Notion Solutions, Inc.

Project and Work Management with Project Server 2010 and Team Foundation Server 2010

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Microsoft

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Project and Work Management

Successful companies deliver on projects or products that are consistent with the business needs. Failure to deliver on business needs will eventually lead to failure of the company. To maximize successful project delivery, companies must proactively prioritize, plan and track projects. Although the concepts of planning and tracking projects and the work supporting those projects are simple, the ability to consistently and successfully deliver projects is a challenge for most organizations.

Business needs are generally identified by corporate leadership. These individuals set the direction for the company and define the strategic needs for the company to succeed. However, the delivery based on these needs is usually handled by individual contributors several layers down the corporate ladder. The high-level visionary, the individual contributor, and all levels in between focus on different tasks in order to achieve common goals. All of the levels are important but very different in terms of approach and needs. And because of these different needs, successful planning, managing, and tracking work is difficult.

Managing at All Levels

Several industry standard terms are used to describe managing business goals through the delivery of these goals by individuals. These terms include, from the visionary level through the individual contributor:

- Project Portfolio Management (PPM)
- Project Management
- Enterprise Management including:
    - Enterprise Project Management (EPM)
    - Resource Management

In each of these different levels, different roles use different tools and processes to perform the management. Organizations may be mature and capable in one tier but ad-hoc and chaotic in another. However, a weak link in any of these tiers can be costly at all levels and the organization as a whole.

Project Portfolio Management

Project Portfolio Management (PPM) is a term used to describe methods for analyzing and managing a group of current or proposed projects based on numerous key characteristics. The fundamental objective of PPM is to allow for an analysis of all current and proposed projects to determine the optimal mix and sequencing to best achieve the organization's overall goals. Organizational goals can be hard economic measures, business strategy goals, or technical strategy goals. Constraints imposed by management or other external factors must also be accounted for. Generally, many items must be considered: cost, risk, staffing needs, project value, effort and possible timeline are all considerations when analyzing projects. Interdependencies and relationships to other projects must also be considered.

Project Management

Project management refers to the discrete activities for a single project. This includes planning, organizing, securing and managing resources to achieve the goals of the project. On an ongoing basis, adjustments must be made and risk managed.

Enterprise Project Management

Enterprise Project Management (EPM) takes into account all efforts on all projects across an enterprise. For an enterprise with many simultaneous projects underway, efforts and progress needs to be tracked and managed across the enterprise. Projects co-exists across the enterprise and may utilize (staff and other) resources that are shared.

Enterprise Resource Management

Closely related to EPM, Resource Management refers to the need to manage all resources across an enterprise. Such resources may include financial resources, inventory, skilled employees or consultants, production resources, or information technology (IT) assets.

Organizations may fund a large variety of different projects and all of them are managed in one way or another. Any individual project may target facilities, manufacturing, marketing, sales, services or anything else appropriate to the business.

One category of project is frequently managed differently from others. Application Development projects were historically approached in a similar manner to other project types. Over the past decade,

software engineering and application development management has evolved. This evolution has improved the ability for application development teams to successful deliver software projects.

Although modern application development project management practices have resulted in more successful projects, it has also widened the gap between management of these projects and others in the organization.

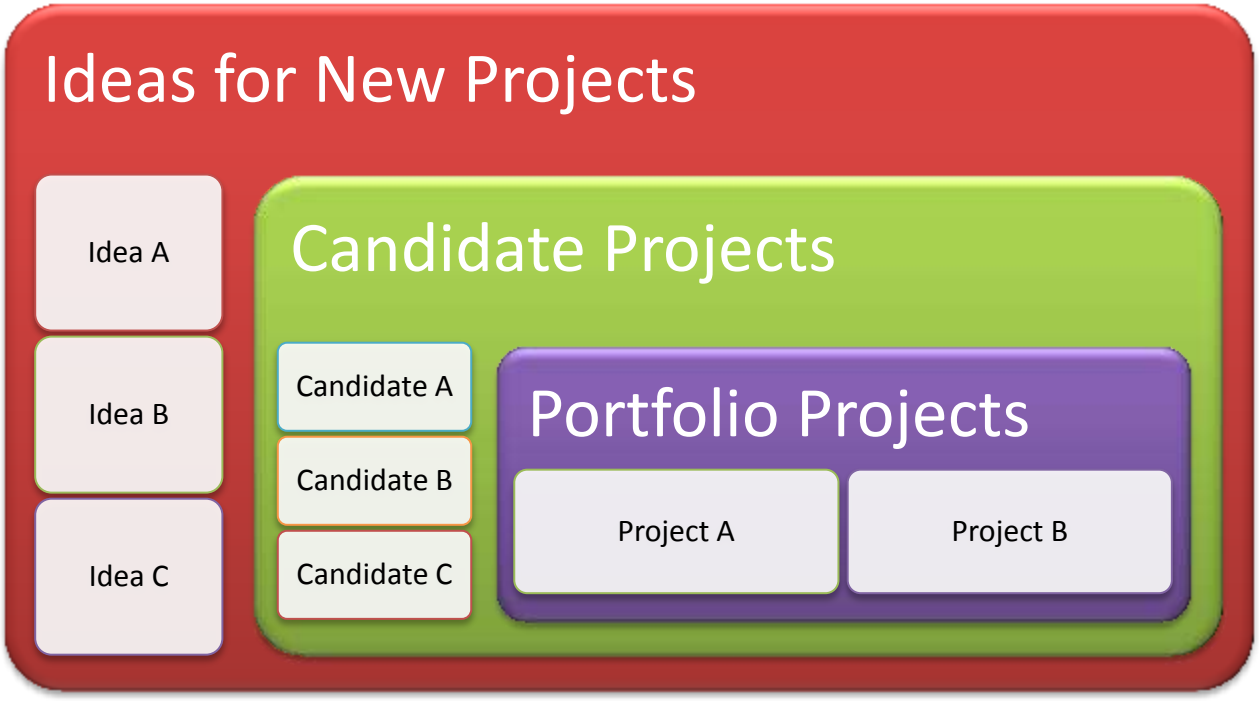
Improving Work Management with Tools

Organizations can improve their project and project management success with a combination of practices, education and proper tools. Microsoft provides a series of tools that directly target the different levels of management and help to ensure those levels can work well together.

Microsoft® Project Server® 2010

Traditionally, Project Server targets the problems related to Enterprise Project Management and Resource Management. With the release of Project Server 2010, Project Portfolio Management is now supported as well. This combination allows organizations to initiate, select, plan and manage projects throughout the project lifecycle.

Candidate projects can be directly entered through the Project Server web interface. Project Server 2010 is based on SharePoint Server 2010 and therefore allows a rich, collaborative interface for creating and managing projects. These new project requests can be measured against existing projects being managed by Project Server to create the desired project portfolio. Ongoing status of these projects can reported upon and managed as appropriate.



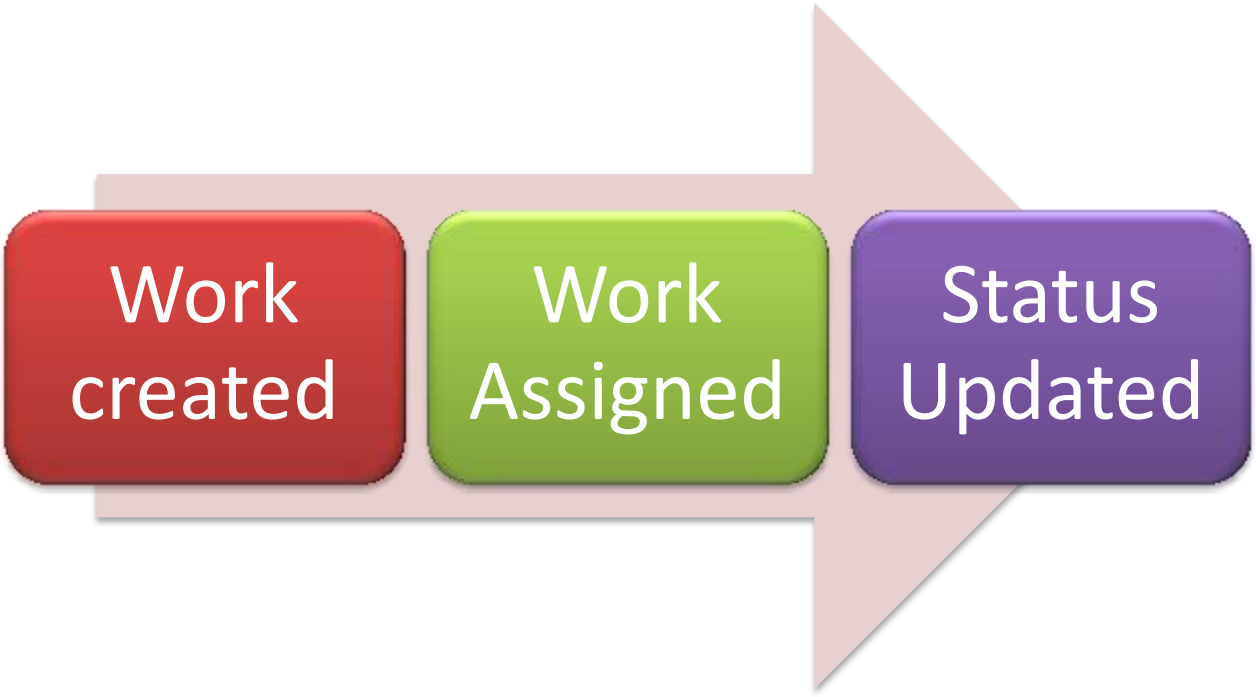
For software development projects, Project Server is often criticized as being burdensome given that work objectives on a software development project often change on a monthly if not a weekly or daily basis. Software development teams have begun to adopt project management practices that account for this dynamic changing of work. Project Server can be challenging when trying to manage and track status of projects when things are managed without a structured project plan. For more information on integrating Agile software practices with a more traditional project management approach, please see the whitepaper "Reconciling the Agile Team with Enterprise Project Management."

Microsoft Visual Studio Team Foundation Server® 2010

Microsoft® Visual Studio Team Foundation Server® 2010 is designed to be the collaboration hub for application development teams. Unlike a project management-focused solution, Team Foundation Server focuses on successful delivery through management of an application's lifecycle. This can include management of requirements, project schedules and work, defect tracking, automated software builds, deployment, testing and other elements of an application's lifecycle.

Microsoft's Application Lifecycle Management (ALM) approach to software development helps enable teams to reduce risk, streamline interactions and eliminate waste throughout the software delivery

process. This approach has enabled development teams using both Microsoft and non-Microsoft development platforms to more consistently deliver quality software on schedule and budget. Application development teams using Team Foundation Server 2010 can track work as part of the application lifecycle using a feature known as Work Item Tracking. Work Items address not only the classic task-level planning and tracking from other project types, but also areas such as defect and requirement management.



Team Foundation Server 2010 is not designed to be a project management tool. With Team Foundation Server, work can be assigned, managed through to completion and the status reported on. However, Team Foundation Server does not facilitate managing resources across project activities or accounting for work hours, holidays and vacations. For example, Team Foundation Server can track 2000 hours of work to completion, but if all work is assigned to one individual and scheduled to be complete in a week, Team Foundation Server has no issue or concern with that. In a traditional project management system, those types of over allocation of resources would be accounted for. Project management systems also allow for an analysis of critical path by reviewing dependencies between tasks. While Team Foundation Server allows for dependent relationships, it performs no analysis on those relationships.

One option that exists is to use Microsoft's add-in for Microsoft Project that allows data within a project plan to be synchronized with Team Foundation Server. This provides an easy way to allow data updates such as Remaining Work to be entered in Team Foundation Server 2010 and updated in a project plan. Schedule changes, resource assignments, predecessors, and child tasks are all synchronized and the relationships maintained. This allows individual project managers to manage a project and stay updated on status.

The Work Management Gap

Project managers and Project Management Offices (PMO) can use Project Server 2010 to bridge the gap between the executive visionaries, enterprise project and resource managers, and individual project teams. Project Server has proven an invaluable tool for managing resources and schedules.

Application development teams find Team Foundation Server 2010 an extraordinary means of tracking all software activities including both traditionally managed tasks and the defects that are normally managed as unscheduled work. Work is easily managed, triaged and reassigned with Team Foundation Server 2010 in a way that is natural and flexible to development teams. Team Foundation Server enables the entire software development team to collaborate in the context of the task or tasks they are working on and with tools that they use every day and are familiar with.

The two different tools and approaches are both valid and useful but inherently different. Due to the differences in approaches, a gap occurs between these development teams using Team Foundation Server and the project managers and stakeholders using Project Server. Development teams have different processes, different tracking mechanisms, different terminology and different tools than the rest of the organization.

Either audience, development or non-development, could succumb to using tools not optimized for their situation; employees could attempt dual entry in disparate systems; one or both of these audiences could forgo management entirely and hope for a successful outcome. Attempting to bridge the gap in any of these ways will cause lost productivity, poor and inconsistent communications, can be error prone, and can degrade employee performance and morale.

Bridging the Work Management Gap

Tools are optimized for different audiences and for the management of different phases or activities in the software development process. Ideally what is needed is the ability for each user to use familiar tools to participate in the process. Automation can further help reduce the time required to enter data by hand and as a result reduce erroneous data in the system caused by user error. The integration of processes and data between systems can be invaluable in improving work management.

The objective is to manage projects from inception to implementation, using tools to fit the needs of the audience, with full traceability and visibility of status.

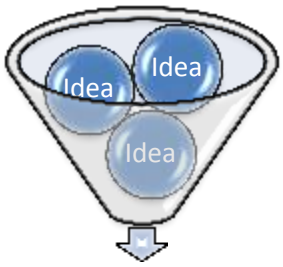
The ideal approach is to use the strengths of both Project Server and Team Foundation Server in an integrated work process. This can be achieved by integrating the two systems in a way that allows the development teams to use Team Foundation Server to maximize their productivity and quality, while allowing the enterprise to choose, manage and monitor projects with Project Server 2010. To realize this approach, Microsoft has invested in integration between Team Foundation Server and Project Server. The "Microsoft® Team Foundation Server® 2010 Project Server Integration Feature Pack allows for the development processes to be seamlessly integrated with project management needs of the enterprise. Data flows between systems, allowing application development and other project teams to use integrated tools and processes appropriate to their needs at all levels. This includes the ability to capture business goals from the executive level s and manage the workflow through the project management office, down to individual project teams (including application development), and back up to show the results of the projects against the original business goals.

Tracking Project Results back to Business Goals

One of the goals of Project Server 2010 was to enable visibility and tracking across the entire project lifecycle. High-level ideas can be captured in Project Server and be managed with enterprise visibility. For software projects utilizing Team Foundation Server, the status information entered by the development team can be rolled up automatically for enterprise project reporting needs. This makes it possible to compare and validate expected business benefits and actual costs of the team. This data makes it possible to further tune your project portfolio management and project delivery on a daily basis. Project Server provides consistency across the organization to help all projects to be delivered using established best practices while allowing flexibility and customization as needed by individual groups.

From Ideas to Projects

Projects start as ideas, and one of the many features of Project Server 2010 is the ability to allow organizations to capture the ideas that will make their business more successful in a centralized repository. Web-based tools built into Project Server make it easy to not only better understand these ideas but also how they fit into business goals and objectives.



Project Server makes it possible to easily bridge the gaps between the high-level ideas defined by executives and strategists to concrete projects that can be delivered for the organization.

Between Projects and the Enterprise

Once projects are identified and prioritized, the realities of resource availability must be addressed to make sure the higher priority projects have the resources needed to be successful. Project Server supports Enterprise Resource Management, making it possible for you to understand how critical resources on one project will impact other projects. Using this information you can proactively manage your projects to make sure the right projects are moving forward. It will also help you understand your constraints and what resources are really needed so that you can reallocate and redirect for the good of the business.

Between Projects and Application Development Teams

As the software development industry has matured, new techniques have arisen for managing work on software projects. These techniques, while proving very successful, often do not follow a classic project structure, and are more iterative in nature. Forcing development teams not using classical project management technique to use classic project management tools and practices can disrupt development projects while decreasing quality and increasing project risk. However with Team Foundation Server and Work Item Tracking, development teams can efficiently and effectively run application development projects.

Microsoft® Team Foundation Server® 2010 Project Server Integration Feature Pack enables the flow of information between the project management audience and the application development team. A typical scenario enabled by the Team Foundation Server and PS integration could include:

1. A Project Manager captures the project requirements and/or high level tasks in Project Server using Project Web Access (PWA) 2010 or Project Professional 2010.
2. The Application Development Team receives those requirements in Team Foundation Server and decomposes them into lower level tasks using Visual Studio. The estimates for these tasks are automatically rolled-up and published back to the Project Server.
3. The Project Manager reviews the proposed work breakdown and estimates and approves them for inclusion in the project plan.
4. Throughout the project, the Application Development Team updates work items in Visual Studio; these changes are replicated back to Project Server for review and approval by the Project Manager. Changes by the Project Manager are automatically replicated to Team Foundation Server.
5. Project Managers and stake holders can review projects on the web using Project Server's built-in project reporting and dashboards. Application development team members and others can track detailed project health over the application lifecycle using Team Foundation Server' build-in reports and dashboards.

In this scenario, all constituencies are working tools appropriate for their jobs. Developers and testers work in the Visual Studio family of tools allowing them to easily report and track status without having to switch context by leaving their familiar tool and jumping to different tools while project management and others work in Project Professional or Project Web Access. Changes from either group are automatically synchronized between systems. Low-level details which are useful for the application development team are automatically aggregated and tracked at an appropriate level by the project management team.

Summary

Work Management is necessary for businesses to succeed and thrive. However there are many different levels of management, each of which has different goals, processes and tools. Microsoft has recognized the problems with these different levels of work management and has worked to solve these problems with two robust enterprise tools: Microsoft Project Server 2010 and Microsoft Visual Studio Team Foundation Server 2010. With the release of Microsoft® Team Foundation Server® 2010 Project Server Integration Feature Pack, all different levels of an organization can effectively focus on the areas and at levels appropriate to them with the appropriate tools and seamless communications.

Resources

Team Foundation Server and Project Server 2010 Integration Feature Pack Resources

- Solutions For Application Lifecycle Management: http://www.microsoft.com/visualstudio/en-us/solutions/management
- MSDN Product documentation: http://msdn.microsoft.com/library/gg455680.aspx

Microsoft Project 2010 Resources:

Product information

- Project 2010 product site: http://www.microsoft.com/project
- Project Team Blog: http://blogs.msdn.com/project
- Case Studies **:** http://www.microsoft.com/project/en/us/customer-success.aspx

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 2010 Demo Image:

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

IT Professional related - TechNet

- Tech Center: http://technet.microsoft.com/ProjectServer
- Admin Blog: http://blogs.technet.com/projectadministration

Developer related - MSDN

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

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

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

SharePoint 2010 Products

- http://sharepoint.microsoft.com

Microsoft Visual Studio Team Foundation Server 2010 Resources

- Team Foundation Server MSDN Page: http://msdn.microsoft.com/en-us/vstudio/ff637362.aspx
- Microsoft Visual Studio Team Foundation Server 2010 Trial – ISO: www.microsoft.com/downloads/details.aspx?FamilyID=3660cacf-f077-44d3-a9d9-97e801da2035&displaylang=en
- Team Foundation Server Team Blog: http://blogs.msdn.com/b/team_foundation/
- Brian Harry's Blog Site: http://blogs.msdn.com/b/bharry/
- Channel 9 Team Foundation Server Videos: http://channel9.msdn.com/tags/TFS/