6 Steps to Successful Schedules

By Ron Holohan

Creating a comprehensive schedule is one of the more difficult activities that project managers face. Schedule creation is often considered more art than science, and results often support this. What is often more frustrating is that team members often find themselves on one team with a project manager that creates and manages schedules a particular way and on another team with a project manager with a different approach.

I often hear from people on teams, "why can't all project managers do things the same way?"

If you have heard this on your team, perhaps it is time that you take a look at the way you and your team create your team schedules. Perhaps you are not taking a consistent step in developing team schedules that have been shown to work time and time again.

There are tons and tons of resources out there that claim the perfect answer to your scheduling problems. But, I believe that you can improve your chances for success just by following the six simple steps below.

Step 1: Define the Schedule Activities

Take your Work Breakdown Structure (WBS) work packages and decompose them further into schedule activities.

Take each WBS work package, and decide what activities are required to create that package. For example, if your work package is "configure new computer hardware," your schedule activities might include "set up network configuration," "install the video card," "install applications," and then "set up mail client."

Step 2: Sequence the Activities

Remember back in grade school where you were given a bunch of pictures and you had to figure out their order. You had to decide which picture represented the 1st activity, the 2nd activity and so on? Well, that is exactly what the second step is all about. In the second step we sequence the schedule activities by simply placing them in the order in which they need to happen. For example, perhaps we need to install the video card first, then set up the network configuration, install applications and then finally set up the mail client. In some cases two or more activities can be done simultaneously. Perhaps we can set up the mail client while other applications are being installed. This step is where we look at the different types of schedule dependencies such as finish-to-start, start-to-start, finish-to-finish, and start-to-finish to figure out how each of these activities relate to each other.

Step 3: Estimate the Resources Needed for the Activity

The third step involves estimating what resources will be required to accomplish each activity. This includes estimating needed team resources, financial resources, and equipment. These resource needs should be selected for each activity prior to estimating the duration of each activity which is the next step.

Step 4: Estimating the Duration of Each of the Activities

This step requires you and your team to analyse how long it will take to accomplish each of the activities. These estimates can be quantified through the following tools:

- **Expert Judgement**: by conferring with someone who is familiar or experienced in what it takes to accomplish a particular activity.
- **Analogous Estimating**: a top-down estimation approach is taken by looking at similar projects within your organisation for estimates on how long a particular activity should take.
- **Parametric Estimating**: basically this is scaling an estimate. For example, perhaps you know it takes on average 10 minutes to install a software application. If the "install applications" activity includes the installation of 6 applications, you can use parametric estimation to estimate that it will take approximately 6 times 10 minutes, or 60 minutes to install all the applications.
- **Three point estimation**: sometimes referred to as PERT analysis, is a great tool for estimating activity durations. You basically take a weighted average of a pessimistic, expected, and optimistic estimate for the activity duration. This estimate is in the form of (Pessimistic + 4x(Expected) + Optimistic) / 6

Step 5: Schedule Development

This step is the process where the sequence of activities, resources needed for the activities, and the duration of each activity is used to optimise the overall project schedule. Tools used in this process include critical path method, schedule compression, what-if scenario analysis, resource leveling, and critical chain methods. Each of these topics could have one or more articles dedicated to it, so we will not go into the detail of each.

Once the schedule is developed, it should be baselined to provide a snapshot of the original schedule plan of the plan.

Step 6: Monitoring and Controlling the Schedule

The final step is monitoring and controlling the schedule. This step is performed throughout the life of the project and ensures that the work results lines up with the schedule plan. Schedule control requires the use of progress reporting, schedule change control systems, such as the use of project change requests, performance management, and variance analysis to determine if additional action is required to get the schedule back in line with the plan.

So, those are the 6 steps you need to know to create a successful project schedule.

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