



# Microsoft Project and SharePoint Server 2010 -- Better Together

A white paper for stakeholders in a program ecosystem

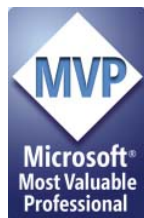
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## Executive Summary

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Managing projects is so much more than just checking task status, schedules and the critical path. It is a multi-faceted animal that can become a beast if not controlled. Projects succeed and thrive with effective collaboration and control over knowledge assets to deliver top and bottom-line business results. Keeping the Project Team and stakeholders up to date on all aspects of a project's status is crucial to managing stakeholders and completing a project successfully. The ability to bring robust Project, Program and Portfolio Management together with extensive collaboration has been long in coming, but it is now captured in the new release of Microsoft Project Server 2010.

Microsoft SharePoint Server provides the most widely used collaboration platform on the market today, with a powerful set of capabilities and features. Enterprise Project Management (EPM) helps organizations select and deliver the right projects, reduce costs, drive efficiencies, and ultimately plant the seeds to grow the business. However, in most organizations, while operating mostly in parallel, these elements remain separate from one another.

The new feature set in Microsoft Project Server 2010 creates a formidable tool that provides multiple capabilities to encompass successful Project Management, Program Management and Portfolio Management. Now, a single tool can guide an entire organization in selecting, planning, executing and managing its initiatives with the specific goals of meeting project success metrics, aligning with strategic objectives and driving the business forward toward its goals.

This white paper is written with the end user in mind. It highlights the new features in Project Server 2010 and how this tool has evolved into a must-have requirement for Project Management. You will see capabilities in this release that you have been wanting, hoping for and most likely haven't even thought of. Plus with Microsoft tethering Project to its shining star, SharePoint Server, it has created the most significant Project release of the decade.

## Introduction

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Previous white papers related to Project Server 2010 ([Microsoft Project Server 2010: A Look at Demand Management](#) and [Microsoft Project Server 2010: A Look at Portfolio Strategy](#)) have been written from the view of a key stakeholder or representative of stakeholder classes. Those documents made references to specific 'if/then' situations and told the story of quantifiable returns to the organization

implementing and adopting the tool capabilities integrated with corporate decision cycles. Now, with a focus on the deep collaboration that SharePoint Server 2010 provides, it's time to introduce the concept of Project Portfolio Management (PPM) Strategic Behavior Lifecycle Management (SBLM) --- look at it as a successful business formula – (PPM Objectives + SBLM Actions = Strategic Business Results).

Essentially it is what happens during and as a result of stakeholder s' actions. Most of a technology capabilities' business case is the linkage of strategic objectives with proposed actions and actual results with variances measured. But what if you can add the new dimensions of team behaviors to the mix?

Let's define this more ---- strategic objectives are those action-focused top level statements that serve as a guide to how the organization will evolve itself, remain competitive yet agile in the market, and recognized as a valuable asset for investors, consumers and employees. Objectives are written with action verbs in order to articulate, in specifics, the intentions of the organization's leadership and insight into the type of potential projects that will be accepted for review and approval.

[The Demand Management \(DM\) paper](#) details business and process lifecycles within organizations, showcasing how a scalable tool and process can serve as the support and delivery platform for strategic objectives. [The Portfolio Strategy paper](#) details the top-level 'what-if' scenarios, and how tools and processes can serve vital to decision makers in the ability to leverage actual, real-time information giving them the edge they need, while maintaining their balanced focus on the strategic objectives.

To this point, we have focused on the What's In It For Me (WIIFM) with regard to key stakeholders in a PPM environment, with supporting tool capabilities such as enterprise project types (EPTs), workflows, reports, actuals vs. estimates, program/project/task interdependencies and relationships, resource capacity planning, and so on. Now, we really set our sights on the one aspect that cannot be ignored, but most challenging to manage ---- People; more specifically people's behavior.

Let's look at it like this: people who are responsible for doing an assignment for example, test a part and document the results) may do the task differently than their colleagues. We all now know that social media is more than a craze or fad; it is a new way to leverage information for business purposes. Imagine predicting that one of your team will be out of the office next week, because you saw a travel update on Twitter. As a PM, you could subscribe to RSS feeds from project related blogs and stream them right into your SharePoint Workspace where the information can be shared and exchanged among team members. Being able to capture the behavior of resources opens the door to a whole new set of data and the ability to collect and manipulate the data for extensible information. Using SharePoint Server in a PPM environment means that alerts help to tell the story, and pictures, charts, discussions, and so on all illustrate and articulate the evolving situation. Additionally, geospatial tracking, tagging, ratings, 'I like it' sentiments, and so on are now critical pieces of insight that fill in the blanks. Think of it



like irrational numbers in the math world. They are values that exist, but cannot be expressed rationally. Humans' emotions, actions and gestures communicate a significant amount of data to any environment. Project Managers (PMs) for the most part agree that communication is one of the more important components in a Project Management environment, and communication is defined as both verbal and non-verbal. Poker players read their competition by looking for the non-verbal cues, or 'Tells', that may give them just enough insight to make an informed decision. Together, SharePoint Server and Project can now offer 'Tells' to decision makers related to the health, progress, status and future of their PPM environment.

Consider the wealth of honest, open conversations that happen among employees in a given day at the water cooler. While a lot of it may be of a personal nature, the work and project related bits are of a very high quality. The second that conversation ends, that information dies on the vine, and its value ceases to exist. By leveraging the power and familiarity people have with social networking, this high-quality, relevant information can be collected, stored, and used to further the project and, eventually, the business.

As organizations begin to realize the benefits of a fully networked environment, more and more methodologies and systems will become integrated. As the lines that used to define a non-networked legacy approach continue to fade, exceptional instances of these seamless integrations rise to the top of the pack and become ever so evident.

Such is the case of pairing SharePoint Server and Project Server. Now, Project Server 2010 combines the power of both technologies to provide a powerful solution that effectively manages project, operational, development and all other types of work in an organization. Project Server 2010 leverages SharePoint Server capabilities, including workspaces, forms, Excel Services in SharePoint, social networking, workflows, enterprise search and more to meet customers' unique requirements. A common and familiar platform for both Project Server 2010 and SharePoint Server 2010 will help organizations get more value for their investment, streamline operations, save money and have direct impact to business results.

Managing projects, information and stakeholder objectives is complex, and complexity elevates risk --- threatening project delivery and meeting strategic objectives. Complexity also elevates opportunity (Figure 2). Project 2010 democratizes Project Management by enabling individuals in teams of all sizes to quickly plan, manage and deliver work on time and on budget. It brings the ease of use from Microsoft Excel to the project platform to connect to these broader audiences of PMs. Microsoft Project Professional connects to two servers to facilitate teams to collaborate around work. The first is in the connection to the SharePoint Server tasks list that allows PMs to publish their plans to where their



project team lives and then automate status collection through the distributed task lists. The other server connection is Project Server 2010, and this provides for a unified project and portfolio management solution (Figure 1).

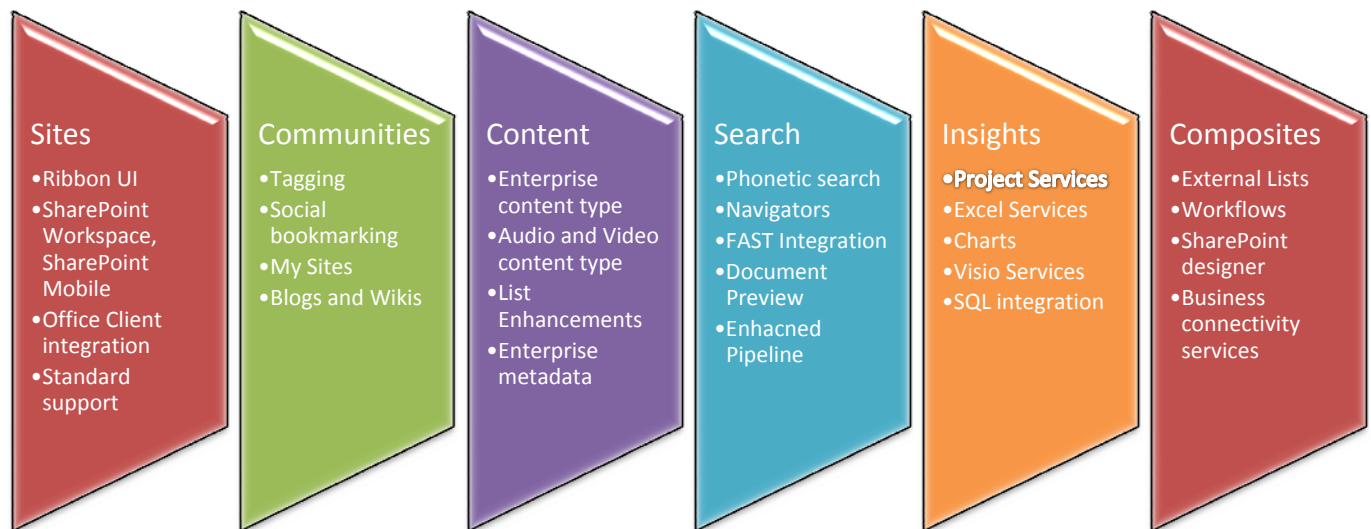


Figure 1: Project Server 2010 part of SharePoint Server 2010 Universe

The gap between these two business elements was long considered to be insurmountable. And now Project Server 2010 offers an integrated and efficient solution (Figure 2).

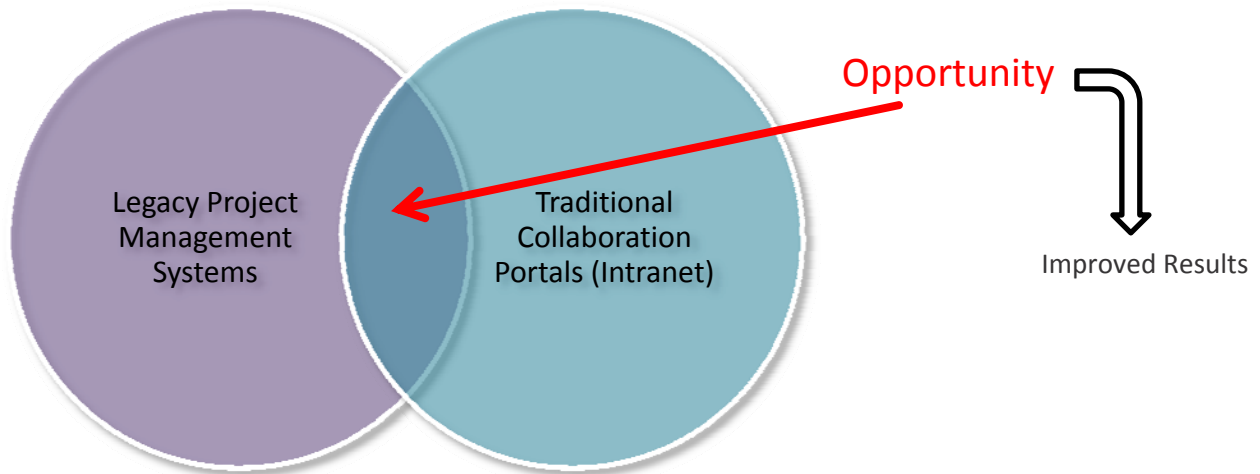


Figure 2: Opportunity Translates to Business Results

## Actionable Project/Program Management

SharePoint Server 2010 provides enriched Project Management capabilities, such as:

- **Task Management:** View and update all tasks and responsibilities across all project work items from single user view , easily shows assigned tasks to project members.
- **Work Management:** Understand the full effort associated with your project. Manage all work that is generated for and by your project.
- **Administrative Time Management:** provides the ability to report administrative time to have an overall view of where and when people are investing time.
- **Document Management:** Easily manage documents by viewing them, uploading them into a central online document repository so others in the team can easily collaborate
- **Workflow and Process Management:** Create easily flexible workflow solutions that result in improved productivity and accountability
- **Pre-Built Solutions:** Best practice configurations and templates to make your solution up and running quickly
- **Reporting:** Visualize project status through real time project dashboards and produce pre-defined project progress reports

And now with the integration of Project Server 2010, the following capabilities are enhanced on the SharePoint Server platform:

- **Portfolio Management:** Define initiatives to setup portfolio(s) based on organizational resources analysis (money/resources). Balance portfolio. View all project investments and monitor overall project portfolio performance to ensure that you are achieving your strategic business objectives.
- **Schedule Management:** Control your schedule and prevent schedule variance to optimize successful delivery.
- **Resource Management:** Plan and coordinate resource workload to ensure proper placement, expertise and efficiency. Easily manage resource allotment and over-allocation. Provides 'what-if' scenarios to let us know the skills required, level of effort and timeline to assess resources needed to execute the portfolio initiatives.
- **Cost Management:** Estimate, analyze and track all project cost to ensure project value and performance.

## Program Collaboration Means Business Results

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The Project site is created on the SharePoint Server platform as a common place for project asset storage, and it provides a strong platform to support Project Team and stakeholder communication around project documents, issues, risks and deliverables. The site also contains individual collaboration tools like workspaces, discussions boards, surveys, wikis, blogs, contact lists, and so on.

Team members should be active in the Project site, as their understanding of the project's big picture is valuable in the effort to achieve successful results. The Project site is visible through a browser portal, called Project Web App (PWA). PWA allows team members to view the Project site, collaborate on documents, share files, contribute to wikis and blogs, participate in team discussions, and so on through their web browser. This web visibility removes the requirement for every team member to have Project Professional 2010 on their individual computers, and it allows for team participation remotely. You can configure PWA so that each time a user creates a new project, an associated Project site is set up automatically. Or, if you prefer, you can allow team members to manually create a Project site. And all the while have the benefit of control to content and access through permissions.

Microsoft has worked diligently at making a truly collaborative workspace. This translates into a singular design with numerous mouse-over features, hidden menus and other ways to deliver functionality without clutter. Now it is easy to have a SharePoint Project site for every type of project the organization has, allowing collaboration to be more flexible in terms of the information that should be shared in the project (Figure 3).



Figure 3: SharePoint Server 2010 Project Site Example

## Project Manager Empowerment

### The Project Management Lifecycle

PLM, also known as Demand Management, is a unified approach that optimizes the consolidation of a significant number of essentially related processes and capabilities. PLM offers a unified view of all work in a central location. Its purpose is to quickly help organizations gain visibility into projects and operational activities, standardize and streamline data collection, enhance decision making, and subject initiatives to the appropriate governance controls throughout the PLM.

PLM sets the tone for the evolution of the campaign(s). Information traceability paths, as a project or task delivery system, have many elements. These elements are things such as tasks, assumptions, risks, issues, stakeholder requirements (or functional requirements), time/cost restrictions, quality/regulatory requirements, and so on. Each path has to be an inbound and an outbound component through the following lifecycle states:

- Create
- Select
- Plan
- Manage
- Closure

The advantage of understanding and using the Create, Select, Plan, Manage and Closure process is that it provides a simple framework for improving Demand Management capabilities.

## Workflows

SharePoint Server 2010 supports workflows for collaborative applications, and many organizations have benefited by moving manual processes into a SharePoint workflow. The primary reason why we use workflows in software design is to manage long running processes. SharePoint workflows is the ideal way to automate manual processes that previously required paper or the use of complex software to record and monitor any long-running activities.

With Project Server 2010 now being a part of the SharePoint Server platform, Demand Management includes workflows that help you manage project proposals and portfolio analyses. Demand Management is a new concept in Project Server 2010 that integrates project proposals, portfolio analysis, and Project Management through workflows and project detail pages. The goal of Demand Management is to enable users to propose, view, categorize, prioritize, select, and track projects within their organization. A key component within Demand Management is the workflow governance model implemented in Project Server. There are some out-of-the-box workflows available, but new workflows, as per your requirements, can be customized.

Thanks to this new feature, every organization is able to customize processes, allowing the organization to have standardized activities for DM and an easy way to authorize documents, projects, which makes the flow of information among the users more efficient. This level of customization can be achieved by using Visual Studio 2010 and SharePoint Designer 2010.

Having a collaborative environment based on different organizational workflows makes it easy for the organization to make decisions about subjects such as which initiatives should be approved and what skill set of resources should be hired or outsourced. A collaborative environment also can help with an audit of the execution of the projects to help you decide if the efforts should go on to the next stages.

## Business Process and Forms

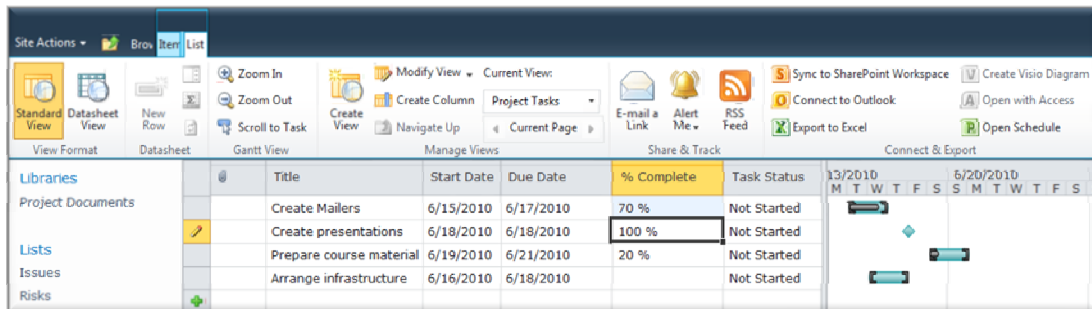
An essential factor for efficient Project Management is uniformity. Now all of the processes and Project Management templates can be easily uploaded to avoid having several versions of a document. This will allow standardization among the organization, streamline collection of data, and encourage user adoption.



## Synchronize the PLM

Prior to and during a project management lifecycle (PLM), capturing specific information that needs to be accounted for is crucial. Often, the user is not able to leverage a scheduling tool to capture the updates and perform an analysis. Using products such as Excel, Microsoft Word, Microsoft Outlook tasks, and so on, is common for people to quickly get the updates, take relevant notes and transfer the information to the project schedules. As tools have developed within SharePoint Server, people have been able to leverage online tools such as Excel Services and SharePoint lists.

A project task list in SharePoint Server displays a collection of tasks that are part of a project. Used in this sense, a task is a discrete work item that a single person can be assigned to. A project is typically a series of activities that has a beginning, middle, and end, and which produces a product, result, or service, such as producing a product demonstration for a trade show, creating a product proposal for stakeholders, or even putting together a corporate morale event.



	Title	Start Date	Due Date	% Complete	Task Status
	Create Mailers	6/15/2010	6/17/2010	70 %	Not Started
	Create presentations	6/18/2010	6/18/2010	100 %	Not Started
	Prepare course material	6/19/2010	6/21/2010	20 %	Not Started
	Arrange infrastructure	6/16/2010	6/18/2010		Not Started

Figure 4: SharePoint Server 2010 Task List Example

After you create a project task list, you can add tasks, assign resources to tasks, update the progress on tasks, and view the task information on bars that are displayed along a timeline.

Some of the settings for the project task lists differ from those of other lists (such as for contact lists, announcements, and other task lists). But you use the same basic procedure for creating a project task list as you do for other types of lists, such as adding columns, exporting to a spreadsheet, sorting and filtering, or organizing the task list.

## Lists: Synch-up SharePoint Server and Project Data

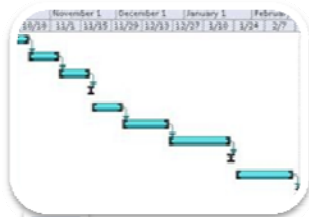
The ability to capture relevant, critical information in a central repository is essential for organizations. As PPM is aligned with corporate objectives, any impact to components within the PPM environment

has a direct correlation to the overall objectives. As mentioned earlier, stakeholders within a PPM are migrating to using online features such as lists and discussion groups to capture key pieces of data related to the projects and programs. Using SharePoint lists is a great first step, but being able to integrate those data points directly to a project would be a major improvement. Previous versions of Project and SharePoint Server allowed for list integration, but on a limited basis.

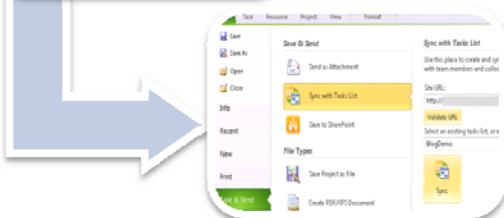
Project Server 2010 is tightly coupled with SharePoint tasks lists. In Project Server 2010, you have the option to create a fully managed portfolio project schedule composed entirely from entries in a SharePoint task list. And if you start with a Project 2010 file, you can generate ongoing two-way sync between the project schedule and a SharePoint task list. Hence, users can now publish a project schedule from Project Server to SharePoint Server, and vice versa. Any changes made in Project/SharePoint Server can be easily updated into SharePoint Server/ Project with the click of a button.

Here is how it works: The PM creates a simple project schedule in Project Professional 2010, as shown below (Figure 5):

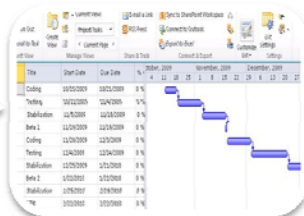




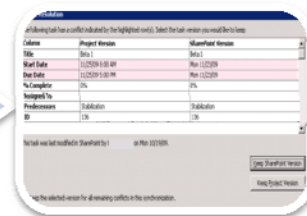
PM Creates a schedule in  
Project Professional



PM would like to share the  
plan with Team Member via  
SharePoint



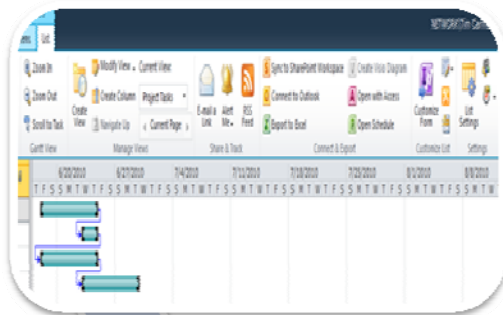
PM uploads the  
schedule to a  
SharePoint List



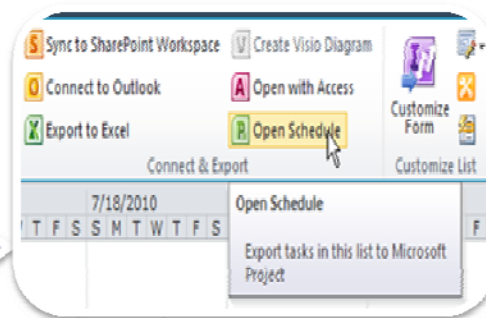
Team Member views and makes  
changes to the list. PM can sync  
changes back to Project Professional.

Figure 5: Project 2010 List in SharePoint Server 2010 Steps

Now let's examine the process of supporting the PLM if we initiated the schedule in SharePoint Server by creating a task list and then synchronizing to Project:



Project schedule is created as a SharePoint task list



Task list is directly exported to a schedule within Project Professional with the click of a button

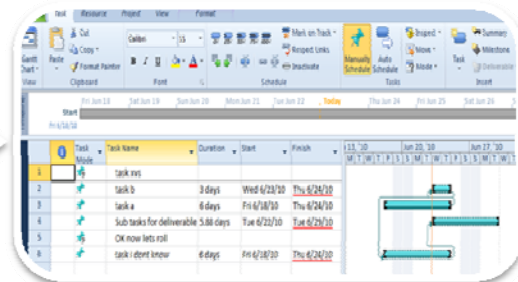


Figure 6: SharePoint Server 2010 List to Project 2010 Steps

Task list is now a schedule within Project Professional

As detailed in the Demand Management, and again mentioned in the Portfolio Strategy white papers, process definition and use is essential for organizations to gain control over their information and the information traceability paths. The Create phase (also known as Initiation from the Project Management Institute (PMI)) requires a fluid and agile environment of data gathering in order to organize the demand requests of a proposed project. The SharePoint Server 2010 feature set now

enables PMs or key project stakeholders to use a number of options to capture the information and synchronize in a Project Server environment.

Sync to SharePoint Server is a useful feature for those organizations that have SharePoint Server 2010 but not Project Server 2010, or for those that have both, but prefer to use a simple SharePoint task list to publish project plans rather than using Project Server 2010.

Using SharePoint Server and Project 2010:

1. Project Resources can enter updates in SharePoint Server
2. Project Managers can synchronize updates with Project
3. Custom field information can be used to generate reports

## Managing Risks and Issues

Thanks to the SharePoint Project sites, the PM is able to keep track of risks/issues related to the project. It allows for capturing, tracking, assigning and monitoring risks and issues.

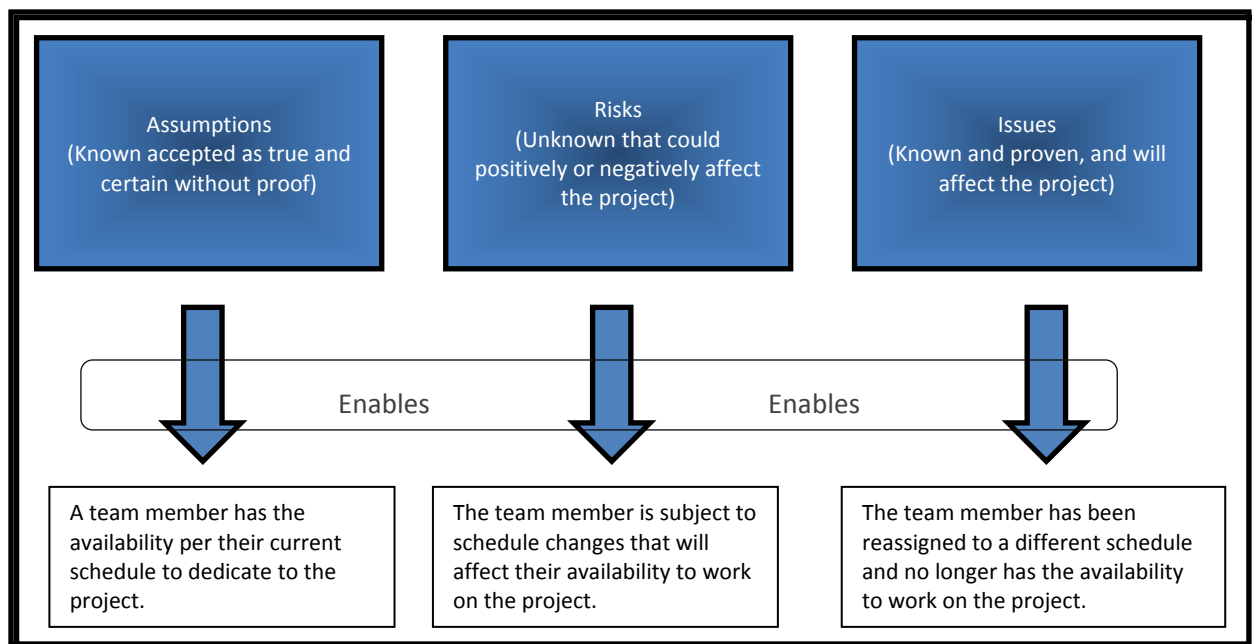


Figure 7: Benefits of Better Assumption, Risk, and Issue Management

Have you ever created a project plan and documented assumptions that need to be true in order for the project to be successful? Assumptions are relied-upon, specific circumstances. They are accepted as true, real and certain without requiring proof. Assumptions are the starting place, as they document what is accepted as 'known' to the team, and provide a good base for team collection and brainstorming of risk and issue data.

For example, you assume that customers will be available for a minimum of 20 hours per week throughout the project. Because you've made this assumption, you're relying on the customers to be available, to avoid delays in the project schedule.

Assumptions should be tracked throughout the project lifecycle, to confirm they are still presented as true. If an assumption is deemed as no longer valid, it becomes an 'unknown' factor within the project. It becomes a *risk*. Risks are an uncertain event that if it occurs could positively or negatively affect the project. Risk is always connected with uncertainty and consequently risk management is a set of techniques for controlling the uncertainty in a project. Keep in mind that risks can also arise independently and not be tied to an assumption, but all risks should be managed. Continuing with our Assumption example, due to a pending management decision, availability may become limited to only 12-15 hours a week. Now there is an 'unknown' that if it occurs will affect the project. Projects that do not track and manage risks do so at their own peril. The most severe risks are those that threaten to delay task, phase, or project end dates; increase the budget; overwhelm; or all three.

Project risks have the following attributes:

- Their presence is generally known at the beginning of the project. This is why collecting requirements of risk from the beginning of the project is crucial.
- They can exist at a specific point in the project, or they can persist throughout the life of the project.
- They can materially affect the outcome of the project if they become reality.
- There's a reasonable likelihood that they could become reality.
- Risks are extraordinary to what normally would be managed on a project.

SharePoint sites created for each project in Project Server 2010 can assist project managers with Risk Management.

Once collected, risks should be analyzed and prioritized. Although all risks should be managed at some level, some risks will require more management than others. Some risks may not require stringent management due to a low prioritization, but they should still be monitored in case circumstances

change that makes them a higher priority for the project. The higher priority risks need to be proactively managed.

Risk is always connected to uncertainty. If something is certain to occur it is called an *issue*, instead of risk. Issues are just as important as risk and similar to risks; issues are problems that occur during a project. These can arise on their own or be a result of a risk becoming a certain event, instead of remaining an uncertain event. If an issue isn't managed, it can materially affect the successful completion of a project. Where issues typically differ from risks, however, is that they generally don't persist throughout the project, and they may not be known at the outset of a project. Your issue list will not be persistent, as your risk list will be; issues will open and close as they're identified and resolved.

What's important in identifying and managing issues is this: Issues must be material to successful project completion. Again continuing with our example, the management decision has been made and availability is now limited to no more than 12 hours a week. It is now an issue that must be dealt with as it will impact the project schedule.

The keys to identifying these issues are:

- Understand the issue.
- Verify your interpretation of the understanding
- Record the issue to keep from letting it drop because this could spell doom to your project.

Project Server 2010 has pre-defined forms to identify and track risks and issues. Risk can be identified at a project level or linked further to a task, issue, document or the risk itself. The project team can place risks and issue forms on the Project site. Team Members can assign issues, categorize them, and prioritize them and more. Risks and issues can be linked to specific tasks, risks, documents and other issues which then displays as icons in the project view. The captured risk and issue data will be stored in the form on knowledge base and can be used to proactively mitigate similar risks and issues in the future.

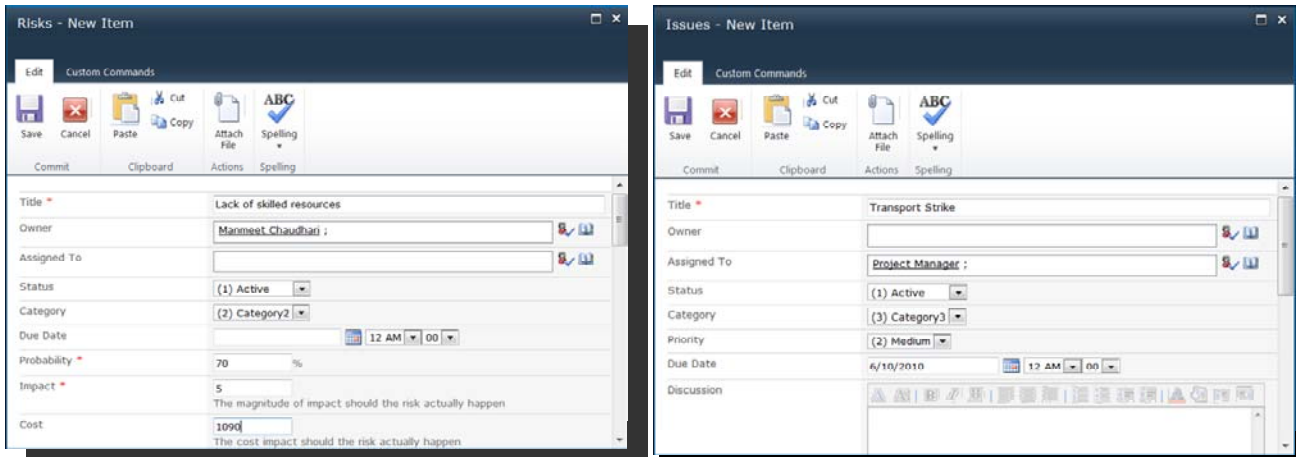
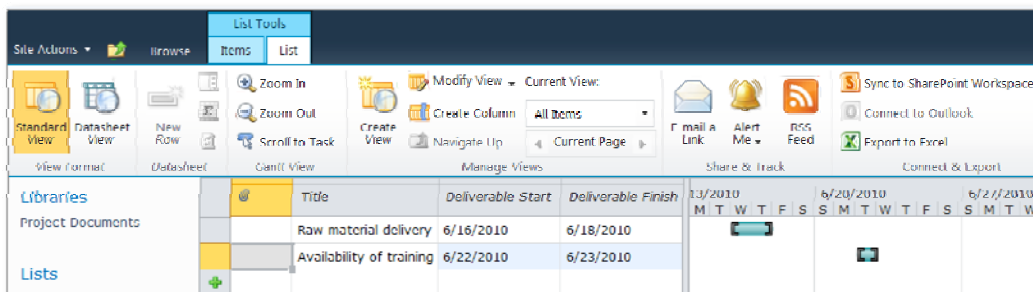


Figure 8: SharePoint Server 2010 Risks and Issues

## Managing Deliverables

It is imperative to manage risks and issues because they most likely will affect the status of the deliverables, which if delayed or altered significantly can affect the success of the project. A deliverable is a tangible and measurable result, outcome, or product that must be produced to complete a project or part of a project. If you are the PM of a large project, and have several milestones/deliverables to report about, Project Server lets you identify these items in the project plan to have better control of them and allowing you to easily report if they are being completed on time or not.

Typically, the project team and project stakeholders agree on the project deliverables before the project begins. Clarifying the deliverables before the project work begins can help ensure that the outcome of a project meets all the stakeholders' expectations and that the goals of the project align with the larger business goals. You can identify deliverables to show an end product of a particular task or of the entire project.



Libraries	Title	Deliverable Start	Deliverable Finish	Calendar View
Project Documents	Raw material delivery	6/16/2010	6/18/2010	
	Availability of training	6/22/2010	6/23/2010	



**Figure 9: Project 2010 – Deliverables can be Added Directly in the Project Site or Through Project Professional 2010**

As a project evolves, various types of deliverables are produced to support project continuation, to measure progress, and to validate plans and assumptions.

Deliverables can be managed by using a project site created for each project. They can be created directly on the Project site or through Project Professional. A deliverable can be independent or associated with a task or phase in project.

Other essential components to deliverables are requirements and quality. Requirements are the characteristics that the deliverable must possess to satisfy an identified need. It can be said that success of a project depends on how well the requirements were satisfied. Satisfying the requirements will, in turn, lead to delivering the level of quality desired for the deliverable.

As the management process for deliverables is carried out, there is a continuous system checking to ensure that requirements are being met and quality standards are being met. If deliverables are not managed efficiently or (worst case) not at all until the end, there are missed opportunities to correlate risks, issues, requirements and quality. There are also missed opportunities to initiate preventative and, if necessary, corrective actions.

Thanks to the flexibility that Share Point offers, it is easy to customize a list/workflow to help us set up the quality assurance process to make sure that the deliverables developed meet the quality criteria defined for the project. Also, we could set up a list that will allow us to validate that the requirements defined at the creation phase of the project are being met.

## Unified Project and Portfolio Management

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Project Server 2010 now resides within the SharePoint Server 2010 platform. Rich features are now available in the core Project Server product serving to more closely combine Project and Portfolio Management. The new Project Server 2010 contains the functionality of both Project Server and

Portfolio Server. SharePoint Server offers extended features, including the now built-in PerformancePoint capabilities to create high-impact executive dashboards, that help keep track of the performance of the organization in terms of its portfolios, operations, and resources.

The existing features of Project Portfolio Server 2007 are now integrated on a single Project Server 2010 platform and fully localized in over 27 languages ([Deploy language packs \(Project Server 2010\)](#)). This seamless unification of two products into one consolidated offering makes end-to-end Project and Portfolio Management easier than ever. By combining top-down Portfolio Management techniques with bottom-up Project Management capabilities, Project Server 2010 helps organizations identify and select optimal portfolios, and successfully deliver the projects to realize results.

The unified Project and Portfolio Management capabilities are further enhanced by emulating the familiar SharePoint Server 2010 platform. SharePoint-based workflows and forms can be marshaled at the outset to govern project requests and approvals, with the entire lifecycle – idea through closure – managed on one platform. The tightly integrated abilities and single user interface of three different products into one provide a consistent user interface, common data store, and centralized administration.

The Project 2010 solution now offers:

- A collaborative platform featuring workflow management, business case development, schedule tools, and a portfolio analysis engine that organizations need to comprehensively manage the demands of their business.
- Portfolio ‘what if’ scenario planning, giving you the ability to make objective decisions in regard to projects and resources.
- Tracking of progress against strategic goals to enable you to act early in case of limited or no success.



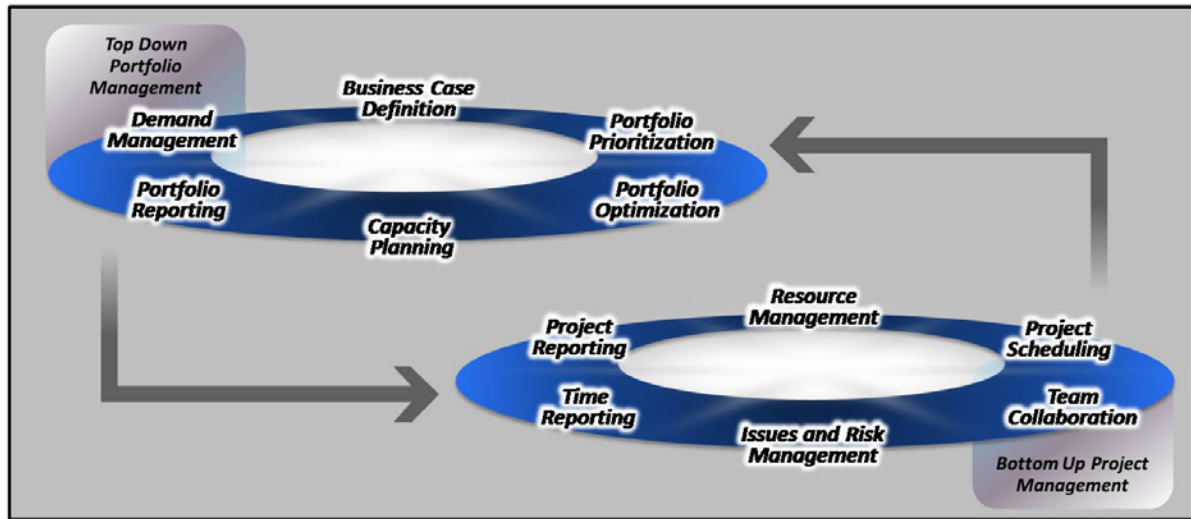


Figure 10: SharePoint Server and Project Server 2010 Better Together Visual

## Dynamic WorkSites

### Collaborative Workspace

Now, within the SharePoint Server environment and along with creating Project sites, you can create workspaces for team collaboration. A workspace is contained within the Project site and allows the team to work together on a document (for example, Project Charter, Communication Plan, and so on). There are also meeting workspaces that store meeting minutes, agendas, calendars, and can record meeting decisions. These workspaces allow for a 'conference room' within the Project site where the collaboration is more focused on a particular document or meeting.

This degree of collaboration-heavy features plays into the earlier points of capturing the "living" information from the team that can be lost in traditional "water cooler" discussions. Project sites aim to provide all natural discussion tools that a PM could ask for in a single, "one-stop" shop experience for the team.

These workspaces are governed by the permissions granted to Team Members. For example, the PM may have formed a core team to discuss and collaborate on the Project Charter prior to releasing team-wide. Through permissions, only the core team may have access to this workspace. This control is crucial to efficiently managing work and team stakeholders.

## Search Capabilities Meeting Business Users Needs

I Like It

M

Search is easy

Duration	Tot	6/13/2010							6/20/2010							6/27/2010							7/4/2010										
		S	S	M	T	W	T	F	S	S	S	M	T	W	T	F	S	S	S	M	T	W	T	F	S	S	S	M	T	W	T	F	S
433.5d	\$5,																																

Figure 11: SharePoint Server 2010 Contextual Search

Search within Project Server is simplified and mimics how users would search within a web browser, allowing for convenient and efficient queries. As Project Server is based on SharePoint Server, it supports several types of search. You can use the Search box that is on each page of a site, the Search Center site, or create a detailed query by using the Advanced Search page. You can look for content by searching for keywords, a specific phrase enclosed in quotation marks, or by values that are assigned to properties.

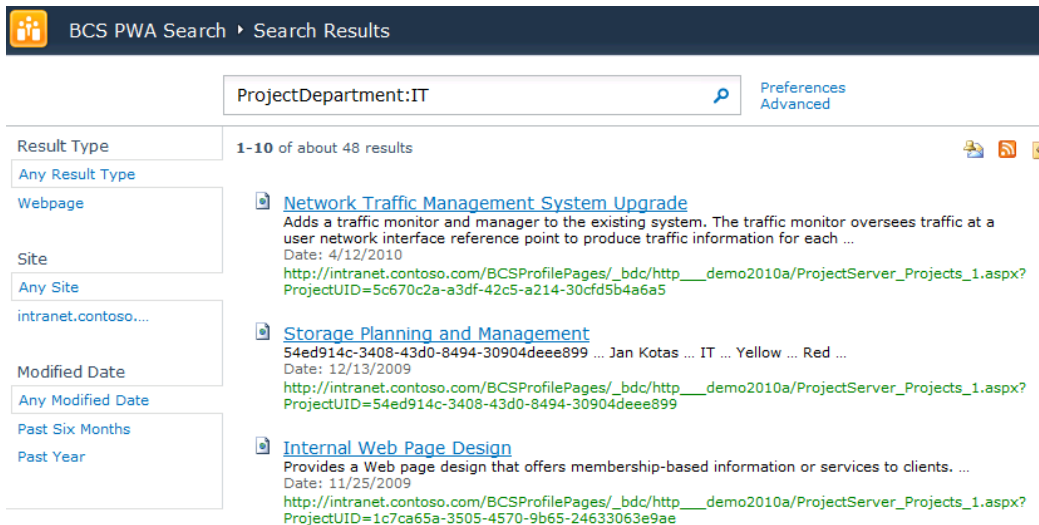
When you are looking for content, but are not sure where it is located, start your search at the highest site where you think the information might reside. You can then refine the results in order to find the information. You can look for content by entering keywords or a specific phrase enclosed in quotation marks.

If you need to construct a more specific query, you may want to use the Advanced Search page, which is available from the search results page. By using Advanced Search you can choose to display or exclude results that include certain words, filter search results by language or type, and search on content properties. Thus it is now very easy to search for required data on the site without wasting lots of time.


SharePoint Server 2010 now supports the following types of search:




- **Boolean Search:** You can use Boolean operators to combine text and construct a meaningful query. For example: AND, OR, NOT
- **Wildcard Search:** Search queries can now match a wildcard at the end of a text string. You can for instance search for “tenn\*” and get results that have the word “tennis” in them
- **Faceted Search:** When a search query returns a lot of results the faceted search functionality displays a refinement panel on the left side of the screen. In the panel you can refine the results based on criteria like Result type, Site, Author, Modified Date and Tags

Additionally, by leveraging SharePoint Server 2010 Business Connectivity Services,<sup>1</sup> you could easily index and search Project Server's metadata (Projects, Tasks, Resources, Custom Fields ...) and find out, for instance, how many projects have a Key Performance Indicator set to "Red", how many resources belong to a specific department, what resources have specific roles and skills, and so on (Figure 12 and Figure 13).



BCS PWA Search ▸ Search Results

ProjectDepartment:IT  Preferences  
Advanced

Result Type **1-10 of about 48 results**   

Any Result Type

Webpage

Site

Any Site


intranet.contoso....


Modified Date

Any Modified Date

Past Six Months

Past Year

 **Network Traffic Management System Upgrade**  
 Adds a traffic monitor and manager to the existing system. The traffic monitor oversees traffic at a user network interface reference point to produce traffic information for each ...  
 Date: 4/12/2010  
[http://intranet.contoso.com/BCSProfilePages/\\_bdc/http\\_\\_\\_demo2010a/ProjectServer\\_Projects\\_1.aspx?ProjectUID=5c670c2a-a3df-42c5-a214-30cfd5b4a6a5](http://intranet.contoso.com/BCSProfilePages/_bdc/http___demo2010a/ProjectServer_Projects_1.aspx?ProjectUID=5c670c2a-a3df-42c5-a214-30cfd5b4a6a5)

 **Storage Planning and Management**  
 54ed914c-3408-43d0-8494-30904deee899 ... Jan Kotas ... IT ... Yellow ... Red ...  
 Date: 12/13/2009  
[http://intranet.contoso.com/BCSProfilePages/\\_bdc/http\\_\\_\\_demo2010a/ProjectServer\\_Projects\\_1.aspx?ProjectUID=54ed914c-3408-43d0-8494-30904deee899](http://intranet.contoso.com/BCSProfilePages/_bdc/http___demo2010a/ProjectServer_Projects_1.aspx?ProjectUID=54ed914c-3408-43d0-8494-30904deee899)


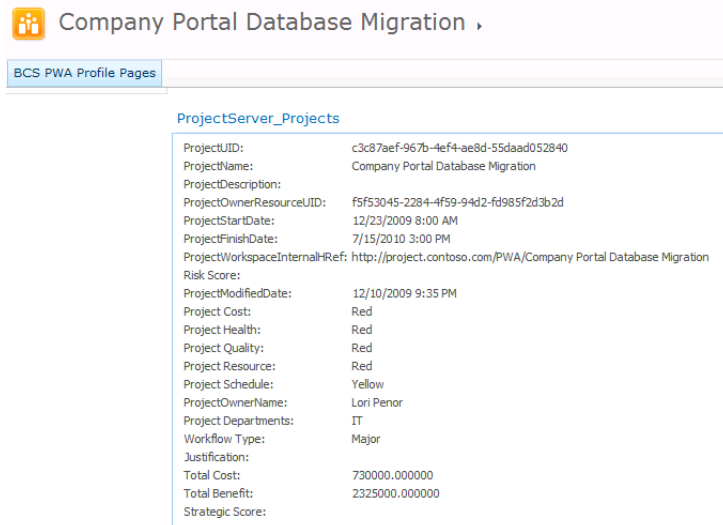
 **Internal Web Page Design**  
 Provides a Web page design that offers membership-based information or services to clients. ...  
 Date: 11/25/2009  
[http://intranet.contoso.com/BCSProfilePages/\\_bdc/http\\_\\_\\_demo2010a/ProjectServer\\_Projects\\_1.aspx?ProjectUID=1c7ca65a-3505-4570-9b65-24633063e9ae](http://intranet.contoso.com/BCSProfilePages/_bdc/http___demo2010a/ProjectServer_Projects_1.aspx?ProjectUID=1c7ca65a-3505-4570-9b65-24633063e9ae)

Figure 12: Search project attributes using SharePoint Server BCS and FAST Search



Company Portal Database Migration ▸

BCS PWA Profile Pages

ProjectServer\_Projects

ProjectUID:	c3c87aef-967b-4ef4-ae8d-55daad052840
ProjectName:	Company Portal Database Migration
ProjectDescription:	
ProjectOwnerResourceUID:	f5f53045-2284-4f59-94d2-fd985f2d3b2d
ProjectStartDate:	12/23/2009 8:00 AM
ProjectFinishDate:	7/15/2010 3:00 PM
ProjectWorkspaceInternalRef:	http://project.contoso.com/PWA/Company Portal Database Migration
Risk Score:	
ProjectModifiedDate:	12/10/2009 9:35 PM
Project Cost:	Red
Project Health:	Red
Project Quality:	Red
Project Resource:	Red
Project Schedule:	Yellow
ProjectOwnerName:	Lori Penor
Project Departments:	IT
Workflow Type:	Major
Justification:	
Total Cost:	730000.000000
Total Benefit:	2325000.000000
Strategic Score:	

<sup>1</sup> Work with external data, whether online or offline, in SharePoint Server 2010 and Microsoft Office 2010 applications using Business Connectivity Services (BCS, formerly named the Business Data Catalog):  
<http://sharepoint.microsoft.com/en-us/product/pages/Feature-Details.aspx?Capability=Composites&FeatureID=7>

Figure 13: Render project specific attributes using BCS in SharePoint Server

## Manage Vast Content

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All of the documentation generated for each project could be easily centralized in SharePoint Server and can be set-up as a global knowledge center in terms of lessons learned the organization has experienced from previous projects, helping new initiatives to be better defined and executed.

Microsoft Office SharePoint Server 2007 brought together document management, records management and web content management with a consistent user experience, architecture and platform. SharePoint Server 2010 provides a common platform for metadata, security, workflow, and so on.

- **Large list and libraries:** SharePoint Server 2010 supports much larger document libraries with metadata driven navigation to help users go quickly to the content that is most important to them. Libraries will scale to tens of millions and archive to hundreds of millions of documents. It supports high-end document and records management, but also helps organizations with lots of smaller sites.
- **Enterprise Metadata:** SharePoint Server 2010 supports content types and taxonomies not only across sites, but also across server farms. It is very easy to apply this metadata in both the SharePoint Server and Office client user experience. The top-down taxonomy and bottom-up social tagging combine to help improve search, navigation and people connections.
- **Document Sets:** SharePoint Server 2010 supports a way to manage a collection of documents as a single object for workflow, metadata, and so on within SharePoint Server and Office so experience more closely models your work product (for example, a proposal that may contain a presentation, budget, contract, and so on) and moves through processes and workflows as a single bundle of data.
- **Web Publishing including Digital Asset Management:** It is easier to publish rich sites on the intranet or internet using the new browser ribbon and editor experience to speed site customization, content authoring and publishing tasks. In addition there are digital asset management features like thumbnails, metadata and ratings for images as well as video streaming from SharePoint Server.

- **Governance and Records Management:** Compliance is an increasingly important requirement for organizations. There has been considerable improvement in the sophistication and flexibility of governance tools. Just a few new features include location-based file plans, multi-stage dispositions, in-place records and e-discovery.

## Enterprise Content Management

Project Server 2010 offers users a variety of web access options to locate, review, analyze, and provide input into projects and proposals. But there may be times when a schedule has been created, perhaps by a customer or external entity. The schedule may not align directly with the project types and workflows in Project Server, but the team will still benefit from working collaboratively on a schedule. The option for teams to store versions of a project schedule in SharePoint Server is highly valuable. We often leverage the SharePoint Server 2010 project schedule storage when working on a milestone-based project, say for a pharmaceutical product. The schedule may represent checkpoints, key tasks and deliverables for FDA stage approvals, but the project schedule is not necessarily the one used by the product development team. Thus, the schedule would be saved as a file in SharePoint Server, apply version control and also leverage associative documents and notes to that file. It may reside in a SharePoint team site, or in the Product Development Team's Project Workspace.

How does this work? You can save project files to a library on SharePoint site, where Team Members can collaborate. Saving files in a library is similar to saving it on a network or web location.

The SharePoint Library can be further used to manage versions of project files, store additional information about files, and receive updates when the files change. When you save a file, you may be prompted to provide additional information or perform other actions, depending on how your site or server is configured. For example, you may need to enter information about the file, such as your department name or the content type of the file. The ability to check documents in or out also maintains control over changes.

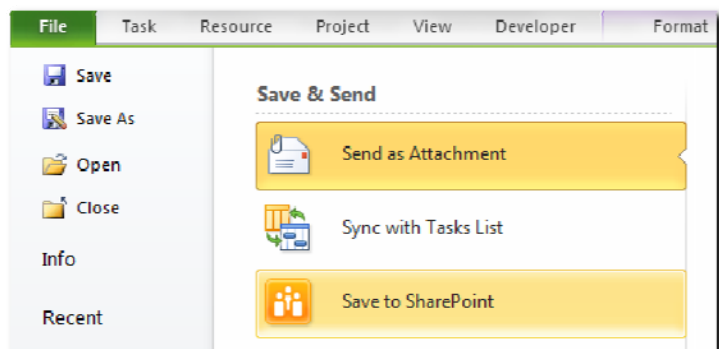
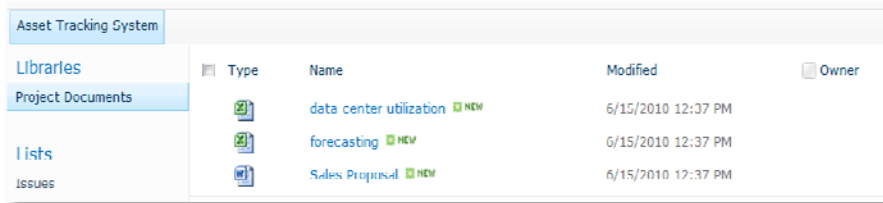


Figure 14: Project 2010 Publishing to SharePoint Server 2010

A project is associated with multiple documents from kick-off to close. It is important to manage and organize these documents and ensure they are available to the appropriate stakeholders at all times.

SharePoint Server Document Management focuses on the storage and organization of documents to support active work in progress and sharing within an organization.






Type	Name	Modified	Owner
	data center utilization <span>NEW</span>	6/15/2010 12:37 PM	
	forecasting <span>NEW</span>	6/15/2010 12:37 PM	
	Sales Proposal <span>NEW</span>	6/15/2010 12:37 PM	

Figure 15: SharePoint Server 2010 Knowledge Asset Storage

A Document Library can be associated with any project that is published to the Project Server database and can provide a location for team members to collaborate and share documents (including Microsoft Word, Microsoft Excel, Microsoft Access, and many other document types and formats) outside of a project. In addition to Document Libraries, a Public Library can be used to store documents that are related to all projects in your organization.

Team Members can use this strong document library feature in the Project site to post, edit and review project documentation. For example, a construction site foreman can review specifications that are share from a Project site. An internal Project Team can share new product workflow diagrams, technical specifications and requirements, documented regulatory material, completed project methodology documents, parts list and much more.

The Document Management feature enables you to do the following:

- Associate project-related documents with tasks, issues, and risks.
- Use multiple document libraries and hierarchical folders within a project workspace.
- Check in, check out, and track versions for documents.
- Save documents directly from other Microsoft Office applications.
- Receive e-mail notifications when a document is modified.
- Perform full-text search on documents.
- Associate graphical indicators for documents with tasks, projects, and resource assignments.
- Store, organize, and locate documents.
- Ensure the consistency of documents.
- Manage metadata for documents.



- Help protect documents from unauthorized access or use.
- Ensure consistent business processes (workflows) for how documents are handled.

## Data Visibility and Business Insights

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Project Server 2010 can capitalize on the benefits and features of SharePoint Server 2010. Insights are a pillar of SharePoint Server 2010. It houses the Business Intelligence (BI) functionality required for dynamic reporting. Insights allows for the convergence of up to date data and assessments blending real-time reporting and efficient decision making.

Historically, business intelligence has been a specialized toolset used by a small set of users with little ad-hoc interactivity. SharePoint Server 2010 unlocks data and enables collaboration on analysis to help everyone in the organization get richer insights. Excel Services is one of the popular features of Office SharePoint Server 2007 as people like the ease of creating models in Excel and publishing them to server for broad access while maintaining central control and one version of the truth. SharePoint Server 2010 with new visualization, navigation and BI features expands the horizons of Excel Services.

- **Excel Services:** Excel rendering and interactivity in SharePoint Server gets better with richer pivoting, slicing and visualizations like heat-maps and spark-lines. New Representative State Transfer (REST) support makes it easier to add server-based calculations and charts to web pages and mash-ups.
- **PerformancePoint Services:** Microsoft enhanced scorecards, dashboard, key performance indicator and navigation features such as decomposition trees in SharePoint Server 2010 for the most sophisticated BI portals.
- **Visio Services:** As with Excel, users love the flexibility of creating rich diagrams in Visio. In Visio 2010, there is a provision of web rendering with interactivity and data binding from SharePoint Server with support for rendering Visio diagrams in a browser. There is also SharePoint workflow design support in Visio.
- **SQL Server capabilities:** SQL Server capabilities like Analysis Services and Reporting Services are easier to access from within SharePoint Server and Excel. This allows easier analysis and online report generation.
- **PowerPivot:** It is a powerful new in-memory database technology that lets Excel and Excel Services users navigate massive amounts of information without having to create or edit an OLAP cube.

## Business Intelligence

BI is a new web site created within PWA to house Excel, SQL Server Reporting Services and PerformancePoint content. This enables a one stop shop for all BI needs. The Business Intelligence Center enables you to collaborate, discover and manage the information you need to drive business forward. Additionally, Business Intelligence Center provides one single interface to cater to all business intelligence needs of users. With BI, users are empowered with the right business insights enabling them to make informed decisions, and move the business forward, one activity at a time.



Figure 16: SharePoint Server 2010 Business Intelligence (BI) Platform

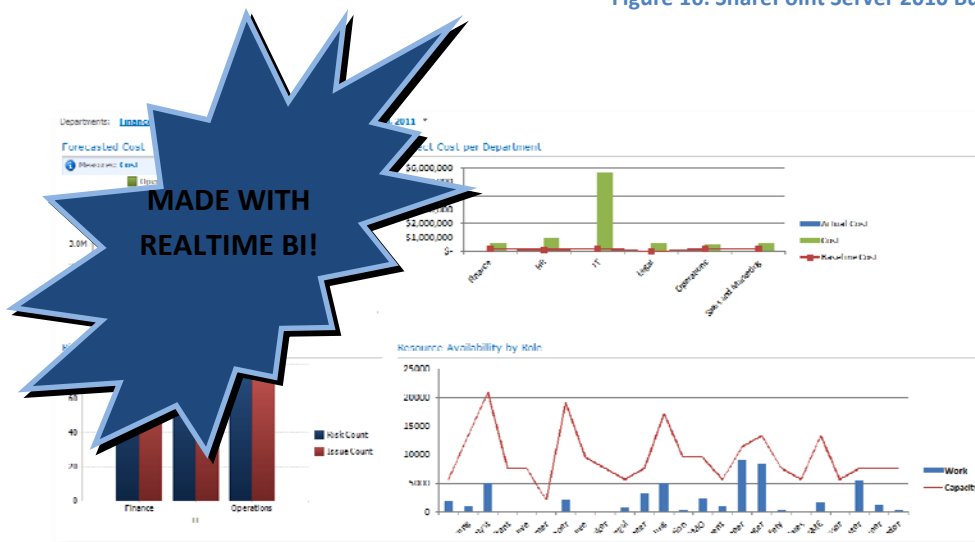


Figure 17: SharePoint Server 2010 Dashboard Example

Project Server 2010 (along with SharePoint Server 2010) now not only addresses personal BI needs by using Project Visual Reports, but it also addresses departmental- and enterprise-level BI needs.

It offers to:

- Monitor key performance by keeping track with SharePoint Server status lists and create scorecards with PerformancePoint Services



- Build and share reports using Excel Services and let your team access and interact with the data in full fidelity
- Use SharePoint Server to create rich and interactive dashboards that help you turn data into informative insights

## Reporting and Dashboards

One key set of functionality in SharePoint Server is the support for delivery of reports, particularly Excel-based reports, through the Web browser. The Report Center is designed to provide a solution to integrate Excel-based reports, dashboards, Key Performance Indicators (KPI) lists based on SharePoint lists, and SQL Server Analysis Services and manually entered data to develop reporting and dashboard sites that can be deployed within SharePoint Server and managed like other SharePoint sites.

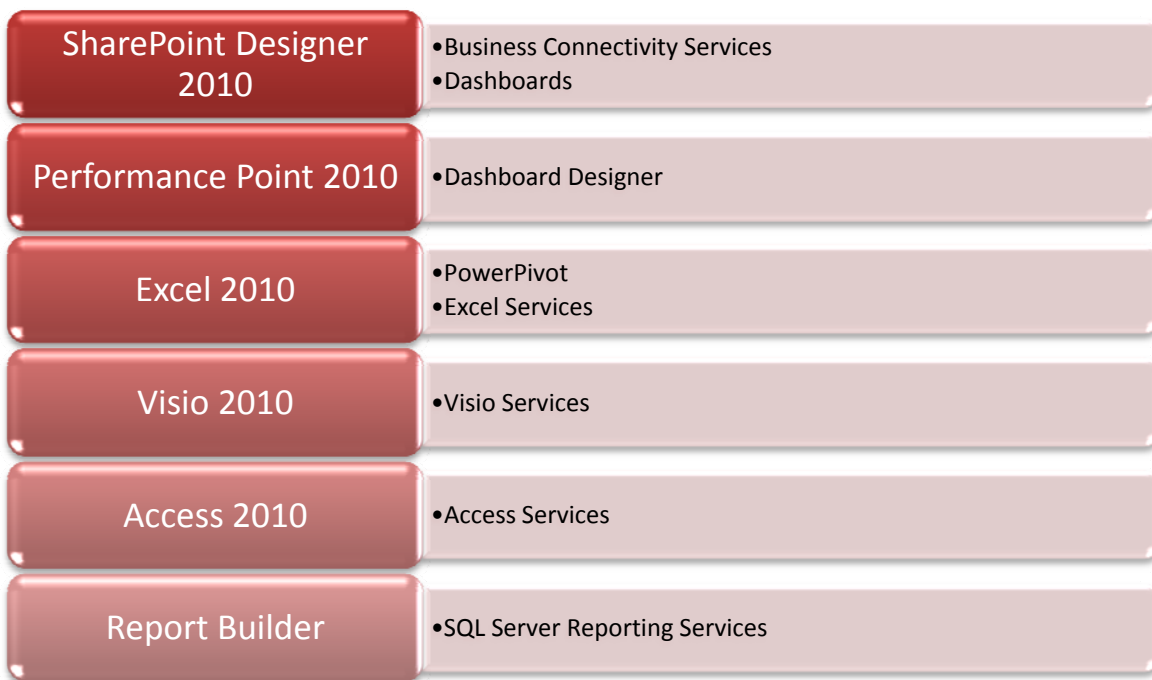


Figure 18: SharePoint Server Reporting Topology



Figure 19: SharePoint Server 2010 Graphical Indicators

Comprehensive reporting solutions and dashboards provide the busy executive a quick snapshot of the right information, at the right time, in the right format, in real time. SharePoint Server–based reporting solutions and dashboards leverage the intrinsic features of SharePoint Server like extensibility, integration capabilities, flexibility, and collaborative framework to facilitate building robust, secure and tailored solutions that virtually become the one-stop shop for all the critical information requirements of business users.

Project 2010 also provides pre-connected blank templates for report creation from the Reporting database. These templates focus on key entities within Project Server. This makes it much easier to create quick reports on specific items. The templates are:

- Dependent Projects
- Issues
- Project & Assignments
- Projects & Tasks
- Resources
- Risks
- Timesheet

## Business-Driven Modeling using Composites

Project Server 2010, in partnership with SharePoint Server 2010, is a perfect representation of Composites. Composites are a blending of technologies used to drive and support business solutions. Blending the robust Project and Portfolio Management capabilities of Project Server 2010, with the

collaboration platform of SharePoint Server 2010 creates a one-stop shop for solutions that will sustain strategic business objectives and successfully meet business goals.

With SharePoint Server 2010 it is easier for everyone – users, IT, partners, and so on – to build custom solutions on SharePoint Server that automate processes and connect disparate information. Some of the scenarios are more IT driven. Others are more end-user driven. A composite is a good short word to describe the breadth of solutions built with SharePoint Server.

- **SharePoint Designer:** Newly revamped to focus on the building blocks of a SharePoint Server solution vs. HTML source code. The user experience gets easier because of the Ribbon UI and new tools for building workflows and connecting to external data. SharePoint Designer customizations are available out-of-box in 2010 so IT can let users customize sites without risk.
- **InfoPath Forms Service:** InfoPath is the best way to have a common form definition render in the browser as well as in a rich and offline client. For 2010, Microsoft improved the design environment to make it easier to build rich forms declaratively with little to no code and more client-side validation. They have also made it straightforward to use InfoPath forms as native SharePoint forms both on the web and when offline from within the SharePoint Workspace client.
- **Access Services:** Users have long loved the ability to create database applications quickly with forms and views. Access Services lets you publish new Access solutions to a SharePoint site where they can be managed centrally and accessed from a web browser.
- **Sandbox Solutions:** In SharePoint Server 2007, custom code required the farm administrator to trust the code running on the server. In SharePoint Server 2010 there is a new SharePoint Server sandbox that allows administrators let others safely add and consume custom solutions without affecting overall farm performance and stability. While it does not cover the full SharePoint Server object model, it addresses key scenarios like custom web parts and event receivers.

## Integration with Line-of-Business Applications

Business Connectivity Services (BCS) in SharePoint Server 2010 is all about connecting to external data. BCS enhances the SharePoint Server platform's capabilities with out-of-box features, services and tools that streamline development of solutions with deep integration of external data and services. BCS builds upon its predecessor, Business Data Catalog (BDC), in the key areas of presentation, connectivity, tooling and lifecycle management. For example, in SharePoint Server 2010 it is easy to create an external

content type with SharePoint Designer 2010, create an external list in the SharePoint Server web UI and take the list offline into Outlook as a set of contacts. Also, you can make updates to contacts in Outlook that will cause the data in the external system to update as well.

**Business Connectivity Services:** SharePoint Server 2010 expanded the read-only Business Data Catalog from SharePoint Server 2007 to support create, read, update, delete, search and offline access to line-of-business (LOB) data. This data, such as a customer record from a database, web services, and so forth, is called an External List and it is mapped to an External Content Type so this data looks and behaves like native SharePoint Lists. You can not only update this data from within SharePoint Server but can take it offline from SharePoint Workspace and, where it makes sense make modifications, like Contacts, in Outlook with offline editing.

The evolution of the Business Connectivity Services is very much improved, enabling you to connect Line of Business applications, web services and databases to SharePoint Server easily by using SharePoint Designer 2010 and Visual Studio 2010. You can even take this a step further and connect your Office 2010 applications to the BCS, providing a tightly integrated connection with business data.

Using BCS, organizations can:

- Expose information locked up in databases and line-of-business applications by using Web Parts and Search in SharePoint Server.
- Use this feature to expose and/or search data in LOB systems that are integrated with EPM.

## Leverage Integrated Communities to Build and Manage Knowledge Assets

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Communication is a major success factor for any project, regardless of size or type. To enhance communication, the Project Team must function more like a community. SharePoint Server 2010 has made great strides in bringing the social computing elements to users in an easy-to-use format. This collaboration is key to project success, and inherently develops the Project Team using not only business knowledge about that person, but creating personal ties to enhance internal team relationship enterprise-wide.

Many organizations, regardless of size or type have different types of communities in terms of the work each group or area of the company has to develop. Share Point allows the organizations to create collaborative web spaces for these communities to interact and have better understanding of the

activities they are developing. We can create surveys and link them to the reporting tools that can be integrated to the tool to easily analyze the behavior on a specific topic.

SharePoint Server 2010 is now the ultimate Swiss army knife for collaboration with smart connections across people and teams. It enhances the set of collaboration and social networking tools for both organic and managed communities across your organization. Those include:

- **Collaborative content:** This includes improved blogs and wikis, calendars, discussions, tasks, contacts, pictures, video, presence and much more. With Office 2010, multiple people can simultaneously author content on a SharePoint site.
- **Social feedback and Organization:** This involves organizing, finding and staying connected to information and people including bookmarks, tagging and ratings, searching, navigation, profiles, feeds and more. It combines informal social tagging with formal taxonomy so you can choose the right approach for a given set of content.
- **User Profiles:** SharePoint Server 2010 enhances user profiles to reflect colleagues, interests, expertise – either through explicit tagging or recommendations based on Outlook and Office Communicator. The model is opt-in so users can manage what information is shared publicly. They decide when an interest is something they want to share or be asked about by others in the organization.
- **MySites:** MySites give quick access to your content, profile and social network while continuing to let you customize, target and personalize pages to the needs of different roles and users in your organization. The enhanced newsfeed helps track interests and colleagues.
- **People connections:** In SharePoint Server 2003, there existed a universal person hyperlink and presence icon so that you could always navigate to a user's MySite, send that person mail, start an IM, call, and so forth. In SharePoint Server 2010, the UI is enhanced in conjunction with Outlook and Office Communicator. There has also been great improvement in the colleague tracking and people search features with new algorithms and user experience that takes advantage of expertise, social data and more. In larger companies, organization chart browsing via the address book is one of the most popular features in Outlook that takes the SharePoint Server experience to the next level.

## Collecting Information from Multiple Sources

Surveys provide an efficient and cost-effective way to collect feedback on everything from how satisfied customers are with your product offerings to whether or not employees are satisfied with Key Result Areas (KRAs). You can use surveys to ask team members what they think about issues, how to improve your processes, and many other topics. Surveys yield the substance needed for future product, system, or process improvements and development. It enables you to present specific questions and collect the answers in an organized format, similar to a poll. Surveys can be implemented using SharePoint Server 2010.

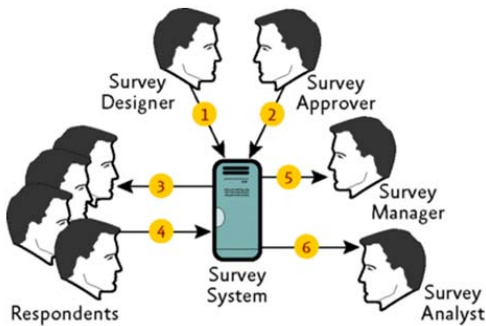


Figure 20: Example of Information Gathering

SharePoint Server offers web-based surveys that can be completed by anyone who has access to a Web browser—even mobile devices are supported. The responses can be named or anonymous, real-time results are available, and you can apply analysis tools. Results can be collected using several different types of questions, such as multiple choice, fill-in fields, and even ratings.

Depending on how a survey is set up, you may be able to respond to that survey only once. If you are the person creating the survey, you can add branching logic so that the survey changes according to the responses to specific questions. In a survey that branches, questions appear only if they apply to someone's situation based on previous responses. If the questions don't apply, the person skips that set of questions or is offered a different set of questions.



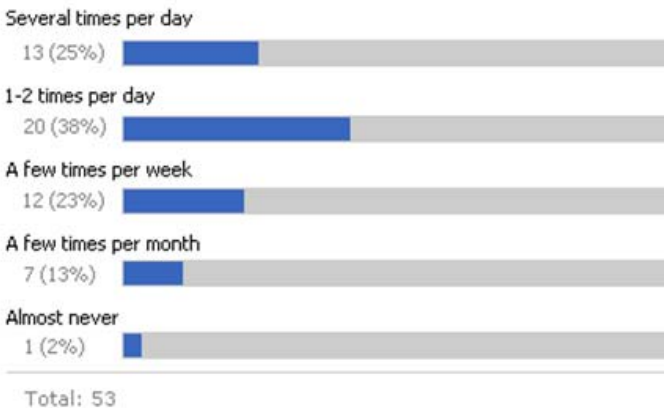


Figure 21: SharePoint Server 2010 Survey Results Example

After people respond to the survey, you will want to see the results, including any patterns visible in the results. Surveys provide a graphical review of responses, similar to a chart, or you can export your results to another program, such as Microsoft Excel. It can also provide individual responses or a list of responses.

## Project Team Discussion

Discussion boards provide a forum for conversing about topics that interest your team. For example, you could create a discussion board for team members to suggest activities. Team communication and discussion is the key to project success. Discussion boards allow project team members and project stakeholders to discuss open ended issues or proposals, give feedback and ensure a smooth flow of communication at all levels. They are a good way to manage escalation and team interaction. And because the Discussion Board is housed within the Project site, the communication is captured as an historical project asset.

Discussion boards can be setup using SharePoint Server 2010 to share and discuss topics. The discussion board shows the most recent discussion first, as well as the number of replies for each discussion. That way, you can quickly see which discussions have the most recent activity and which ones are the most popular. Members can also customize their own views of the discussion board. Participants can even add items to the discussion board from their e-mail application, making participation as easy as sending an e-mail message. Multiple participation venues (through the intranet, web or e-mail) also widen the audience, as people can contribute remotely. So whether Team Members are in the office or in the field, participants have an easy way to contribute content.

**Team Discussion**

New ▾ Actions ▾ Settings ▾ View: **Subject ▾**

Subject	Created By	Replies	Last Updated
<a href="#">Proposals</a>	<a href="#">Lolan Song</a>	3	03/10/2008
<a href="#">Conference plans</a>	<a href="#">Sean Chai</a>	5	03/10/2008
<a href="#">Session paper</a>	<a href="#">Jae B. Pak</a>	1	03/09/2008
<a href="#">Potential speakers</a>	<a href="#">Heidi Steen</a>	2	03/06/2008
<a href="#">Yearly sales</a>	<a href="#">Hao Chen</a>	10	03/05/2008
<a href="#">Prepare for meeting</a>	<a href="#">Fukiko Ogisu</a>	4	03/04/2008

Discussions in a discussion

Discussion comments can be viewed in either a flat or threaded view. Flat view displays all comments in the order in which they were created. Threaded view lets you view comments by conversation. The discussion groups are organized by topic. Anyone can post a message to a discussion, and multiple people can respond in a free-form manner.

Figure 22: SharePoint Server 2010 Discussion Example

## Social Computing and Communication

SharePoint Server 2010 includes social computing tools such as My Site websites and social content technologies such as blogs, wikis, and really simple syndication (RSS). These features are built upon a database of properties that integrates information about people from many kinds of business applications and directory services. You can adapt content to each user while enabling administrators to set policies to protect privacy. SharePoint Server 2010 introduces ready for prime time social networking for the enterprise, with a rich feature set around social content, activity feeds, social and people search, and more.

Every Team Member can customize unique 'My Site' pages. This page provides information about the Team Member, everything from their direct supervisor and subordinates, biography details, interests and skills, and contact information. This is a virtual address book. Through the use of metadata tags, these tags will supply necessary data for searching. Now one member can look for a specific skill set or business acumen, and find someone possessing those skills internally.

The idea of Communities is to bring the Project Team closer, enhance internal collaboration and cooperation, and streamline communication. It is also another tool for people to see what others are working on, what experience they possess, and how their skills can assist in projects.

The social computing also provides communication platforms for things such as a Chat feature, which also shows an employee's status (for example, whether they are in a meeting or not, or available to contact for assistance, and so on). There is also a posting feature similar to the postings seen on other social networking sights. Employees can post items to their 'wall' and others can comment.



Developing camaraderie among Team Members enhances communication, and assists in getting a team through the Forming and Storming phases of team building, and on to the more productive Norming and ultimately Performing phases much quicker than before.

## Tagging and Rating

Social tags enable users to tag and track the information they are most interested in. Users can also leave impromptu notes on profile pages of a My Site Web site or any SharePoint Server page. You can now tag any source on the internet (or intranet) which has a URL. This is stored in your tags section on your My Site, and also appears in your Activity Feed. Other users can also post notes relating to your tag, which effectively creates a discussion board around the tagging activity, allowing conversations around something that has been tagged.

Now, one of the key points is Security Trimming. Let's take this example: what happens if you Tag a document that someone else doesn't have access to? Social tagging uses the Search Index to provide security trimming on content that is stored in SharePoint Server. This provides the capability for senior managers to tag confidential documents but those tags are not visible to anyone who doesn't have read-access to the document.

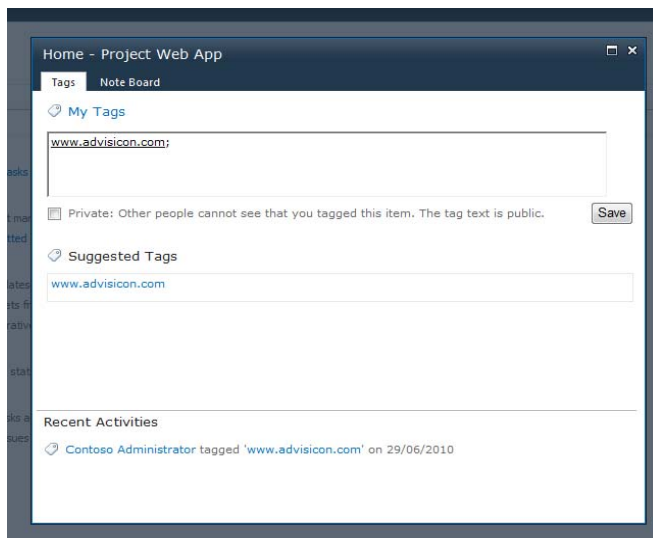
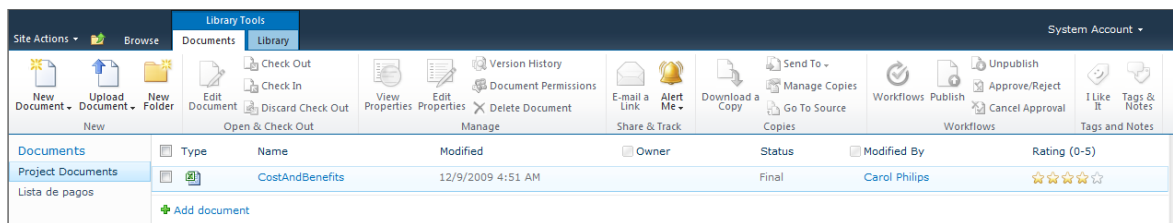


Figure 23: Project Server 2010 Tagging using SharePoint Server



**Figure 24: Project Server 2010 Tagging Notes Example**

On top of this is included a Ratings feature, where you can rate content within SharePoint lists. This means that SharePoint Server 2010 now has social feedback functionality, in that you can tag and rate content and other people can interact with that "tag" creating a discussion.



**Figure 25: SharePoint Server 2010 Ratings Example**

## Alerts and Notifications

To manage and provide access to documents on a Web site, you can be notified by e-mail when content on the site changes. This type of notification is called an alert. Alerts notify you of changes to documents, list items, document libraries, lists, surveys, or search results—helping you to be more effective by easily staying up to date with relevant information. If you have access to a SharePoint site, you can add, modify, and delete alerts from Microsoft Outlook. You can create alerts for lists and document libraries, as well as for individual items and any files in them.

Alerts and reminders can also be set for changes made to task or status reports in Project Server. Each resource is able to configure the frequency of email alerts and reminders for upcoming and overdue tasks; additionally, Project Managers can also configure their resources' email reminders. If a Project Manager configures email alerts and reminders for their resources, the Project Manager's settings override those set by the resource.

## Compliance Monitoring

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Records management is the practice of maintaining the records of an organization from the time they are created up to their eventual disposal. This may include classifying, storing, securing, and destruction (or in some cases, archival preservation) of records. The time that an organization considers information to be relevant or valuable is on a per case basis.

All important project related documents and information can be subject to records management. Although not always the case, a primary driving factor in records management is compliance with legal standards. A project document or project related email becomes an item of record when it contains information about the running of the business, contains information that must be retained with statutory requirements or contains information about an employee or a potential employee.

One of the new industry trends is the idea of in-place records management rather than a central repository of documents that requires a routing service. In this method, the documents stay in the current location, and they are classified as business records. This will allow the document to gain the appropriate security, retention and disposition without ever having to be routed to a centrally managed location. Auditing, barcoding, labeling, deleting previous old versions of documents, and moving documents to the recycle bin are some actions that can be performed using records management.

Every document in SharePoint Server 2010 now has a "compliance details" option on the context menu. This allows you to check out all the relevant settings that have been applied to a specific business record. This is a great feature that will easily allow users to make sure that specific documents are inheriting the right policies and retention settings.

## Build Your Own Framework

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Thanks to SharePoint Designer and Visual Studio 2010, it is easy to customize and setup your own Project Management framework that meets the need of your organization. This framework can be customized to grow and adapt to match an organization's maturity in Project Management. The ease in

building a customized framework also allows for organizations to stay agile in its processes and procedures to adapt to changes in the business environment.

## **Integrate with Mobile Devices**

In SharePoint Server 2010 Microsoft improved the experience for mobile web browsers and introduced a new SharePoint Workspace Mobile client so that users can take Office content from SharePoint Server offline on a Windows Mobile device. These clients allow you to navigate lists and libraries, search content and people, and even view and edit Office content within the Office Web App experience running on a mobile browser.

You can do following things using your Pocket PC:

- View SharePoint lists or document library
- Sort, filter, and page list view
- Create or edit item
- Download and upload documents or pictures
- Create or edit wiki page
- Participate in discussion boards
- Check in/out documents
- Approve/reject items
- Import/Export tasks, events and contacts

## **Create and Ensure Standardization**

In 2010, all of the PLM/PPM processes can be easily standardized, modified, and customized thanks to the new functionalities, including workflows that can be developed to support the processes.

With the power of features, such as Demand Management, standardization of templates and processes is not only encouraged, it is easily accomplished. By committing to planning upfront, the forms used for collecting relevant project information can be customized and standardized, not only for the organization, but specifically for each department or business unit.

User adoption is more consistent when a common look and feel is applied to the new system. There is less resistance from learning something 'new' as each element already possesses a familiarity for the team.

Now you can see your processes inserted in Project Server and see exactly where in your process the project is.

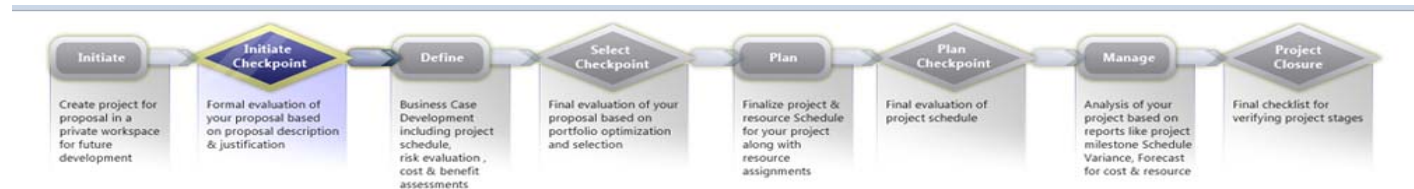


Figure 26: Process Illustration Example in Project 2010 Using SharePoint Server 2010

## Microsoft SharePoint Server 2010 Adoption: A Familiar Platform

Change is uncomfortable. It can even be scary and is almost always met with resistance. But now, user adoption is enhanced by aligning the look and feel of the complete Office Suite and SharePoint Server. Any learning curve will now be focused on the tool itself, and not navigational issues, such as finding the menu item, or taskbar icon, that can cause so much frustration.

As we all know change management is a complicated topic in all organizations, especially when we are implementing such a robust technology like SharePoint Server or Project Server 2010, the good news is that the interface for the tool is very easy to understand for end-users because it has the same look-and-feel that Office has been using since the 2007 release.

If the migration to using Project Server 2010 and SharePoint Server 2010 is eased by familiarity, cultural change within the organization is more easily attained. With more effective user adoption, these tools will be applied more succinctly making each adoptee a champion for the cause.

In order to maintain consistency the Ribbon-based interface is available not only in Project Client, but also in PWA and SharePoint Server. The similar platform across all applications encourages user adoption across the enterprise.

## Adoption Via Fluent User Interface: Known as The Ribbon UI

Execution of assignments and management of deliverables in project environments is highly dependent upon the relationship with each endpoint (end user). Many companies are challenged with rolling out new technology, processes or simply communicating updated procedures to improve bottom-line results, only to find out people didn't understand or refused to learn how to adopt the changes. Project-based environments using Project Server in particular realize end user adoption challenges that have led to program failures. SharePoint Server has offset that challenge by enable end users more freedom of expression and faster adoption. Now with The Ribbon, the momentum will continue to embrace the end user and enable quicker adoption leading to faster results.

Microsoft's Fluent User Interface (UI), also known as the Ribbon UI, is now available in Project 2010. The UI has been improved so that an average Team Member will be able to work with the tool proficiently without spending much time in locating the right commands. The Ribbon UI denotes complete elimination of the overloaded menu and toolbar design model of previous Project releases. Project's extensive capabilities are now organized into logical, easy to find groups that help you accomplish actions efficiently. The new Ribbon UI included in Project Professional, PWA and SharePoint Server 2010 makes commands easier to discover based on the task you are doing at the time.

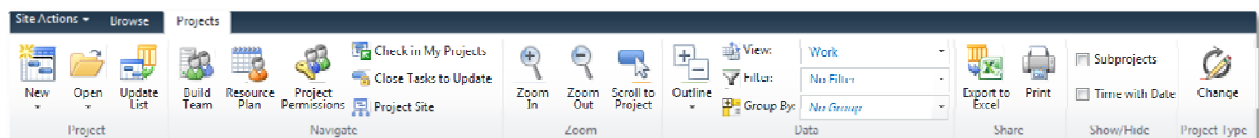


Figure 27: PWA 2010 Ribbon UI Example

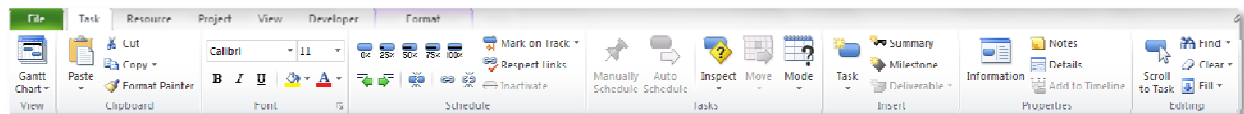


Figure 28: Project Professional 2010 Ribbon UI Example



Figure 29: SharePoint Server 2010 Ribbon UI Example



## Additional Components to Support the Project Lifecycle

### Excel Reports: Intuitive Excel-Like Behavior

Connecting users to their data proves to be a challenge for many. Therefore, Microsoft provided some pre-configured and pre-connected reports in Project Server 2010 which can be used as dashboard components or as report starters to build your own customized version. The example below is the Timesheet Actuals report, which was built based on the needs of a customer who was using the time tracking solution in Project Server 2007.

Row Labels	Sum of Planned Work	Count of Timesheet Line	Actual Work	Sum of Billable Actual Work	Sum of Non-Billable Actual Work	Sum of Non-Billable Actual Work
6/6/2010	59.00	9	11.00	0.00	0.00	0.00
Jun Kolas	32.00	7	0.00	0.00	0.00	0.00
In Progress	32.00	7	0.00	0.00	0.00	0.00
Standard	32.00	7	0.00	0.00	0.00	0.00
Payroll System Upgrade	32.00	6	0.00	0.00	0.00	0.00
User Conference	0.00	1	0.00	0.00	0.00	0.00
Ken Spain	27.00	2	11.00	0.00	0.00	0.00
In Progress	27.00	2	11.00	0.00	0.00	0.00
Standard	27.00	2	11.00	0.00	0.00	0.00
Word Processing System Upgrade	27.00	2	11.00	0.00	0.00	0.00
<b>Grand Total</b>	<b>59.00</b>	<b>9</b>	<b>11.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Figure 30: SharePoint Server 2010 Excel Service 2010 Example

In addition to templates and standard Excel reports, Project Server 2010 has full support for Excel. With importing, reading, and exporting files, users will realize a seamless exchange of files between the two programs.

### Dynamic web parts

Many organizations, regardless of size or type, still cling onto some legacy web-based applications. By using web parts, these apps can be “brought into” the SharePoint Server and Project Server environment easily. This supports a one stop shop for benefits of centralized, enterprise-level project tools.

### Web-Based Editing

In the 2010 release, all of the core Office applications now offer a browser version, so Word or PowerPoint documents can be edited directly from the browser, whether or not you have Office 2010 installed. Project is no different once a project is published on the server; users (with appropriate permissions) can directly edit the plan from the browser.



Project Server 2010 empowers a mobile workforce by bringing the power of Microsoft Project Professional 2010 to the browser with Web-based project scheduling. Web-based editing will give more opportunity for individual stake holders to contribute their share of information without having Project Professional. The PWA interface is similar to the SharePoint Server interface and hence very convenient for the users to adopt and operate.

Project Managers can now take advantage of powerful features, such as Change Highlighting and Multi-Level Undo without the need to first open Project Professional 2010. Web-based scheduling provides occasional and certified PMs with the flexibility to quickly build simple and complex schedules online and conveniently edit the plan from any location over the Internet.

## Project Server with SharePoint Server IS Collaboration – Not Just Coexisting

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### Role-Based Benefits

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**Senior Management:** Project Server 2010 provides a single platform to gain visibility into the organizational activities surrounding project work to provide an organizational look at where the initiatives are in the phases (Create through Close), and also provides keen insight into Portfolio Management. Organizations must align their projects with the strategic business objectives of the organization in a constant effort to drive business forward and meet business goals. Obtaining real-time performance updates via dashboards and standardized reports help to ensure projects are aligned with business goals.

**PMO:** The PMO will appreciate the portfolio management capabilities of SharePoint Server as well as the ease of rolling up information to the enterprise level for analysis and project prioritization.

**Project Manager:** Project Managers will realize immediate benefits via the collaboration tools that have become integral to Project Server. The ability to know the status of team members, and the ability to share files and information will benefit any PM.

**Resource Manager:** Resource management, through new features such as Team Planner, is easier than ever in Project Server 2010. And with the collaboration power of SharePoint Server 2010, Resource Manager now can have an active voice and participation in discussions and decisions. Leveraging

powerful dashboards and reports allows for easy status reporting. It is also easier to monitor project requirements from the one platform, to ensure all resources are optimally utilized.

## What remains the same?

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Similar to EPM and SharePoint Server 2007 deployments for coexistence, deploying Project Server 2010 and SharePoint Server 2010 solutions together in a single farm enhances the EPM users' experience and provides full, seamless coexistence of all logical components and feature areas. The ideas of collaboration, nothing new to EPM ideology, or SharePoint Server, have now been enhanced into a seamless single platform solution.

The SharePoint Server 2010 platform offers many feature areas, such as Excel Calculation Services, Visio Services, Web Analytics and others that may be of interest when implementing a robust, integrated EPM solution. There are many options available to build upon a basic EPM solution, depending on organizational needs.

## What has changed?

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The new SharePoint Server 2010 Enterprise Edition is now a requirement for running Project Server 2010 and no longer optional. For all practical purposes Project Server 2010 became a SharePoint Server 2010 application.

The minimal set of services required to operate a Project Server 2010 server farm are:

- 1. Project Service Application -required to host one or more Project Web Access instances**
- 2. Excel Services - required for reporting**
- 3. PerformancePoint Service - required for reporting**
- 4. Secure Store Service – required for reporting and data level impersonating**
- 5. State Service – required for charting in the Portfolio and Resource features**

As a start, the following SharePoint Server 2010 feature areas and services will be validated for coexistence with Project Server 2010:

- **Search**
  - i. Enterprise Search center
  - ii. Fast Search Center

- iii. My Sites
- **Enterprise Content Management**
  - iv. Document Center
  - v. Records Center
  - vi. Office Client integration
- **Collaboration and Workflow**
- **Business Connectivity Services**
- **Business Intelligence**
  - vii. Excel Services and PowerPivot
  - viii. PerformancePoint Services
  - ix. Visio Services
- **SharePoint Server and Project Server Web Parts**
- **Health and Monitoring**
- **Backup and Restore**

## Conclusion

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Project Server and SharePoint Server had always fulfilled unique yet parallel functions within the enterprise ecosystem: COLLABORATION. Each offers a solid array of feature sets and benefits to the company and the Project. However, as a well-deployed combination, these deliver a knockout punch to the traditionally stove-piped nature of information silos and collaborative platforms. By knocking down barriers to open communication and opening the gates to efficiency and standards, Project and SharePoint Server 2010 is a powerful combination for any project-based IT infrastructure.

Project Server 2010 on the SharePoint Server 2010 platform creates a robust tool that enables organizations to meticulously manage projects and program from the bottom-up, while blending all-encompassing management of portfolios from the top down. This versatile tool offers comprehensive out of box solutions, yet is easily customizable to cloak an organization ensuring adaptation to its discrete needs.

With the integration of Project Server and Project Portfolio Server to SharePoint Server, we can easily map all the organizational processes in terms of Demand Management, allowing organizations to efficiently and effectively analyze the performance of the organization in terms of the behavior of projects, operations and resources, if the organizational framework is fully integrated to this powerful tool.

Within Project Server 2010, Project Management, Program Management and Portfolio Management (and including Demand Management) is efficiently controlled, while SharePoint Server 2010 empowers cultural change and cohesion within an organization. By matching the tactical management of initiatives with the strategic support of business objectives and goals, while fostering team development of an organization's workforce, organizations are able to thrive, adapt and grow, ensuring business success and longevity.

## Glossary

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**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. <sup>i</sup> 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
BDC	Business Data Catalog
BCS	Business Connectivity Services
BI	Business Intelligence
COE	Centers of Excellence
DM	Demand Management
DoD	Department of Defense
EPM	Enterprise Project Management
EPT	Enterprise Project Type
EVM	Earned Value Management
HR	Human Resource
IPO	Initial Public Offering
IT	Information Technology
KPI	Key Performance Indicator
KRA	Key Result Area
LOB	Line of Business
OEM	Original Equipment Manufacturer
PDP	Project Detail Pages
PIR	Project Initiation Request
PLM	Project Lifecycle Management
PM	Project Manager
PMBOK®	Project Management Body of Knowledge
PMI®	Project Management Institute
PMO	Project Management Office
PPM	Program Project Management
PSI	Project Server Interface
PWA	Project Web App (formerly known as Project Web Access)
REST	Representational State Transfer
ROI	Return on investment
RSS	Really Simple Syndication
SME	Subject Matter Expert
TM	Team Member
UI	User Interface
WACC	Weighted Average Cost of Capital
WIIFM	What's In It For Me







## References

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### 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](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 Products

- <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**

- Microsoft Most Valuable Professional (MVP) program:  
<https://mvp.support.microsoft.com/communities/mvp.aspx?product=1&competency=Project>
  - Advisicon Blog: [www.advisiconblog.com](http://www.advisiconblog.com)
-