

Project 2007, Introduction Definitions and Notes

Work = what will be accomplished once resources are assigned to a task.

Duration = Time

Units = the percentage of the resources time. Default is 100%

The formula that is used to calculate work in:

Work = Duration * Units

Milestone = a reference point marking a major project event. As a general rule you mark the beginning and the end as a milestone. (black diamond)

Lead Time = is the overlap between dependant tasks, i.e., if you are packing and moving boxes, you can begin to move some boxes before the packing is completed. A 40 % lead time means that the successor task would start when the predecessors is 60% completed.

Lag Time = the delay between two dependent tasks that adds waiting time. A task to pour cement for a new floor, you must add the lag time for the cement to set before the flooring work can begin.

Lag time is entered as a positive value and Lead time is entered using a negative value.

Constraints = conditions or limitations placed on the start or finish date of a task. The default for start date is As Soon As Possible.

Microsoft Office Project 2003 provides the following

[As Late As Possible \(ALAP\)](#)

This [flexible constraint](#) (flexible constraint: A constraint that is flexible and does not tie a task to a single date. Flexible constraints are As Soon As Possible, As Late As Possible, Finish No Earlier Than, Finish No Later Than, Start No Earlier Than, and Start No Later Than.) schedules the task as late as possible with the task ending before the project finish and without delaying subsequent tasks. This is the default constraint for tasks when scheduling from the project finish date. Do not enter a task or finish date with this constraint.

[As Soon As Possible \(ASAP\)](#)

This **flexible constraint** (flexible constraint: A constraint that is flexible and does not tie a task to a single date. Flexible constraints are As Soon As Possible, As Late As Possible, Finish No Earlier Than, Finish No Later Than, Start No Earlier Than, and Start No Later Than.) schedules the task to begin as early as possible. This is the default constraint for tasks when scheduling from the project start date. Do not enter a start or finish date with this constraint.

[Finish No Earlier Than \(FNET\)](#)

Schedules the task to finish on or after a specified date. Use this constraint to ensure that a task does not finish before a certain date.

[Finish No Later Than \(FNLТ\)](#)

Schedules the task to finish on or before a specified date. Use this constraint to ensure that a task does not finish after a certain date.

[Must Finish On \(MFO\)](#)

This **inflexible constraint** (inflexible constraint: A constraint that is inflexible because it ties a task to a date. The inflexible constraints are Must Finish On, Must Start On, Finish No Earlier Than, Finish No Later Than, Start No Earlier Than, and Start No Later Than.) schedules the task to finish on a specified date. Sets the early, scheduled, and late finish dates to the date you type and anchors the task in the schedule.

[Must Start On \(MSO\)](#)

This **inflexible constraint** (inflexible constraint: A constraint that is inflexible because it ties a task to a date. The inflexible constraints are Must Finish On, Must Start On, Finish No Earlier Than, Finish No Later Than, Start No Earlier Than, and Start No Later Than.) schedules the task to start on a specified date. Sets the early, scheduled, and late start dates to the date you type and anchors the task in the schedule.

[Start No Earlier Than \(SNET\)](#)

Schedules the task to start on or after a specified date. Use this constraint to ensure that a task does not start before a specified date.



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Start No Later Than (SNLT)

Schedules the task to start on or before a specified date. Use this constraint to ensure that a task does not start after a specified date.

Fixed Unit = Assigning additional resources reduces tasks, i.e., stuffing envelopes

Fixed Duration = Fixed value of duration. Changes to resources do NOT impact task duration. i.e., a delivery from one site to another and only one truck is needed. Changes to the amount of drivers or added another truck will not change duration.

Fixed Work = A task in which the amount of work is fixed. If changes are made to the tasks duration or number assigned to resources, there is no impact on work.

Leveling:

Is the process of delaying or splitting (interrupting) tasks to resolve conflicts.

Leveling will extend the projects finish date

Leveling does not change resource assignments nor does it add any resources

Critical Path is a series of tasks that must be finished on schedule if the project is to finish on time.

Tasks on the critical path are called **critical tasks**.

If one or more of these tasks are delayed the Project will finish late. We must manage the critical path.

Project defines critical tasks as those that have no slack

A task becomes critical when it meets any one of the following conditions:

- It has no slack.
- It has a Must Start on (MSO) or Must Finish On (MFO) date it has an As Late As Possible (ALAP) constraint in a project scheduled from a start date.
- It has an As Soon As Possible (ASAP) constraint in a project scheduled from a finish date.
- It has a finish date that is the same as its date.

A task stops being critical when it's marked as completed, because it then can no longer affect the completion of successor tasks or the project finish date.

Slack is the amount of time that a task can slip before it affects another task's dates or the projects finish dates.

Free Slack is the amount of time a task can slip before it delays another task.

Total Slack is the amount of time a task can slip before it delays the projects finish date

Slack is represented by a this green bar that extends from the Gantt bar for the Task

Baseline Plan is the original project plan one uses to monitor the projects progress.

The difference between early finish and late finish dates determines the amount of slack. For critical path tasks (tasks that have no slack), the early finish and late finish dates are identical.