

PROJECT PAIN RELIEVER

PLANNING PROBLEMS AND SOLUTIONS

Editor Dave Garrett

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My “Critical Path” Doesn’t Seem Right.

By J. Chris White

1. Problem

Even though you have been shown the ‘critical path’ for a plan, based on work progress up to now you have a strong gut feeling that the key activities for project success are not being highlighted. You are concerned that whatever is wrong won’t show up until it’s too late.

2. Warning Signs

This problem is another one of those ‘gut feel’ things, but also be on the lookout for:

- The critical path keeps changing.
- You spend a lot of time analyzing your project plan using project planning software.
- Changes in resources have a bigger impact on your schedule than you think they should.
- You are noticing that the productivity and proficiency of your assigned resources is lower than originally estimated.

3. What happens if I do nothing?

There is a chance that the “critical path” you are focusing on is not actually the chain of activities that have the most influence on the project schedule. Consequently, you may find yourself pushing the project team and not making improvements. Worse, the true chain of activities that have the most influence on the project schedule will not receive proper attention and, as a result, there is a high risk that the project will not meet its intended objectives.

4. Solution

The critical path method is a duration-based approach. For simple projects, this approach is appropriate. For more complex projects, a resource-based approach is more appropriate because it provides the details that drive performance. For your project, you may need to dig deeper into the planning and estimating process and conduct a resource-based analysis.

This chapter shows you how to get there.

5. What should I do?

First, let us start with a little background. The critical path method (CPM) used in today's project planning and scheduling tools was developed in the 1950's and was kept simple enough to be performed with pencil and paper because computers were not that powerful or accessible at that time. Sure, it was innovative at the time and was a great improvement over a basic Gantt chart, but we have moved beyond this simplistic approach. Now, CPM has a couple of major weaknesses that make it insufficient for many of today's projects.

- **Duration is an input.** To keep things simple for the user, just about every project planning or scheduling tool on the market today allows the user to enter the duration of a task as an input. No other information is required. While this makes the tool simple and easy to use so that a plan can be developed quickly, the results can be very misleading and give the illusion of control. In the real world, duration is an output - we don't know how long a task will take until that task is completed.
- **Resource productivity is not considered.** All resources are not created equal, but most project planning tools will treat them that way. It is quite common that the team that was envisioned when the original plan was created is not the team that eventually implements the plan, especially when there is a significant time gap between when a plan is proposed and when the plan is initiated (e.g., months). Simply by changing resources from senior-level 'experts' to junior-level 'newbies' can have a dramatic effect on the schedule of a

project, even if nothing else changes simply because less experienced resources are unlikely to be as efficient at completing the work. Furthermore, if resources work overtime for an extended period of time, or if too many resources are thrown at a job (e.g. over-manning, trade-stacking), the productivity of the resources can decrease. Today's PM tools do not capture these differences in productivity.

So, what does it mean to use a resource-based approach? It simply means that you begin building your plan based on resource information instead of duration information. This is important because the resources are what get the work done. If your assumptions about resources play out to be true, then the resource-based approach should give the same results as a duration-based approach. Figure 1 [White, 2010] provides a representation of the input information that is used for both of these approaches.

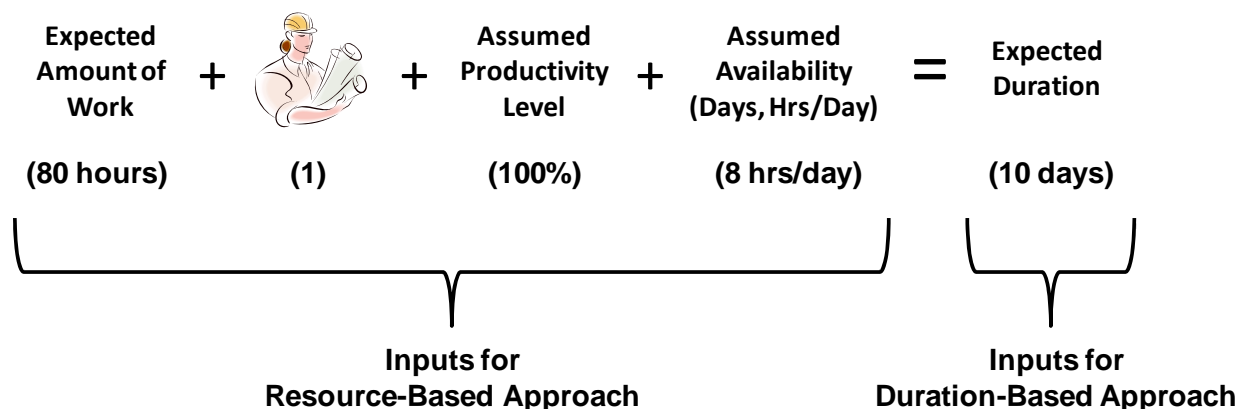


Figure 1: Resource-Based Estimating Approach Versus Duration-Based Estimating Approach

(SOURCE: www.DynamicProgressMethod.com)

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Let us consider a simple example. Suppose a project has been broken down into its various tasks (the work breakdown structure). Now let us suppose that as project manager you are trying to estimate the schedule and cost for a particular task. In the traditional duration-based approach, you would input the estimated duration of each task into your project planning tool. No resource information is required. An experienced project manager may use his/her knowledge of resource usage to develop the duration estimate, but that is not necessary. In fact, in many rough-order-magnitude (ROM) estimates, resource

information is rarely used because approximate estimates are being developed, not detailed estimates. A problem with the duration-based approach is that sometimes there is no consistency with the duration estimates because of the project planner's underlying assumptions. One project planner can look at a task and estimate it at 10 days and another project manager can look at the same task and estimate it at 15 days. Each planner has a set of underlying assumptions that drives their estimates, but that information doesn't have to be captured in the duration-based estimate.

In the resource-based approach, specific information related to the amount of work expected for the task, the expected allocated resources, the expected level of productivity or proficiency for the allocated resources and the expected availability of the allocated resources are used as inputs. Duration is *not* an input. In the particular example in Figure 1, the task represents 80 hours of work, one person is allocated to the task with an assumed productivity level of 100%, and the assumed availability of the person is 8 hours/day. This gives a duration estimate of 10 days:

$$\begin{aligned}\text{Duration} &= (\text{Amount of work to do}) / (\text{Work completed per day}) \\ &= (80 \text{ hours}) / [(1 \text{ person}) * (100\% \text{ productivity}) * (8 \text{ hours/day})] \\ &= (80 \text{ hours}) / (8 \text{ hours/day}) \\ &= 10 \text{ days}\end{aligned}$$

[An interesting note is that today's tools do these resource calculations. If you input the duration for a task as 10 days and assign 1 person to that task (who happens to use a standard 8-hour workday), then the planning software calculates that it is an 80 hour task. To test this, add another person to the task and the duration will drop to 5 days. That's because 16 hours of work is getting done each day against an 80 hour work backlog.]

At this point, the resource-based approach and the duration-based approach seem to be equivalent. Each approach estimates the task duration at 10 days. The additional value of the resource-based approach comes from actually including the real-world elements that impact the duration: resources doing work. Notice that in the resource-based approach, duration is an output, just as it is in the real world. This additional resource information becomes valuable when changes to the resources occur. For

example, the estimated duration for the task in Figure 1 is 10 days, which assumes the resource availability and productivity as shown. However, if the resource is available for only 6 hours/day, then the duration becomes:

$$\begin{aligned}\text{Duration} &= (\text{Amount of work to do}) / (\text{Work completed per day}) \\ &= (80 \text{ hours}) / [(1 \text{ person}) * (100\% \text{ productivity}) * (6 \text{ hours/day})] \\ &= (80 \text{ hours}) / (6 \text{ hours/day}) \\ &= 13.7 \text{ days}\end{aligned}$$

This change in the estimated duration cannot be accounted for in the duration-based approach. As another example, suppose that the resource chosen for the task in Figure 1 is not available because he/she is working on another higher priority project. Suppose a new junior-level person is assigned that has a productivity or efficiency level of 50% compared to the original resource. Now, the expected duration becomes:

$$\begin{aligned}\text{Duration} &= (\text{Amount of work to do}) / (\text{Work completed per day}) \\ &= (80 \text{ hours}) / [(1 \text{ person}) * (50\% \text{ productivity}) * (8 \text{ hours/day})] \\ &= (80 \text{ hours}) / (4 \text{ hours/day}) \\ &= 20 \text{ days}\end{aligned}$$

By just changing resources, a completely different duration is obtained. Again, these types of changes in duration are not possible with the duration-based approach.

The resource-based approach becomes even more valuable when looking at a project mid-stream, as with the issue in this chapter. Data can be collected on the performance of resources up until the current point in time to give an estimate of their levels of productivity. These productivity levels, along with known availabilities of the allocated resources, can provide a more realistic estimate of the schedule for when to expect remaining work to be completed. The end result can differ greatly from a duration-based approach like CPM. Furthermore, if resources are working extensive overtime or there are too many resources assigned to some tasks in an effort to speed up work, you can now show the impact of these

corrective actions by reducing the productivity of the resources in your estimates (which lengthens duration).

While the resource-based approach seems to provide a great deal of value and realism, there are still situations when the duration-based approach is sufficient. These situations are typically the rough-order-magnitude (ROM) estimates that are not expected to show details, along with situations for which the company performing the work has ample historical data and empirical evidence that they consistently meet their estimated cost and schedule estimates. However, due to the complexity of today's projects, there are many more situations in which the resource-based estimation approach proves more appropriate. These situations include:

- New projects which have never been attempted by the company performing the work,
- Situations that involve changes to the workforce used on the project, and
- Large complex projects which involve numerous resources over a long period of time (e.g., 12 months or more).

6. What have you learned?

Know your project planning and scheduling software, and know what it is doing. Today, we do not manually calculate critical paths, it is way too cumbersome. Instead, we rely on project management tools to do this for us, but, as with most software, "garbage in" leads to "garbage out." For complex projects, you may have to go beyond the simple approaches used in traditional PM tools and use a resource-based approach that can provide more fidelity to the estimate. You know that you are in a good place when:

- You have considered all of the variables (work, resources, productivity and availability) in developing your plan and its critical path
- You have reliable estimates for each element
- You are confident that your critical path is accurate and realistic

“Sidebar”

Which way do we go?

Hazhir never thought he would spend so much time analyzing the critical path of this project. The project was supposed to be a slam dunk. When it started, it looked like everything was in order. But, every week at the project status meeting when the project team provided its updated progress information, it seemed like it always changed the critical path. Hazhir was starting to lose faith in the concept of a critical path because it could be dramatically altered with small changes in progress information. There were several issues that Hazhir could think of that may be contributing to this phenomenon: the assigned resources were not accomplishing as much as originally planned, some of the resources were not available as much as originally planned, a couple of the resources were different from those that were originally planned, and everyone seemed to be slowing down in general.

At this point, Hazhir realized he had a dilemma. He could keep pushing the project team based on the critical path that his project planning software indicated. Or, he could figure out another way to find out the key string of project tasks that needed to happen to make sure this project was successful. He leaned toward the latter, but he knew that the “way things are done” at his company tended to focus on the former. If he broke from the normal approach used at the company, he would be highly scrutinized and perhaps it may even be frowned upon. Yet, in his gut, Hazhir couldn’t help feeling that something else was driving the so-called “critical path.”

Things aren't moving fast enough and I'm wasting time planning.

By Gina Abudi

1. Problem

The project has a short timeline and your project plan is not yet complete. You feel like it is a waste of time to continue to develop an elaborate project plan with such a short timeline on the horizon. Maybe the project isn't an elaborate project. Maybe the team hasn't yet agreed on the project plan. Either way, you are getting pressure from the project sponsor to get started on the project even if you have to do so without a project plan in place.

2. Warning Signs

Some warning signs that planning is going to hold you up include:

- You are assigned a project with a very short timeline and no time built in for effective planning.
- Your team hasn't worked together before and everyone has a different way of going about building the project plan.
- Given the size of the project, project planning is not considered a priority for the sponsor or the team.
- There is disagreement on the team regarding the best way to move forward with the project.

3. What happens if I do nothing?

You are likely frustrated that the project isn't moving along as quickly as you'd like it to (or as quickly as the sponsor would like it to) and are considering the entire planning process a waste of time. This is a mistake. Without a project plan – even for a smaller project – you are setting yourself up for problems later on. If you don't take the time to plan effectively at the start, you will likely miss the timeline for the project and the project may not meet its objectives and/or go over budget. Planning is an

important component of any project and you must find time to develop an effective project plan. It may be you need to adjust your planning process for smaller, non-complex projects, but you still need to develop a plan. Doing nothing is not an option if you want to be successful.

4. Solution

Even with a tight deadline looming in front of you and the team, it is imperative that you have a project plan to stay on track. Schedule a meeting with the project team to get a project plan developed. You will need to step back and invest the necessary time to ensure that an appropriate project plan is developed to meet the project's objectives and the timeline. Do not consider this a waste of time, and do not let the team consider it a waste of time. The more quickly you need to get the project started to meet a tight deadline, the more time you may want to invest up front in an effective project plan. For example, set aside a day to work together with the entire project team, to collaboratively develop a project plan. Have a process in place on how the project plan can be developed as quickly as possible without wasting time to ensure the project objectives and timeline can be met.

Think about:

- What is the size of your project? (small, mid-size, large)
- What impact will your project have on the organization? (one department, a business unit, the entire organization)
- What is the complexity of your project?
- What are the required components of a project plan based on past projects, stakeholder expectations, etc.?

Answers to these questions will enable you to better determine how to balance the amount of time spent on planning the project with actually doing the work of the project.

This chapter will show you how to get there.

5. What should I do?

Take the following steps to get your project planning done without taking valuable time away from actual work on the project.

5(a) Work together

By getting the team together and having everyone work on the project plan as a group, you increase the likelihood of developing a project plan faster. You are also more likely to develop a plan that has consensus approval – because the team has been engaged in developing it. In turn, this will enable the team to move along faster with getting the work of the project done!

5(b) Be prepared

You need to make sure that the team is set up for success in building the plan. Prior to the meeting with the project team, ensure you have everything you need available to develop the project plan as quickly as possible. This might include the following:

- The objectives/goals of the project (from the project charter)
- List of all stakeholders and their expectations
- The project scope statement
- The project budget information (if a budget is already established for the project)

5(c) Follow the process

Just because time is short you can't cut corners in the steps required to build the project plan. You need to work through each step of the process with your team so that you achieve each of the following in the sequence given:

1. Build the Work Breakdown Structure (WBS)
2. Define and sequence activities and determine durations for all activities (if you already have a “due date,” work backwards from that date)

3. Cost estimates (use the budget as your starting point if one was already provided for the project)
4. Identify project risks and develop your risk management plan
5. Staffing plan – roles and responsibilities matrix (identify any additional resource needs)
6. Build the schedule for the project
7. Develop your communications plan for the project

5(d) Complete the plan

Build your project management plan based on the project components you worked on together as a team, and don't rush things at this late stage. Then share the plan with the team and get final input, making sure that there is a proper review and update if required. Now you are ready to get to work on the project!

This initial project plan should be sufficient to get you started on your project so you don't spend too much time planning rather than actually doing. Some components noted above may not be required for your particular project, make adjustments during your project planning meeting as needed to suit the particular needs of your project and stakeholder expectations. As always, refer back to the initial plan you have created as the project moves along to make adjustments that may be required as new information becomes available.

6. What have you learned?

A project plan is needed regardless of the size of the project. The extent of the project planning you and the team needs to do will be based on the size and complexity of your project. Don't get so overwhelmed by the project in front of you – especially those with short timelines to completion – that you feel like you are wasting your time planning. Once you start feeling like the project planning is a waste of time, that will be communicated to your team and you will end up with no plan or a poorly developed plan that takes you off track. By developing a plan collaboratively with the project team all in one location, you can get things done much quicker and get to work on the actual project itself.

You know you are in a good place when:

- You don't feel as if you are spinning your wheels on planning your project and not getting any actual project work done.
- You have a workable initial project plan that everyone on the team agrees with and therefore team members can begin work against the plan.
- Projects with tight deadlines move forward much quicker based on a collaborative (all team members in one room) approach to project planning.

“Sidebar”

What is taking the team so long!

Sophia was concerned and feeling anxious. Her project to roll out a new customer relationship management system within the organization had a very tight deadline and yet the project team was still wrapped up in developing the project plan. Already 2 weeks had passed with little progress on project planning. Everybody on the team seemed to be moving in a different direction (and some more slowly than others) in getting components of the project plan completed. Sophia felt like they just needed to get started. Maybe they could work on the project while finalizing the project plan? She knew this wasn't the best approach, but she couldn't see how it would be possible to meet the project deadline if she didn't get started immediately.

Sophia knew if she mentioned this to her team at all that they would just fall over! She knew that they couldn't accept starting the project without having the plan in place. And they weren't wrong. What was Sophia going to do? How could she move along the project planning effort and get this project started so she could meet the deadline? She wanted to ask the sponsor, but was afraid he'd be upset that the project hadn't even started yet. Certainly he would find out soon enough as Sophia had a meeting with him on status within a week. Sophia really needed to figure out how to move the project planning along so she could get this project started. She needed help and she needed it quickly!

I keep forgetting steps that need to happen before the real work can be done.

By J. Chris White

1. Problem

Your project team, your project leadership, and everyone is pushing you to get your project off the ground and running as quickly as possible. As a result you feel pressured to start and you are rushing, and as a result you are forgetting some of the things that you need to get done.

2. Warning Signs

This problem is a fairly easy one to spot, if any of the following is happening then you could have a problem:

- You are feeling pressure from the project sponsor to move your project along quickly.
- As work progresses on the project, delays occur now and then as “planning” activities have to be done.
- You are realizing that a lot of the planning activities that are occurring midstream on your project could easily have been done at the beginning or prior to the project starting.
- You get the sinking feeling that you started out the gates without being quite ready.

3. What happens if I do nothing?

If you try and ignore this problem and continue moving forward on the project then it will continue to be interrupted by planning sessions, which will slow down progress. It may or may not slow the project down enough for deliverables to be late, but it will surely mean extra time from you and some of the other key resources involved in planning the project. Be prepared to put in some extra effort to cover the planning activities that perhaps should have happened at the beginning of the project. In addition, you

will have less time to resolve any problems that you encounter as you will be planning and working almost in parallel.

4. Solution

The various steps in planning all exist for a reason, for you to have confidence that you can manage your project successfully you need a plan to manage against. If you are in a position where some of the planning pieces didn't get done upfront because you forgot them in the urgency of having to get the work started then you need to:

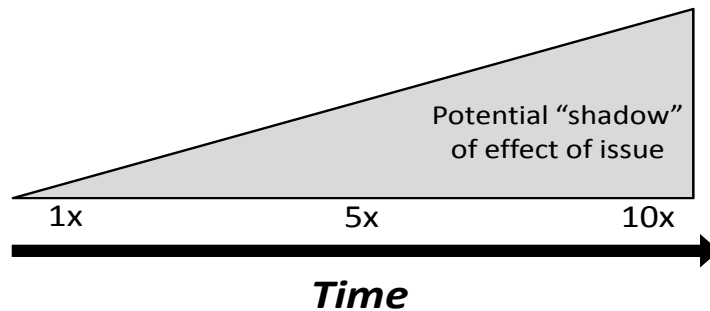
1. Identify the missed steps
2. Understand the current impact and manage it
3. Address the gaps
4. Update the project plan to reflect the changes

This chapter shows you how to get there.

5. What should I do?

Planning should happen at the start of the project. However, if it doesn't then it needs to happen as quickly as possible. Take a look at Figure 2. This shows a notional diagram of the propagation of the impacts of a particular issue that is not resolved early on. It is similar to a defective item moving through a manufacturing process. The longer the issue is allowed to go on, the bigger the effort to correct the problem. If the issue is caught at the beginning, the effort (in terms of time, attention, and perhaps money) is 1x. As it progresses, the impact of the issue grows as more and more work on the project relies on this "defective" work. As shown in the diagram, after some bit of time the effort to fix the problem becomes 5x (compared to the initial effort) and then eventually grows to 10x and even more.

[Figure 2]



5(a) Identify the missed steps

In order to get control over your project and avoid mistakes escalating and becoming more expensive to fix you need to act quickly. However, you don't want to act so quickly that you address the wrong things, or only solve some of the issues. Before you do anything, make sure that you fully understand where the gaps are – identify everything that was forgotten in the rush to start the 'real' work. That way you can be sure that you can fix the issue when you do address it and not have to repeat the process again.

5(b) Understand and manage the impact

In an ideal world you would halt the project until you have been able to go back and complete the planning, but we don't live in an ideal world! The same pressures that forced you to rush the project and forget some planning items will likely also mean that you have to keep the project moving while you address those gaps. You need to understand what the effect of that is and manage those impacts closely. For example:

- Are you sure that resources are working on the right things? Make sure that the work that you are doing is at least covered in the requirements document (or scope

statement if the requirements aren't yet complete). If you see an indication that the work is not creating a deliverable, or that there are other tasks that are more urgent or need to be done earlier in the project, be prepared to shift focus

- Are the right people working on tasks? As best you can make sure that each resource is working in an area where they are adding the most value that they can to the project. Be prepared to move resources around as soon as your planning suggests that there are higher value tasks to be completed
- Are there gaps that are impacting you now? Without a complete plan there will be steps that have been forgotten in project execution. You may not recognize what they are immediately, but be prepared to refocus efforts and address them as soon as they are identified

Work with your team to assist you. Make sure that they are aware of the fact that they are moving forward without the strong foundation of a completed project plan and that they need to escalate anything that doesn't seem right as soon as they come across it.

5(c) Address the gaps

When you step back to project planning, you need to make sure that the work is conducted thoroughly. You can't rush it and you can't cut corners. It will likely take longer to complete now, and you need to work around other tasks (if you can't halt the project), but it still needs to be done. This will impact other work – you need your team to assist you with dependencies, estimates, etc and stakeholders need to accept that – the alternative as we say above is significantly increased costs of correction further into the project.

You may need to revisit some of the planning that did get done – if there were upstream tasks that were missed then as you complete those the inputs to that work will change and that will require the work to be revisited.

There is one change that you will need to consider at this point vs. planning the project ahead of time. In the planning phase you will plan the entire project, but at this point it will likely be a better approach to break the project down into pieces – at a minimum the work currently underway, and the rest of the project. This will allow you to validate or correct the things that your team is currently working on (related to 5(b) above) and address any problems as quickly as possible.

This phased approach to planning will likely mean that the planning work takes longer, but the benefit is that any problems on the current work will be identified sooner (and hence cost less to fix).

5(d) Update the plan

The final step is to update the overall project plan – not just the schedule, but also any changes to the risk management plan, the quality plan, the communication plan, etc that are driven out of the work that you have now completed – planning reaches into most aspects of the project and you need to understand all of the impacts if you are going to regain full control of the initiative.

One of the most important elements here is to make sure that your team understands the changes. If you have two versions of the plan floating around then you are asking for trouble so take the time to explain the changes to the team as a whole, and the details to each team member. Even something as simple as using different colored paper for printouts or a different font for soft copies will help distinguish between old ‘wrong’ versions of plans and the newly updated and corrected versions.

6. What have you learned?

Proper prior preparation prevents poor performance. That’s a nice alliteration to keep in mind. Do the necessary upfront planning and you will have created an environment that is much more conducive to

high performance. Don't let short-term pressures cause you to "leap" before you "look." If, for whatever reason, you have started the project without doing all the planning, immediately begin to address the planning issue as quickly as possible so that problems do not propagate. You know that you are in a good place when:

- You are able to retain a logical, structured approach to planning regardless of the pressures from stakeholders to start the 'real' work
- You can explain to stakeholders the importance of that structured approach
- If something does get missed you can quickly recognize that and analyze the impact
- You can quickly correct the issue and communicate corrections to your team clearly and without creating any confusion

“Sidebar”

Oops, forgot about that.

“Well, back to the drawing board again,” thought Sebastian. It seemed like more often than not the project was put on hold to do some more planning. Everyone was anxious to get going on this project, so even minor delays seemed excruciatingly slow. This project was exciting. It was the development of a new product and several new technologies recently patented by the company were being implemented. It was a huge project for the company and everyone was watching it. There was a lot of pressure on Sebastian and his team to get this right. The entire company was counting on them.

With all that pressure, Sebastian and his team felt like they had to show visible progress every day. Even people not associated with the project were stopping Sebastian in the hall and asking how it was going. The team was definitely under a microscope on this one. For Sebastian, it was his most important project so far. He was constantly getting calls from his project executive asking for progress. As a result, Sebastian felt that he needed to continue to push his team to make progress every day. And not just a

little bit of progress, but great strides. He couldn't let his project executive, or the company, down when asked how things were going. He felt he always had to have a positive answer.

But, with all the focus on *doing* work, not much effort went into *planning* the work. At first that was okay, but now it was becoming painfully clear that work alone would not make this project succeed. Sebastian hated to hear the words coming from his mouth because they were so cliché, but he finally told his team, “We need to work smarter, not harder.”

People tell me I'm making the same mistakes others have made.

By Alexander Matthey

1. Problem

You hear a lot about ‘not reinventing the wheel’ or making sure that ‘you learn from other’s mistakes’. However, you aren’t really sure how to achieve that, and now people are starting to make comments about you making the same mistakes as previous project managers. You’re not sure how to fix that.

2. Warning Signs

This problem is not always as straightforward as people telling you, it’s important to recognize when you are repeating previous mistakes:

- Sponsors criticize your work and comments like “it’s not the first time that this has happened here”
- Your colleagues discover too late that the problem you have just solved (or a similar one) has already been faced and resolved on previous projects

- From one project document to another there is no consistency, there are not even official company templates to be used thereby encouraging the same mistakes to be made over and over
- There is no organization wide repository for information on previous projects, lessons learned, etc
- When you hear the comment “there’s no need to conduct a lessons learned (post-mortem), nobody reads them anyway”

3. What happens if I do nothing?

If you fail to learn from others’ mistakes then you are destined to repeat their errors and your credibility will suffer. Your projects will be late, over budget and below quality. If you build a reputation for not learning from your mistakes then your career will be slowed, you won’t be given projects of any significance, and you may lose your job.

4. Solution

In simple terms, the solution is to start learning from your mistakes. You need to evolve into a more professional project manager who recognizes learning opportunities and acts on them. This will mean making changes to yourself, and potentially to your organization:

- Recognize you are responsible if you repeatedly make the same mistakes and commit to improving your project management skills and approach
- Use historic project information to help you in the work that you are doing on your current initiative.
- Start collecting your own Lessons Learned at the end of each phase, and each project – even if the organization doesn’t believe in it.

- Consider a professional credential / certification which will help provide you with best practices that you can implement
- Join a local chapter of a PM association, frequent PM events, congresses, seminars to share info and learn from more experienced colleagues in the industry (and in your own organization)
- Get into the habit of reading PM related blogs, news, magazines, books, etc

This chapter shows you how to get there.

5. What should I do?

Making a commitment to improvement is a lifelong thing – you’ll never master everything, and will continue to make mistakes. However, you can maximize your skills by following these steps.

5(a) Words of Wisdom

The popular saying is “Some people learn from their mistakes, but smart people learn from other people's mistakes”.

In Project Management this nugget is elevated to “Best Practice”. Failing to follow best practices becomes an act for which you may be held responsible. In the professional PM literature this is formalized via processes and key documentation produced at specific points in the project.

5(b) Search and use Historical Data / others’ Lessons Learned

If you are in charge of a project, 3 times you will be requested to produce time and cost estimates as additional details become available:

- At the very beginning of the project, when you just land with it, called in the jargon “at initiation”; you will be expected to come up with a “Rough Order of Magnitude “ estimate

- At the early stages of planning, you will be expected to work with the core project team to develop the “Budgetary Estimates”. The degree of accuracy will have to be better than the first one
- At the very end of planning, when all the details are known, and has been contributed to by the whole team through detailed activity level estimation, your deliverable will be called ”Definitive Estimates”.

In all three cases your starting point is the Lessons Learned, data, reports etc from previous projects, together called “Historical data”.

The more experience was captured, the less is to be created now empirically, and the higher the precision on the current project. Numbers, and lists, ways of doing things, etc are not just copied from historic projects, they require some analysis, but they provide a great starting point.

Other lessons learned may not be able to be used quite so literally, but the concept is the same – they can provide a tremendous start to helping you solve problems.

5(c) Generate your own Lessons Learned

There are two crucial moments during project execution when you can and must do something about ‘not repeating mistakes others have made’:

- At each phase end, when a major deliverable is achieved and a decision is taken to continue or stop
- At the very end of the project.

The first of these occurs at the end of every phase, the latter is obviously only once per project – but it should happen whether the project was completed successfully or cancelled.

Force yourself to capture the positive and negative lessons you have just experienced, even if the time pressure and lack of managerial support tries to push you straight into the next piece of work. It pays off handsomely to find the time and write down what worked well and what you

need to avoid next time. Regardless of whether your organization has a formal post mortem or lessons learned process this work is worthwhile.

At phase end this would cover all what happened since the previous major milestone. It can be relative to scope, time, cost, quality, HR, communication, procurement, risk, stakeholders, processes etc. At the end of the project it would be the same, plus lessons learned on the whole project – was it easy to achieve, achievable at all, the right project strategy, the right project organization, with the right level of authority, the right sponsor etc.

Furthermore, at the end of the project you need to ensure that all of the project related documents, be it electronic or paper, all the e-mails, databases containing project data, reports, charts, diagrams etc. are captured in an archive, and your organization should have an infrastructure for this.

5(d) Consider a Project management credential / certification from a reputed Association

Study in the area where you live which certification is more widely accepted and recognized and consider pursuing the requirements for it. Analyze and apply the learned principles, contained in their standards. Consider the most popular ones first, PMP® from PMI and Level C and D from IPMA, but look into more specific ones as well. In one word, lift your level of professionalism.

5(e) Join a locally represented Project management Association for professional networking

Cultivate the available professional network in your area. Don't be afraid to share your own knowledge, you can learn through that process as well. Consider writing articles, papers, etc on topics where you feel competent – that will help others and you can learn and develop through the process as well.

5(f) Subscribe to PM blogs, news, read the news, magazines, books, write yourself

Establish a habit to read both broadly on PM and dive into one or two areas where you will become a reference. Consider sites like gantthead.com (<http://www.gantthead.com/default.cfm>), ProjectsatWork.com (<http://www.projectsatwork.com>) and PMforum (<http://www.pmforum.org/>). This reading itself will greatly reduce the risk of repeating mistakes others have made, even if it's outside of your comfort zone.

6. What have you learned?

It's tough to defend yourself against an accusation of making the same mistakes as others have made, because in most situations it's avoidable. As long as you want to evolve as a project manager and take a consistent approach to learning from your own previous mistakes, reviewing the lessons learned from previous projects, and growing from the experience of others in the profession there is no reason why you can't avoid the pitfalls that others made before you. You know that you are in a good place when:

- Your team members and peers consult you for advice since you are recognized as a proactive professional who avoids mistakes others usually fall into
- You know what mistakes others have made and how to avoid them
- You learn from your own mistakes and avoid repeating them
- Your organization has a formal lessons learned process with information readily available for review

“Sidebar”

Oh no, not the same mistake again!

As Karin started pushing her ideas for project management process yet again, the room fell silent and everyone found something remarkably interesting about the desk in front of them. They had heard this a million times before.

Karin was representing Marketing / Product development plus Sales and the Call center – in total about 600 out of the 1,500 employees within the organization. Being responsible for processes pushed her to the forefront when was time to roll out a unique PM methodology for her telecommunication company. So here she was parading with the management of the biggest flow of projects launched by her division. Pride and determination to impose her way was written all over her face when it came to Project Management processes. From custodian she became the “author” of the PM processes and behaved as a spoiled university professor, claiming Marketing’s way is THE way and is the one which needs to be rolled out enterprise wise.

What is the problem? The vast majority of their projects were only initiated by Product Managers at Marketing. IT did the lion’s share of developing them into products, services or bundles. Then Product Managers launched them into the marketplace. So are we really referring to integration between Marketing / Product and IT? Not heard of. Neither Karin, nor any Product manager had the time or skills to design a Project Life cycle to prevent the same mistakes from happening over and over again so on every project they followed Karin’s process and experienced the same delays, frustrations, cost overruns and of course client dissatisfaction.

Finally someone at the far end of the table spoke up – “Karin, I’m sorry but your process just doesn’t work – we have to do things differently or we will just repeat the same mistakes that we have been making for the last two years”. Karin looked shocked, especially when she looked around the room and saw that everyone else agreed with the statement. But how could she avoid making the same mistakes – she didn’t know how to change things.

How can I show progress before the whole project is done?

By Aaron Porter

1. Problem

Your project is underway, but you seem to be the only person who understands the entire project and how it is progressing. A lot of good work has been accomplished and the project is moving according to budget and schedule, but you still hear whispers that would suggest your project is in trouble. You decide to approach your project sponsor to discuss your concerns. When you arrive at the meeting the first thing your sponsor says is, “I’m glad you came to talk to me. We may have a problem...”

2. Warning Signs

There are a number of warning signs that could indicate that the progress of your project is not being communicated effectively. However, recognizing a warning sign should not be a trigger to place the project on hold and create a plan to fix the problem. There may not even be a problem. Think of a warning sign as a “heads up.” Unless a problem is dropped in your lap, keep up the good work, keep your project team motivated and working, and keep your eyes open. Watch for further signs of trouble while taking the time to investigate the warning sign to see if it truly is part of a larger problem.

Several warning signs you may come across are:

- You hear of concerns about project performance
- You hear of concerns about your performance or ability as a project manager
- Your sponsor and/or stakeholders are not clear on the status of the project
- You find out that your project is in jeopardy of being dropped or losing funding

3. What happens if I do nothing?

It may be that you have a ‘real’ issue, in which case the other chapters in this book can be a real help. For this chapter we are going to deal with a problem of perception – a problem related to inadequate progress reporting. Doing nothing could mean:

- You get pulled from the project, reassigned to less critical projects, reassigned to non-project management duties, or fired. Your project has a champion – the sponsor. Now make sure you have a champion – you. You don't want project failure to be viewed as personal failure.
- The project gets cut. This typically involves more than inadequate progress reporting, but keeping your sponsor and stakeholders in the loop will go a long way toward protecting your project and your career.
- There may be no impact to the success of the project if you ignore the warning signs. The warning signs may be a false alarm or the result of circumstances being blown out of proportion. But you won't know if you don't take the time to find out.

4. Solution

Sadly, it seems that most projects pursued by organizations are competing for the same resources (which includes personnel and non-personnel resources), time and money. This competition can present an obstacle to progress. While you should be able to count on your sponsor as the project champion, your key stakeholders may have competing interests that could result in time and money being allocated to other projects. Chances are that there are few people out there singing your praise. You need to be your own champion, but that doesn't mean running around blowing your own horn. Knights of yore did not become champions by running around waving flags and blowing horns (although this certainly helped). They became champions by leading effectively, winning battles, and getting back up when they were knocked down. Knights that could not do these things did not last.

Much like knights, you won't get another chance if you don't get back up after you take a hit. Only as a project manager it is your credibility and your career that are at stake, and if you are not out there leading the charge and making sure that your sponsor and stakeholders know how the project is progressing, nobody else will be either. So, how do you show progress?

- Gain a clear understanding of the project and what is being delivered

- Identify who your key stakeholders are
- Identify the interests of your key stakeholders
- Work with your key stakeholders to define what needs to be communicated to whom, when
- Create and distribute reports that present meaningful information

This chapter shows you how to get there.

5. What should I do?

While it can be very frustrating to know that the project is going well, while not being able to convey that message to others, you need to remain focused. Follow these steps and things will improve!

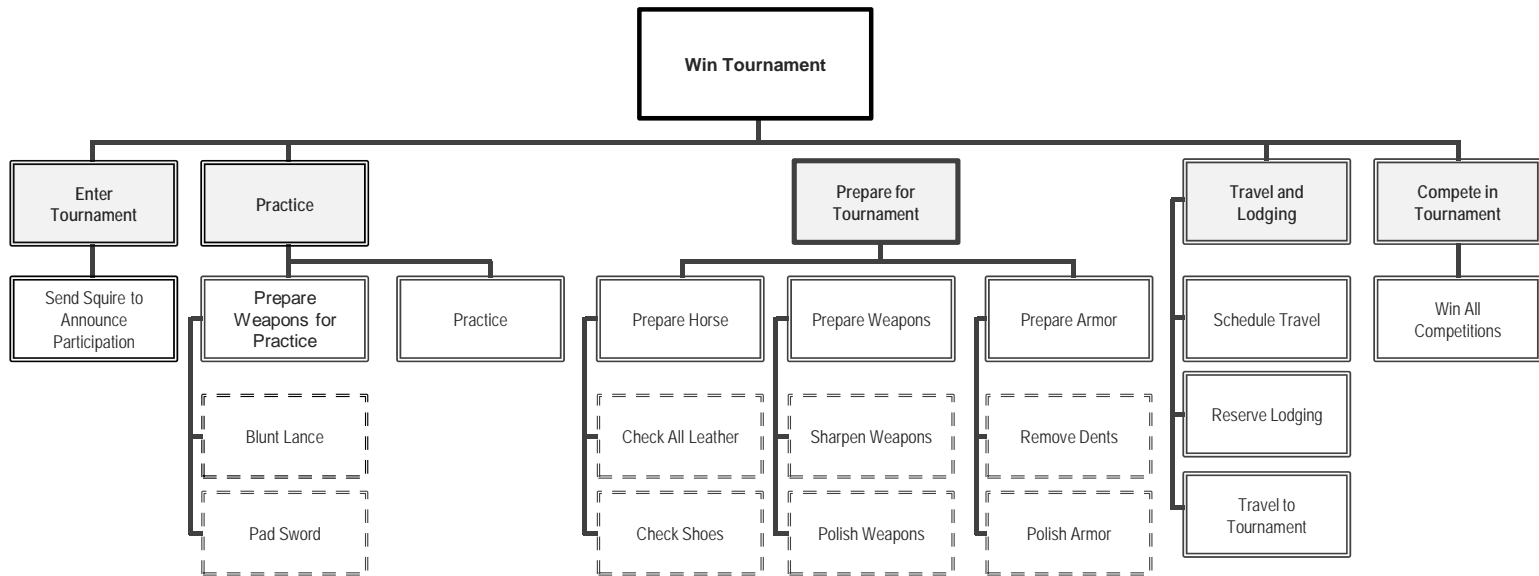
5(a) Identify Deliverables and Milestones

Begin by going through your project documentation and identifying project deliverables.

Examples of helpful documents you may have are:

- Business Case
- Project Charter
- Scope Statement
- Work Breakdown Structure (WBS)
- Project Management Plan with Sub-Plans (Change, Human Resource, Risk, etc...)

Without addressing whether or not you need all of these documents on every project, if you don't have a WBS (see Figure 3), work with your project team or subject matter experts to create one.



[Figure 3]

At the first level, identify the name of the project. The second level should identify the project deliverables. The third and fourth levels should identify work packages and tasks. A work package, put simply, is a way to group related tasks that accomplish a common objective. Organize work packages and tasks according to the deliverable that they help complete.

TIP – avoid developing your WBS beyond four levels. The WBS begins to lose effectiveness as a communication tool at the fourth level. Going beyond that can confuse your audience, which does not help your cause.

Whether you have reverse-engineered the WBS from an existing project schedule, or are still in the process of creating the schedule, use the WBS to structure your schedule so that all of the work packages and tasks are associated with the deliverable that they help to accomplish. Once this is done, go through the schedule and group related work packages and tasks together with a new line item on the plan to indicate when the related work is done, a.k.a. a milestone.

[Figure 4]

Task Name	Duration
Win Tournament	47 days
Enter Tournament	6 days
Send Squire to Announce Participation	6 days
Tournament Entered	0 days
Practice	31 days
Prepare Weapons for Practice	1 day
Blunt Lance	1 day
Pad Sword	1 day
Weapons Prepared	0 days
Practice	30 days
Practice Complete	0 days
Prepare for Tournament	3 days
Prepare Horse	1 day
Check All Leather	1 day
Check Shoes	1 day
Horse Prepared	0 days
Prepare Weapons	1 day
Sharpen Weapons	1 day
Polish Weapons	1 day
Weapons Prepared	0 days
Prepare Armor	1 day
Remove Dents	1 day
Polish Armor	1 day
Armor Prepared	0 days
Prepared for Tournament	0 days
Travel & Lodging	44 days
Schedule Travel	1 day
Reserve Lodging	1 day
Travel to Tournament	4 days
Travel & Lodging Complete	0 days
Compete in Tournament	3 days
Win All Competitions	3 days
Tournament Complete	0 days

In Figure 4, milestones are the line items in bold that have duration of 0 days. Milestones provide you with logical reporting points within each deliverable that are more useful than reporting a percentage complete on individual tasks, and are more meaningful than reporting the progress of the project as a whole. The latter is still helpful, but reporting on milestones and deliverables provides more meaningful insight into the progress of the project.

One final consideration for deliverables: consider defining a deliverable for requirements and planning. The terms “requirements” and “planning” are used quite regularly on projects, but it seems that little consideration is given for the amount of time effective requirements and planning can require. For this reason, you should create a specific deliverable and identify the tasks and schedule needed to complete requirements and planning activities. Include progress on this deliverable in your reports so that your sponsor and key stakeholders will be more comfortable with the progress of planning and know when to expect execution to begin.

5(b) Work with your Sponsor

Keep in mind that your sponsor is your Project Champion to the rest of the world and, conversely, a key source of knowledge for you about the rest of the world. Go to your sponsor and seek assistance in identifying key stakeholders and their interests in relation to the project.

5(c) Work with Key Stakeholders

A key stakeholder is more than just a person interested in the outcome of the project. Key stakeholders are individuals with an interest in the project (good or bad), who also have the power or influence to affect the success of the project. They may be willing to act upon that interest given the right opportunity or circumstances. As much as possible, you want these people on your side. You want to establish relationships based on trust with your key stakeholders. This isn't easy, and books have been written on the topic, but you start by working with them to understand their needs, and by effectively communicating with them.

Your sponsor has already provided you with insight into who your key stakeholders are and their interest in the project. Now you need to talk to them, even the stakeholders who would love to see the project fail, whether or not they would admit to this publicly. It is up to you as the project manager to demonstrate that you have a thorough understanding of the project and its deliverables, and discuss with the key stakeholders which meetings they want to be invited to

(they may or may not attend) and the type and frequency of status updates they want to receive. Watch out for unrealistic expectations when working with key stakeholders, and be prepared to rely upon your champion to help re-establish realistic expectations. While it is true that you may be better thought of if you can solve your own problems, you don't want to commit to things that could expand the scope of the project without involving your sponsor, and scope creep is always a risk when you start talking to people with ulterior motives.

5(d) Meaningful Reports

What does “meaningful” mean? This is something that you will need to determine as you work with your sponsor and stakeholders. By now you should have identified project deliverables and milestones, organized project work packages and tasks according to the deliverables and milestones, and worked with your sponsor and stakeholders to identify the information that will be meaningful to them, and when and how they want to receive the reports. Armed with this knowledge, you should now be prepared to create new, or modify existing reports that present the information to your sponsor and key stakeholders on a regular basis, answering the question, “what progress are you making on the project?” before the project is completed. Victory goes to the project manager!

5(e) Additional Thoughts

Spread the Word

Sometimes, having meaningful reports may not be enough. You've got all this great information, but nobody is reading the report. What do you do?

It is not uncommon for management to only be interested in project details if the project is not on track. Then you will have their attention and they will read the report. But you will also have a group of stakeholders that aren't comfortable with numbers and graphs because

they haven't been reviewing them up to this point. How do you effectively communicate project status to them? A few thoughts are:

- A recurring project newsletter that discusses the project in laymen's terms
- Social media - a website, blog, wiki, or tweets (Twitter) with content similar to what you might publish in a newsletter
- Informal town hall or brown bag meetings where stakeholders can receive updates and ask questions

Find a balance in your approach. More than one of the above options might be appropriate for your project, but doing all of them would be less effective. On a small project, it might not be realistic to pursue any of these options. In addition to time and scale of the project, an important consideration in how to spread the word is by understanding your stakeholders' interests and how to communicate effectively with them.

Dealing with the Unknown

It is not always possible to plan for every contingency on your project, but there are different ways to plan for the unknown. There are several flavors of Agile development, for example, that involve the creation of User Stories (requirements) that are completed in Sprints (short, repeated periods of activity with specific objectives) and tracked on a Burn-Down chart (similar to a countdown). The Burn-Down chart provides a tracking mechanism that helps to identify how much longer until the project is complete, and each Sprint produces deliverables that bring you closer to the final product, if they do not achieve it altogether.

On traditional projects, rolling wave planning/progressive elaboration can be used when you need to show progress but don't know all of the details for the whole project. Instead, you work on what you know while figuring out the details of what you don't know. This is an oversimplified view of the process, and it is important to keep in mind that if you choose

this approach you need to over-communicate project progress as completion of deliverables can take longer than expected and target completion dates can be difficult to identify.

Another alternative on traditional projects is to identify the deliverables and then break the project into two pieces such that the first piece creates the plan and schedule for completing the deliverables, and the deliverables are completed during the second piece. The benefit to this is that it sets hard dates for requirements and planning activities and further sets the expectation that the plan and schedule will not be ready until the end of the first piece of the project. Nobody that understands and agrees to this model should be expecting the final schedule before the first piece of the project is complete.

Earned Value (EV)

Using EV can provide meaningful information about the progress of a project, and you may have stakeholders that are interested in EV measures and S-Curves, but there are caveats to this being effective. There are some companies that don't allow their project managers access to the information they need to effectively use EV, such as billing rates. There are other companies that have not heard of EV. In these cases, it is possible that EV may eventually be a valuable tool, but if you need something now you might want to take an approach that doesn't involve months or years of training employees and changing company culture.

6. What have you learned?

Progress is often measured by perception instead of the facts. When it comes to project management, it doesn't matter how far you've gone if nobody knows about it. Likewise, a knight would hardly be considered a champion if nobody knew he had slain a dragon.

Only you know what you have learned. Hopefully, after reading this chapter, you will be better able to show progress on your next project. You will know that you are in a good place when:

- You can create a WBS and organize it according to deliverables, work packages, and tasks, and then you can apply that structure to your project schedule
- You are able to build relationships with your key stakeholders that are based on mutual trust
- You can identify key stakeholder communication requirements – what, when, and how
- You are creating status reports that reflect the progress of deliverables to the project as a whole. Remember that there are many ways to demonstrate progress; you need to identify and use the ways that are meaningful to your audience

“Sidebar”

If perception is reality, are you sure that your project is OK?

Alisha thought that the passing questions in the hall about the progress of her project were simply friendly queries, until she overheard a conversation between two co-workers.

“How much longer do you think Alisha’s project will take?”

“You mean, how much longer will they let Alisha keep the project?”

“What do you mean?”

“She sounds confident when you ask her about the project, but does she really say anything meaningful? Her status reports are pretty, with all the red, yellow, and green, but who wants to sift through four pages of Gantt charts for status on two tasks?”

“Sounds personal doesn’t it?”

“It isn’t. Okay, it is. I’m worried about Alisha. I tried talking to her about her project, but she didn’t want to hear it. If she can’t turn it around, her project is going to get dropped.”

Alisha thought back to the conversation. She thought it was just petty jealousy and office politics, but maybe she wasn’t communicating the right message to the right people...

How do I manage people's work when they are doing so many things at once?

By Andy Jordan

1. Problem

Maybe your project resources are limited because the initiative needs specialist skills that are in limited supply in your organization; maybe you just don't have a very large project team for budgetary reasons; maybe the timelines are compressed; or maybe you are sharing resources with other projects or operational areas. However it comes about, you may find yourself managing a project where a small number of people are responsible for a large number of tasks that overlap one another. It's important for your project to make sure that those resources prioritize their work appropriately, and you need to be able to help them with that while still ensuring that all of the work is completed on time.

2. Warning Signs

This problem can be subtle, in how it creeps up on you. If dates are slipping or the team is getting stressed then you have probably missed some of the early warnings. There are some situations that are likely to result in this type of problem – a shortage of resources or the need for a specialist being the most obvious, although plenty of other situations can cause it. It may only affect some resources, and it may only affect one phase of your project, but you may have a problem if some or all of the following are happening:

- The project schedule has the same resource assigned to multiple tasks at the same time.
- There is no clear sequence of tasks for one or more of your resources.
- One or more resources are assigned to different work streams on the same project with potentially conflicting priorities.

- One or more resources are shared with other projects or they are spending part of their time on operational tasks.
- Multiple tasks need specialist skills possessed by only one or two people.

3. What happens if I do nothing?

If you don't proactively manage the work that is assigned to your team members then they will either complete the work in the way that they feel is the most appropriate, or based on what other people are asking them to do. In either case, that may not result in their tasks on your project being completed in the sequence that you need, and by the dates that are required. That will have a knock on effect on other tasks and can cause delays to the overall project.

Potentially worse, the resource may rush their work in order to finish it on time, introducing problems that aren't found until later on when it is more costly and time consuming to correct. Any of these issues can have dire consequences for the project outcome, including potential project failure.

4. Solution

The work that you need to do to successfully manage resources with multiple concurrent tasks is very similar to the work that your resources need to do to be able to successfully complete those tasks. As the project manager you have a partnership with those resources to achieve a common goal – for them it's their work items, for you it's the contribution those work items make to the success of the overall schedule. The keys are to:

1. Work with the resource to prioritize their tasks based on urgency and importance.
2. Work and manage efficiently with regular communication, to ensure that problems are not arising which require addressing.
3. Identify contingency plans to be implemented if needed.

This chapter shows you how to get there.

5. What should I do?

The fact that some members of your team have multiple tasks to complete within similar timeframes doesn't mean that you have to reallocate their work. The key to ensuring that your team members are not overloaded is that the total amount of work that has to be completed within a set amount of time is equal to or less to their capacity for work on your initiative, regardless of the number of tasks. As long as the resources are not consistently over allocated (which you address with load balancing during the resource assignments – the process of ensuring that all your team are utilized as fully as possible without having too much work) then they should be able to complete their work.

Where a large number of tasks causes complexity is in trying to determine what to work on first, and in determining whether each task will be completed on time. Your team member will have the same concerns that you have and you need to manage the work together, starting with the sequencing of the work – are you both in agreement about what should be done first?

Throughout this process you also need to consider who else you are working with. You may have the resource assigned to your project for all of their work, but often they will be working on multiple initiatives. In that case you need to ensure that you are working with their functional manager or the other project manager to jointly follow this process and build common priorities across the different work areas – are you and the other manager(s) all aligned on the overall priorities, percentage allocations, etc?

5(a) Prioritization

The first step to successfully managing the work is to establish a sequence for the work. You may have enough information to do this yourself, but don't be afraid to engage your stakeholders, particularly the sponsor and the customer for further guidance if the priorities aren't always clear. The following needs to be considered, in this order:

- Which tasks are on the critical path (the longest sequence of tasks through the project that dictates how long the project will take), and which tasks have float (flexibility between when the task *can* start or finish and when it *must* start or finish)? Tasks on the critical path need to be completed on time; otherwise the overall project will be delayed. On the

other hand tasks with float (tasks that can finish later without affecting the overall schedule) can be delayed by the number of days of float that the task has.

- Which tasks are dependent on one another (are there tasks that cannot start or finish until another has started or finished)? If the team member has to make a certain amount of progress on one task before they can start another then the two tasks need to be tied together and that dependency planned for in the prioritization.
- Which tasks have the biggest impact on other aspects of the project? A task may have ten days of float, but if there are three other tasks that can't begin until the task is completed then it needs to be given a higher priority than a task that nothing else is dependent on, even though that task may have less float.
- Which tasks involve the most resources? If the resource with multiple concurrent tasks is working with other team members then the impact on them should be considered. If they will be held up then the task should increase the priority of the work. On the other hand, if the other resources can proceed on their own then you may be able to lower the priority for the resource in question.
- Which tasks are the most complex? Complex tasks are more likely to experience delays than tasks that are relatively straightforward and should therefore be considered as a higher priority.
- Which tasks are longer? As a general rule you should schedule longer tasks before shorter tasks as there is more opportunity for delays and complications on longer work items.

After this exercise you should have a sequence of work for each resource that outlines when things have to start and finish and who is waiting on each task. You will still have multiple tasks happening on each day, but the framework of the tasks is starting to take shape.

This sequence has to be fluid – over time the priorities will shift as float is used up, other tasks are completed, etc. You and the team member need to regularly review your decisions to see whether they need to be changed in reaction to the changing project situation.

You also need to make sure that both you and the resource aren't turning the work into a sequence of just one task at a time. You will almost certainly still need to make progress on multiple tasks, and that's where the next step comes in.

5(b) Work and Manage Efficiently

One of the biggest challenges with resources who are working on multiple tasks at the same time is managing the balance of effort between the tasks. Shifting focus between tasks is not an immediate process; the human mind cannot simply stop doing one task and immediately focus 100% on another task, there needs to be 'ramp up' and 'ramp down' time during which productivity is impacted.

As a result you want to try and avoid having team members constantly switching between tasks, they will end up being less productive on everything, and both the quality and the schedule will likely be impacted. However, you also need to avoid a focus on only one task. While that solves the problem of switching focus between tasks, it will result in one or more tasks making no progress – effectively being sacrificed in favor of the task that is getting attention.

The best way to approach this is to work with the resource to identify natural transition points between tasks. That may be the end of the day – Monday to Wednesday on one task, Thursday and Friday on another task for example, or it may be lunch time – morning on one task and afternoon on another. In determining the most appropriate transition point you need to consider:

- The needs of the schedule – when does each task have to be completed.
- The amount of required work for each task – does the amount of effort required within the available time allow for an even morning / afternoon split or is another approach required.

- The impact on other tasks and team members – does the task require other people to be involved and when are they available? Additionally, what can those resources do if they aren't working on the task in question?

Your management approach to resources that have multiple concurrent tasks also needs to consider the difficulties of tracking and reporting progress on these tasks. Project managers are expected to know the status of all of our tasks at any given time, but focus on what is important. Whether a task is 50% or 60% complete is less relevant than being able to confidently assert that the task will finish on time. When managing these resources focus on working with them to ensure that each task can finish in line with the schedule (considering any allowance that you have made for float), and don't get hung up on specific percent completeness numbers.

5(c) Identify Contingency Plans

Things rarely progress according to plan, and you need to be prepared to deal with this. You may need to reconsider the prioritization of the tasks as a result of delays to predecessor tasks, delays or problems in other tasks that your resources are completing, changes in resource availabilities or any number of other reasons.

While you can't plan for every eventuality ahead of time, you should be aware of potential problem areas and have some alternative courses of action to implement when problems occur. Much like in risk management, you want to have as much contingency planning completed in advance so that when problems arise you simply need to execute on the plan. Depending on the constraints that your project is operating under this may include the addition of more resources and / or the provision of more time to complete the work.

If the delay is as a result of your team member having to spend more time on a specific task, then the amount of time available for other tasks will be impacted, which may in turn cause delays there. That requires you to revisit your priorities and consider:

- Can all tasks still be completed when planned, and if not is there sufficient float to absorb the delay?
- What will the impact be on other team members, will they be held up and if so are there other tasks that they can work on?
- Are there other resources available to assist in recovering from the delay without causing problems elsewhere?

It's also possible that the delay has occurred 'upstream' – that an earlier task has experienced problems and a team member is prevented from starting their work when planned. In that case you need to consider:

- How can the tasks be reprioritized in order to take advantage of the additional effort that has become available?
- How can future work be moved around to ensure that the delayed task can be accommodated when work can start? This also needs to consider the possibility that it may need to be completed in a compressed schedule in order to try and recover from delays.
- Can the resource be moved on to other tasks that they weren't originally scheduled to complete in order to help minimize the overall project impact? This likely won't be for all of their resource allocation as they have other tasks to complete, but the overall project impact is what needs to be considered.

6. What have you learned?

Managing resources that have multiple tasks to achieve in the same timeframe is a challenge for you, and a challenge for the resource. It requires a structured approach to consider how the tasks impact on one another, on other tasks on the project and on the project as a whole. You need to remain focused on

the big picture of whether the tasks are on track to be completed on time rather than the specific status on any given day, and you need to aggressively manage any delays that impact the work.

You know that you are in a good place when:

- You and your team members have the same understanding of the priority of the tasks.
- The work is progressing in accordance with the identified priority.
- Resources are balancing their effort across multiple tasks without excessive switching between tasks or ignoring one task in favor of another.
- You are able to quickly identify and address the impact of problems and delays.
- Your team, including yourself, are confident and relaxed about the work that needs to be done rather than stressed and confused.

“Sidebar”

How the heck can they manage all of that?

The project planning had gone really well. Simon had a great core team and everyone had really pulled together. Now they had finally managed to complete the schedule and leveled all of the resources on the project. Simon was just glancing once more through the schedule with just a hint of satisfaction for a job well done.

His eyes came to rest on Martha’s work and a frown crossed his face. Martha wasn’t over allocated, but she had a lot of tasks that she had to complete, and an awful lot seemed to be happening in parallel. How was Martha going to be able to manage all those tasks? More importantly, how was Simon going to be able to help her manage them? How would he be able to establish whether things were on track, that she was working on the right things first, that she wasn’t ignoring a task or constantly switching from one task to the next without actually achieving anything? How could Simon be sure that Martha wasn’t inadvertently holding up other team members through her choice of which tasks to focus on first?

References

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