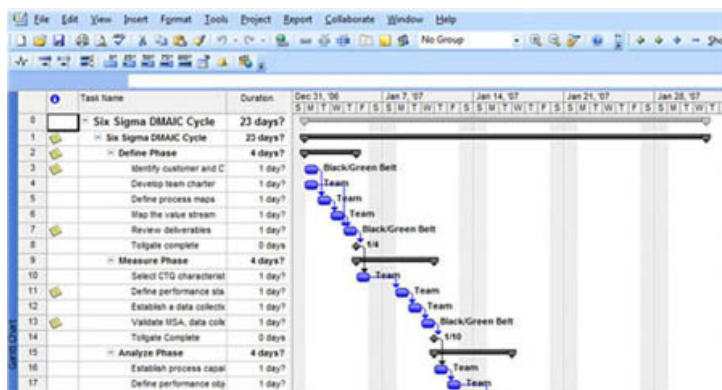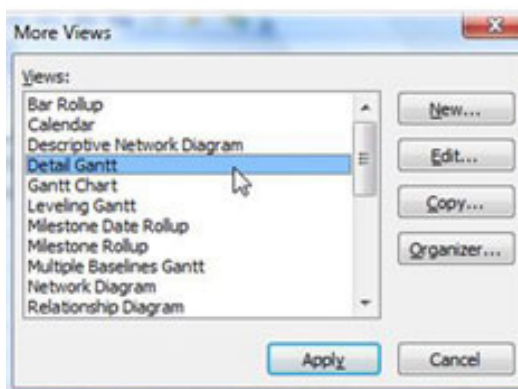## Gantt Chart

With a Gantt chart, you can illustrate a project schedule by using graphical elements to represent tasks and the dependencies between them, and track how changes in one task affect the others.

Microsoft Office Project 2007 Gantt Chart

The Gantt Chart view in Microsoft® Office Project 2007 has two primary sections. The left hand section is a Task List. This section allows you to see tasks as they are broken down in a list with major tasks and sub-tasks. Key notes or referenced material for each task are clearly indicated by the note icon. The duration for each task is listed to the right of the task and can be easily modified.

The right hand section displays the Gantt bars showing the start, duration, and finish date of each item
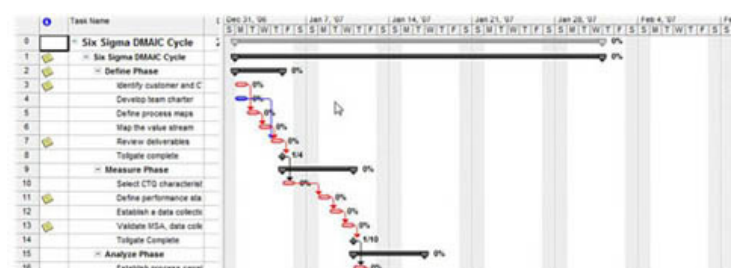

(project, task, or assignment) across the timescale. The Gantt bars clearly illustrate each task, the relationship/dependencies for each task, and the critical path of the project. You can see more detail by selecting the Detail Gantt view. This view displays the critical path tasks in red Gantt bars and any available slack in the project. To display the Detail Gantt view click View, More Views, Detail Gantt.

Critical Path Method

Schedules are developed from task sequences, durations, resource requirements, start dates, and finish dates. Various mathematical methods are used to calculate project schedules.

The Critical Path Method (CPM) is the technique that underlies Office Project 2007 scheduling. The focus of CPM is to analyze all series of linked tasks in a project and determine which series has the least amount of scheduling flexibility, that is, the least amount of slack. This series is designated as the critical path of the project.

To view the critical path in a Gantt chart click View, Tracking Gantt. The Tracking Gantt highlights the critical path in red in the chart portion of the view.

PERT Analysis

It is important to determine effective and realistic task durations. How do you schedule a task when your expert resources give you different estimated durations?

To help resolve discrepancies, or to model alternative scenarios, you can run a Program, Evaluation, and Review Technique (PERT) analysis (PERT analysis: PERT [Program, Evaluation, and Review Technique] analysis is a process by which you evaluate a probable outcome based on three scenarios: best-case, expected-case, and worst-case.). A PERT analysis uses a weighted average of optimistic, pessimistic, and expected durations to calculate task durations and therefore the project schedule. This analysis can be an effective risk management tool.

A PERT analysis view does not become available in the More Views dialog box until you select it on the PERT Analysis toolbar.

To utilize the PERT toolbar click Tools, Customize, Toolbars. In the Customize window access the Toolbars tab and select PERT Analysis to enable this option.

The PERT toolbar includes the following tools; Optimistic Gantt, Expected Gantt, Pessimistic Gantt, Calculate PERT, PERT Entry Form, Set PERT Weights, and PERT Entry Sheet.