# Overview

Previously, we described some of the features and functionality of Microsoft Project Server 2013 as an enterprise project management system. In Program to Portfolio Management with Project Server, we will highlight some of the ways in which Project Server is designed to support program and portfolio management.

We will look at the following:

* What are program and portfolio management?
* How Project Server supports program and portfolio management
* Rolling up metrics for Project-to-Portfolio Management
* Supporting fact-based decision-making and “What If” scenarios
* Supporting strategic planning
* Line of Business integration
* Reporting capabilities
* Connecting databases
* SQL Reporting Services
* Custom WebParts

Upon completion of this chapter, the participant will be able to:

* Understand Project Server's role and value in program and portfolio management

# Projects, Programs and Portfolios

## Project Server 2013 in Portfolio Management

The Microsoft Enterprise Project Management (PPM) solution is an end-to-end collaborative project and portfolio management environment. Microsoft PPM helps organizations establish visibility, insight, and control into their organization by standardizing both project and portfolio information, and by improving organizational alignment with the business strategy – which in turn maximizes resource utilization and provides metrics for operational efficiency. The Microsoft PPM Solution's scalable, extensible, and customizable architecture enables effective integration with other line-of-business solutions (such as ERP systems or external SharePoint sites) and Office system applications.

It is important to understand that the disciplines of Project, Program and Portfolio management are very different.

While many people readily get Project and Portfolio management, Program management in many instances is not understood, nor is it applied to Project Professional or Project Server PPM as a technology solution.

Many project management solutions out there often fall short of supporting PPM by only delivering partial solutions. For example, simple task management with no full resource tracking is not an effective PPM solution as it fails to deliver both demand and capacity management.

Certain projects (projects that the category of “Programs” can be applied to) must typically incorporate diverse elements such as physical products, services, support, custom integration, and channel development. These different elements require coordinating multiple related projects, all of which must be successfully integrated at just the right time in order to deliver a complete solution that the customer is willing to pay for.

While a Program can be a single project that continues after the initial success or key delivery (with a handoff to Operations or Maintenance), a Program can also be a combination of multiple independently managed projects all designed to integrate together (similar to writing software code, where each module integrates to run the program as a whole). Each project within a Program is designed to elicit and complete an overall and final result, solution or product for an organization.

While separate, uncoordinated projects may deliver a subset or a component of a program successfully, they alone can’t do the job of delivering a complete solution, this is where a program can. A program is a coordinated way to manage a group of related projects, thus obtaining business benefits that would be impossible if they were managed independently.

A good example of the business benefits of a program is a joint vendor and customer project, or one that a state agency (such as Department of Health and Human Services) needs to develop a user interface for both local companies, hospitals, state employees to use to manage their individual healthcare needs. While each stakeholder group has different needs, the overall project (really a program) is being coordinated with subcontractors, state employees and delivering different functional portals, reports and data input portals to different groups. While each one may be a project, all them, collectively being integrated is a program.

Organizations as diverse as Microsoft, Intel, NASA, and IBM have found that programs are essential for creating complex, integrated solutions such as the scenario described above.

A program is not just a large project nor is it a project on steroids. Instead, its primary function is to coordinate and integrate a collection of separate projects like a conductor leads an orchestra. These individual initiatives are similar to players in an orchestra playing the necessary notes: projects (the individual musical instruments/players) integrated by a program do most of the real work. These players may make beautiful music, but without the coordination of a conductor, the music created by a collection of independent players would not harmonize and integrate in a symphony of sound. Similarly, a collection of individual projects without a program will fail to create an integrated product or solution.

Microsoft’s PPM solution allows you to coordinate work across multiple projects, expose deliverables to a SharePoint site for linking and reference back to MS Project schedules and integrated different functional groups. Project PPM makes the best use of limited resources by centralizing the updating of your project tasks, resource assignments, your risks, issues and documents all integrated in one portal. If your organization uses a PMO, this tool supports the organizational framework required to govern portfolio, program, and project management.

## Project PPM Supports

* The business value of project, program, and portfolio management and how it complements project management.
* A program of tightly related projects targeted at a shared objective including conquering complexity, dealing with shared resources, and managing cross-project dependencies and priorities.
* Organizational considerations such as governance, stage gates, and matrix responsibilities.

### Project Management

Project management focuses on delivering requirements to a customer. Peter Drucker, considered by most people to be the founder of Project Management said “Project management is about doing projects right. Portfolio Management is about doing the right projects”. Project Server is a powerful tool for helping project managers and PMOs plan, track and manage projects consistently and effectively. Project Server helps centralize project data, helping to ensure that there is just ”one version of the truth” about any project or group of projects at any given time. Tying back to making good business decisions to select the right projects and then manage them well. Project PPM provides a historical record of each project that can provide a solid basis for billing, financial analysis, performance evaluations, and future process improvements.

### Program Management

Program management is the discipline of managing a group of related projects and activities, such as a group of projects related to a particular product line. For example, the Space Shuttle Program encompasses all of the projects focusing on the different Space Shuttle missions, launch vehicles, and scientific projects related to them.

There may be many programs within an organization. The goal of program management is to coordinate, align and optimize projects to achieve the overall business objectives of a particular service or product area.

Program management is often concerned with managing all of the resources of an organization more efficiently. A common objective of program management is the coordination of timelines to achieve larger production criteria such as deadlines, product interoperability, and economies of scale.

### Portfolio Management

Portfolio management is about doing the right projects by aligning project selection across an entire organization or company with the organization's global strategy. The focus of portfolio management is on identifying the metrics that should guide the decisions about which projects should and should not be pursued. Metrics that portfolio management is concerned with are:

* Organizational priorities.
* Business objectives.
* Strategic values.

In some organizations, the Project Management Office (PMO) focuses on tactical project management process definition and controlling activities. These are critical elements in achieving project management maturity. Beyond managing projects effectively – doing projects right – how can an organization ensure they are selecting the right projects to deliver the strategic business values their company is pursuing? How do they consistently choose the right projects to carry out?

Organizations sometimes create both a tactical PMO for projects and a strategic PMO which focuses on portfolio management priorities. This is becoming more common in organizations that have multiple tactical PMOs working on different programs in order to align all of their PMOs and programs with the overall company strategy.

## Rolling Up Metrics for Project-to-Portfolio Management

Project Server can provide critical value in a program management process by serving as the central repository for all of the projects in a program. Project Server provides centrally administered planning through SharePoint sites (Project WorkSpaces) to facilitate active and centrally-administered document sharing and collaboration. Program and Portfolio Managers can support their program and portfolio criteria by using Project Server to create custom fields, tables, views, reports, SharePoint sites, Project WorkSpaces, and templates that support and standardize their projects.

As a database, Project Server is designed to roll up the values of all the data into summaries at project, group, organizational, resource, and other levels. The power of Project Server to aggregate data from multiple projects is very valuable to any organization trying to gain visibility to the full range of their project activities.

## Supporting Fact-Based Decision-Making

Organizational culture tends to reinforce history and usually reflects the leadership. They make the same decisions the same way they always have. With some organizations this means the process is very subjective; individual opinions and personalities are the dominant factors in project selection and management. In more mature organizations, there may be a clear, rational process for project selection, but the vision is narrow, focused on the objectives of its own organizational silo.

The goal of portfolio management is to evaluate all projects across an organization using a standardized set of criteria which is applied to all projects, activities, and programs. These criteria or metrics are derived from the organizational priorities, like profitability, new market development, revenue generation, quality, safety, employee development or retention, efficiency, compliance with industry or legal standards, and so on.

Project Server provides a powerful set of integrated tools to support an organization’s efforts to plan, track, and analyze all of its activities. The ability to plan and track all the way down to the detailed task level and roll up all of the data to the highest organizational level gives an organization lots of options for gathering business intelligence, which can then be used to make decisions based on facts and move away from the dependence on anecdotal evidence, personalities, and untested opinions.

## What If Scenarios

Project Server allows managers to model many “What If” scenarios based on all of the known commitments, plans, and limitations within their organization. Using Project Server's many views of resource allocations and availability, managers are able to see the impact of changes to their projects and activities.

This dynamic reporting or immediate results tied to what if changes and scenarios is extremely powerful for executive and leadership stakeholders (such as PMO managers, or C-Level officers).

The Project Server system allows management to dynamically model different possibilities. This helps management to identify opportunities clearly and immediately, without suffering the lag time and information limitations of static reports from business analysts and DBAs.

# Line of Business Integration and Reporting Capabilities

Microsoft Project Server is an enterprise SharePoint Application that utilizes a SQL Server back-end. This increases its value to an organization in many ways. Microsoft has leveraged the power and flexibility of their SQL database platform. SQL Reporting Services, SQL Integration Services, and SQL Analysis Services provide a universally useful set of services for business intelligence in any organization.

Since Project PPM sits on SQL Server, it can leverage SQL Integration Services to integrate with many other line-of-business systems, thus leveraging its power and value for providing business intelligence and a single source of information for of any organization.

Excel or Excel Services, Visio Services or Access Services are a continued example of Office integration with Project PPM. These systems working in conjunction with SharePoint allow continued integration and extensibility with other Line of Business solutions or daily organizational tools used across the organization.

## Connecting Databases

By connecting different databases (both SQLServer and non–SQL Server), in an organization with Project Server organizations can avoid duplicate data entry and (perhaps more importantly) avoid data duplication and corruption. This level of capacity for integration can help organizations achieve “one version of the truth” – a critical objective in ensuring data integrity and management's confidence in the data.

## SQL Reporting Services

Microsoft has leveraged the power and flexibility of their SQL Server database platform to allow for on premise implementations of Project Server to provide extended business intelligence reporting through SSRS. In addition to Project Server's own reporting database, SQL Reporting Services can be used to provide an even more substantial source for gathering business intelligence.

## Custom WebParts

Microsoft has also leveraged the flexibility and user-friendliness of SharePoint Services by building Project Server within a SharePoint environment. In Project Server 2003, SharePoint was only used for managing risks, issues, and shared documents. In Project Server 2013, everything operates within a SharePoint environment which makes the user experience far more consistent and predictable.

In a sense, now all elements of Project Server operate as WebParts within a SharePoint environment. This also allows users to extend the functionality of Project Server by integrating custom functions into their Project Server environment using custom WebParts.

## Summary

Microsoft Project Server 2013 is the centerpiece of Microsoft's Enterprise Project Management solution and offers many features, benefits and values to organizations pursuing excellence in project, program, and portfolio management. Project Server has been designed to provide important functionality all the way from planning and managing project deliverables to aligning projects and programs within an organization's global portfolio.

# Key Points to Remember

* Project Online and Project Server (on premise) provide a streamlined interface through SharePoint while centralizing the information into a SQL Server database, providing additional automation, integration services and business intelligence and reporting services.
* Project Online may not leverage SSRS, but the extensibility of Excel Services, including the now embedded Power View reporting capabilities gives PMs and the end user a much easier time in creating dynamic reporting
* Project Server covers Project, Program (integrated schedules) and Portfolio Management (both new and existing work), by blending demand and capacity through its architecture to capture tasks, new work and compare it to a common its Resource Pool.