CHAPTER 1

Managing Project Change

A mysterious element affects every project and yet it is not often planned for. What is this phenomenon? Some call it Murphy's Law. Some call it scope creep. Some call it change. Whatever you call it, you can employ tools and techniques to help you manage it to the benefit of your project. This book provides you with the ins and outs of successful change management.

I start this chapter by relating the basics of change management. I then cover the definition of and the purpose of change management. Following this, I explain some of the common terms used in change management as well as how change management is referenced in generally accepted project management principles. Lastly, I talk about project and product lifecycles.

At the conclusion of this chapter, I introduce a case study that you can follow throughout the book. You'll get a chance to witness a project manager deal with the concepts I introduce in each chapter.

Change Management Defined

Change is inevitable and most of us project managers deal with more than our share of it on our projects. Most of us tend to think of change in terms of problems or negative consequences. Although it's true that change can be bad, it can also be good.

For example, think of a project at a major manufacturing plant. This plant hires a consulting firm to help design a new product. Halfway through the construction process, the plant requests a set of changes, but because they just asked for more product functionality, they are willing to spend more money. In this case, I bet the consulting company loves change.

Right now, you might be asking yourself why this last example consti-
tuted a change. It's time to clarify what I mean when I refer to change man-
agement and get clear about what change management is or, as it's
sometimes called, *change control*.

How would you define change management? First let me explain that
there are really three different elements to change management.

1. The first element of change management deals with the author-
    ity level of the project manager. You need to make sure that you
    have the authority to approve and deny changes that impact
    your project.

2. The second element of change management involves setting up
    an environment that fosters good change management. You
    need to communicate with the entire project team to set expec-
    tations on how changes on the project are to be handled.

3. The third element of change management involves setting up a
    system that helps you determine that a change has been
    requested. This system also helps you decide if you should make
    the change and allows you to track the change regardless of
    whether it is approved or denied. This system should also be
    comprehensive enough allow for exceptions like the following:
    What do you do with escalations? How do you handle people
    who won't follow the rules? and so on.

If you take these three elements into account, you could define *change
management* as the proactive identification and management of modifica-
tions to your project.

Why Bother with Change Management?

I've known a couple of project managers who did not bother to set up a
change management system on their projects. The first was barraged with
requests from the client organization. She accepted all of the requests believ-
ing that she was keeping the client happy. Her good intentions actually kept

her from delivering on time and within budget—she was about six months late and well over budget. When the project was complete, she had to review all of the project's problems in a project review meeting. This turned out to be grueling. It was determined by her senior management that her project management style was too loose and amiable. She was banned from managing projects of that magnitude again until she improved her results. Instead of being a hero, she ended up with a letter of reprimand in her personnel file.

The other project manager also decided that he did not need a change management process. Instead he just said no to every change that came his way. He was about four months into his project before the company replaced him. The clients and team members found him hard to work with and thought he was more concerned with finishing the project than making sure that the project he delivered was the right product for the company.

I know these examples really depict the ultimate extremes of the change management spectrum—there are millions of situations in between these. What typically happens to a project manager may simply be the result of not taking a change seriously. For instance, the project manager may approve a small change that ends up slipping the end date of the project. Without good change management in place, you are depending on luck, overtime, and your own personal power to deliver the project. In the end, you may end up drawing on all of these anyway, but you only want to use them when you have an emergency, not because you failed to plan for changes.

The bottom line then is that change is one of those necessary evils you must manage and manage well if you want to deliver on time, on budget, and with the quality defined by the client. Now let's move on and talk some more about change management definitions.

NOTE Managing project changes well leads to projects that are on time, on budget, and within defined quality guidelines.

Let's Set Some Context

You may not be familiar with the term change management. Instead, you may have seen the terms change control, change management system, and so on. Well, they all mean the same thing—the process that is used to control project changes.

Change management is an integral part of the generally accepted principles covered in the *PMBOK Guide* . If you need a refresher on the project management processes and knowledge areas, refer to Appendix A of this book.

If you check the glossary of this guide you will not find the term change management. This is because change management is a widely known term in the project management field that refers to the overarching system that manages change (*system* here means an assemblage of processes, forms, and possibly software). You will, however, find the term control used throughout the *PMBOK Guide* and defined in its glossary. You'll also find the term change control in the five major project management process groups as well as mentioned in several of the project management knowledge areas.

Table 1.1 shows the intersection between processes and the knowledge areas; this highlights the areas concerned with change management. You'll also find this diagram in Appendix B for your future use.

You'll notice that Table 1.1 shows the abbreviation T&T. This stands for Tool and Technique. That phrase is used in the *PMBOK Guide* to denote a commonly accepted practice that is used in a process to get the results you are expecting. Change management is just that—a tool that you use to manage change.

NOTE   In case you are new to project management, check out the ANSI standard on project management, *A Guide to the Project Management Body of Knowledge, 2000 Edition*, by the Project Management Institute. www.pmi.org

TABLE 1.1: Project processes, knowledge areas, and the emphasis on change management

	INITIATING	PLANNING	EXECUTING	CONTROLLING	CLOSING
Integration		1 planning process	1 executing process	Integrated Change Control T&T: Change Control System	
Scope	1 initiating process	2 planning processes		2 controlling processes, one that deals with change management: Scope Change Control T&T: Scope Change Control	
Time		4 planning processes		Schedule Control T&T: Schedule Change Control System	
Cost		3 planning processes		Cost Control T&T: Cost Change Control System	
Procurement		2 planning processes	3 executing processes		1 closing process
Quality		1 planning process	1 executing process	1 controlling process	
Human Resource		2 planning processes	1 executing process		
Communications		1 planning process	1 executing process	1 controlling process	1 closing process
Risk		5 planning processes		1 controlling process	

The Controlling Processes

After reviewing Appendix A, you know that there are five major process groups executed during a project. In real life, Project Managers use these process groups to successfully start a project, plot the project activities, direct the project activities while they are being performed, and finally, complete the project. We undertake projects to satisfy the goals that the stakeholders determined during the project initiation.

That fourth process group, *controlling processes*, relates directly to our work here in change management. This controlling process group is concerned with monitoring and regulating the activities of the project to ensure that the goals of the project are met. This monitoring and regulating produces information that you can measure to see what variances have occurred. Once you understand that variances have occurred, you can take corrective action to keep your project on track to meet the project's objectives. We will set up our change management system in this book using these fundamentals of the controlling process group.

Within the controlling process group, you'll find four specific processes that each touch on a subject area concerning change management. Let's look at each of these subject areas:

Scope When you are determining the *scope* of the project, you take the goals and objectives the stakeholders determine and transform them into a scope document.

The word *transform* is sometimes used interchangeably with the term *progressive elaboration*. Basically you take a concept and build upon it to create a project that delivers what the client requested.

At the beginning of the project, you take the objectives of the clients and build upon those objectives to create a *scope statement*. This scope statement should lay out exactly what the point of the project is. Most of the time, this statement is created in broad terms that can act as a litmus test for those creating the product of the project. The scope statement also sets the basis for future project decisions—a place

to compare back to so you can determine what is in scope and out of scope.

An effective way to determine the scope is to define both what is included and what is excluded in your project. Imagine that you are on a project where a handheld device is being created to speed appointment information to a telephone installer. Your scope statement might say, "The device must weigh less than two pounds." This is an inclusive statement. Another way to be clear about the intention of the handheld device might be an exclusion statement such as this: "The handheld device cannot have wires connecting it to any device or power source." In this statement, you make it clear that the product must be lightweight and completely portable.

When creating the scope of the project, you need a process to control the scope once it has been set. Its purpose is to manage any changes to the project's scope. This process is really what I spend the rest of this book talking about. In essence, I am referring to the change management of the scope statement.

NOTE   A scope statement documents what is included in the project and sets the basis for future project decisions.

Time When you are determining how long a project will take, you are working with the subject area of *time*. This area concerns the processes that ensures that the project is completed in the agreed-upon timeframe.

In this set of processes, you determine what tasks need to be completed and in what sequence. You then determine what the duration is for each task of the project. If you add up the duration for each task along the critical path, you can then determine the schedule for the project. The schedule sets the basis for future project decisions regarding the timing of the project. It provides you with a place to compare back to to determine where the project should be at any point in time.

When the schedule is set, you need to control it. *Schedule control* involves managing any changes that might affect the project schedule.

Cost When you talk about the money associated with completing a project, you're talking about *cost management*. In this set of processes, you determine what resources will be used to complete each task of the schedule. Remember, in this context, *resources* refer to people or materials (gas, water, electricity, etc.) or equipment (backhoe, printer, post-hole digger, etc.). You determine the cost of each resource.

Once you know what resource is attributed to what piece of the work and how much that resource costs, you can then derive the budget of the project. The output of the cost budgeting process is a *cost baseline*. The cost baseline sets the basis for the overall cost of the project. Again you can compare back to this figure to determine what the project costs should be at any point in time.

Once the budget is set, you need to control it so your project completes on budget. *Cost control* involves managing and controlling any of the costs on the project.

Contract When you're planning your project, you may find that you need to bring in outside goods or services to complete your project to the *triple constraints*—the project needs to be on time, on budget, and built to the defined quality standards.

When you procure these goods and services, you are creating a *contract* to cover both the buyer and the seller. This contract sets the basis for the relationship with the seller including all of the terms and conditions for what is being purchased, when it is purchased, and how much it costs.

You need to monitor adherence to the contract and control any changes to what has been agreed upon. In some organizations, you'll be working closely with a contract administrator or a procurement group. These are the folks who actually change the contract.

Project and Product Lifecycles

We need to talk for a minute about *lifecycles*. In other words, what are the stages of development that a project normally goes through to reach completion? A lifecycle depicts the phases of work to be accomplished. Companies use the lifecycle to depict handoffs between organizations or changes in focus for the work.

Let's be clear about two different types of lifecycles: a *project management lifecycle* and a *product development lifecycle*.

Project management lifecycle You've already heard about a project management lifecycle since you've already seen the five major process groups described in the *PMBOK Guide*. If you take these processes, which sometimes overlap or might be done in parallel, and lay them out as a lifecycle, you have what is depicted in Figure 1.1. Here you can see that very little time is actually spent in the initiating and closing processes. Most of the work on a project is done during the planning and executing/controlling phases.
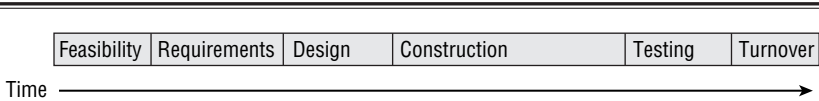
FIGURE 1.1: Project management lifecycle
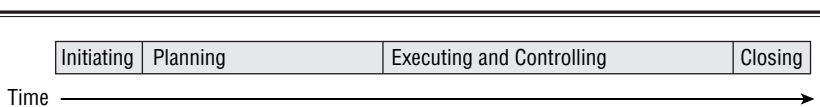
Product development lifecycle The other lifecycle you need to be aware of is the lifecycle that is used to create products at your company. Depending on the type of company, you might be using a System Development Life Cycle (SDLC) for Information Technology projects, a construction lifecycle; a defense acquisition lifecycle; a pharmaceuticals development lifecycle; and so on.

Remember that the lifecycle is completely dependent on the industry and product that you are creating. The lifecycle can be very specific or

generic depending on your process. Figure 1.2 shows a generic product development lifecycle.

FIGURE 1.2: Generic product development lifecycle

Feasibility	Requirements	Design	Construction	Testing	Turnover

Time ————————————————————————————————➤

You need to understand these lifecycle concepts because you'll use them when we build our own change management system in Chapter 3 and discuss the outputs of that process in Chapter 4.

Case Study

Chris Baxter is a new project manager recently hired at RemotesUS, Inc., a subsidiary of a major Chinese manufacturer of remote controls. RemotesUS is small company that sells and distributes the Chinese remotes in the United States. So far, the company has been fairly successful and has major contracts with two of the leading cable companies. RemotesUS boasts that one out of five households in the U.S. has one of their remotes.

Chris has managed a few small projects since she was hired and is now ready for a meaty assignment. Ruth Brownstone, the CEO of RemotesUS, has called Chris into her office to explain Chris's next assignment. It seems that the parent company has created a new remote device with an artificial intelligence chip; this one device could potentially replace all electronic remotes in a consumer's house. Needless to say, the parent company is very excited about this new product and is building a major marketing campaign to launch it. The parent company also told Ruth that sales in the U.S. have not been as good as they expected. RemotesUS must do better or the parent company will look for a different sales and distribution firm to acquire in the U.S and will close RemotesUS.

While Ruth has been talking, Chris has been conjuring up visions of what a tremendous project they must have in mind for her. Most of Chris's

experience has been with small to medium projects, but she feels she is ready for a big project; however, taking on a project that has the fate of the company riding on it seems a bit much.

Ruth continues her explanation, telling Chris what she has in mind for the new project—an all hands meeting. An all hands meeting? This is not exactly what Chris has in mind, but she listens on.

Ruth has decided that it is time to bring the entire company together for a couple of different reasons. First, to introduce the new product, to get them trained, and especially to get everyone excited about the product. Second, to get everyone pointed in the right direction and to make sure everyone is motivated to keep this company going. Ruth also mentions that the department heads will probably want some time set aside to meet with all of their folks in department meetings. In addition, Ruth doesn't want to hear any complaints that this meeting was a waste of anyone's time.

Ruth stresses to Chris that because of their financial shape, they can only afford to spend $50,000 for this entire meeting. Because the company has personnel in six different states and Canada, Ruth doesn't care where the meeting is held as long as it costs less than $50,000. The other major requirement that Ruth stresses is that the meeting can only last three business days. The company can't afford to have people not doing their regular jobs for more than three days. Ruth has one other demand. She says, "Oh, and by the way, make sure the meeting happens by October because the holidays will be busy and we want to make sure this product is launched in time for holiday buying."

Chris has been taking notes this entire time and thinks she is clear on the expectations of the CEO. Ruth asks Chris if she has any questions. Chris doesn't at this time. Ruth tells Chris that the rest of the specifics for the meeting should be determined by the department heads and then asks Chris to come see her when the plan is set.

Chris tells Ruth she'll be back to review the plan as soon as she can, knowing how important this assignment is to Ruth. Chris goes back to her desk disappointed with the size of the project, she doesn't think she'll be challenged by this project. But she figures she can probably handle another

project or two while she is working on this one. But being the professional that she is, she dives into the planning.

The first area Chris examines is getting requirements from each of the department heads. Chris provides some insights into the structure of each department, which are depicted in Figure 1.3.

FIGURE 1.3: RemotesUS organizational chart
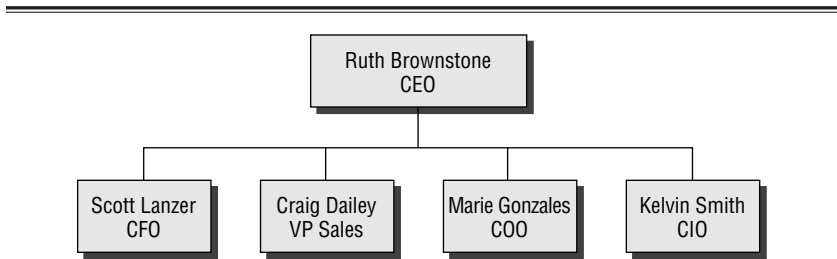
Scott Lanzer: CFO Scott's organization is rather small, but they have a lot of influence within the organization. They process all of the expense reports for the whole company and therefore, they talk to almost everyone. Chris knows that if they are happy, then they will influence others in the company. This group is located at the company headquarters.

Craig Dailey: VP Sales Craig's group is dispersed across the county. Chris hasn't had much interaction with this group, but she knows that these folks are motivated by their sales commissions and will be excited about the potential of this new product.

Marie Gonzales: COO Marie's department is very interesting because the majority of the company employees report to her. Her primary functions are shipping and receiving, as well as managing the warehouses. Most of her department is located at headquarters, but she also has people located on either coast at the warehouses. Chris has never met some of the people in Marie's department and worries about their interest in the new product.

Kelvin Smith: CIO Kelvin's department is a group of highly specialized technicians who support the entire company with technology solutions. These people will be instrumental in any technology issues that come up for the meeting.

Chris decides that she will meet one on one with each department head and find out how they would like to build their requirements for the meeting. She also decides that she'll ask for a representative from each department to be part of her project team.

Chris has one more detail that she wants to have clear in her mind before she starts laying out the project plan and schedule. She has been a fairly successful project manager before and knows she needs to define the phases or lifecycle for this project. She's decided to use a standard project management lifecycle that's based on the *PMBOK Guide* (see Figure 1.1).

The product development lifecycle for this project may be very different, though. Chris doesn't think that the product development lifecycle used by the manufacturing plant in China will work. She's also seen the system development lifecycle used in IT. That probably won't work either because her project isn't like migrating the team to a new technology. Because this project is very different, she decides she needs to design a specific lifecycle for it. She'll use the other lifecycles as guides for what this project needs.

So for this project, she decides she needs these five phases:

1. **Requirements:** In this phase, she'll spend time with each department head and find out their expectations and requirements for the meeting.

2. **Design:** Chris and the team will design the agenda and logistics for the meeting.

3. **Build:** Chris and the team will actually put all of the design in place for the meeting. The agenda will be created, flights booked, and so on.

4. **Event:** This is the actual time frame in which the event happens.

5. **Feedback:** Chris plans after-the-event discussions to verify that everyone felt that the all hands meeting was not a waste of time (to meet one of Ruth's requirements).

Chris's event planning lifecycle is depicted in Figure 1.4.

FIGURE 1.4: Chris's event planning lifecycle
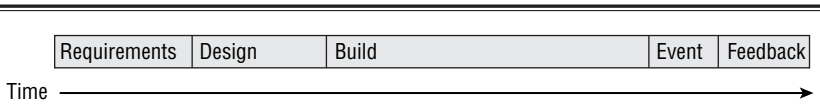
We will be working with Chris as she builds this project using her life-cycle and puts her change management system in place.

In the next chapter, we'll discuss how you build the environment for a successful change management system.