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Seven Tips on How to Build a Solid Schedule

Schedule compression is a common term in the practice of project management today. The project schedule is scrutinized regularly in the interest of staying on budget and getting the product or services to market.

By creating a solid schedule at the start of the project, project managers can help curb cost overruns, resource shortages or excessive change requests. Here, a panel of project scheduling professionals offer seven tips for creating a solid project schedule.

1. Realize the importance of the schedule.

Project managers and the project management team often do not put enough emphasis on the schedule. However, a good schedule touches every Knowledge Area and process group of *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*. For example, if a potential slip in the schedule is identified, the project manager would address it through the project's issues and risks processes.

Schedule changes can affect any area of the project and can have downstream impacts. In this manner, the schedule becomes the central focus and the foundational tool for managing the project.

2. Identify the availability of team members.

A resource inventory is needed to plan the whole project and to decide which path you will take to execute the project. Who will be available to work on the project? Are there any holes or will any team member be stretched too thin?

This is especially important in environments where budgets are tight and many organizations hesitate to take on more staff members. Once the project team has been established, ask for their input on the schedule to ensure it is reasonable.

3. Build the schedule around deliverables.

It is human nature to want to build a schedule around tasks, but that method can cause problems. The flaw with that approach is that a scheduler cannot easily tell if a stakeholder

change is actually within the project scope. Project schedulers should build the schedule around deliverables because they are tangible, verifiable and must meet predetermined standards to be complete.

4. Include regular milestones.

Establish milestones within the schedule and check those milestones frequently. That way, if a project lasts for eight months, you do not get to month four and realize you are going to be late. If you miss milestones that occur in the first couple of months of the project, you know whether the project is on schedule.

5. Expect that the schedule *will* change.

Realize that the schedule is not permanent because project tasks and stakeholder needs constantly fluctuate. The project schedule is really an assumption about what might happen and when. It is your job to continue to understand the reason for any variances and make appropriate changes to the schedule to meet the changing project landscape. This would include a contingency plan.

6. Have a process for managing change.

Project managers must be willing to shift gears to help a project stay on track. Establish a threshold that triggers the change-control process. For example, if a proposed change would make the project more than a day late, the client or a change-control board must first approve it. However, be cautious against making changes out of scope.

7. Watch for “hangers.”

A basic scheduling rule is that every task should have at least one predecessor and at least one successor. The obvious exception is the project start milestone, which has no predecessor, and the project complete milestone, which has no successor.

When a task lacks a predecessor and/or successor, the task has a ‘hanger,’ which is an unintended break in the project network diagram. The problem is that the forward and backward pass calculations will be incomplete and possibly wrong because each hanger results in a roadblock for critical path method calculations.

Panel of Experts

Alejandro Aramburu, PMP, senior project manager at NEC Argentina S.A. in San Luis, Argentina. (Contributed to tips 2 and 6.)

Michelle Colodzin, PMI-SP, PMP, senior project consultant at MetaVista Consulting Group in Folsom, California, USA. (Contributed to tips 1, 3, 4 and 6.) Ms. Colodzin presented her paper, “The Five Secrets of Project Scheduling,” at the Fifth Annual College of Scheduling Conference in 2008. This paper also appears on PMI’s [Virtual Library](#).

Joe Lukas, PMP, vice president, PMCentersUSA, Pittsburgh,

Pennsylvania, USA. (Contributed to tips 5 and 7.) Mr. Lukas also contributed two related articles about the project schedule to PMI's *Community Post* e-newsletter including ["What to Do When Preparing a Project Schedule"](#) and ["What NOT to Do When Preparing a Project Schedule"](#).

Patrick Weaver, PMI-SP, PMP, managing director of Mosaic Project Services Pty. Ltd. in Melbourne, Australia.
(Contributed to tip 5.)

PMI's Scheduling Professional Credential

The [PMI Scheduling Professional Credential \(PMI-SP\)](#)® was launched in mid-2008. It recognizes the special qualifications needed to build and execute project schedules. There are now more than 125 PMI-SP® credential holders.

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