The Project Schedule

The project schedule is the organization of all project activities by time and by their logical dependencies and each with a start date and a finish date. The schedule is created after the work breakdown structure (WBS) has been defined and all activities identified. One of the main uses of the schedule is to set the start and end dates of the project and tracking when each activity should begin and end.

The creation of the project schedule requires the team to define the conditions that will lead to the development of the schedule. The first piece of information needed for this step comes from the WBS that has all the activities identified for the project. The quality and completeness of the WBS will determine the quality of the schedule, and this is a good time for the project team to review if all the project activities are accounted for. Building the schedule is actually an easy part but once a project is published and issues and changes start to creep, the schedule has become difficult to manage since it's the resources with the least flexibility.

Schedule Estimating

Estimating the project schedule is not an exact process, since it tries to predict the future, many assumptions are made based on the information the project has at hand. To compensate this uncertainty there are a couple of techniques that can increase the likelihood of being close.

When the project team begins to prepare a schedule estimate, it will need to consider that transitions between activities and phases often takes time, that resources outside the direct control of the project may not share the sense of schedule urgency (such as beneficiaries or partners). The project needs to be aware of all external dependency relationships on which it doesn't have direct control. Uncertainty about the availability of resources that need to be acquired from other countries, availability of consultants or expert skills, use of equipment, or access to information will likely result in extensions to the project schedule.

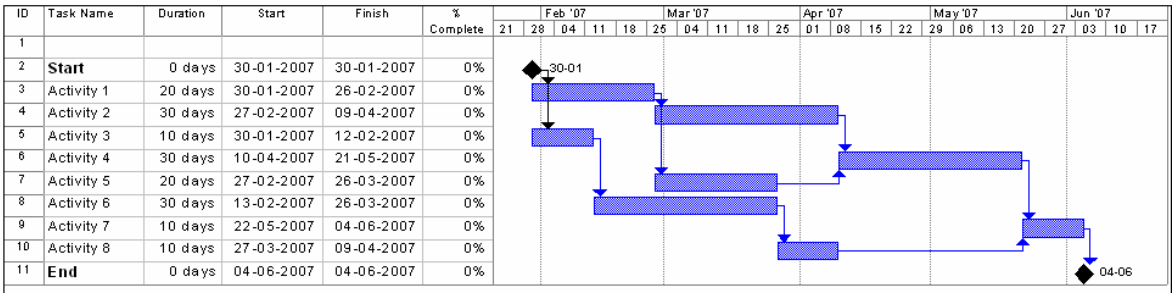
Experience teaches that people tend to be optimistic in estimating schedules and, on average, estimate only 80% of the time actually required. In reality activities and project phases usually take longer than the project originally thought they will, and placing some margin in the planning phase is a good way to ensure a low stressed project effort.

The GANTT Chart

A Gantt chart is a popular type of bar chart that illustrates a project schedule. Gantt charts illustrate the start and finish dates of the activities of a project. The chart takes its name from early project management innovator Henry L. Gantt, the basic Gantt chart is an easy way to document schedules. It is a horizontal-bar schedule showing activity start, duration, and completion. It shows the connection between activities and the calendar, and provides a graphical representation of the activity duration. Various annotations can be used to communicate the progress of the project effort to compare it with the baseline plan, as well to depict in a graphical way areas where there are modified expectations from the baseline plan.

Once a Gantt schedule has been established for a project, progress should be periodically plotted against the baseline schedule. If different functional areas are involved in a project, each area may need its own detailed schedules to support the project master schedule. In such cases it is important that working schedules be linked to a common master

schedule in a way that they can be easily updated. Each activity or event on the schedule should have an individual assigned to responsibilities for its completion, so that the schedule status can be updated without a lot of effort.



ID	Task Name	Duration	Start	Finish	% Complete
1					
2	**Start**	0 days	30-01-2007	30-01-2007	0%
3	Activity 1	20 days	30-01-2007	26-02-2007	0%
4	Activity 2	30 days	27-02-2007	09-04-2007	0%
5	Activity 3	10 days	30-01-2007	12-02-2007	0%
6	Activity 4	30 days	10-04-2007	21-05-2007	0%
7	Activity 5	20 days	27-02-2007	26-03-2007	0%
8	Activity 6	30 days	13-02-2007	26-03-2007	0%
9	Activity 7	10 days	22-05-2007	04-06-2007	0%
10	Activity 8	10 days	27-03-2007	09-04-2007	0%
11	**End**	0 days	04-06-2007	04-06-2007	0%

The steps needed to create a Gantt chart include:

- Review the network diagram to ensure all activity relationships are complete
- Review the activity durations, resource assignments and skill levels required to complete each activity
- Review the project calendar and include project dependencies and constraints
- Develop the Gantt chart and determine the time scale and the symbols to identify the activity bars and milestones

Schedule Management

Schedule management includes the processes required to ensure timely completion of the project. But before a project schedule is created, a project manager should typically have a work breakdown structure (WBS), an effort estimate for each task, and a resource list with availability for each resource. A schedule is created using a consensus-driven estimation method; the reason for this is that a schedule itself is an estimate: each date in the schedule is estimated, and if those dates do not have the buy-in of the people who are going to do the work, the schedule will be inaccurate.

Once an overall schedule is set, the project manager is responsible for monitoring the progress of the project and revising the schedule if needed. This must be done in consultation with project team members who are doing the work. It is essential for the project manager to keep all participants informed as to the current schedule status.

These series of articles focuses on concepts and practices related to development projects. It is our hope that the ideas and methodologies presented here prove useful to anyone who is engaged in managing projects in the broader development community, and helps bring sustainable benefits to the communities and beneficiaries who need it the most.

The Millennium Development Goals aim by 2015 to reverse the grinding poverty, hunger and disease affecting billions of people.

PM4DEV is committed to provide resources and develop knowledge and expertise to support development organizations in their efforts to achieve this ambitious goal.

Project Management For Development Organizations

www.pm4dev.com
info@pm4dev.com