

figure 5.1 Developing a project plan

in providing an idea of how much progress has been made; on the other hand, having a milestone to say all the requirements have been captured is. For milestones to be really worthwhile they should not simply be the measure of the completion of a set of tasks, but they should result in the development of a useful deliverable, usually but not always in a tangible form. Views on milestones have changed over the years; my belief is that good milestones should be relatively frequent on a project. For example, on a very large project lasting more than a year, I try to have a milestone every month or so. Without this it is difficult to keep up the pressure to drive progress on a project. It is human nature to strive to meet targets and milestones, as externally visible targets help the project manager in driving progress.

- **How many plans?** One of the mistakes new project managers often make when they start their first very large project is to try to put everything in one master plan. A better way is to have various components of the project broken down into their own plans. A summary of these is shown in the master plan only. Otherwise the master plan ends up having thousands of lines, which may look very impressive when put up on a wall, but in practice almost no-one can actually manage against this type of plan. This is easy with modern planning software which allows the rolling up of individual plans into an overall higher-level project or programme plan.
- **The level of detail in your plan.** I discussed this in Chapter 4 in the section on judgement. It is a very common issue for inexperienced project managers. The level of detail should enable you as the project manager to allocate work, and then measure progress against the tasks. This does not mean you need a minute-by-minute, hour-by-hour or even day-by-day plan (though there are exceptions). Typically, breaking tasks down to about a man-week level of decomposition is sufficient. If you have an experienced and trustworthy delivery team then it can be longer than this, although much longer than this and control of individuals can be lost. If you need or decide to go to a lower level of detail, do not be surprised if plan management and maintenance start to become unwieldy. It is also easy with very detailed plans to lose sight of the overall objective and timelines.
- **Differences in levels of detail in different stages of the plan.** Having decided what level of detail your plan requires, the next consideration is whether you can or should plan the whole project at the same level of detail. For simple or short projects the answer is almost always 'yes'. For complex programmes lasting many months

the answer is often 'no'. You may not yet know enough about later stages to plan them in detail and doing so can be a waste of effort. In this situation you need a high-level plan for guidance for later stages, but really breaking it down into very detailed tasks and times is likely to be fruitless. You should explicitly differentiate between those parts of the plan you can define in detail and those you cannot. Reasons why you cannot plan in detail beyond a certain point include:

- Your customers have not decided what they want in sufficient detail beyond the immediate deliverables. If you do not know what you will be delivering beyond a certain point in the project, there is little reason to plan in detail beyond that point.
 - Your business's strategic horizon is shorter than the length of the project. In a modern business this is often true. There is no point planning in detail beyond six months' time, if you don't know what the business strategy and direction will be.
- **Task size.** Task size needs to be set not simply to reflect the length of time a task takes, but also to give you a management framework. To manage you need small, discrete pieces of work that you can measure progress against on a regular basis (weekly is a good guideline). If you find each of your tasks is several months long, decompose it into smaller activities you can track the completion of.
- **The types of dependencies.** The way dependencies are built into a plan, and hence activities are scheduled, has a fundamental impact on project length. The first type of dependency everyone knows is where one task cannot start until another has finished. Such 'start-to-finish' dependencies are the most common, are the easiest to manage and communicate, and will result in a clear sequential plan, which often is very long. You can make tasks dependent in many other ways, the most useful of which are:
- Finish-to-finish – one task cannot finish before another one does.
 - Start-to-start – one task cannot start until another one does.
 - Offset – a task starts or ends a defined number of days after another.

Working through the dependencies in a plan and ensuring they are correct is one of the more intellectually demanding tasks for a project manager. If you are unsure stick with start to finish. Figure 5.2 shows different dependencies in a Gantt chart format.

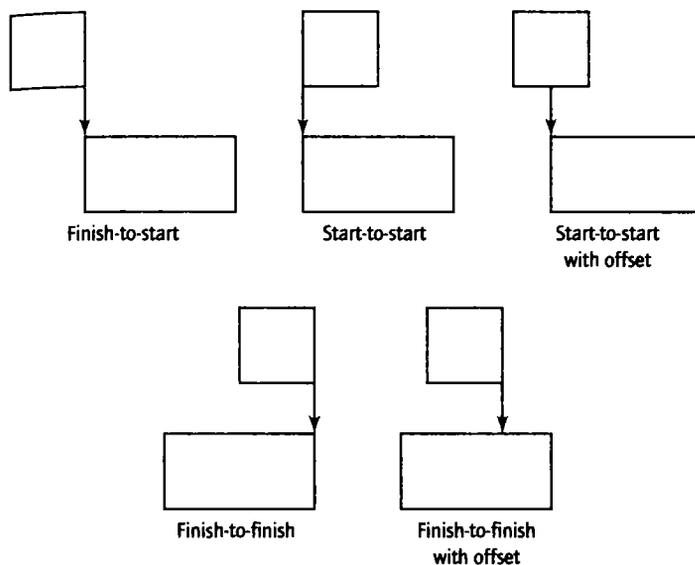


figure 5.2 Types of dependencies

- How much parallel activity will you allow? Once you pull your plan together you may end up with it all sequential, which generally results in unacceptable lengths of time to complete. Alternatively, an aggressively managed plan can result in it all being parallel. Highly parallel plans are inherently more risky and require more focused and able project management. (See judgement 9 in Chapter 4 for a longer discussion of this issue and the problems of parallel activity.)
- What consideration will you give to risk? There is a strong linkage between risk management and planning. Gaps and mistakes in planning are a source of a significant amount of risk. On the other hand, you can use your plan to build in actions to counter risk, if you think about it up front. Before you finish your plan think through – *what can go wrong and should I include something in this plan to overcome this? Are there events that if they occur will kill the project, and if so, is it worth putting in place activities to make the event survivable or not?* You need to take a balanced approach to risk. If you decide it needs to be reduced or minimised, this is far easier to achieve by building tasks and resources in the plan to overcome it.

Whatever way you develop your plan, do it with the expectation that it will need to change. No one can absolutely accurately forecast or foresee all eventualities (and I for one am inherently suspicious of projects that actually run exactly according to a plan). The success of a good project manager is not *never* changing a plan. It is meeting end goals in the face of a changing plan. For this reason it is worth finding the balance: you need to take enough time to make your plan robust and representative of what is required, but do not spend for ever on it – it will never be perfect.

“ you must always remember that the plan is a tool, not an end in itself ”

I have presented planning here as fairly manually mechanistic, and there are lots of wonderful tools you can apply to make planning easier and more robust. Not using planning software nowadays is foolhardy at least. Remember, though, that however well they present your thoughts and facilitate planning activities they do not create the plan. You do.

Like most other project management tasks, judgement is critical (see Chapter 4). In addition, you must always remember that the plan is a tool, not an end in itself. This is sometimes forgotten by the more over-zealous lovers of control and beautiful documentation. It needs to serve a purpose; as long as it does this, it is good enough.

Key lesson

Be prepared to change your plan – the measure of success is not an unchanging plan, but meeting the end goals within the reality of continuous change.

Estimating

Often the activity of determining the tasks within a plan is comparatively straightforward. It is never easy, and developing a robust work breakdown structure that has no gaps and is a good way to structure the work is a good achievement. However, the hard work of planning is often in estimating the task length and resources required.

Occasionally, when you look at a plan there are a series of tasks you are very familiar with and you can easily and quickly identify the time it will take to deliver them. However, most projects have some tasks you will not be familiar with, requiring you to answer the question *how long will a*