Microsoft® Project Server 2010

Microsoft Project Server 2010:

A Financial Management Solution for Projects, Programs, and Portfolios

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January 2011

Microsoft

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1. Introduction

This white paper outlines how the EPM 2010 Solution can provide the tools necessary as part of a good practice-driven finance function, with respect to project appraisal and capital allocation. This paper also reviews key points to consider during the implementation of a solution. Finally, for readers who are looking for more detail and have additional requirements, the paper outlines additional technology available from Microsoft and others to further extend the base functionality of the EPM 2010 Solution. The intended audience for this paper is finance professionals who are responsible for budgeting, corporate strategy or project accounting. As the processes of project financial management and budgeting affect varying levels and areas within many organizations, this white paper may also benefit those who have a role within, or responsibility for, financial management processes that relate to projects.

2. Background

The Chartered Institute of Management Accountants evaluated 27 case studies and found that for organizations to be consistently successful, Finance needs to move beyond a focus on conformance and compliance. While conformance is important and necessary to avoid failure, to remain competitive over the long term, Finance departments also need to be taking steps to provide additional value to the organization, and contribute to the organization's overall success. It has been repeatedly found that the strategic performance of organizations is directly linked to how they select and execute initiatives. Traditionally, when finance has attempted to provide oversight in this realm of strategy execution and value creation, they have found themselves stymied by a lack of effective, easy to use tools. This leads directly leads to a lack of standards and assurances as to how the allocation of key organizational resources is being performed. Frequently, organizations try to address this gap through manual processes based around the use of Microsoft Excel. At best, this is a stop-gap measure, as such manually developed tools cannot provide the full ongoing reporting and information required to allow for effective planning, decision-making and control. At worst, executives are trying to make decisions with inaccurate, out of date and contradictory information. Often this approach leaves Senior Management in the dangerous situation of trying to manage what they aren't truly measuring. Microsoft Project Server 2010 solves this problem and provides a cost-effective, easy-to-use tool that enables Finance to drive organization performance.

3.   Key Benefits

The Microsoft 2010 Enterprise Project Management solution (2010 EPM solution) provides an easy to use technology platform, which together with effective processes can optimize an organization's allocation of resources. More specifically, this toolset can greatly enhance your organization's ability to align, plan, manage and track finances at a project, program or portfolio level.

A wide range of benefits can be realized, with each of the following discussed in more detail below:

- Strategic Portfolio Management
- Effective Budgeting
- Scenario Analysis
- Financial Reporting
- Enhanced Transparency and Auditing
- Integration with Financial Systems and Processes

Strategic Portfolio Management

Very few organizations take a systematic approach that links strategy and quantitative metrics with how capital is allocated in their organization. The need for finance to take a lead in this has also been recognized by academics and professional organizations. For example, the International Federation of Accountants (IFAC), published Good Practice Guidance specifically addressing this aspect of Finance's role. In our conversations with CFOs and VPs of Finance we have consistently found that they know that they should be doing this, but that at present they are struggling due to the manual tools they have in place. As a result of this, they are not realizing the full value of their internal investments, and Senior Management is spending substantial effort gathering information and manipulating spreadsheets rather than proactively planning. The 2010 EPM Solution provides the answer to this problem.

The 2010 EPM Solution has the ability to create, automate and support a repeatable easy-to-use initiative selection methodology for all sizes of organizations. The tool can be configured to capture the suggested metrics commonly used to make informed decisions around initiative selection and prioritization, such as: ROI, ROE, payback period, cost of capital, etc. Additionally, non-financial constraints can be incorporated as selection criteria, such as key resource availability. A number of different types of analysis can be conducted on the portfolio (largely limited by what data is captured in the business case process), with a common goal to select a project portfolio that is balanced to reflect and take into account current macroeconomic and market conditions, the organization's strategic goals,

and practical constraints around financial and non-financial resource availability. The solution can also compare internal investment portfolios against each other, therefore allowing for either/or scenario or sensitivity-based use.

Figure 1 Typical Project / Portfolio Lifecycle shows how portfolio selection fits within the overall process of project and portfolio management.
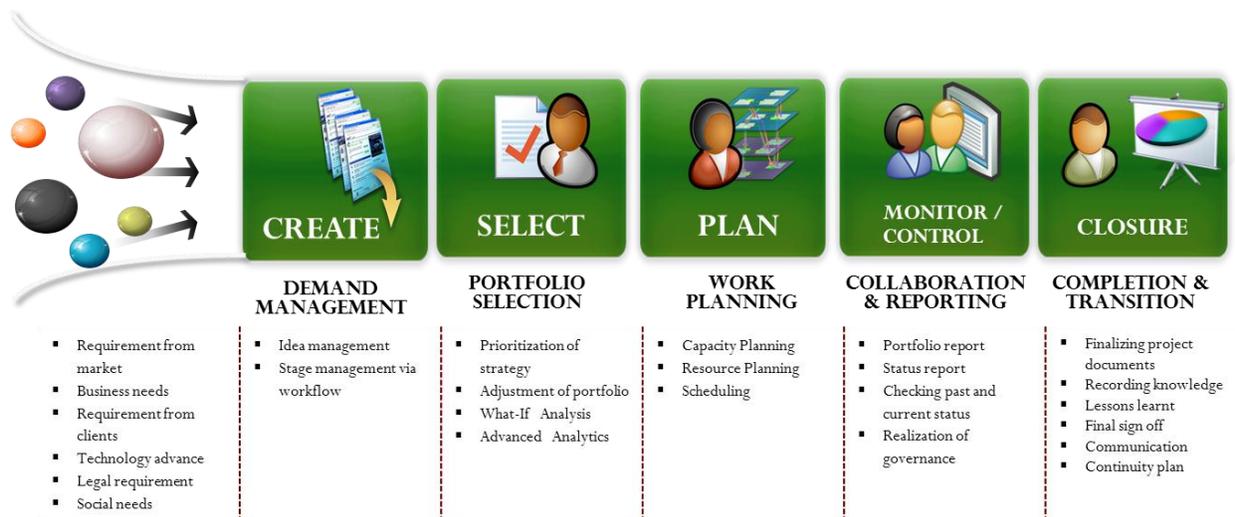
Figure 1 Typical Project / Portfolio Lifecycle

In the "Demand Management" step a formal business case for an initiative is developed. The information captured during this phase can be configured to meet the exact requirements for a particular industry, department or division of an organization. The integration capabilities of the platform allow this business case to be created in tools that are familiar to the users of the system. In most cases this is Excel. A simple sample of this can be seen in Figure 2.

Project Cost Details

	2011	2012	2013	2014	2015	
Expenses	$ 120,000.00	$ 100,000.00	$ 70,000.00	$ -	$ -	$ 290,000.00
Internal Labor						$ -
External Labor						$ -
Advertising	$ 50,000.00	$ 45,000.00	$ 35,000.00			$ 130,000.00
Training	$ 30,000.00	$ 20,000.00	$ 10,000.00			$ 60,000.00
Operations	$ 40,000.00	$ 35,000.00	$ 25,000.00			$ 100,000.00
Other Direct						$ -
Capital	$ 95,000.00	$ 75,000.00	$ 50,000.00	$ -	$ -	$ 220,000.00
Software						$ -
Hardware	$ 40,000.00	$ 35,000.00	$ 25,000.00			$ 100,000.00
Building	$ 35,000.00	$ 25,000.00	$ 15,000.00			$ 75,000.00
Other Capital	$ 20,000.00	$ 15,000.00	$ 10,000.00			$ 45,000.00
Total Cost	$ 215,000.00	$ 175,000.00	$ 120,000.00	$ -	$ -	$ 510,000.00

Figure 2 Initiative Budget

Fundamentally, the information entered in the cost/benefit project detail pages such as Figure 2 can be used to enforce governance. The toolset can enforce a requirement that, before an initiative comes forward for funding, a budget has been entered at an appropriate level of detail. Furthermore, it can also start to change thinking in management towards performance. Frequently, we observe initiatives being funded without the benefits or business value clearly being articulated or tied to any clear metrics. Again, the tool provides a familiar interface that assures that this information is being considered and captured.

Project Benefit Details

	2011	2012	2013	2014	2015	
Revenue Growth	$ -	$ -	$ 55,000.00	$ 120,000.00	$ 240,000.00	$ 415,000.00
Existing Customers			$ 25,000.00	$ 75,000.00	$ 115,000.00	$ 215,000.00
New Customers			$ 30,000.00	$ 45,000.00	$ 125,000.00	$ 200,000.00
Expense Reduction	$ -	$ -	$ 75,000.00	$ 230,000.00	$ 440,000.00	$ 745,000.00
Internal Labor			$ 15,000.00	$ 40,000.00	$ 105,000.00	$ 160,000.00
External Labor			$ 20,000.00	$ 30,000.00	$ 80,000.00	$ 130,000.00
Software, Hardware			$ 35,000.00	$ 75,000.00	$ 145,000.00	$ 255,000.00
Operations			$ 5,000.00	$ 85,000.00	$ 110,000.00	$ 200,000.00
Compliance	$ -	$ -	$ 135,000.00	$ 245,000.00	$ 390,000.00	$ 770,000.00
IT Support Compliance			$ 45,000.00	$ 85,000.00	$ 125,000.00	$ 255,000.00
Financial Compliance			$ 35,000.00	$ 75,000.00	$ 145,000.00	$ 255,000.00
HR Compliance			$ 55,000.00	$ 85,000.00	$ 120,000.00	
Total	$ -	$ -	$ 265,000.00	$ 595,000.00	$ 1,070,000.00	$ 1,930,000.00

Figure 3 Initiative Benefits

When the 2010 EPM Solution supports the capture of financial information is this way, finance can then provide high value input into project and initiative selection and follow a best practices approach. The

IFAC's good practice guidance states that it is necessary to "compare costs and benefits in different time periods and calculate net present value" for projects. From this basis, they view that it is the role of the professional accountant to use the resulting analysis to support executive decision making into assessing major capital spending and strategic investments.

Another key benefit of the solution is that users enter the information for the business case once and in a single location known to all users. This information can then be refined over the project lifecycle. This means that there is no need to enter this information in another system, or worse, have to enter the same information multiple times in disparate systems. Some of the advantages of this approach include efficiency gains, increased data consistency and minimization of user errors.

Based on our experience in the field, we recommend that the Finance Professional become involved in the project portfolio selection process. While the process may have indirect impacts on the day to day operations responsibilities of the Finance Professional, we have found that the expertise that finance professionals can bring to the process enhances financial rigor around project selection. That expertise also helps to ensure any and all of the key financial metrics of relevance to the organization are fully understood and taken into account by all participants in the process. We have found that there is no other group in the organization that consistently provides the knowledge necessary for organizations to assess investments in this way. Too often it is left to a PMO located within an IT department to provide this, and as it doesn't have the same credibility, its advice is ignored and organizational performance suffers. Furthermore, Finance often will have more detailed information regarding strategic direction and can be integrated as part of the portfolio assessment process.

According to underlying principles in the IFAC's good practice guidance, "analysis should be considered and interpreted in relation to an organization's strategy." The 2010 EPM Solution provides the technology necessary to easily move this best practice into operation.

As part of the business case developed for each initiative, its contribution to the corporate strategic goals is captured.

Projects / Drivers	Expand into new markets and segments	Improve customer satisfaction score	Improve employee satisfaction
Acquisition Target Analysis	Strong	None	None
Apparel ERP Upgrade	None	Strong	Moderate
Auditing Services Training	Low	None	None
Automated Software Installation	Low	Low	Low
Catalog Publishing	Extreme	None	None
Data Exchange and Integration	Strong	Moderate	None
Data Parsing Tool	Moderate	Extreme	None
E-CRM Solution	Strong	Extreme	Extreme
ERP System Equipment Upgrade	Moderate	Strong	None
Hub Upgrade	None	Moderate	Moderate
Internal Application Customization	Low	None	None

Figure 4 Initiative Strategic Contribution

Once this strategic information is captured, it than can be incorporated as a single scenario or incorporated as one of several weighted factors.

In summary, the 2010 EPM Solution, provides the technology required to provide the recommended portfolio driven "systematic, analytical, and through approach" that is considered good practice when attempting the gain the maximum value from the deployment of an organizations resources.

Effective Budgeting

For many organizations, the yearly budgeting cycle resembles controlled chaos. No matter what an organization's accounting system is, we usually find that their yearly budgeting is done through a manual process supported by complex Excel models. Due to the lack of enforced controls or assistance, both the collective effort expended and risk associated with this process is high. Even though a complete budget should encompass all of an organization's resources (financial, material or human resources), this rarely happens as it is most likely simply not possible within the existing systems.

When the 2010 EPM Solution is implemented, the chaos becomes controlled and managed. As outlined in the previous section, the initial financial budget for an initiative can be entered in the project detail pages and tracked through its entire lifecycle. The solution also has the ability to capture the use of labor through the development of a resource plan as seen in Figure 5 Resource Plan.

| source plan start/finish dates | | | | | | | |
The resource plan dates are computed based on entered timephased resource work. Start Date (the earliest date of all resource assignments) — 7/1/2010; Finish Date (the latest date of all resource assignments) — 4/15/2011

Resource Name ▲	Booking Type	7/1/2010 - 7/31/2010	8/1/2010 - 8/31/2010	9/1/2010 - 9/30/2010	10/1/2010 - 10/31/2010	11/1/2010 - 11/30/2010	12/1/2010 -
Analyst	Committed	0.05	0.2	0.2	0	0	0
Creative Designer	Committed	0	0	0	0	0	0
Marketing Manager	Committed	1.05	1.05	0.85	1.9	2.35	1.05
Personal Relationship Manager	Committed	0	0	0	0.15	0	0
Project Manager	Committed	0	0	0	0	0.15	0.1
Sales Associate	Committed	0	0	0	0	0	0
SME	Committed	0	0	0	0	0.2	0
Sponsor	Committed	0.1	0	0	0	0	0
Vendor	Committed	0	0	0	0	0	0.05

Figure 5 Resource Plan

This greatly reduces effort in gaining clear insight into the overall resource usage as the information entered by the Manager can readily be reviewed by the Finance Professional, and it does not require as much communication as with more manual update processes. In addition, as the initiative moves forward into planning, material usage and other costs can also be captured, which in turn can provide a clear picture of upcoming financial commitments and cash flow requirements.

Also key to effective budgeting is the use of workflow functionality. The workflow inherent in the 2010 EPM Solution ensures that budget processes are followed not just initially, but throughout the full lifecycle of the initiative. Workflow can streamline and automate change request processes in accordance with business rules. For example, if the Project Manager requests additional funding for a given project, this request, together with the relevant notifications and approvals (or rejections), could be captured within the 2010 EPM Solution, providing a detailed audit trail. The Finance Professional can easily be included in this process and thereafter run a series of interactive reports that reflect the changed financials of the project and support comparisons to previous approved baselines.

Scenario Analysis

Figure 6 Cost Constraint Analysis of a Portfolio shows how cost constraints can be taken into account as part of the portfolio selection process. In this scenario, the total funding that the organization will spend on the portfolio of projects is limited at $10,684,000. The total proposed budget for the projects that the organization is evaluating is greater than this amount, and the projects that are to be excluded from the portfolio are highlighted in red. The budget for each project would be one of the criteria for

inclusion into the portfolio; others commonly include resource constraints and alignment with the organization's overall strategic goals.
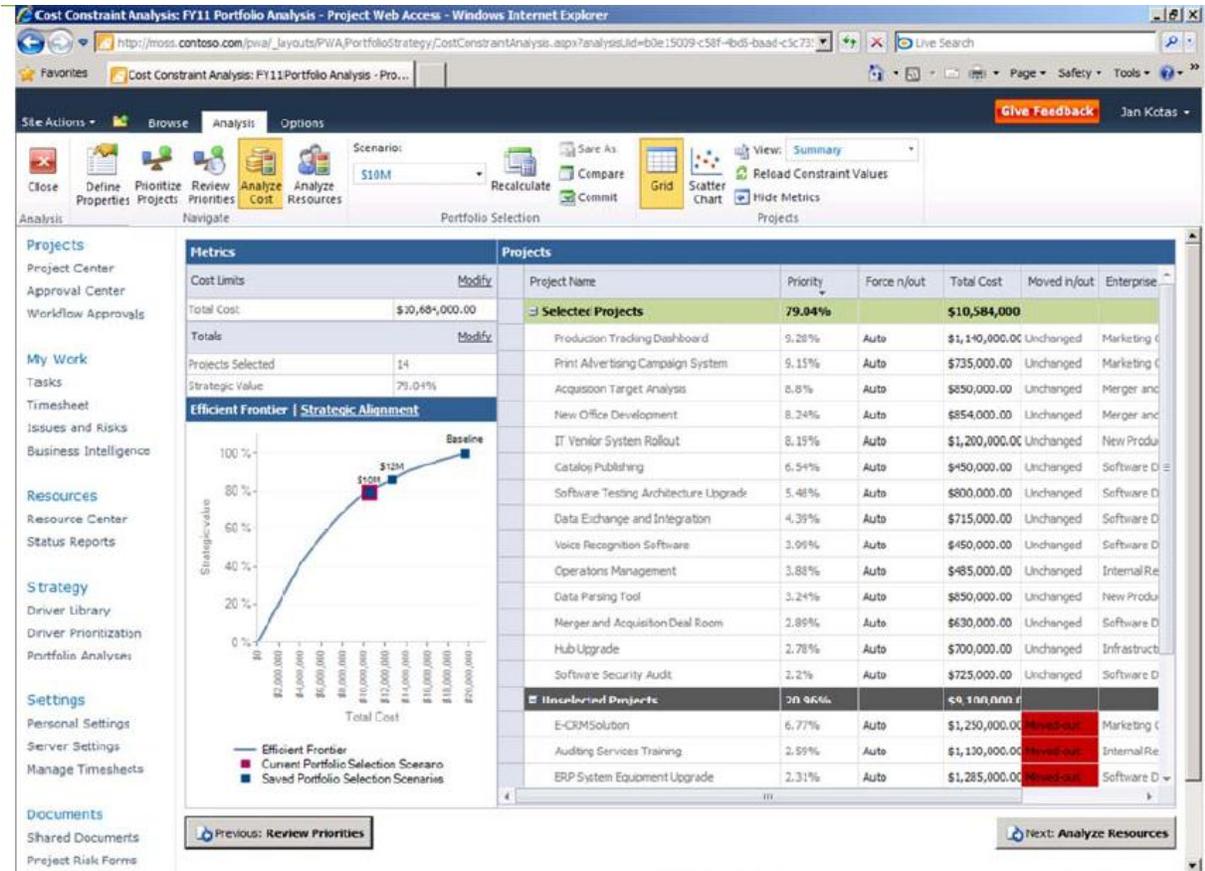
Figure 6 Cost Constraint Analysis of a Portfolio

The EPM 2010 Solution facilitates scenario modeling taking into account these various constraints and changing market or macroeconomic conditions. For example, one client created a number of scenarios that placed different weighting on risk, revenue growth and cost containment. These scenarios guided portfolio selection in various macroeconomic conditions and allowed the organization to move more rapidly than its competitors in adjusting to the changed environment.

We also have clients who apply more sophisticated valuation techniques, such as real options to their project portfolio selection process. These techniques require integration of business processes and active management of project coupled with the EPM 2010 Solution.

Financial Reporting

The EPM 2010 Solution utilizes technology contained within Microsoft SharePoint Server 2010 to provide a rich suite of reporting options to meet the Finance Professional's requirements. These can include legislative requirements, other professional standards, or those based on the organization's internal processes and policies.

Dashboards are a common reporting option, and they provide a convenient method for delivering metrics that can be further examined. An interactive dashboard composed of relevant metrics can readily highlight financial management issues relating to a portfolio or an individual project. The ability to drill down into these metrics helps to ensure that effort is focused on the projects that require additional attention. We recommend that organizations take an "exception-based" approach to dashboards and reporting; such an approach highlights shortcomings or issues and does not contain a lot of clutter (which can be simply metrics that are within a pre-defined "acceptable" range).

Projects KPI Status Report

| Project Name	Owner	Cost	Resource	Schedule	Risk	Quality	Strategic Score	% Complete	Total Cost	Total Benefit
Online News Publishing Tool	Jan Kotas	✓	?	!	?	!	4.12	0%	$570,000	$1,790,000
Product Accessory Design	Ben Spain	✓	✓	?	✓	?	3.19	3%	$595,000	$1,950,000
Storage Planning and Management	Jan Kotas	?	!	!	✓	!	3.06	22%	$450,000	$1,825,000
IT Architecture Deployment	Martin Berka	✓	?	✓	?	✓	2.93	38%	$715,000	$2,195,000
Software Patch Management	Lori Penor	!	!	?	✓	?	2.79	10%	$555,000	$1,815,000
Network Defect Tracking System	Steve Masters	✓	✓	✓	?	✓	2.29	60%	$535,000	$1,895,000
International Financial Transaction System Upgrade	Lori Penor	?	?	?	✓	?	2.21	62%	$630,000	$2,000,000
Remote Desktop Deployment	Steve Masters	✓	?	✓	?	✓	2	13%	$585,000	$1,200,000

Figure 7
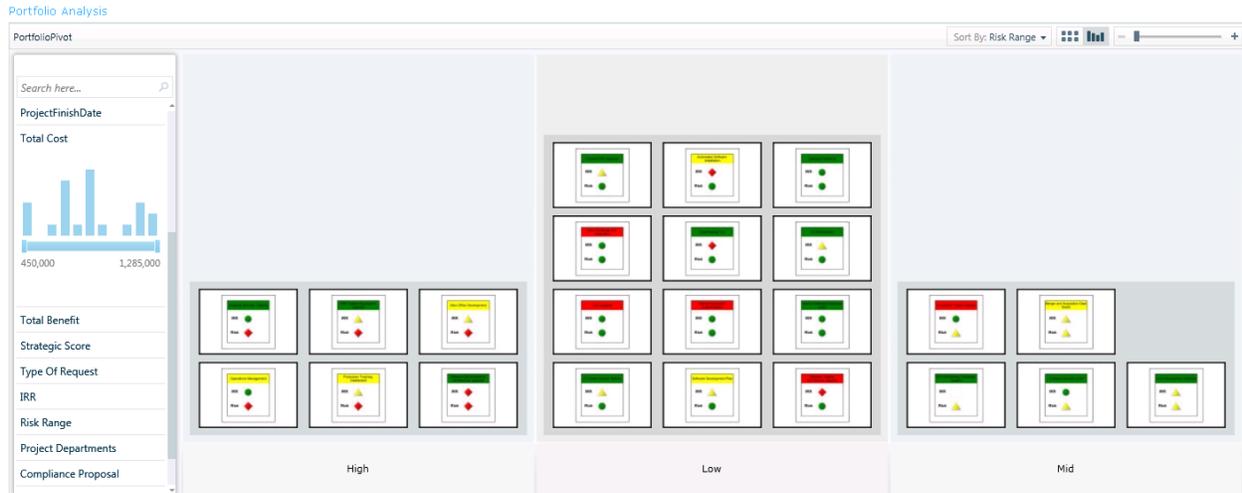
**Figure 8 Sample Dashboards with Project Metrics**
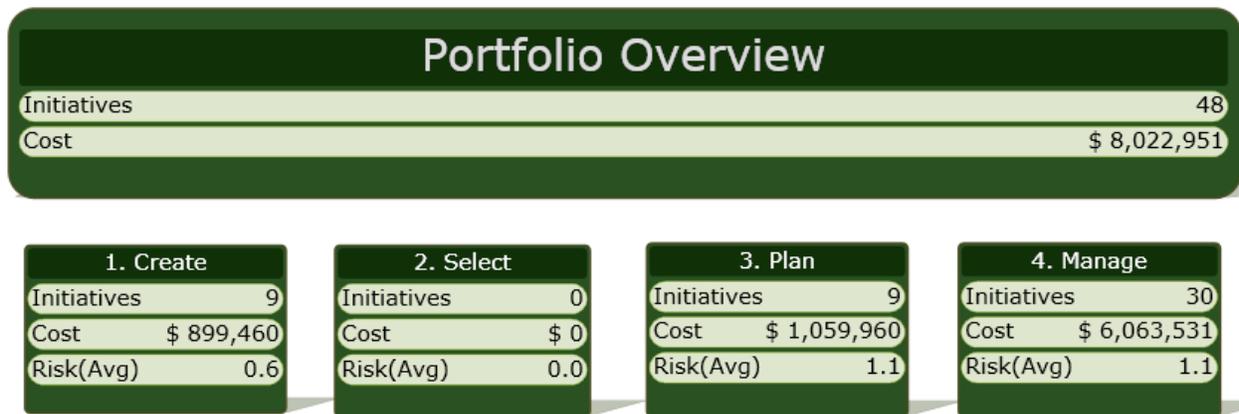
Figure 9 Portfolio Overviews

There are a wide range of other reporting options available, and the solution brings together the reporting tools used by Finance Professionals and Project Management Professionals. All too often, separate toolsets are used by each group, leading to duplication in effort in updating information. Frequently, this can lead to confusion as to which system contains the most accurate, relevant information and each group views their toolset as the "true source of truth". Inevitably, this can lead to conflict and confusion, particularly for project stakeholders who are unclear on what set of numbers to trust.

The EPM 2010 Solution eliminates this issue through capturing all data once, at a single point. This data may be revised and updated over the project lifecycle or reporting period. While each group of stakeholders has differing reporting requirements, the underlying data for all reports is taken from the same dataset.

The solution also provides a great deal of flexibility in supporting the use of Excel workbooks within web pages (via SharePoint Server 2010 and Excel Services). This provides another option for Finance Professionals to via project-specific financial reports, and it provides a familiar toolset and interface for most users.

Custom reports can also be created and delivered in a variety of formats. The formatting of these reports can reflect existing reports within the organization or be the result of a report design initiative. It is possible to automate much of this reporting, for example to have monthly project financial reports sent in e-mail directly to users (or sent in e-mail as a link to a web page that displays the report). This can be taken to a very high degree of sophistication. For example, information about monthly financial reports in which certain financial criteria was exceeded could be sent in e-mail to a subset of users.

We encourage organizations to take such considerations into account when planning the implementation of a project finance system. It is always much easier to design and take into account reporting requirements early in the process of system implementation, rather than attempting to make modifications to a designed or deployed solution later. There may be design considerations relating to the tracking of specific metrics and data points (not to mention report design).

In short, we encourage finance professionals to actively participate in the planning and requirements gathering of an EPM solution. While the initial deliverables of such a solution may focus on project and portfolio management, early participation can smooth the incorporation of financial reporting requirements in a subsequent iteration or expanded scope of the EPM implementation.

The use of project plans permits accounting treatment at the task level. It is possible to accrue costs in line with completion of specific milestones and to have this automatically drive the reporting.

A full, complete range of cost treatments are available through the use of "cost resources" and custom fields that can be tracked at a task or project level.

Enhanced Transparency and Auditing

The EPM 2010 Solution provides a framework based on accountability and transparency for supporting financial compliance and audit requirements. Predefined tools support auditing of specific data points,

clearly indicating which particular user entered or updated what information and when. Custom reports can be built to further support auditing requirements and ensure compliance with an organization's policies. The use of workflows further adds a degree of accountability, supported by auditable transparency.

Financial Compliance

One of the key technology issues facing companies around the world today is how to effectively support their financial reporting and consolidation requirements to achieve financial compliance. As regulatory mandates and rules evolve, companies are adopting the International Financial Reporting Standards (IFRS). These are a set of disclosure requirements and methodologies for the preparation and reporting of financial statements. The adoption of the EPM 2010 solution enhances an organization's ability to meet these new financial compliance requirements.

Governance

Through the use of the project detail pages and workflow, a framework for end-to-end project governance is established. This workflow can be configured to reflect the various project stage gates and approvals. Mandatory items at each stage can be tracked and reported upon. Compliance with corporate policies and reporting requirements can easily be tracked and highlighted.

Risk Identification and Management

Organizations need to be able to identify and effectively manage risk during the complete project lifecycle, from idea capture, through project selection, planning, execution and closure. Initially, as part of the project selection process, organizations can use risk analysis as one of the selection criteria when identifying which capital investments best align with the overall strategic objectives of the organization (other selection criteria that might typically be utilized during the selection process would be overall budget, financial benefits, ROI, and resource constraints).

Once a project has commenced, the EPM 2010 solution provides a SharePoint web site for project stakeholders to track and discuss project risks. These can be financial risks, or any other type of project risk deemed worthy of note. Specific risks can also be linked to specific tasks on a project plan (and potentially specific line items within a project's budget).

Integration with Financial Systems and Processes

From a technical perspective the EPM 2010 Solution is based on well-recognized and common Microsoft technologies. This makes easier the process of integration with other line of business and financial systems. Most organizations contain numerous systems, provided by a wide range of vendors. Enterprise systems typically are the most complex and most risky to integrate. Integration typically takes one of the following forms:

Data from Line of Business system into EPM 2010 Solution

This is the easiest form of integration (from a technical standpoint) and involves pulling data, typically actual accrued costs or resource usage relating to a project, into the EPM 2010 Solution. Benefits of this form of integration include: the ability to produce reports from the EPM 2010 Solution that contain both sets of data, single interface for users to view data from multiple systems. One limitation is the lack of ability to update all viewable data within the EPM 2010 Solution, as the data is only exchanged one way.

Data from EPM 2010 Solution into Line of Business system

This is typically a more complex form of integration, and involves taking data from the EPM 2010 solution and pushing into another line of business system. Data relating to project schedules and resource usage (such as timesheets, and/or project task status) are taken from the EPM 2010 solution. The benefits and limitations are similar to the above case. The organization's roadmap for the use of technology, and how familiar users are with existing systems, will influence the decision around the nature of the integration.

Exchange of data between Line of Business System and EPM 2010 Solution

This is the most complex form of integration, though it has the potential to provide the greatest benefits. Effort is required to fully understand the processes in place for capturing the data and how it is captured in each system. Additional configuration of the EPM 2010 Solution and the line of business system can be expected to ensure that data from one system does not overwrite source data in the other. If done properly, this form of integration can provide a seamless integrated solution that significantly reduces data entry effort, while providing reporting capabilities that support advanced business intelligence practices.

One approach often overlooked prior to system integration efforts is integrated reporting. This involves leveraging the EPM 2010 Solution's underlying technology around reporting tools to create blended reports that combine data from the EPM 2010 Solution and other line of business systems, without

actually exchanging data between the two systems. This eliminates the risk that data from one system may overwrite data in the other, as well as reduce the risks inherent in system integration.

In general, for integration with line of business systems, we recommend making the effort to thoroughly review existing processes. It may be that the capabilities of the EPM 2010 Solution align with the organization's requirements to the extent that the requirement for integration is eliminated through changes to a process and fully leveraging of the EPM 2010 Solution's capabilities.

4. Implementation Considerations

Implementing an EPM 2010 solution in your organization can be challenging as it must combine the effective use of the technology with the underlying business and finance processes used within the organization. This section addresses some of those considerations.

Iterative Approach

In order for organizations to maximize the benefits of the EPM 2010 solution, an iterative approach to implementation is recommended.

This approach is endorsed by Gartner in its article on the key elements for implementing a successful project portfolio management (PPM) strategy[1]. Highlights of these that we have seen as being particularly important include management buy-in, a crawl/walk/run adoption strategy and a rolling, iterative process and capability improvement plan.

An iterative approach involves identifying the core business requirements for a department or sub-group within the organization and delivering a solution that meets those requirements. After the initial requirements have been met, the requirements or other organizational units and/or additional requirements of the first organizational unit are addressed. One of the key benefits of this approach is that knowledge is retained and broadened throughout the organization. An iterative approach also ensures that the organization is realizing value from the investment in the implementation as early as possible, and it that it is not delayed, as with a big-bang approach. It also ensures that key stakeholders have ongoing input into the implementation process, and are better able to shape the solution to meet

their requirements, as they better understand how their requirements can be addressed within the EPM 2010 Solution.

The first step is for the organization to evaluate and prioritize the goals and desired benefits of the solution. Some keys to a successful implementation include a detailed understanding of the technology, coupled with an understanding of finance processes.

Prioritize Requirements

We would suggest identifying the areas of greatest need for improvement from the organization's perspective. Then, if possible, quickly address this so value from the investment in this initiative starts to be realized early on.

We have found that by fixing critical areas early we see a reduction in the overall pressure on the organization and project. Our observation is that this increases the chance of being successful by allowing the rest of the project to progress at a reasonable pace with a realistic scope. To facilitate this we suggest establishing detailed, well-documented and commonly understood requirements and map them out over several iterations to ensure that project stakeholders can clearly see how all areas of concern will be addressed over time. We believe that this reduces overall project risk, and helps to ensure that timelines and budget targets are met.

Focus on Usability and Sustainability

We would suggest that proper attention is taken during the solution design process to focus on usability and maintainability, while at the same time ensuring that the fit between the business requirements and the capabilities of EPM 2010 Solution are maximized.

Our experience dictates that a higher degree of usability assists in driving successful adoption of the EPM system. End user resistance due to real or perceived issues of usability is one of most common reasons for lack of adoption. Additionally, whenever possible, we suggest minimizing customization as this improves long term maintenance issues and reduces sustainability costs. Or at a minimum, start with the implementation of standard functionality and conduct extensive testing prior to embarking on costly customization.

Use Experienced Resources

For many organizations, there will be the temptation to "go it alone" and implement the EPM 2010 Solution in-house. While this option may be attractive from a cost perspective given that in-house resources are invariably "cheaper" than external consultants, proper consideration should be given as to the true capabilities within the organization before undertaking this type of initiative.

Certainly some organizations may be well placed to successfully implement an EPM 2010 solution. However, in the vast majority of cases, this is not true, and more often than not ends up costing the organization more in terms of dollars, schedule delays and benefits realization.

Working with an experienced EPM 2010 implementation partner is strongly suggested, as a good partner can bring the benefit of previous successful implementations to your organization. The partner can also provide guidance and further explanation of the solution's capabilities, to ensure that the solution design is viable and realistic, given the scope and budget. In order to successfully implement the EPM 2010 Solution, a team with a mix of technical, business and process skills is required. Another common cause for failure is the reliance on internal IT resources who have the necessary technical skill, though not the understanding of the business or process design skills.

5. Extending the EPM 2010 Solution

By being built on top of SharePoint Server 2010, Microsoft Project Server 2010 benefits from the business collaboration platform of SharePoint Server 2010, especially its flexibility and extensibility. The wide acceptance of Microsoft Project Server as the default standard had led to the availability of a range of additional tools that can further leverage and extend the capabilities of the EPM 2010 Solution. Some of these capabilities are readily available within SharePoint Server 2010, others are provided by Microsoft or by Microsoft partners. Let's have a look at some of those.

Excel Services

Excel Services allows for the tight integration of Excel worksheets and data within traditional web pages. This reduces several of the normal disadvantages with the widespread use of Excel. For example, the use of Excel Web App allows the editing of this data directly through a web browser. This allows collaboration to take place from remote locations and also ensures that a group is looking at single version of the truth. It also provides rich reporting capabilities. For example, financial statements can

be directly generated from an accounting system or the cost benefit analysis of an initiative can be seen when directly looking at a business case.
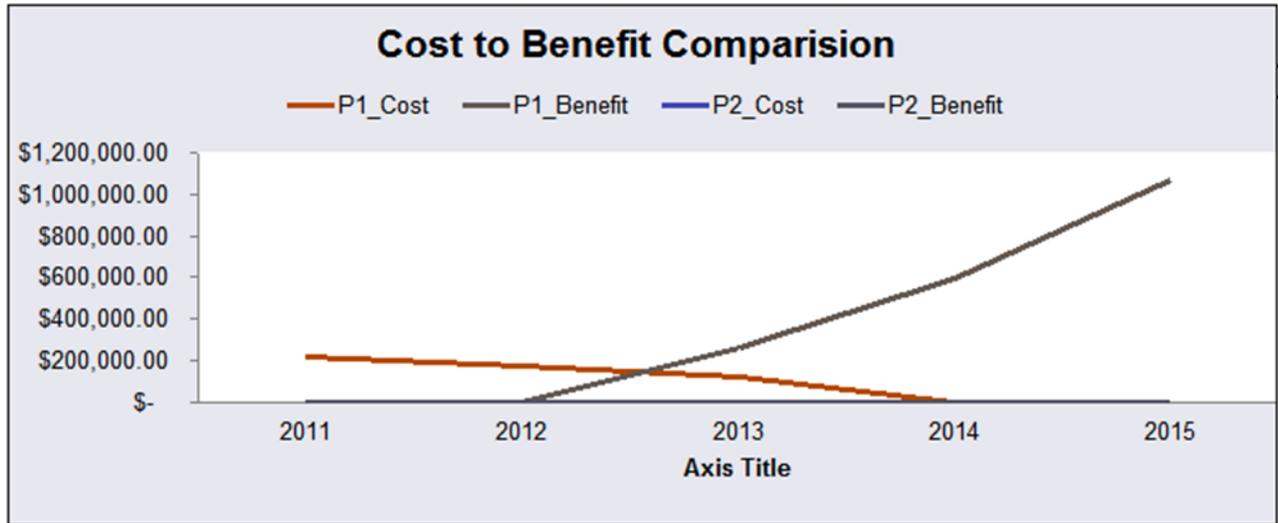

**Figure 10 Initiative Cost to Benefit Comparison within Excel Web App**

Microsoft has released an "Excel Project Cost Capture" Solution Starter (http://archive.msdn.microsoft.com/P2010SolutionStarter) that demonstrates this approach.

Visio Services

Visio Services on SharePoint Server 2010 presents additional options around data visualization. One potential use would be a timeline view of a project with milestones, as shown below.
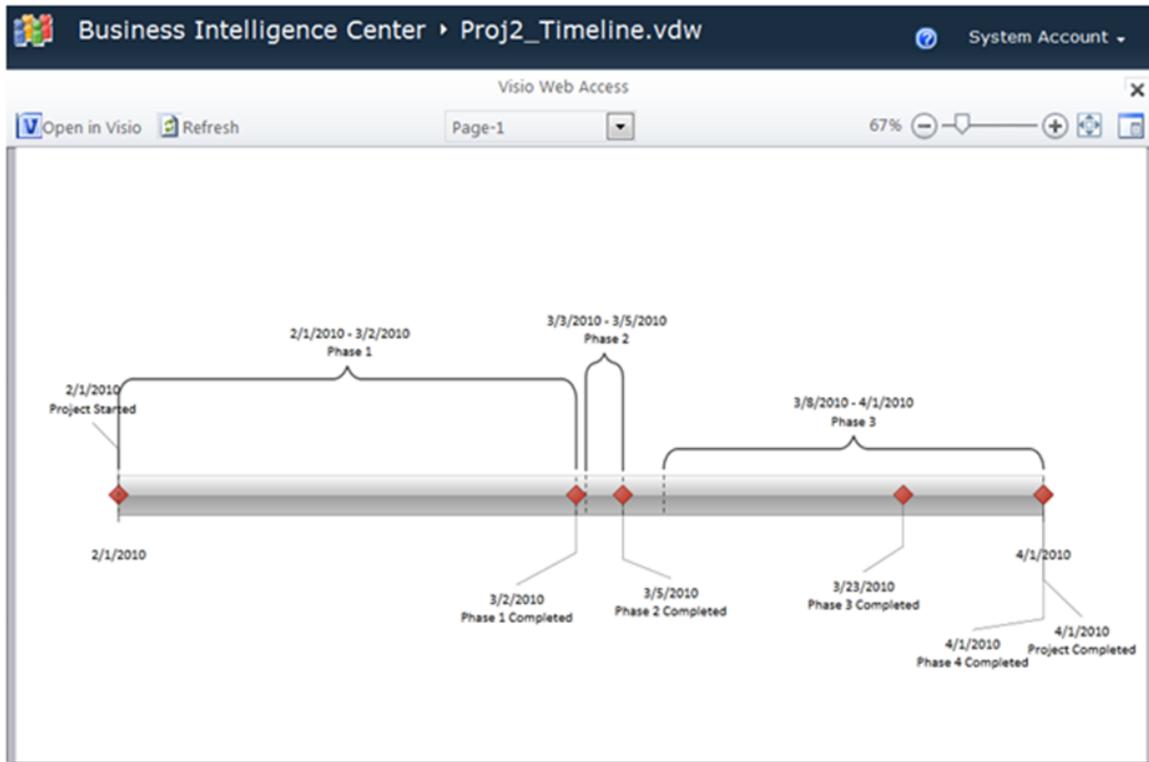
Figure 11 Timeline view of Project with Milestones

Visio Services can also allow the easy visualization of the impact of different portfolios against corporate strategy and key KPIs.
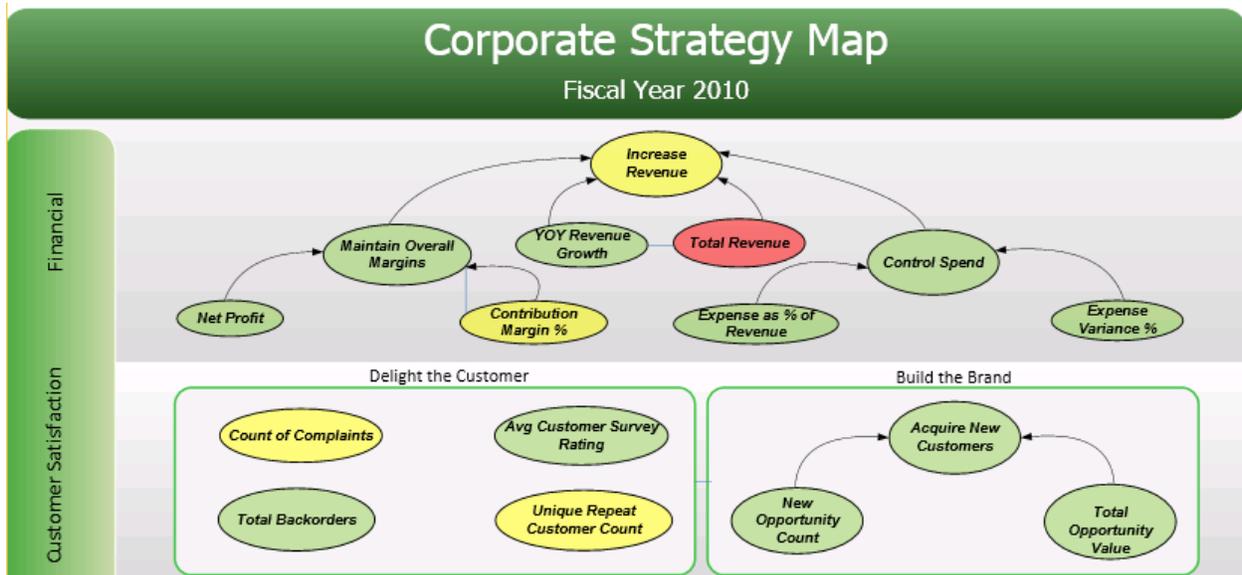
Figure 12 Corporate Strategy Map

Project Finance Solution Accelerator

In conjunction with this white paper, Microsoft is making a "Project Finance Solution Accelerator" available for download from http://archive.msdn.microsoft.com/PS2010Finance. This solution accelerator can be integrated with other Microsoft technologies, such as Excel, InfoPath, Silverlight, etc., to provide a robust and flexible user interface.

The solution accelerator is a code sample designed to illustrate how Project Server 2010 seamlessly integrates with SharePoint lists. This is useful when the business requires the capture of detailed information, such as that relating to project costs, but only needs to summarize information at the portfolio or project level.

The example in the code specifically shows how SharePoint lists can be used to store high-level budget information for a project. Typically this would be done early on in a portfolio or Demand Management lifecycle as part of capturing budget information as part of the business case process. This same technique can be used to capture benefit information, change requests, and anything else that has a financial impact the project. This code can be integrated into SharePoint workflows, providing a great deal of flexibility. If the business requirements were such that you wanted to analyze the budget within portfolio analyzer on a yearly basis, the code sample could be extended to do so.

These lists capture project costs within a cost breakdown structure (maintained within the SharePoint Managed Metadata Service), as shown below. This provides a wide range of options for reporting and analysis.
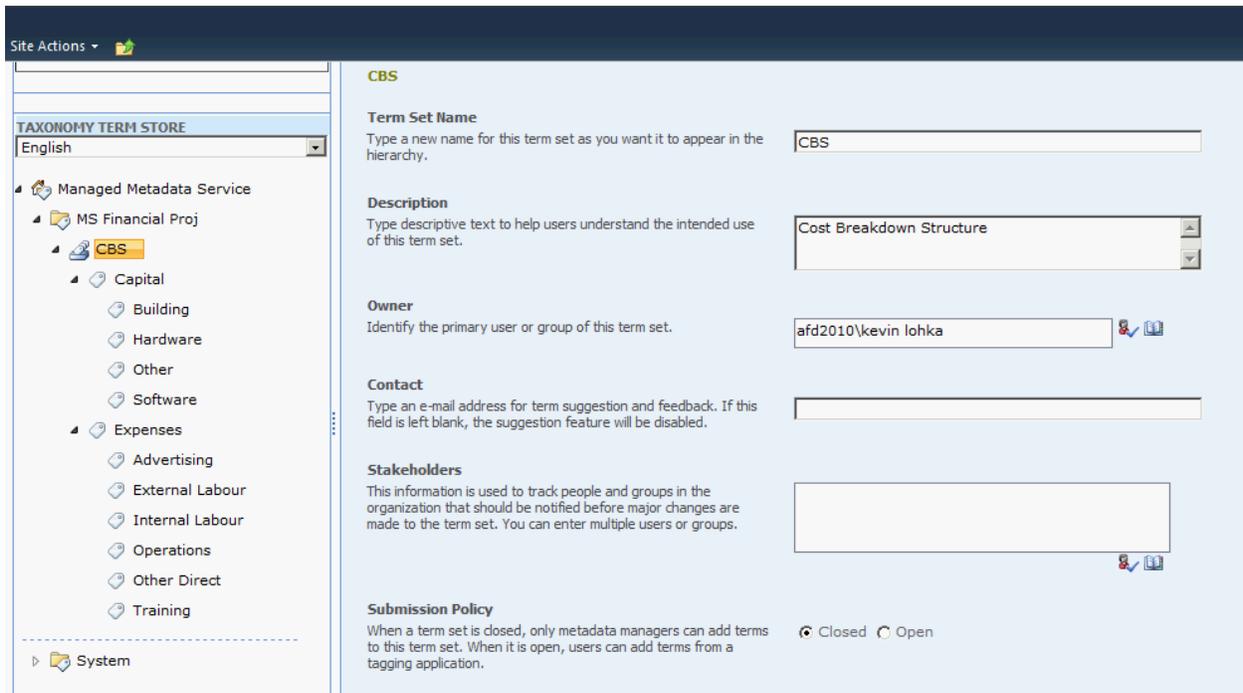
Figure 13 Cost Breakdown Structure within SharePoint Managed Metadata Service

Additionally, if integration is required between Project Server and other systems this same technique can be used. Microsoft BizTalk contains a native connector to SharePoint lists, or, for scenarios based on other Microsoft technologies, integration of Business Connectivity Services within SharePoint Server can also produce the desired results.

In order to provide an easy-to-use mechanism to enter and view the information contained in the detailed lists, one could embed any number of user interfaces on a project detail page within a workflow. This allows full customization of the user interface, taking into account preferred technologies or interface compositions within the organization. Some interfaces we would expect to be utilized include: InfoPath, Excel, and Silverlight. Any interface built in Silverlight also has the potential benefit of being extended to a mobile solution that uses Windows Phone 7. A rough sample of how this interface could look is presented below.

The summary list entries can be linked to the specific project they belong to for reporting and management purposes.

Figure 14 Silverlight Interface for Project Budget information

Once the summary object has been linked to the project, direct access can be provided to the user by adding a button to the project center ribbon (similar to how access to issues and risks are currently handled within the EPM 2010 Solution).

The general process flow within the sample code is:

1. User enters/updates data in the BudgetDetails list, triggering the ItemAdding or ItemUpdating list events.
2. Validation code runs to ensure that the user has entered an amount greater than zero and that the project name that was entered exists.
3. After successful validation, the ItemAdded or ItemUpdated event is triggered. Code runs that calculates the TotalBudget amount for the affected project. Then a ProjectBudget list item is added or updated with the TotalBudget amount.
4. Adding/Updating a list item in the ProjectBudget list triggers another ItemAdded/ItemUpdated list event. Here code runs to update the Project Custom Field with the TotalBudget amount.
5. Errors encountered during the process are logged to the Windows Application log.

The Project Finance Solution Accelerator provides a flexible starting point for meeting the needs of Finance Professionals.

Microsoft Dynamics SL

Designed for project-driven organizations, [Microsoft Dynamics](#) SL is a solution designed to connect project management and accounting across company divisions and locations. Although Microsoft Dynamics SL is able to completely support an organization's enterprise resource planning needs, organizations have found that implementing the project accounting components of Dynamics SL alongside Project Server provides a more complete and cost effective solution than modules available from their existing ERP provider. This is due to the web service architecture in Dynamic SL that directly leads to better performance and efficient integrations with almost any platform. Because this solution and its integration is designed and supported by Microsoft it provides a solution that companies can be confident will make the use of their investment in Microsoft Project Server and SharePoint Server going forward.

More specifically, with Microsoft Dynamics SL, managing complex project accounting processes and work projects is easy. For example, its capabilities can cover the robust estimating, budgeting and profitability processes used by construction, professional services and other similar industries. Some of the modules available for project accounting include contract management, billings and expense tracking. The contract management component can provide a level of sophistication that allows for the tracking of contractual payments to project performance and deliverables. The billing module allows for the charging and tracking of materials, expenses and overhead related to projects. Through its tight integration with Project Professional it allows profitability to be visible right down to the task level. The expense module, besides allowing for complete auditing, can support the reporting of expenses in multiple currencies if required. Finally, Dynamics SL allows for gradual improvement of budgeting cycles through the ability to view prior performance down to the level of time-phased labor by resource if required.
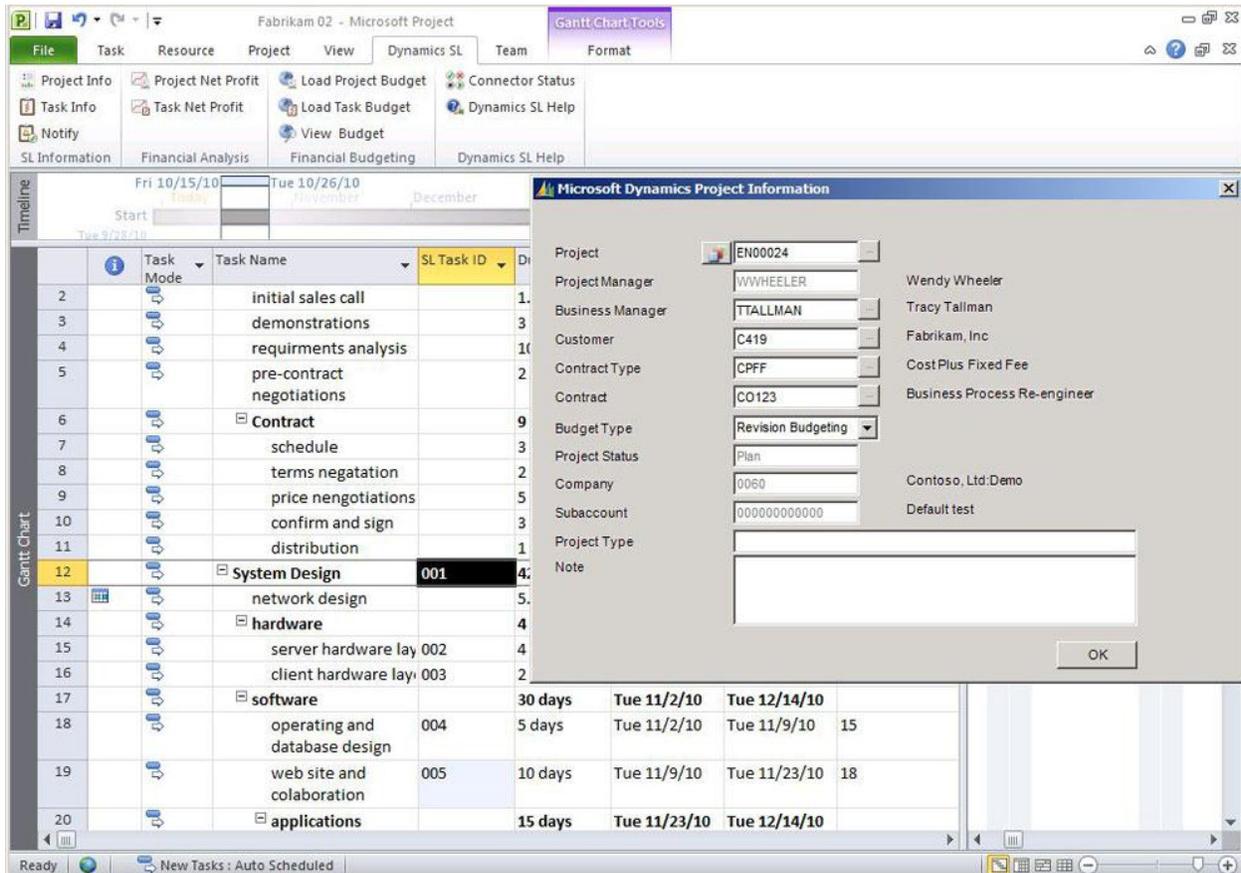
Figure 15 Dynamics SL Project Integration

Microsoft Dynamics AX

The capabilities of Microsoft Dynamics AX for project management and accounting helps gain increased financial control of both short-term and long-term projects, including long-term time and materials projects, internal projects, and fixed-price projects. It allows a finance professional to quickly analyze the financial performance of internal and external projects. Using the project modules you can compare resources consumed and revenue earned for each project budget in real time. The integration of AX with Project Server provides a solution that combines best-of-breed scheduling and resource management from Project Server with sophisticated project finance capabilities from the AX project finance module. The key to this solution is its usability that is demonstrated through the integration of the AX components directly into the Project Web Access portal included in with Project Server.

More information about the integration could be found here: Microsoft Dynamics AX 2012 White Paper: Microsoft Project Server 2010 Integration.

TPG PSLink

The flexibility of Microsoft's Project Server 2010 platform has allowed partners to develop solutions that provide easy integration between Project Server 2010 and a variety of existing accounting systems. As an illustration of this, a partner-developed solution from The Project Group (TPG) enables integration between SAP and Project Server. The extensive configuration options built into the solution allow some clients to have this integration up and functioning within a few days. The bidirectional data exchange enabled by PSLink has been certified by SAP to provide synchronization between many different components including:

- Work Breakdown Structure (WBS) elements
- Forecasts, Primary and secondary costs
- Network objects
- Plant Maintenance (PM) Orders and Operations
- Cross Application Time Sheets (CATS)
- Controlling (CO) Documents
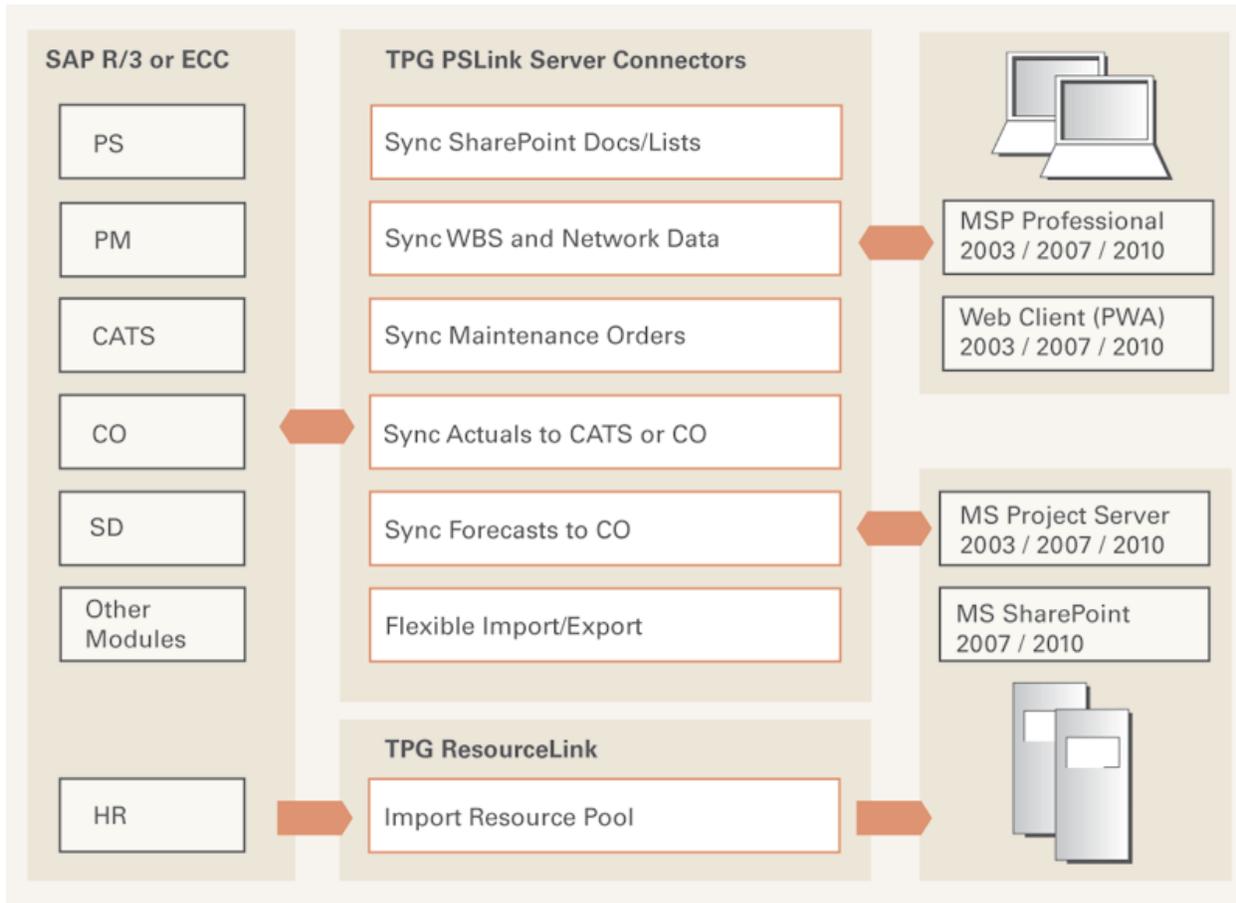
Figure 16 PSLink Integration with SAP

The TPG is a Microsoft <u>Gold Competency Project and Portfolio Management</u> partner.

UMT Project Financial Server 2010

UMT Project Financial Server 2010 seamlessly extends Microsoft Project Server 2010 to provide comprehensive cost and benefit management capabilities across the entire project life cycle. Project Financial Server 2010 is designed to support organizations with both simple and structured financial management requirements. The familiar SharePoint Server 2010 interface in Project Financial Server 2010, coupled with predefined best-practice financial web parts helps organizations get started quickly, reduce training costs and enhance user experience. Visit www.projectfinancialserver.com to learn more.

Project Financial Server 2010 brings together the leading PPM capabilities of Project Server 2010 with easy-to-use financial management techniques to help organizations:

- Standardize Financial Structures: Quickly standardize global cost and benefit structures across the organization to drive transparency and control and facilitate enterprise reporting.
- Effectively Integrate Governance: Seamlessly integrate financial governance controls within existing project workflows to enhance accountability and better meet regulatory standards.
- Drive Accurate & Robust Financial Estimates: Easily capture robust time-phased cost and benefit estimates and derive metrics to enhance portfolio decision-making
- Support Funding, Allocation & Chargebacks: Simply breakdown financial data by Cost Centers to enhance organizational budgeting, allocation and charge backs.
- Maintain Financial Versions: Create versions / snapshots of financial data to quickly see how the estimates evolve and keep records for audit purposes.
- Measure Financial Performance: Complete financial status reports by period to effectively measure and track project cost performance, assess real-time variances and take action to mitigate cost overruns
- Gain Visibility & Control: Utilize familiar Microsoft Business Intelligence capabilities to quickly build powerful reports and dashboards to provide Project Financial Intelligence.
- Track Benefits Realization: Successfully track benefits and easily compare and contrast with the planned benefits documented in the initiative's business case.
- Extend & Integrate: The flexible web services based API, Project Financial Server Interface (PFSI), provides an open and extensible platform to effectively integrate with line of business systems and extend the solution
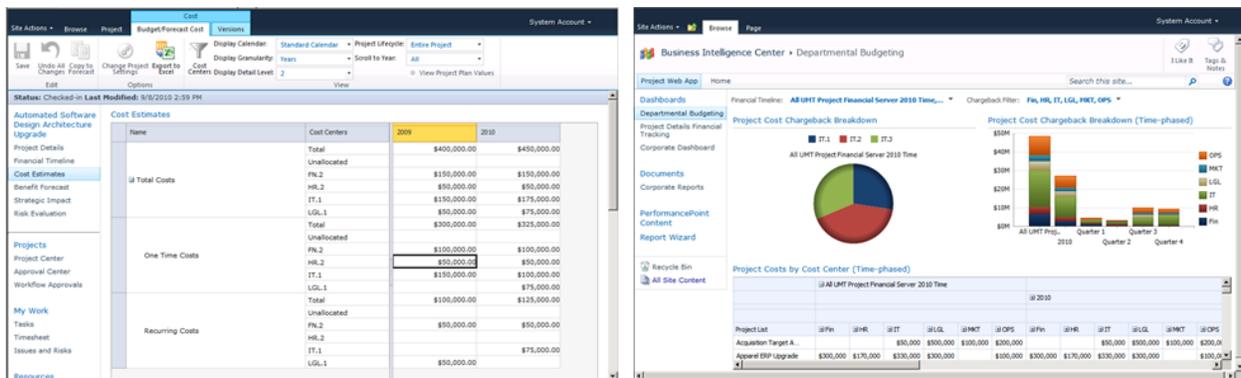

Figure 17: Cost Estimating & Business Intelligence in UMT Project Financial Server 2010

Project Financial Server 2010 is a solid example of the value that can be achieved by bringing together Microsoft Gold Competency Project and Portfolio Management partners' expertise and domain knowledge with the powerful, open Microsoft Project platform.