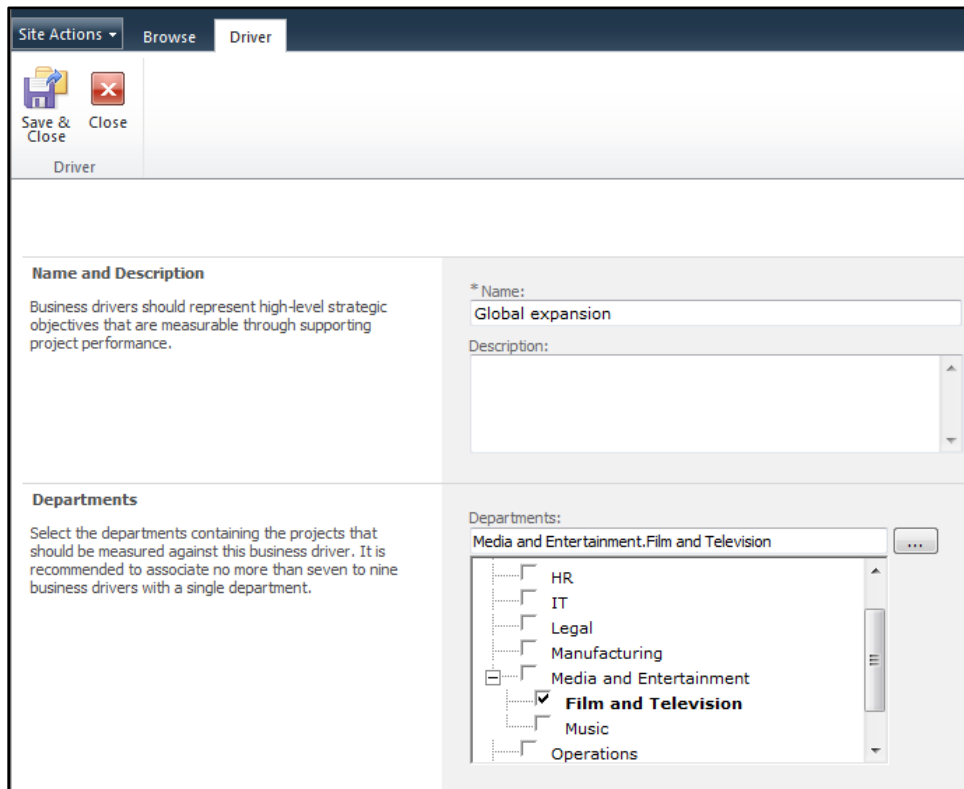


Figure 9: Microsoft Project Server 2010 -- Driver Library Departmental Association

Project Impact Definitions

Business drivers should have specific ratings of impact to its respective department, or at the global level. Each driver contains a set of project impact rating levels from None to Extreme. Rating the impact levels, and adding textual descriptions should be done at the PPM team level, and the statements should be clear, concise and understood – for example answering questions like *‘What does it mean for a given project proposal to have ‘x’ impact on a given driver?’* These impact ratings allow project proposal owners to rate a given proposal’s impact on a business driver to help determine relative proposal value.

In this example, we’ll assume a company is realizing positive progress and returns in a new market they penetrated as part of their strategic plan to expand into international regions. This business driver, *‘Increase market share in existing markets’*, shows the relative impact statements that are applied to projects and proposals. This driver however may need to be updated with more current impact statements to include the newly realized and now existing market growth in the region (Figure 10).

Project Impact Statements

Each project in the associated department can be measured against this business driver. The impact rating describes how strongly a given project contributes to the business driver.

None	Improves share in penetrated markets by less than 1%
Low	Improves share in penetrated markets by 1% to 3%
Moderate	Improves share in penetrated markets by 3% to 7%
Strong	Improves share in penetrated markets by 7% to 15%
Extreme	Improves share in penetrated markets by more than 15%

Figure 10: Microsoft Project Server 2010 -- Driver Library Impact Statements

Driver Status

The PMO and stakeholders on the PPM team need to have the ability to activate and deactivate specific business drivers so future proposals can be analyzed with current data. The business drivers and their relative impact statements and status (at either a global level or departmental level) should be reviewed regularly. When a business driver is no longer part of the current organizational strategy, the driver should either be deleted or inactivated. In Microsoft Project Server 2010, you can choose to inactivate a driver if you no longer want projects to be rated against this driver. Best practice is to inactivate the driver so it will be archived and kept for historical purposes (Figure 11).

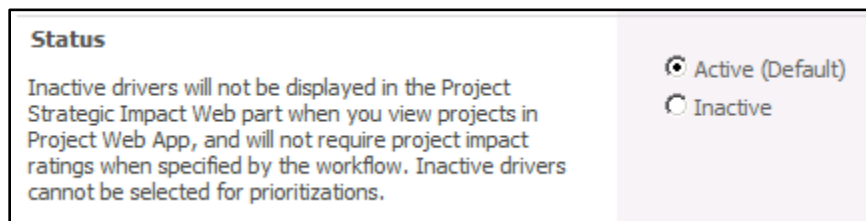


Figure 11: Microsoft Project Server 2010 -- Driver Library Status

Microsoft Project Server 2010 Prioritize Business Drivers

Portfolio strategy is a business process that should part of your company's business planning culture. Understanding, creating and then prioritizing your business drivers is part of a portfolio strategy process. Most often you will look to define the criteria of your portfolios, and agree on the portfolio model which the portfolio analyses will be performed. To initiate a portfolio strategy start by defining the elements of the business drivers by asking questions and eliciting information like:

- What are the portfolio selections that run across the entire company and/or certain divisions or departments?
- Establish project types: business and/or customer projects, support projects, operation/HR projects, etc.
- Put into place a means to capture project information and definition to categorize projects within a portfolio. Categories could include work supporting the business, growing the business, and leading the business or global versus local, etc.
- Financial alignment, prioritizing projects based on ROI, NPV, Payback, or a combination of factors
- Risk analysis defining projects as high, medium and low-risk or manually define risk exposure by Impact and Probability
- Strategic alignment. You want to make sure you choose projects aligned to your goals and strategies
- Satisfaction targets, including specifics like customer/employee satisfaction or safety
- Funding source is another project category where you can define projects by internal/external discretionary/non-discretionary, capital expense/operating expense, or other factors such as process improvement, or training.

No matter what you use for prioritization and selection, your organization will need to understand the elements to make sure all projects are justified using the same criteria. The initial steps to creating or updating your portfolio strategy approach may be a lengthy process, and agreement on the selection criteria is critical. As your portfolio management process matures, you will revisit and revalidate the definitions you have established since changes in emphasis will occur over time.

Prioritization Best Practices

One of the key assumptions is there is much more work requested than the organization can execute in a given period (e.g. fiscal year, planning cycle, etc.). Prioritization best practices recognize that portfolio strategy and business planning are both processes. In the portfolio strategy process, there are additional processes or phases that occur, such as defining business drivers, prioritizing, gathering strategic objective data, baselining, etc.

A prioritization process is crucial to ensure your organization is doing the right work and that it is done in stages or steps to maximize use of workflows within the given lifecycles. You may initially prioritize within a business unit or department to determine if you have the capacity to accomplish the project. Within each department, members of the leadership team should prioritize business drivers individually first. The next stage involves a more detailed business case or other criteria needed for a more in-depth analysis. The new criteria are then prioritized between all business units/departments to come up with an updated list of prioritized work. This process is easily described, but hard to accomplish because of the need for collaboration and consensus among key stakeholders. As a recommendation, it is better to prioritize defining all management components from the strategic ones to the operational. This can make the prioritization process more organized and logical.

Microsoft Project Server 2010 Portfolio Analysis

Portfolio analyzing, balancing and executing largely came from the investment and economic communities. Indeed, since the formalized practice and recognition of project and program management there has been the concept of portfolio management. However, there is a science and mathematics calculation behind portfolio analysis that is aimed at maximizing value and return while minimizing risks. Project delivery, and in some instances arguably project knowledge, themselves are really corporate assets (intellectual properties). Companies select and support project initiatives and investment of monetary and human capital with the expectation of expanding their asset base of things like products, patents, specialized services, etc. Thus, PPM is really asset management used to drive cultural changes. The value of portfolio analysis is extended when executives are able to perform 'what-if' scenarios to come up with a combination of projects in a given portfolio that gives a desired

risk/return value; often referred to as efficient frontier, which measures the best or optimized relationship between the volatility in a portfolio and expected value or return. Essentially, there lie the opportunities to model many combinations of projects and in a variety of prioritizations, and change the primary constraints to determine the predictive results of selecting that portfolio combination.

Portfolio analyses are a collection of projects that will compete for selection based on their cost relative to their strategic value. Before selection decisions can be made, projects must be prioritized, or be assigned a relative value, and high-level analysis parameters must be defined.

Creating a Portfolio Analysis

Microsoft Project Server 2010 allows for the creation of new portfolio analyses, as well as accessibility to current portfolios that have been baselined. Microsoft Project Server 2010 offers relatively easy technical actions and steps to creating a new portfolio analysis (typical Microsoft fashion) as it is 'point and click' via a web user interface. Also, there are additional capabilities when creating a portfolio analysis in Project Server 2010, such as being able to modify the prioritization of projects using custom fields, pre-defined prioritization groups or edit the weight of the each constraint field in percentage terms.

Although PPM software, such as Project Server 2010, enables a high-level of end user interface and capabilities, it is strongly recommended that any PPM actions, such as creating a new portfolio analysis, prioritizing projects and performing 'what-if' analysis be done as a PPM team, and follow the governance of PPM and demand management processes. Once a portfolio is created, analyzed and committed (detailed more below), the changes to those affected projects need to be cascaded to the PMO/PM specialists and proper actions taken based on the demand management lifecycle processes. Projects are not changed in Portfolio Analyses; they are changed at the project/PWA level.

The Microsoft Project Server 2010 portfolio analysis contains current portfolios and cost/resource baselines along with the ability to create new analyses. The list of portfolio analyses can be accessed in the Project Web App global menu (Figure 12).

- New portfolio analyses can be added to the list by clicking *new*.
- Portfolio analyses can be deleted by highlighting a portfolio analyses in the list, then clicking Delete. Deleting analyses will also delete all portfolio selection scenarios within that analysis.

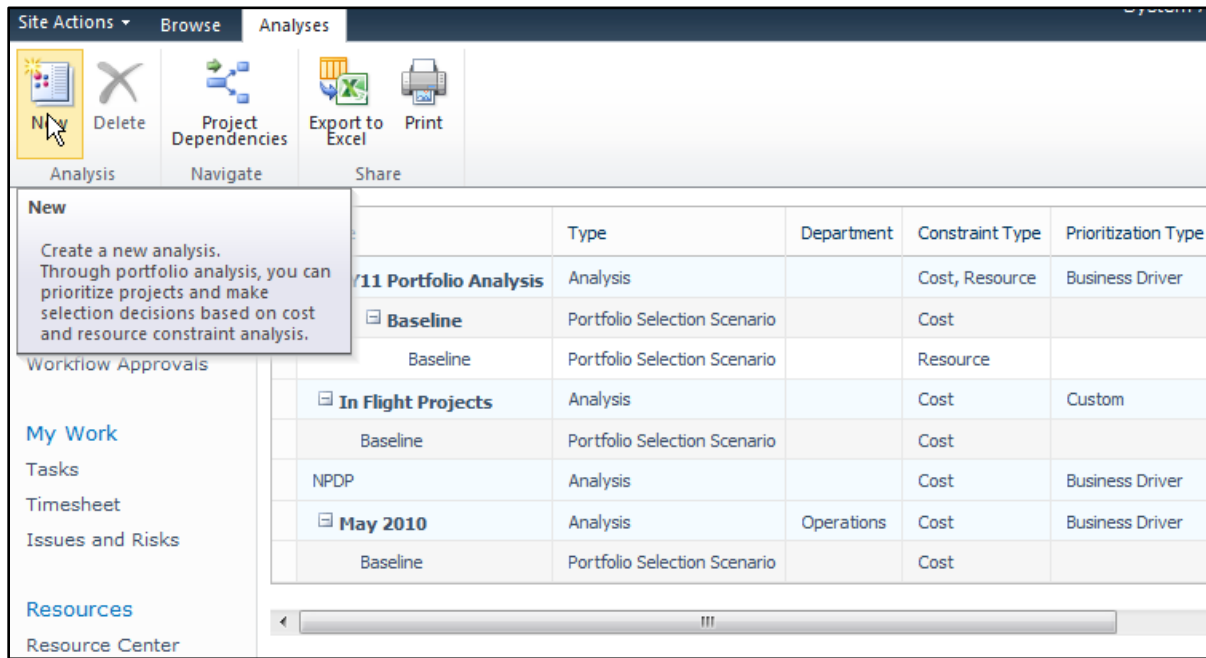


Figure 12: Microsoft Project Server 2010 Portfolio Analysis -- Create New Analysis

Prioritizing Projects

Smaller organizations may only face a few dozen projects per year, while larger enterprises could potentially have hundreds of projects, programs, and project-related initiatives. In either case, all projects are competing for the same limited budget and resources. By leveraging best practice prioritization methodology and the right technology like Project Server 2010, organizations are encouraged to formulate common scoring criteria and enable apples-to-apples comparisons in order to select the right projects.

Microsoft Project Server 2010 leverages business drivers and impact statements to enable organizations to determine the correct scoring criteria and adopt robust portfolio prioritization practices. This provides executives the tools to rate projects against each of the drivers and the impact of that business driver on the project (Figure 13).

The screenshot shows the 'Analysis' tab in Microsoft Project Server 2010. The interface includes a ribbon with options like 'Save', 'Close', 'Define Properties', 'Prioritize Projects', 'Review Priorities', 'Analyze Cost', 'Analyze Resources', 'Export to Excel', and 'Print'. Below the ribbon is a table with the following data:

Projects / Drivers	Expand into new markets and se	Improve customer satisfaction sc	Improve employee satisfa	Improve product quality	Increase market share ir
Acquisition Target Analysis	Strong	None	None	None	Strong
Apparel ERP Upgrade	None	Strong	Moderate	Low	Low
Auditing Services Training	Low	None	None	Low	Low
Automated Software Installation	Low	Low	Low	Moderate	None
Catalog Publishing	Extreme	None	None	None	None
Data Exchange and Integration	Strong	Moderate	None	None	Low
Data Parsing Tool	Moderate	Extreme	None	Low	None
E-CRM Solution	Strong	Extreme	Extreme	None	Low
ERP System Equipment Upgrade	Moderate	Strong	None	None	None
Hub Upgrade	None	Moderate	Moderate	Extreme	None
Internal Application Customization	Low	None	None	None	None
Internal Software Database Audit	None	Low	Extreme	None	None
IT Vendor System Rollout	Strong	None	Strong	Moderate	Strong
Merger and Acquisition Deal Room	Low	Low	Moderate	Moderate	Low
New Office Development	Extreme	None	Moderate	Strong	Moderate
Operations Management	Strong	Moderate	Low	Low	None
Print Advertising Campaign System	Extreme	Low	Moderate	None	Strong
Production Tracking Dashboard	Strong	None	None	Strong	Strong

Figure 13: Microsoft Project Server 2010 Portfolio Analysis -- Impact Ratings

Using Cost and Resource Constraints to Perform a High Level Portfolio Analysis

At this point, organizations have taken the processes of strategic planning and developed business drivers and impact statements. They have developed the project lifecycles (project types, phases, stages, workflows) and are ready to analyze proposals and projects based on high-level cost constraints. Proposals and projects can also have resource constraints applied to provide additional analyses of the portfolio (Figure 14).

Using Microsoft Project Server 2010 for Portfolio Analyses, it is recommended that a primary cost limit be set which will force the system to select fewer projects based on cost constraints. Projects selection will be influenced by the following:

- Portfolio-level cost constraint values
- Project-level cost values

- Projects that are 'forced-in' (that is manually added to the portfolio) will always be selected, and may push other projects out
- Projects that are 'forced-out' (that is manually removed from the portfolio) will never be selected, and may allow other projects to be selected by freeing up cost resources
- Dependency relationships between projects can affect selection decisions when specified

Understanding the resource and costs constraints is only part of the process.

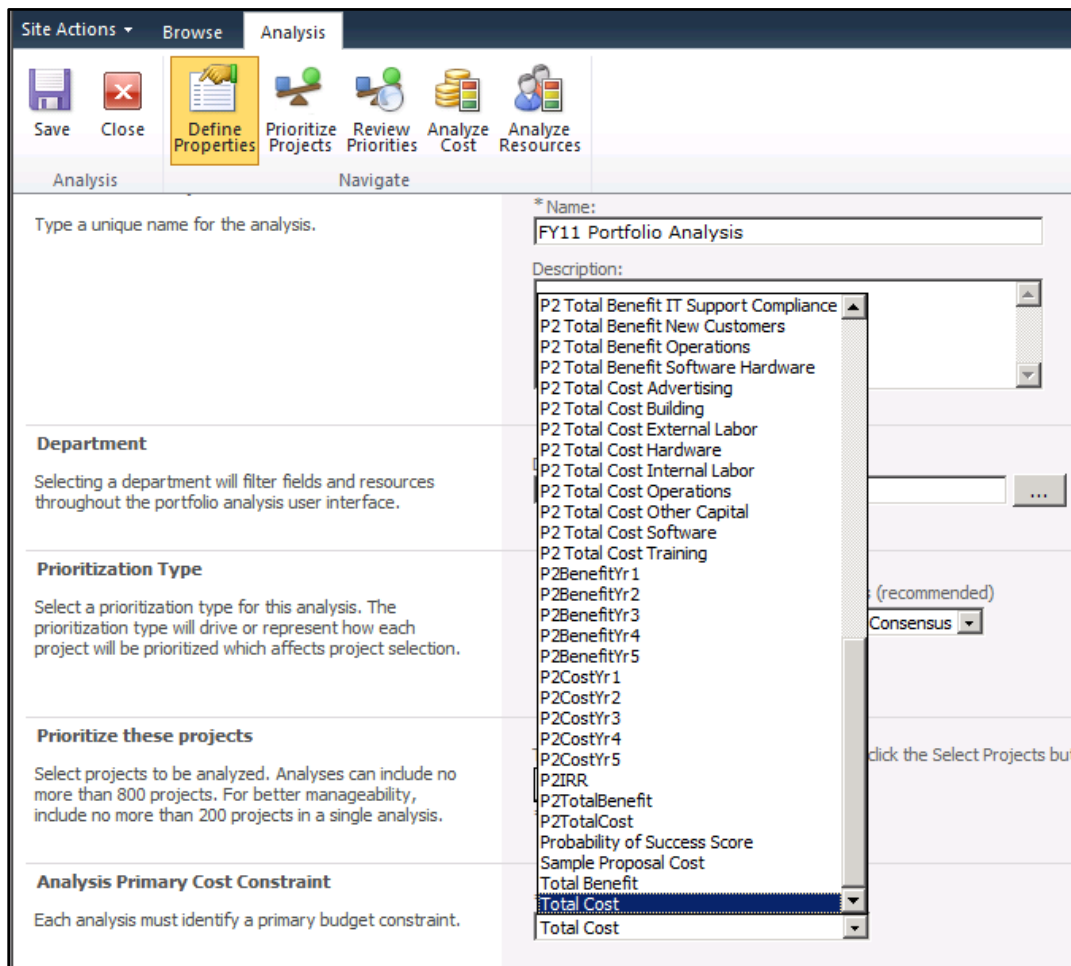


Figure 14: Microsoft Project Server 2010 -- Setting Cost and Resource Constraints for Portfolio Analysis

Resource Constraint



The screenshot shows the 'Analysis' page in Microsoft Project Server 2010. The 'Define Properties' dialog box is open, showing the following sections:

- Time-phased Resource Planning:** This option should be used only if resource requirements have been specified for each project by using resource plans or project assignments, and organizational resource capacity has been defined. Once this option has been checked and saved, it cannot be unchecked. Analyze time-phased project resource requirements as
- Planning Horizon and Granularity:** Specify the planning horizon and the level of planning granularity. Resource capacity data and project resource requirements outside the planning horizon will not be included. Projects that fall both within and outside the planning horizon cannot be moved, and only resource requirements data within the horizon will be considered.
 - * Planning Horizon Start: 2010 July
 - * Planning Horizon End: 2011 June
 - * Planning Granularity: Calendar Months
- Resource role custom field:** Each resource should be mapped to a primary role based on a preconfigured custom field. Specify the custom field representing the resource role here. Time-phased project resource analysis will be performed at a role-level.
 - * Role Custom Field: Position Role (selected), Cost Type, Position Role, RBS, Resource Departments, Team Name
- Resource filtering:** Project requirement and organizational resource capacity data will omit resources that have been filtered out by department or RBS value.
 - Filter resources by selected department (resources no
 - Filter resources by RBS value: [text box]
- Resource capacity impact for projects outside the analysis:** Resource capacity is affected by projects not included in this analysis. If project or resource plan assignments use
 - Only committed assignments affect capacity (recomme
 - Committed and proposed assignments affect capacity

Baseline

You cannot make decisions on prioritizing work without knowing what the company or organization feels is important. Baselining starts with evaluating your environment and comparing it with the vision you have for the future and related strategic objectives. The process culminates with the validation (or creation) of your mission, vision, strategy, goals and objectives. Your strategy and goals will provide the high-level direction for alignment and prioritization of all work for the coming business cycle.

In Microsoft Project Server 2010, the first time a user navigates to the Cost Constraint Analysis page within a portfolio analysis, a baseline portfolio selection scenario will be created. The baseline will select all possible projects by setting the cost limit of your primary cost constraint to a value that will maximize project selection. For example in the figure below, if you are analyzing 23 projects that will cost \$19,684,000 (if you implement all of them), by default all projects will be selected and your cost limit will be set to \$19,684,000 (Figure 15).

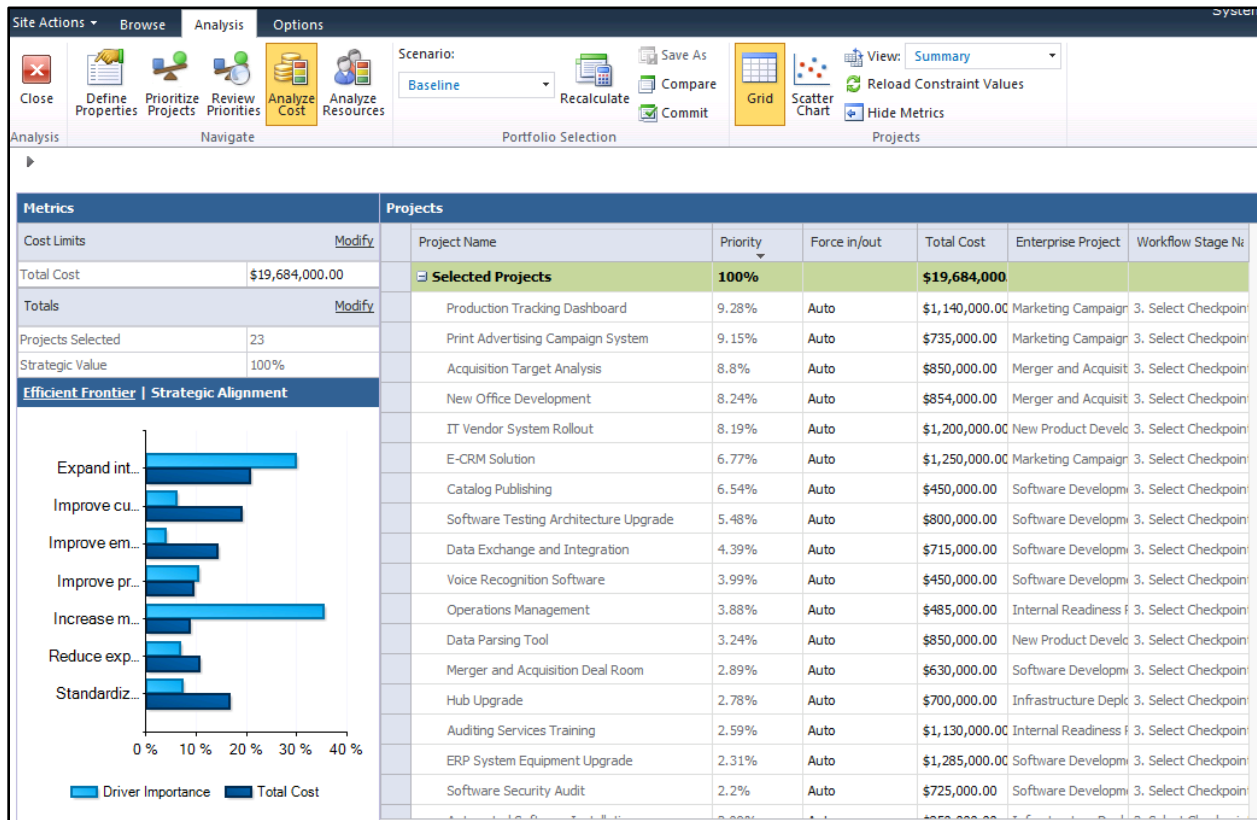


Figure 15: Microsoft Project Server 2010 Portfolio Analysis -- Baseline

There are some circumstances where projects may not be selected as part of the baseline portfolio selection scenario. These circumstances include:

- Projects that have a 0% priority score, but have a cost associated with them. A compliance project may fall into this category.
- Projects that are part of a mutually exclusive dependency set, where only one project will be selected within the set.

Portfolio Analyses 'What-If': Setting Cost Limits

As we discussed in the Demand Management whitepaper, proposals that evolve to projects should follow a governed lifecycle of phases and stages based on the type of project being proposed. That can assume that when a project moves to a Select state, a good deal of information and details has been collected regarding the project. However, in the real-world, things change that force organizations to take action. These changes often affect the available budgets and resources to support current and

future projects. The Portfolio Analysis has enabled us to select those projects needing review for approval to proceed as well as allowed us to apply cost and/or resource constraints to them respectfully.

Now, let's say that external factors have impacted our organization, and we now have less budget and we need to determine which projects are affected, how they are affected and what options we have. For example, it may cost \$19,684,000 to fund all projects in a given portfolio, but your organization can only spend \$15,000,000 in the upcoming planning period. After specifying your \$15 million dollar constraint and recalculating the current portfolio selection scenario, projects that have high costs, but lower value will become unselected. The projects with the highest value and lowest cost will be selected, but their aggregate cost will not exceed the \$15 million limit specified (Figure 16).

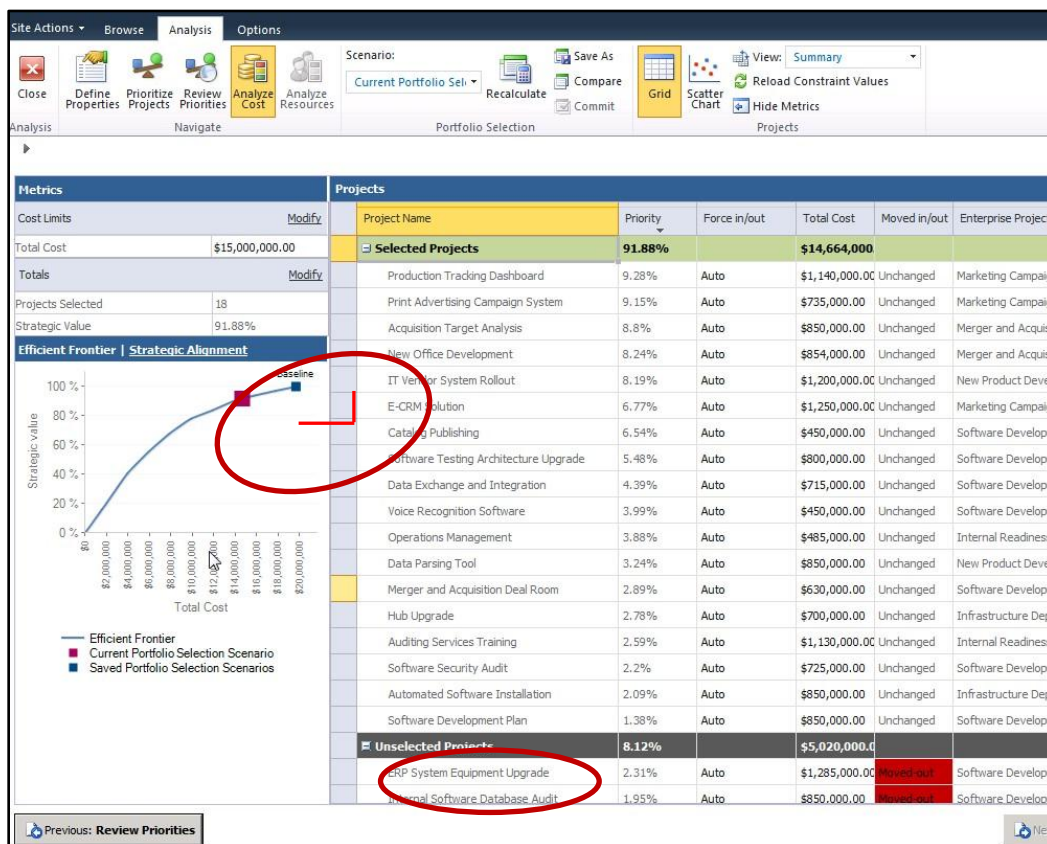


Figure 16: Microsoft Project Server 2010 Portfolio Analysis -- Setting Cost Limits

Now that we have select projects for Portfolio Analysis, applied primary cost constraints, and taken the additional step of reducing the overall budget leading to some project not being selected for the

portfolio, we can go even further and modify the constraints based on number or cost project custom fields. Limits set for each additional constraint will be factored into the selection algorithm (Figure 17).

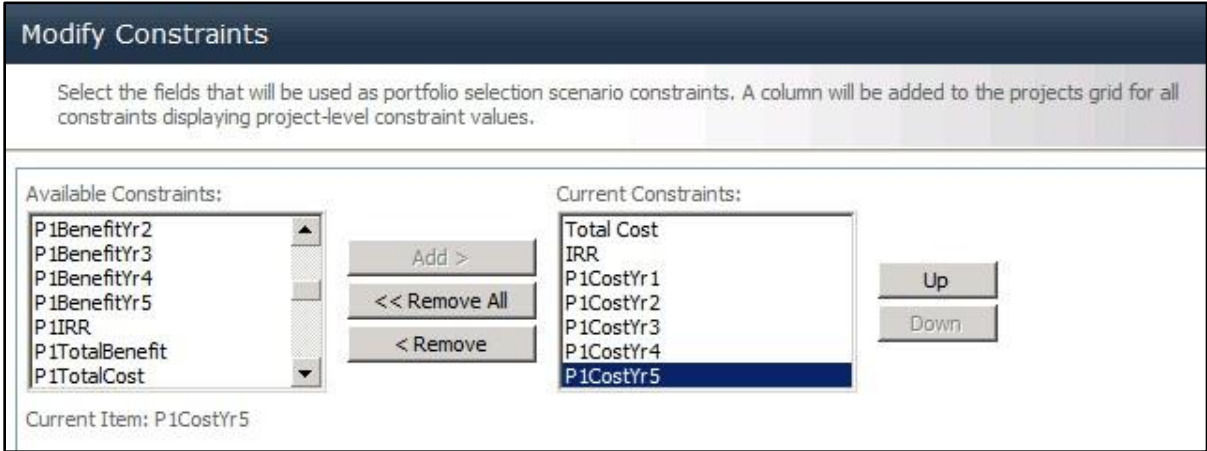


Figure 17: Microsoft Project Server 2010 Portfolio Analysis -- Modify Constraints

Portfolio Analysis Cost Constraint and Project Selection: Forcing a Project In or Out

Following the advanced steps taken to apply cost constraints to our Portfolio Analysis, we learn that a particular project was moved to unselected status, but it so happens it is a regulatory project that is required (e.g., SEC filings). Microsoft Project Server 2010 allows for projects to be forced in or out of the Portfolio Analysis as required. Additional look-up values can be added to the view for more details as to what projects are being forced in/out, for example *Pet Project* or *Compliance* projects as a reason (Figure 18; Figure 19).

A forced-in project will always be selected after scenario recalculation; therefore it will consume cost resources and push other projects out. A forced-out project will never be selected after scenario recalculation; therefore it will likely free up cost resources and allow other projects to be selected.

Hub Upgrade	2.78%	Auto	\$700,000.00	Unchanged	Infrastructure Deployment Proposal	3. Select Checkpoint
Auditing Services Training	2.59%				Business Proposal	3. Select Checkpoint
Software Security Audit	2.2%				Deployment	3. Select Checkpoint
Automated Software Installation	2.09%				Deployment Proposal	3. Select Checkpoint
Software Development Plan	1.38%				Deployment	3. Select Checkpoint
Unselected Projects	8.12%					
ERP System Equipment Upgrade	2.31%				Deployment	3. Select Checkpoint
Internal Software Database Audit	1.95%	Auto	\$850,000.00	Moved-out	Software Development	3. Select Checkpoint
Apparel ERP Upgrade	1.85%	Auto	\$1,200,000.00	Moved-out	Software Development	3. Select Checkpoint
Internal Application Customization	1.07%	Auto	\$950,000.00	Moved-out	Software Development	3. Select Checkpoint
Software Benchmarking Architecture Upgr	0.95%	Auto	\$735,000.00	Moved-out	Software Development	3. Select Checkpoint

Figure 18: Microsoft Project Server 2010 Portfolio Analysis -- Force Project In

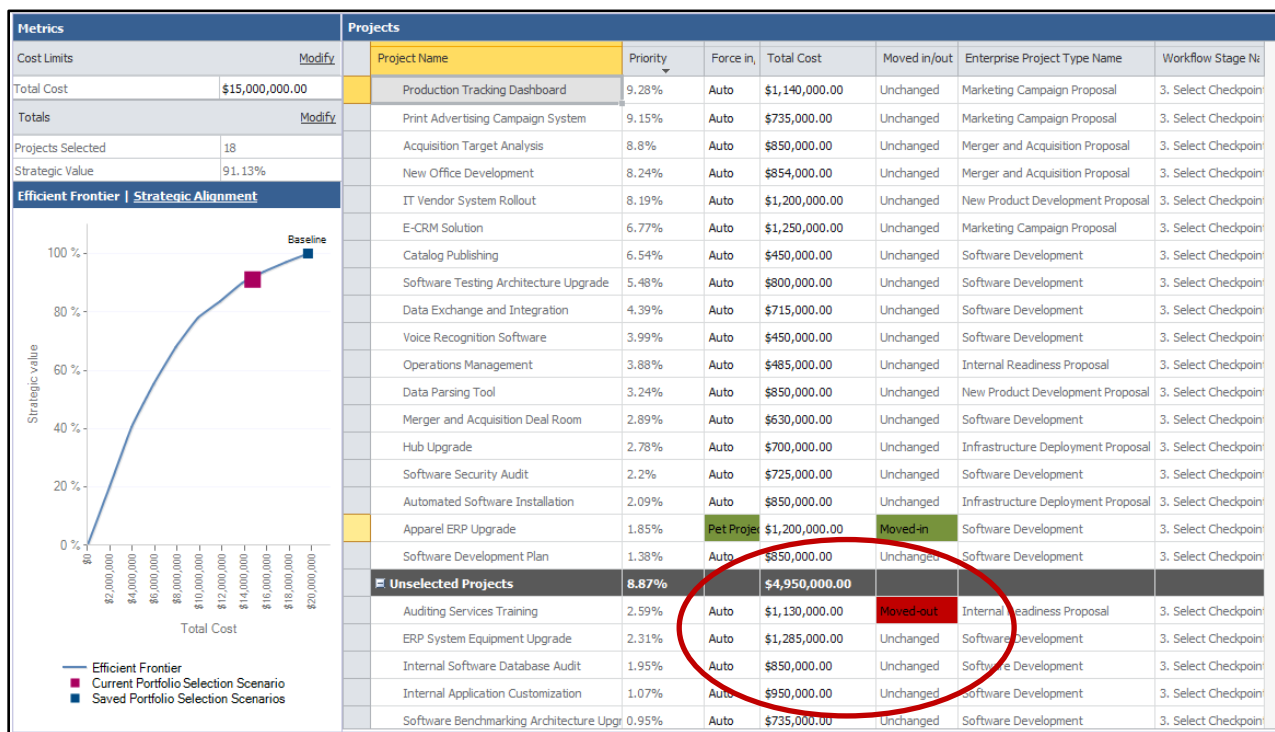


Figure 19: Microsoft Project Server 2010 Portfolio Analysis -- Force Project Out

Portfolio Analysis 'What-If' -- Modifying Project-Level Cost Values

Often executives will prefer to make edits directly in the Portfolio Analysis based on his/her perspective and what is critical to understand. This may mean that a project that was unselected needs to be part of the portfolio, but because of the cost constraints for this Portfolio Analysis capped at \$15M USD, we

want to see what a particular project cost will need to be in order to move it into the portfolio (Figure 20; Figure 22).

New Office Development	8.24%	Auto	\$854,000.00	Merger and Acquisition Proposal	3. Select Checkpoint
IT Vendor System Rollout	8.19%	Auto	\$1,000,000.00	New Product Development Proposal	3. Select Checkpoint
E-CRM Solution	6.77%	Auto	\$1,250,000.00	Marketing Campaign Proposal	3. Select Checkpoint
Catalog Publishing	6.54%	Auto	\$450,000.00	Software Development	3. Select Checkpoint
Software Testing Architecture Upgrade	5.48%	Auto	\$800,000.00	Software Development	3. Select Checkpoint

Figure 20: Microsoft Project Server 2010 Portfolio Analysis -- Modify Cost Levels

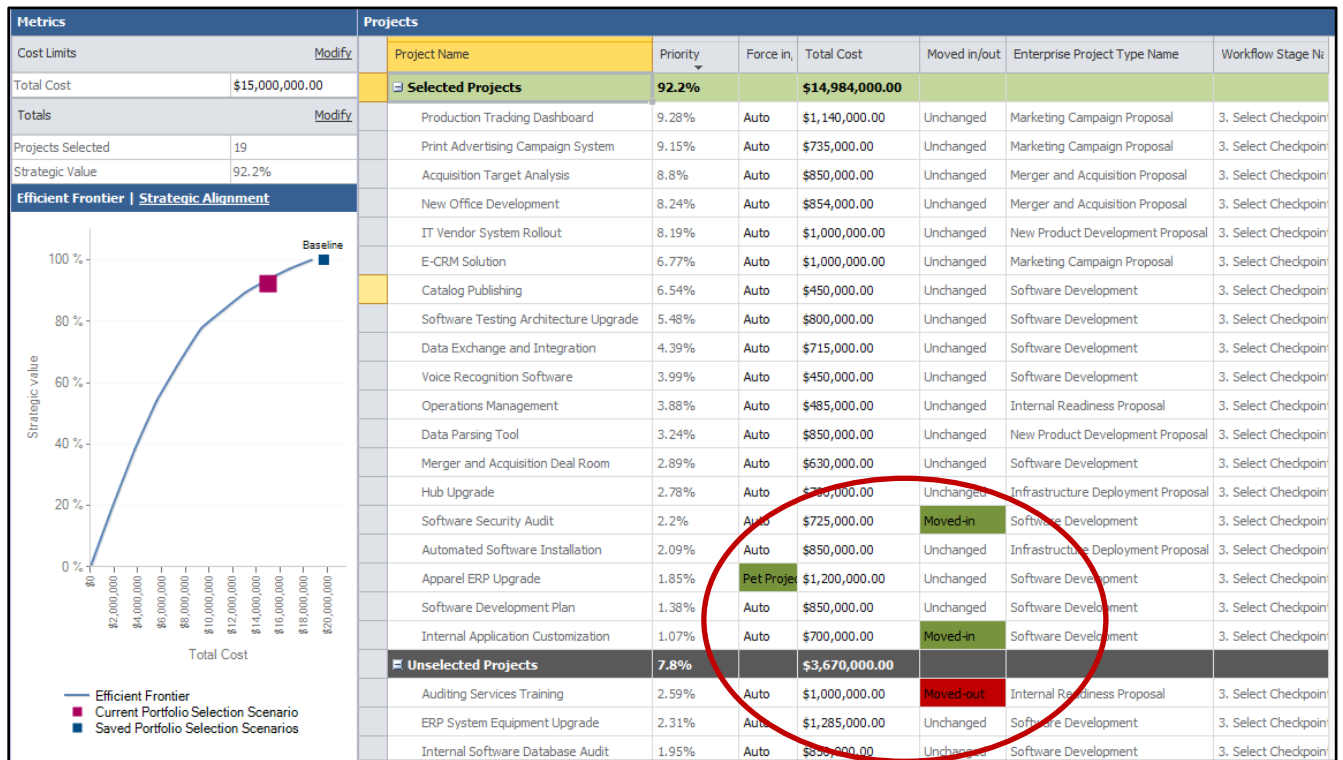


Figure 21: Microsoft Project Server 2010 Portfolio Analysis -- Moved In

Note: Project level cost value adjustments do not affect the project data, only the portfolio selection scenario 'what-if' data. When portfolio selection is finalized, cost adjustments must be manually reconciled by the project proposal owners.

Project Interdependencies

Let's examine a situation where an organization is launching and managing multiple New Product Development projects to meet the strategic objectives of expanding into new markets. The company is growing a presence in the new market, and has started to acquire land, facilities and locations throughout the new region to distribute the recently added group of products. This would set the stage for having more than one project in-flight to support the business (e.g., three new products being developed). In this scenario, we'll say that each product is interrelated. Thus, the products need to be developed and launched in sequence (Figure 22).

Microsoft Project Server 2010 allows for project dependency relationships and will they be respected during portfolio selection scenario calculations; there are four types of dependencies that can be defined (Table 2).

Table 2: Microsoft Project Server 2010 Portfolio Analysis -- Project interdependencies

Dependency Type	Description
Dependency	If <i>Project A</i> is selected, <i>Project B</i> must also be selected. Or <i>Project A</i> depends on <i>Project B</i>
Mutual Inclusion	Within a set of projects, if one project is selected then all projects must be selected. If all projects cannot be selected, none of the projects are selected.
Mutual Exclusion	Within a set of projects, only one of the projects can be selected. Used to model alternative options.
Finish to Start	Finish to Start dependencies are used only in Resource Constraint Analysis for scheduling precedence.

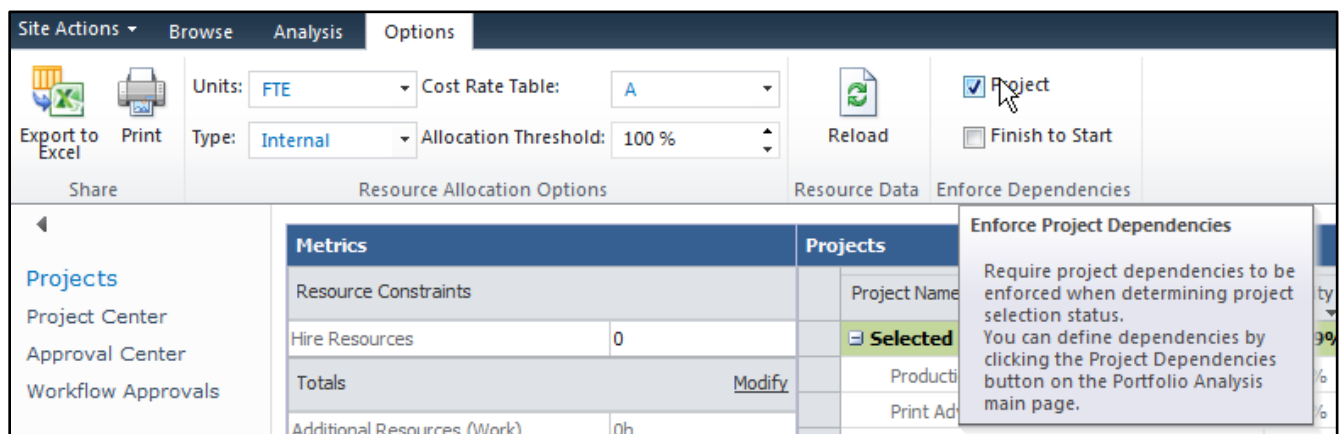


Figure 22: Microsoft Project Server 2010 Portfolio Analysis -- Set interdependencies

How Does Microsoft Project Calculate Cost Constraint: Optimization Algorithm

Project cost constraints within a Portfolio Analysis scenario can be better executed using an optimization algorithm with the goal of finding a solution project combination that maximizes the weight of the constraints. Below is the algorithm for Microsoft Project Server 2010 Portfolio Analysis cost constraint optimization:

- Maximize $(x_1*v_1+x_2*v_2+x_3*v_3+ \dots +x_n*v_n)$
- Subject To:
 - $x_1*c_1+x_2*c_2+x_3*c_3+ \dots +x_n*c_n \leq C$
- Where
 - $x_1, x_2, \dots, x_n = 0$ or 1 (algorithm outputs: project in/out)
 - v_1, v_2, \dots, v_n are the project priorities
 - c_1, c_2, \dots, c_n are the constraint values for each project
- C is the total constraint value; we have one such row for each constraint
- Efficient frontier (based on one constraint):
 - For N data points equally spaced between zero and the sum of the constraint
 - Run Optimization algorithm and determine corresponding portfolio value

Analyze Portfolio Based on Time-Phased Resource Requirements

According to the 1979 publication by Daniel Kahneman and Amos Tversky titled Prospect Theory: An Analysis of Decision Under Risk, they cited that human judgment is generally optimistic due to overconfidence and insufficient consideration of distributional information about outcomes. Therefore, people tend to underestimate the costs, completion times, and risks of planned actions, whereas they tend to overestimate the benefits of those same actions. In the business world, even when companies work towards a PPM culture to improve planning and alignment with strategy, there often are disconnects/discontinuity specific to primary constraints within projects, and even constraints across the portfolio when considering project/program interdependencies.

Projects and portfolios require a centralized repository of data and those constraint factors, such as an enterprise pool of resources. That means that all projects must share the common pool of resources. Even if there are instances when a project may go and acquire/purchase additional resources, it is constrained by costs and the procurement processes of outsourcing and/or vendor buys. Kahneman and Tversky's paper also states that people generally discard components that are shared by all prospects under consideration, called the isolation effect which leads to inconsistent preferences when the same choice is presented in different forms. It goes on to state that an alternative choice to isolation effects is where values are assigned to respective gains/losses rather than to the final assets in which the probabilities are replaced by decision weights.

Microsoft Project Server 2010 continues to provide the collaborative platform and centralized data infrastructure as previous versions. Now with Portfolio Analysis capabilities threaded into project server, PMOs have additional advantages of managing resource constraints as the pool is common for all projects in the portfolio, but now there are assessment capabilities that allow for weighted analysis for better 'what-if' scenarios.

Project Server 2010 provides a number of steps and actions (both visually and use of tables) with web user interface options to execute a number of 'what-if' scenarios (Figure 23; Figure 24). There are options to add/delete additional resources, move resources to address over/under allocation and so on. If during the Portfolio Analysis it is determined to acquire resources, the tool will initially add that capacity to the top need based on priority when the resource constraint is modified to add/hire (Figure 26). Projects may be moved in or out when executing 'what-if' options; and as in the cost analysis section earlier, the PPM team can force in or force out projects as required (Figure 25).

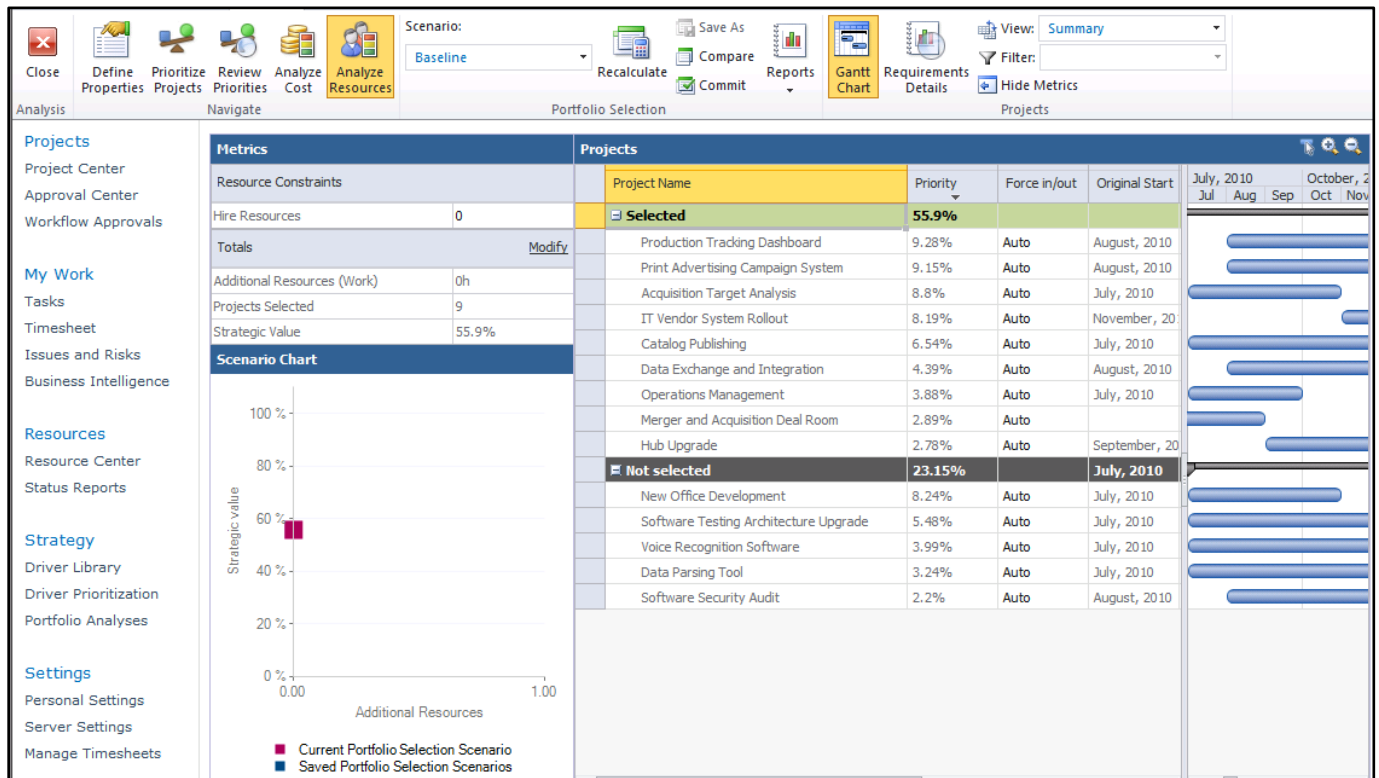


Figure 23: Microsoft Project Server 2010 Portfolio Analysis -- Time-Phased Requirements

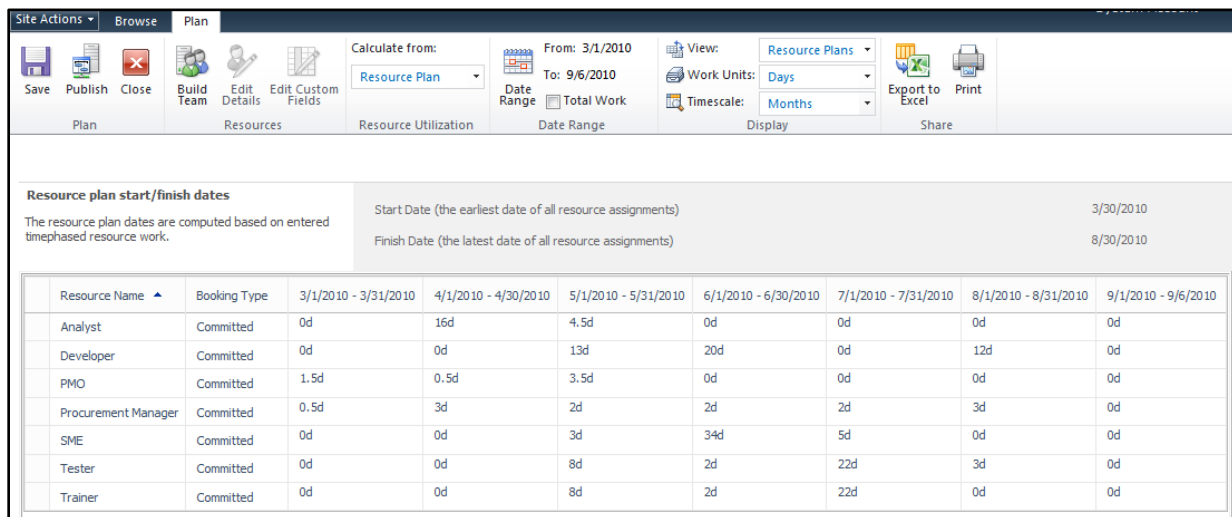


Figure 24: Microsoft Project Server 2010 Portfolio Analysis -- Resource Requirements

Projects							
	Project Name	Priority	Force in/out	Original Start	New Start	Has resource	Total Cost
<input checked="" type="checkbox"/>	Selected	58.49%				Yes	\$8,035,000.00
	Production Tracking Das	9.28%	Auto	August, 2010	August, 2010	Yes	\$1,140,000.00
	Print Advertising Campa	9.15%	Auto	August, 2010	August, 2010	Yes	\$735,000.00
	Acquisition Target Analy	8.8%	Auto	July, 2010	July, 2010	Yes	\$850,000.00
	IT Vendor System Rollou	8.19%	Auto	November, 20	November, 20	Yes	\$1,200,000.00
	Catalog Publishing	6.54%	Forced-out	July, 2010	July, 2010	Yes	\$450,000.00
	Data Exchange and Int	4.39%	Auto	August, 2010	July, 2010	Yes	\$715,000.00
	Operations Management	3.88%	Auto	July, 2010	August, 2	Yes	\$485,000.00
	Merger and Acquisition	2.89%	Auto		Septembe	Yes	\$630,000.00
	Hub Upgrade	2.78%	Auto	September, 20	October, .	Yes	\$700,000.00
	Auditing Services Traini	2.59%	Auto	July, 2010	November	Yes	\$1,130,000.00
<input checked="" type="checkbox"/>	Not selected	41.51%		July, 2010		Yes	\$11,649,000.00
	New Office Developmer	8.24%	Forced-in	July, 2010	January, .	Yes	\$854,000.00
	E-CRM Solution	6.77%	Auto	July, 2010	February,	Yes	\$1,250,000.00
	Software Testing Archit	5.48%	Auto	July, 2010	March, 20	Yes	\$800,000.00
	Voice Recognition Softw	3.99%	Auto	July, 2010	April, 201	Yes	\$450,000.00
	Data Parsing Tool	3.24%	Auto	July, 2010	May, 201	Yes	\$850,000.00
	ERP System Equipment	2.31%	Auto	July, 2010	< >	Yes	\$1,285,000.00
	Software Security Audit	2.2%	Auto	August, 2010	August, 20	Yes	\$725,000.00
	Automated Software In	2.09%	Auto	September, 20	September, 20	Yes	\$850,000.00

Figure 25: Microsoft Project Server 2010 Portfolio Analysis -- Resource Force In and availability bubbles

Metrics	
Resource Constraints	
Hire Resources	4
Metrics Add/Remove	
Additional Resources (Work)	4,864
Projects Selected	10
Strategic Value	59.02%
Efficient Frontier	

Figure 26: Microsoft Project Server 2010 Portfolio Analysis -- Purchase Resources

Commit Selection Decisions and Communicate to Portfolio Stakeholders

Now that a comprehensive Portfolio Analysis has been done, the PPM team needs to put the plan into action --- or as Christophe Fiessinger of Microsoft says “pass the baton”. We went into detail in the

Demand Management for Project Server 2010 whitepaper on project lifecycles and the phases and stages of Create ->> Select ->> Plan ->> Manage ->>Close. Portfolio Analysis using Project Server 2010 is one of the steps to move projects from Select to Plan. We also detailed how companies may need to change the project type, for example a minor project that has evolved to a major campaign needing a different project type and approvals as a capital project. Once the team agrees to commit the portfolio, (Figure 27) a notification appears asking if you are sure you want to do this (Figure 28).

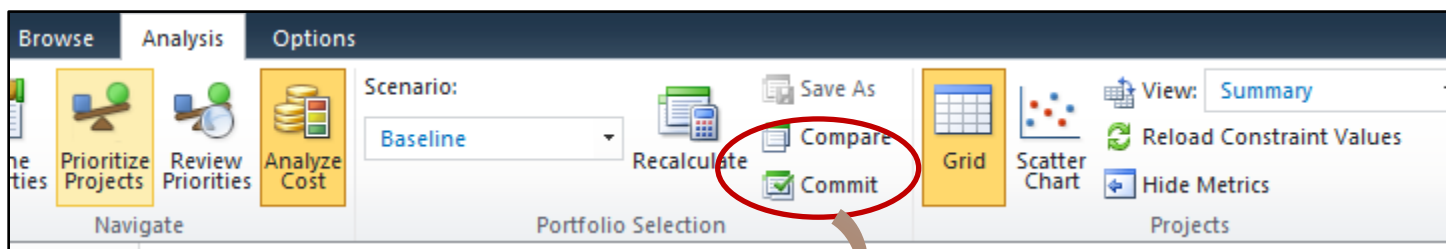


Figure 27: Microsoft Project Server 2010 -- Commit

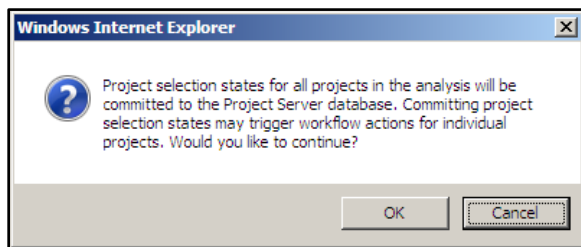


Figure 28: Microsoft Project Server 2010 -- Commit Notification

You can commit selection decisions and final project costs after high-level cost constraint analysis, or continue to analyze time-phased project resource requirements before committing to final decisions. No cost or strategic impact data is changed in the projects as a result from these decisions, but the results of the leadership team's decisions affecting project proposals must be reported to proposal owners, and the proposal owners must then manually reconcile the data to align with the decisions made.

Approved budgets, approved schedules, and any approved acquisitions should be included in any final selection decisions. Since, as mentioned earlier, PPM should be supported by the organization's leadership and illustrate the plan to drive strategic business goals, there should be consistent communication to stakeholders through custom reporting. Project Server 2010 features enhanced dynamic reporting capabilities through its integration with SharePoint Server 2010, and the new inclusion of PerformancePoint Services as part of SharePoint Server 2010.

Variations of Portfolio Management

The following are some of the many variations on the theme of portfolio management found throughout organizations today:

- Project Portfolio Management:

It is a term used by project managers and project management (PM) organizations to describe methods for analyzing and collectively managing a group of current or proposed projects based on numerous key characteristics.

- Application Portfolio Management

Application Portfolio Management attempts to use the lessons of financial portfolio management to justify and measure the financial benefits of each application in comparison to the costs of the application's maintenance and operations.

- Product Portfolio Management

Product Portfolio Management strives to use the lessons of financial portfolio management to justify and measure the financial benefits and value of each product in comparison to the costs of the product over its lifetime of usability.

- IT Portfolio Management

It is the application of systematic management to large classes of items managed by enterprise Information Technology (IT) capabilities.

- Asset Portfolio Management

Asset Portfolio Management strives to ensure that an organization's group of assets (securities, real estate, etc.) matches with the strategy of the organizations growth and supports its sustainability as a functioning organization.

- Enterprise Portfolio Management

Enterprise Portfolio Management aligns an enterprise's operational costs and performance with obtaining positive value that supports the strategic business goals of the enterprise.

- Investment Portfolio Management

Investment Portfolio Management utilizes metrics to measure the risks and returns against the goals of a portfolio of investments.

- Investment Management

Investment Management manages individual investments to ensure a performance level outlined in the strategic objectives of an enterprise.

- Resource Portfolio Management

Resource Portfolio Management maintains an enterprise's resources at a level and diversity to deliver value on projects and programs of an enterprise that is in line with the enterprise's strategic objectives.

- Options Management

Options Management is the return of revenue, control of risk, or creation income from securities options. These values are weighted to enhance achievement of an enterprise's strategic goals.

- Pipeline Management

Pipeline Management is a sales tool that balances sales forecasting, and work effort to maximize closed sales. These results are then compared to enterprise strategic goals where adjustments to the pipeline can be made to ensure alignment with the strategic goals.

- Software Portfolio Management

Software Portfolio Management attempts to use the lessons of financial portfolio management to justify and measure the financial benefits of software developed in comparison to the costs of the software's maintenance and operations.

- Governance Process

The Governance Process of an enterprise is aimed at bringing value to an enterprise through monitoring and controlling the processes used to execute enterprise initiatives. Through control of processes, initiatives are engineered for alignment to strategic objectives.

Summary of PPM

Benefits of Implementing PPM

PPM accomplishes its purpose by adhering to the fundamental actions based on organized information and data analysis. Project and program details, including financial costs and benefits are communicated in an objective and forthright manner, with transparency. PPM also ensures that its initiatives, projects and programs are organized to support the strategies, goals, and objectives of the business. It is a holistic, systems approach based on a unified team structure.

When implemented properly and conducted on a regular basis, PPM is a high impact, high value activity. Executives and Managers have open communication and productive conversations to establish a vision that they engage the entire organization in supporting. That leads to Project Managers, Program Managers and Department Leads in answering thought provoking questions to ensure that proposals have a strong foundational base in line with this vision.

Detailed examination and thorough definition of enterprise-wide and departmental strategic objectives ensures that all tiers of the organization are armed with the knowledge, guidance and roadmap to achieve these goals.

Consistent application of PPM practices facilitates the essential communication of the organization's priorities and endows resources from management to frontline teams with the vision that will form all initiatives. It builds the crucial link between business strategies with a strong focus on success through robust project selection. The organization is better enabled to maximize return on its product innovation investments and maintain a competitive edge in the marketplace through the balance of enterprise needs and project selection.

Why Use PPM?

- PPM accomplishes its purpose by adhering to some fundamental actions
- It Ensures projects and programs align with strategies, goals, and objectives of the business
- It Communicates project and program details, including financial costs and benefits
- It Manages projects and programs as a whole. It's a holistic, systems approach to business projects

How to Decide Whether PPM Is To Be Used or Not?

- Engage in conversation and discussion with:
 - Executives
 - Managers
- Ask Questions to
 - Project managers
 - Program managers
 - Subject matter experts
- Develop a business case with options for managing the items under “When?”

Who Can Really Use PPM?

- The “C-Level” executives
 - CEOs: Chief Executive Officers
 - CFOs: Chief Financial Officers
 - CIOs: Chief Information Officers
 - CTOs: Chief Technology Officers
 - CSOs: Chief Strategy Officers
 - CPOs: Chief Portfolio Officers
- Non-C-Level executives
 - Department heads
 - Managers
 - Supervisors
 - Portfolio managers
 - Senior project managers
 - Project managers
 - Program managers
 - Lead engineers
 - Systems engineers

PPM has roles for the entire team to fulfill. High level executives and management begin by defining the vision and goals for the organization and through clear communication all members in the enterprise see their role and how they will contribute to the group’s success.

What Should You Use PPM For?

PPM can be used to manage:

- Multiple projects
- Multiple programs
- Assets
- Software applications
- Investments
- Resource allocation
- Capacity
- Products

When Should PPM Be Used?

Consistent PPM should be the model for all activities within an organization. Other than the application for taking ideas and proposals, moving them to the business case, maintaining and creating detailed plans for execution, so Leadership has enough information to make decisions based on the portfolio schema, it should lead all decisions, as those decisions will be tied back to the objectives and goals that will drive the organization forward. Many believe their organization is not large enough for PPM, or that PPM doesn't apply in certain decisions. But if you really work the process and observe the links to the business goals and objectives with the actions of the organization, you begin to see how every decision affects these goals and objectives.

It does not matter if you are making decisions about one project or multiple projects; the outcome should be the same. Each project will build toward the next, and as the organization matures each set of projects forms programs. Doesn't it make better business sense to have been making focused decisions aimed at driving the business forward all along, rather than when you have so much in the pipeline you aren't sure what is driving the business forward and what is burning company resources unnecessarily?

PPM also brings objectivity to decisions. It will supply the business case for delaying or killing a project, as well as which ones to step up and reorganize emphasis on. Whether divestiture is necessary or growth is imminent organically or through mergers, acquisitions or joint venture opportunities, the crucial decisions that will need to be made will be based on quickly accessed facts and data, not emotion.

To remain competitive, companies need to show great agility to changing markets, unforeseen shifts, possible mergers and acquisitions, and emerging external requirements. As business conditions change,

so should business strategies. PPM enables quick adaptations of initiatives and actions through consistent use of the process.

In the end, what is the preferred positioning? Being controlled by the market, or revolutionizing the market through innovation and smart business decisions that keep you ahead of the pack?

Where PPM Should Be Used?

As you have begun to see the benefits of PPM it is easy to see how its application is beneficial to small, mid-size and large companies. Whether operating on a shoestring budget, as most non-profit organizations are where each dollar must stretch to its farthest, or highly regulated entities, such as governmental bodies and departments or utility companies that are subject to enormous penalty for not adapting to external requirements, any organization can apply the same PPM principles and benefit from a more cohesive team that knows the vision and targets that will drive that enterprise forward.

At its most efficient, PPM can be witnessed and demonstrated at every enterprise level. Whether in a new proposal at the business unit level, or decision-making at the executive level, PPM should factor into every action. Once understood, adopted, and supported throughout the organization, it will form the discipline in teams to strive for success in the best interest of the organization. Each contributing member will grow, learn and create a highly functioning and truly successful organization.

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. ⁱⁱⁱ 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
EPM	Enterprise Project Management
EPT	Enterprise Project Type
EVM	Earned Value Management
HR	Human Resources
IPO	Initial Public Offering
IT	Information Technology
LOB	Line of Business
MVP	Most Valuable Professional
OEM	Original Equipment Manufacturer
PDP	Project Detail Pages
PIR	Project Initiation Request
PLM	Project Lifecycle Management
PM	Project Manager
PMO	Project Management Office
PPM	Project Portfolio Management
PSI	Project Server Interface
PWA	Project Web App
ROI	Return on investment

SME	Subject Matter Expert
TM	Team Member
UI	User Interface
PMI®	Project Management Institute
PMBOK®	Project Management Body of Knowledge

References

Microsoft Project 2010 Resources

Product information

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

End-User Product Help

- Project 2010 Help <http://office2010.microsoft.com/project-help>
- Project Server 2010 Help <http://office2010.microsoft.com/project-server-help>

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 - TechNet

- TechCenter: <http://technet.microsoft.com/ProjectServer>
- Admin Blog: <http://blogs.technet.com/projectadministration>

Developer related - MSDN

- Developer center: <http://msdn.microsoft.com/Project>
- Programmability blog: http://blogs.msdn.com/project_programmability

Got Questions? Search or ask in the official Microsoft Forums!

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

SharePoint 2010

- <http://sharepoint.microsoft.com>

Portfolio Strategy Webcasts

- [Overview of Project Portfolio Management Using Project Server 2010](#)
- [Deep Dive into Project Portfolio Management Using Project Server 2010](#)

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](#)
- PowerPoint decks: [Demand Management Webcasts PowerPoint decks](#)

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/>

ⁱThe Standard for Portfolio Management: http://www.pmi.org/PDF/Members/Portfolio_protected.pdf

ⁱⁱDemand Management in Project Server 2010 (white paper): <http://technet.microsoft.com/en-us/library/ff686781.aspx>

ⁱⁱⁱA 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>