

Microsoft Excel or Microsoft Project? Why Microsoft Office Project 2007 is Easier and More Effective for Managing Projects

Summary:

Using the right tool gives project managers a distinct advantage when developing plans, schedules and communicating project status. This whitepaper outlines the advantages of using Microsoft Project 2007 instead of Microsoft Excel in project planning, scheduling and management. Microsoft Office Project 2007 is designed to help manage key project components using integrated planning, tracking, analyzing, and communicating tools. Microsoft Project 2007 is an enabling tool for project managers designed specifically to increase effectiveness and productivity around managing project type activities. While Microsoft Office Excel is an exceptionally powerful tool, it is designed more to support the creation, formatting and communication of spreadsheet type information.

Introduction

An important first-step in managing a project and ensuring its success is to understand every project's Triple Constraint (Scope, Cost, and Time). Managing these constraints can mean the difference between success and failure. In fact the 2004 Standish Groups "Chaos Report" found that *53% (of Projects) are challenged (late, over budget and/or with less than the required features and functions)*.

Monitoring the triple constraint is straightforward using Microsoft Project 2007. The program is designed to automatically calculate and then recalculate the project plan based on new or revised information about scope, time, and resources. Making those forecasts clear to stakeholders is key. With Project 2007, it is easy to graphically represent current plans and any changes so that managers and team members can effectively take appropriate action.



Many managers use Microsoft Excel to manage project information such as scheduling project dates or recording task assignments and not knowing when to shift to using Microsoft Project 2007. A big reason for this is one of familiarity with the right tools for the job and understanding when to shift from one tool to another. When it comes to managing project information such as scope (phases, tasks, milestones, deliverables), timelines (schedules, deadlines) and resources (assignments, effort, availability, costs) it is time to shift from Excel to Project. Project is specifically designed with easy to use and powerful tools to help ensure

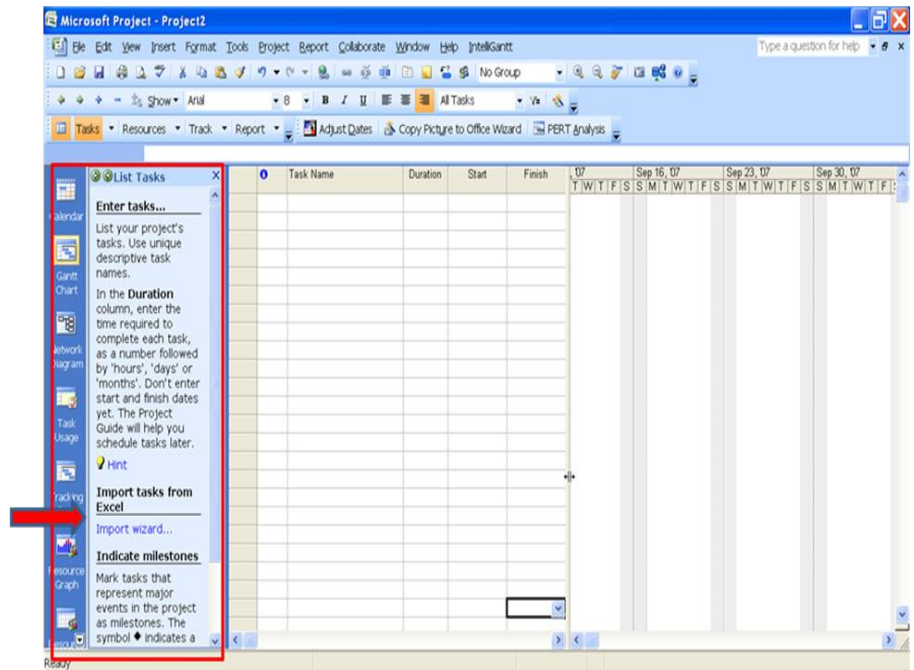
your success on managing any type of project, big or small. Once familiar with Project 2007, using Excel to manage project information simply does not make sense since Project 2007 is set-up to increase your productivity and effectiveness immediately. Key challenges in using Excel include:

- ✓ Project and summary level data calculation is largely done manually.
- ✓ Creating and maintaining phases, tasks, and milestones is more difficult.
- ✓ Creating and maintaining project timelines & deadlines is not dynamic or easy.
- ✓ Assigning resources and costs to tasks is not automated nor project specific
- ✓ There are no automatic updates for scope, time or resource assignments.
- ✓ There are no specific tools to manage change effectively.
- ✓ Difficult to see the ripple effect of delays.
- ✓ There is no feature that calculates the impact of resource availability.
- ✓ There are no pre-defined project specific reports for different stakeholders.

Building a Project Schedule

Microsoft Project enables Project Managers, not to simply create a schedule but to see a project through the life cycle of planning, tracking and reporting. Also, if you happen to have a plan in Microsoft Excel, importing it to Microsoft Project is simplified by using the

Microsoft Project step-by-step guides to map Microsoft Excel columns to project columns. It is then possible to convert the task list from Microsoft Excel into phases, tasks and milestones which defines the project scope known as the work breakdown structure (WBS). Microsoft Project 2007 has the necessary and easy to use tools to quickly set-up and maintain your WBS. The next step is to establish a timeline by defining task durations and dependencies or links. Completing the schedule involves identifying and allocating resources. Once complete, the task relationships can be represented in the form of graphs or reports. Information can then be easily shared.



Some of the key tools Microsoft Project can do for you that Microsoft Excel cannot include:

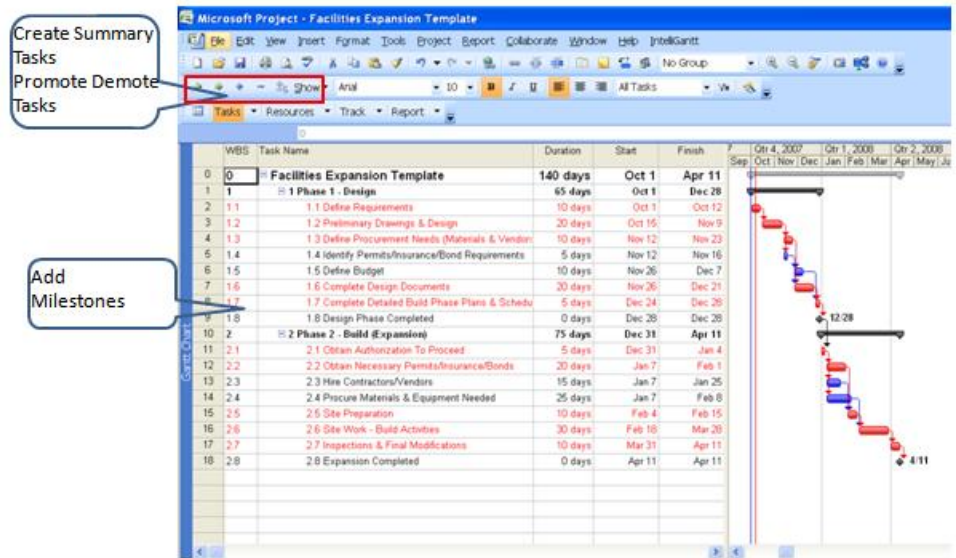
- ✓ Quickly set up project phases, tasks and milestones
-

- ✓ Easily define task durations and relationships
- ✓ Clearly identify and allocate resources and coordinate workload
- ✓ Quickly access and share relevant project information
- ✓ Effortlessly create custom reports to keep the project team informed and aligned

With Microsoft Project it is also possible to:

- ✓ Import existing data from Microsoft Excel or Outlook.
- ✓ Initiate a plan using the built-in project templates.
- ✓ Collapse or expand plans to show the necessary level of detail.
- ✓ Click and drag to change task duration.
- ✓ Keep notes on important task information.
- ✓ Do "what if" analysis with multiple undo's.
- ✓ Focus on tasks that are driving your project completion and critical path.
- ✓ Determine the factors that are affecting task dates and easily trace the source of issues.

In addition to importing Microsoft Excel files, Microsoft Project offers users two options to create/start a new project. First, project schedules can be created from templates. In addition to Microsoft Project's built-in templates and those available at Office Online, custom templates can be built. Using templates saves time and ensures consistency & standardization across an organization.



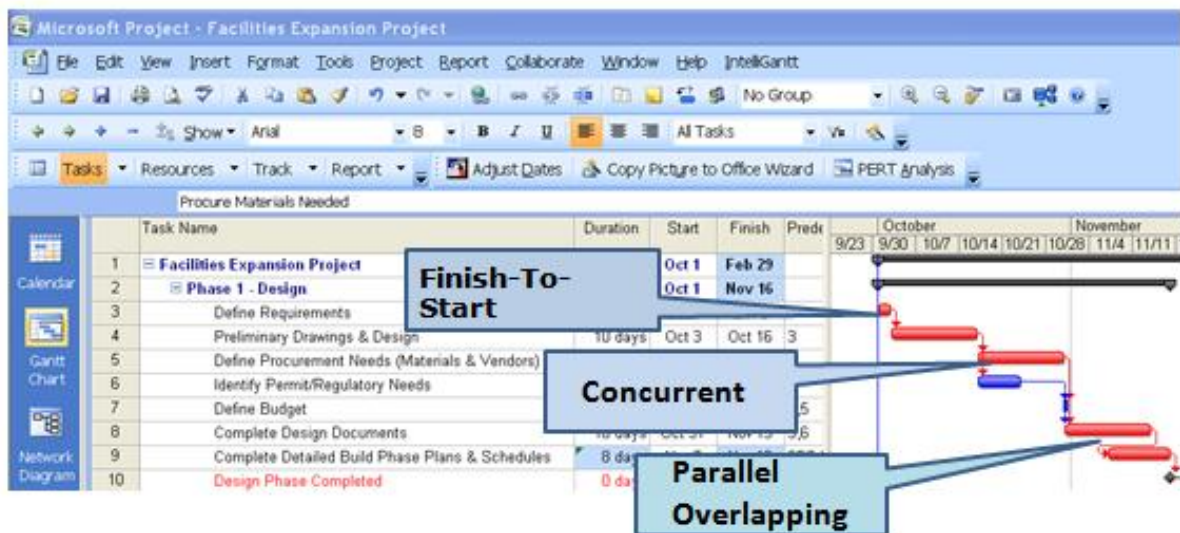
The second approach is to build a plan from scratch using the powerful planning tools Microsoft Project 2007 has to offer. To build dynamic and effective plans in Microsoft Project follow these five steps:

1. Enter WBS (phases, tasks and milestones) into task name column.
2. Outline (indent/outdent) tasks to reflect WBS hierarchy (major, minor and task pieces).
3. Estimate duration (or work-for-work based schedules).
4. Set dependencies or task links to establish the flow of activities.
5. Assign resources (and costs if applicable).

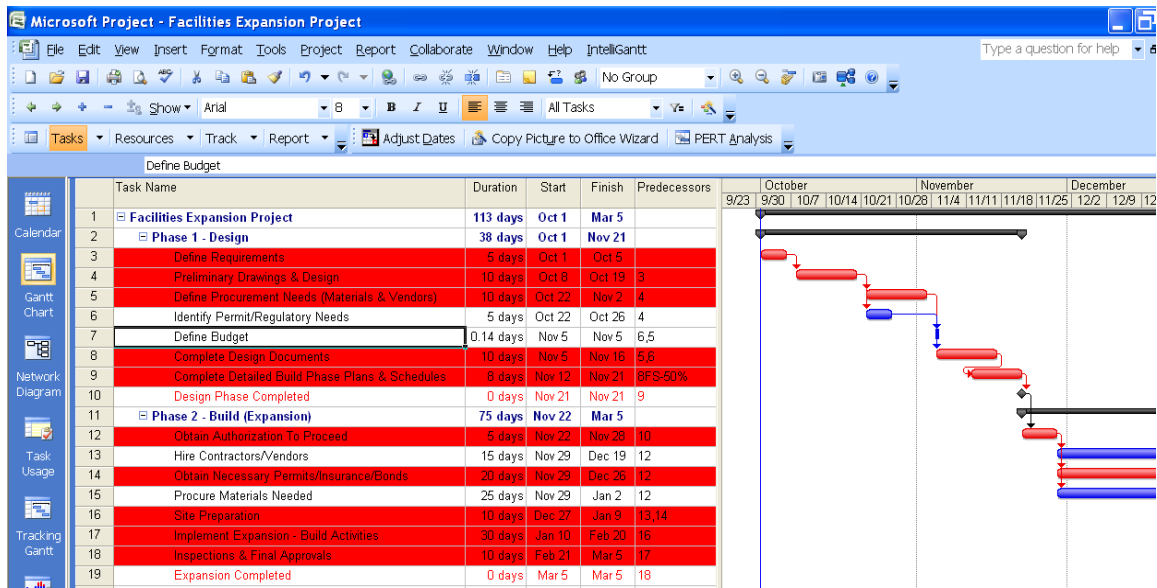
Unlike in Microsoft Excel, any task with zero duration in Microsoft Project appears as a milestone automatically. A milestone is a reference point marking a major event in a project, used to monitor the project's progress. By default, milestones appear as diamonds on the Gantt chart, as shown in the above example at the end of each phase (summary task).

There are many different models and methods for estimating duration, but none is entirely accurate. In Microsoft Excel, it would be necessary to build formulas to see a project's total duration or the total duration per phase or major pieces. Using Microsoft Project, a user can establish a base calendar and estimate each task by entering its duration in the task column. In turn, Microsoft Project will total the project and phase duration, without having to build in formulas.

In Microsoft Project it is possible to easily create task dependencies, which are also referred to as activity relationships or task connections. Types of dependencies that can be established include sequential (finish to start), concurrent, and overlapping. Once the task relationships are established in conjunction with duration estimates, Microsoft Project 2007 automatically calculates your schedule. Furthermore it establishes a dynamic schedule that can be recalculated automatically as you modify your plan. One extraordinary new tool in Project 2007 is 'Show Change Highlighting' which will highlight the impact of making a change throughout the entire plan so you can decide whether to keep or undo the change. It will also calculate the critical path which can be easily viewed through filters, highlights, groups or formatting. In Microsoft Excel this would involve many separate and complicated calculations to determine the overall schedule a critical path.



So what is Critical Path? It is the set of tasks that affects the overall end date. In any single-project network, one sequence of tasks fixes the duration of the project. Any slippage or failure to begin a task on time that is on the critical path will cause the project to finish later than planned. The critical path is illustrated here using the red highlights and the red Gantt bars.



Microsoft Project allows users to manage cost and resources by defining local project resources and the respective related information in a separate view or window. In turn, the Microsoft Project Resource Assignment Tool is used to add resources to tasks, including multiple resources to a single task or multiple resources to multiple tasks. This is a cumbersome process in Microsoft Excel involving creating and linking worksheets.

Communicating from the Project Schedule

Microsoft Project has capabilities and features beyond those available in Microsoft Excel. Those features can be used to present project data to different stakeholders according to their requirements. It is easy to keep stakeholders informed using these Microsoft Project capabilities:

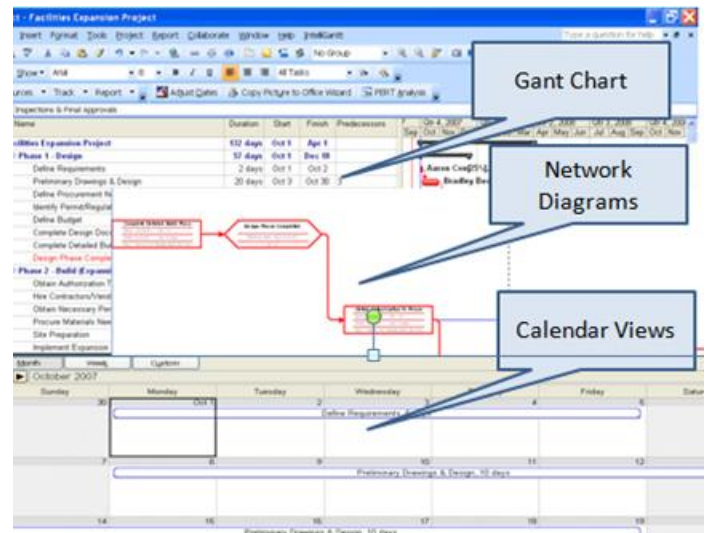
- ✓ Using appropriate views to keep different stakeholders informed
- ✓ Controlling the information to present with predefined tables
- ✓ Focusing on the specific information using filters
- ✓ Grouping information for effective communication and decision making
- ✓ Highlighting cells to convey a different meaning
- ✓ Analyzing and reporting project data in professional reports and charts

Using Microsoft Excel, it would take numerous steps to generate the views that are one click away in Microsoft Project. There are many built-in views in Microsoft Project and it is possible to create custom views as well. Some of the views include:

Gantt Chart - Shows activity/task start and end dates as well as expected durations. The Gantt chart is the default display and principle report format in Microsoft Project.

The Network View - Shows the task boxes. Where nested, they indicate the hierarchy of tasks to represent more clearly dependencies between tasks.

The Calendar View - Displays project tasks in a calendar format: a task bar representing a task spans the days or weeks on which the task is scheduled.



Microsoft Project also includes many built-in resource views. The resource usage view shows the tasks and their timing per resource. The resource histograms show resource utilization data. It would be possible but laborious to create these views in Microsoft Excel.

The Visual Reports feature leverages charts and diagrams by using Microsoft Excel and Microsoft Office Visio Professional to produce charts, graphs, and diagrams based on Microsoft Project data. A user can define custom report templates or choose from a list of customizable, ready-to-use report templates. Reports can be shared with other Microsoft Project users. Tables and filters can be applied to further control the data that is communicated to different stakeholders. Filters provide an easy way to zero in and focus on a set of tasks for more effective communication. Instead of filtering tasks or in conjunction with filtering tasks, grouping tasks makes it easy to re-organize information to increase your ability to analyze or communicate information. Microsoft Project has a set of pre-defined views, tables, filters, groups and reports specifically designed for project managers to become more productive immediately without having to spend extra time formatting or customizing which is what you would need to do using Microsoft Excel.

Tracking and Analyzing the Project Schedule

Microsoft Project can also be used to track and analyze progress of projects. Within Microsoft Project, once an optimized schedule has been approved, it is possible to save a copy of the original plan by setting a baseline. In Microsoft Excel, this would require manually populating additional baseline columns. With Project, once the baseline is set, the project constraints are managed by comparing the evolving plan with the saved baseline. Managers can then track progress, identify problems and take corrective action using the built-in tools that Microsoft Project already has ready to go.

For example, a project manager can easily update a task using the Update Tasks dialog box. The results can then be analyzed in the tracking Gantt view which is already customized for tracking purposes. This view shows both baseline Gantt bars in grey and the current plan bars in red for critical path task and in blue for non-critical. These tools are presented in

Microsoft Project so new users can take advantage of them quickly and easily while providing advanced users the ability to go deeper when necessary. In comparison to Excel, no such tools exist to manage project information in this way and it would be quite laborious to customize and format it with no guarantee of success.

Conclusion

Understanding when to shift to Microsoft Office Project 2007 and using the right tool gives project managers a distinct advantage. Managing project information such as scope (phases, tasks, and milestones), time (schedules, deadlines, and critical path), resources (assignments, effort, costs) and the need to communicate that information effectively are all indicators of when to use Microsoft Project. This advantage continues throughout a project life cycle as Microsoft Project makes it easy not just to plan, but to communicate, track, and analyze project data. Microsoft Project is the best tool to help manage projects because it is specifically designed for this purpose with easy to use tools to provide immediate gains in productivity.

About Author:

Keith Wilson is an executive and senior consultant with the Project Management Practice Inc. www.pmpractice.com
