

Chapter 1

Initiating the Project

CHAPTER OBJECTIVES

- Defining the Project Management Life Cycle
 - Gathering Project Information
 - Defining the Project Requirements
 - Establishing the Completion Date
 - Creating the Project Charter
 - From the Field: Interview with Carl Danneels
- Q&A
- Chapter Quiz
 - Chapter Exercises

Welcome to information technology (IT) project management. IT project management is different from managing any other project you may have worked on in the past. In the world of information technology, we've got attacks on all fronts: ever-changing business needs, hardware compatibility, software glitches, security holes, and network bandwidth, not to mention careers, attitudes, and office politics.

Don't be scared off! This is also the most challenging and exciting place to be in a company. What you do here will affect the entire organization, will have an impact on profits, and can boost your career, confidence, and life to the next level.

IT project management can be as exciting as a white-water rafting excursion or as painful as a root canal; the decision is yours. What makes the difference between excitement and a sore jaw? Many things: leadership, know-how, motivation, and, among other things, a clear vision of what each project will produce, what it will cost, and when it will end.

This first chapter will help you build a strong foundation for managing successful IT projects. Like anything else in the world, project management requires adequate planning, determination, and vision for success. Ready to start this journey? Let's go!

Defining the Project Management Life Cycle

Before you hop into the launch of a project, it's paramount that you understand the life cycle of project management. A life cycle is just a pleasant way of saying things are created, they have a life, and then they go away. Projects are temporary; they do not, thankfully, last forever. Operations, however, describe the ongoing core business of an organization. Operations are the day-to-day tasks, business focus, and purpose of an organization; they're what companies do. Projects are unique endeavors that don't fit into the day-to-day model and activities of an organization. Projects are special undertakings to create unique products, services, and conditions.

A project, technically, is a temporary endeavor to create a unique product or service. Projects are an undertaking outside of the normal operations of an entity. For example, you might roll out a new application, install new monitors, create a new portion of a web site, or establish a new call center for application support. In some organizations, such as ones composed of application developers or consultants, or IT integration companies, everything they do is a project because they complete projects for other organizations. Consider a company that creates custom

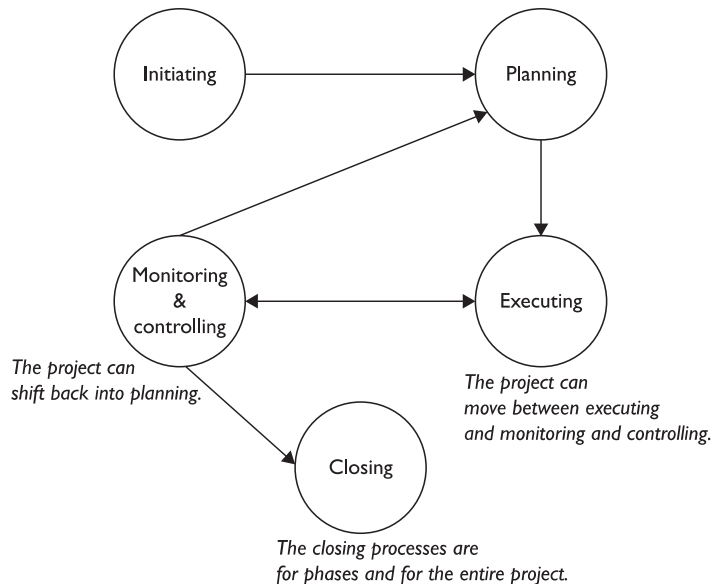
applications for other organizations. Their operation is an ongoing series of projects. The organization that completes the project work is called the performing organization.

It's not that unusual in the IT world to meet companies that perform projects for other organizations. Your company might even be one of those entities, or you might purchase goods and services from a company that completes projects for you. An organization whose main income is generated by completing projects for others might be referenced as a company that does management by projects. Even these companies, however, still have a distinction between operations and projects.

All projects move through a logical progression of activities to reach the project closing. You could examine a project in construction, health care, manufacturing, or technology, and you'd see the same set of project management processes that move the project forward. The framework that all projects share is called the project management life cycle—it's universal to all projects in the world. The project management life cycle describes the evolution of project process groups that will move a project from initiation to project closure. Figure 1-1 captures the project management life cycle and shows how all projects use different process groups to move the project toward its closing.

FIGURE 1-1

The project management life cycle uses process groups to move the project forward.



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You might hear the terms project life cycle and project management life cycle used interchangeably. Technically, these are not the same thing. The project management life cycle is universal to all projects and consists of the five process groups: initiating, planning, executing, monitoring and controlling, and closing. A project life cycle describes the unique phases of a project that's specific to the discipline and nature of the project. For example, you would not have the same phases in a construction project that you'll experience in a software development project. The phases of the project compose the project's life cycle, whereas all projects use the project management life cycle that's composed of the process groups.

Initiating the Project

Project *initiation* is the official launch of the project, and it's the real focus of this chapter. Initiation is based on identified business needs that justify the expense, risk, and allotment of resources for the project to exist. It's important for IT project managers to keep the idea of the business need in mind throughout the project. Companies don't launch projects because of cool technology, fast gadgets and gizmos, or to be on the bleeding edge of technology—there must be a financial reason behind the project initiation. The business need is linked to the organization's strategies and tactics; goals and mission; and responsibility to their shareholders, owners, and customers.

I'll dive into project initiation more in this chapter, but for now know that this process group is responsible for creating the project charter and identifying the project's stakeholders. The project charter is the official document that authorizes the project manager and the project to exist within the organization. The project stakeholders are all the people and organizations that are affected by the existence of the project and the project's outcome. If you're the project manager, you're a stakeholder. More on this in just a bit—I promise.

Planning the Project

Good projects need good plans. You, the project team, and many of your stakeholders will need to know where your project is going and how you plan on getting there. *Planning* is an iterative project process group that communicates the intent of the project manager. It shows which processes will be used in the project, how the project work will be executed, how you'll control the project work, and finally,

how you'll close down phases and the project at its end. Planning requires time, resources, and often a budget for testing, experimenting, and learning.

The primary result of the planning process group is the project management plan. This document is actually a collection of smaller plans that address different areas of the project. In Chapter 2, I'll go into the details of each one of these project plans, but for now here's a quick overview of what the planning processes help the project manager create:

- Scope management plan
- Scope baseline
- Change management plan
- Configuration management plan
- Requirements management plan
- Cost management plan
- Cost performance baseline
- Schedule management plan
- Schedule baseline
- Quality management plan
- Process improvement plan
- Human resources plan
- Communications management plan
- Risk management plan
- Procurement management plan

There are also some project documents, forms, and checklists that can go into this plan too, but these are the headlines. Many of these plans don't have to be created from scratch each time—that'd be a pain. You can adapt previous, similar project plans as templates for your current projects to save time and effort, and to use the benefit of historical information during planning. Planning, I want to stress, is an iterative activity. You'll come back to planning over and over throughout the project; planning is not a one-time activity.

Executing the Project

Here's the meaty stuff of the project: getting the work done. Presented with your approved project, your project team goes about the business of getting the project work done and creating key results. Project *execution* is unique to each discipline and is led and directed by the project manager. This is also the area of the project where members of your project team will spend the bulk of their time and effort and where the project will spend the bulk of your budget. It's the heart of the project's mission: to create the product or service the stakeholders are expecting.

Project execution includes the quality assurance process, as the project team must create the project work correctly, ideally the first time. It's almost always more cost effective to do the work right the first time than to pay for it to be fixed later. In IT, simple mistakes can mushroom in costly wastes in time and materials. I'll talk all about quality and the IT projects in Chapter 11. I bet you can't wait.

It is also in the project execution process group that you'll acquire, develop, and manage the project team. It's a fine line between managing your project team and leading the project team. Management is really all about key results; you want your project team to get their work done as planned, on time, and according to budget. You want your team to be as committed to the project work as you are. Good project management balances management with leadership. Leadership is about aligning, motivating, and directing your project team.

The final process in execution is linked to the costs of your project: procurement. You'll need to understand the procurement process, how contracts work, and the rules and policies your company has surrounding the procurement process. Most IT projects need to purchase resources, that is, materials such as software and hardware, in order to satisfy the requirements of the stakeholders. Conducting the procurements according to the procurement management plan can be a time-consuming process, and when time's of the essence, that can cost your project.

Monitoring and Controlling the Project

In tandem with project execution, you have the *monitoring and controlling* process group. This set of processes ensures that the project work your team is doing is being completed accurately and according to plan. If there are problems, issues, or risks, then the project shifts back to project planning to figure the stuff out before moving back into execution. Monitoring and controlling the project is based on your project plans, the work of the project team, and shifting conditions within the project.

You'll manage scope, time, and cost changes with the monitoring and controlling processes. It's also in this process group that you'll work with the project stakeholders to verify that the project scope has met their requirements so that they'll accept the project deliverables the project team has created for them. Scope verification is an inspection-driven process that leads to acceptance decisions for the project.

Another inspection-driven process that's done without the stakeholders is quality control. *Quality control* is you and the project team inspecting the project work to confirm that it's done correctly before the stakeholders look at what you've created. Quality control is all about you keeping mistakes out of the customers' hands. This is actually a great example of how project execution and monitoring and controlling work together. Recall that quality assurance is about doing the project work correctly the first time. Quality control is about proving that the work was done correctly—and if it is not, then the team does corrective actions to fix the errors.

Monitoring and controlling also provides communication for reporting the overall performance of the project, the performance of key project deliverables, and information on project specifics, such as the time, cost, and risk portions of the project. Monitoring and controlling also requires that the project manager oversees and administers the procurement agreements with the project vendors.

Closing the Project

I'll address the project closure in detail in Chapter 12, but it's important to address project closing at the beginning of the project. Because projects are temporary, the project manager, project team, and other key stakeholders all need to be in agreement as to where the project is going. You'll need to define indicators that signal the project is complete. Because technology can change so quickly and frequently, it is vital to define what constitutes the project closure. You don't want a project that drones on and on because of loosely defined requirements.

The closing process group allows project phases and the project as a whole to be closed. Some documentation, final reports, and communications happen in the final activities of the project. All of the project information should be archived for future usage—sometimes called organizational process assets. Basically, the work you've done in your project can be used for supporting the solution you've created, or other project managers can use your project files to help their projects.

The closing process group also includes the close procurement process. Contracts will define how the relationship between the buyer and the seller should end. This includes post-delivery support, warranties, inspections, and payments. When it

comes to closing out the procurement, your company may require a procurement audit to determine how and where the project monies were spent, what was purchased, and that all the invoices and contracts are complete.

Gathering Project Information

Everybody talks about project management, but what is it exactly? In some organizations, any task or duty is considered a project that requires someone to manage it. Puh-leeze! *Project management* is the ability to administer a series of chronological tasks resulting in a desired goal. Some tasks can't be completed until others are finished, while other tasks can be done in parallel. Some tasks require the skill of a single individual; other jobs in the project require that everyone chip in and lighten the load.

IT project management is the ability to balance the love and implementation of technology while leading and inspiring your team members. Of course, the goal of project management is not technology for technology's sake, but rather a movement toward things like improved customer service, enhanced product quality, and increased profitability. Add to that mix external factors such as market conditions, competition, demands for new technology, and even the changing pace of technology—it's no wonder IT projects can become so frustrating. As you can see in Figure 1-2, project management is a high-wire balancing act.

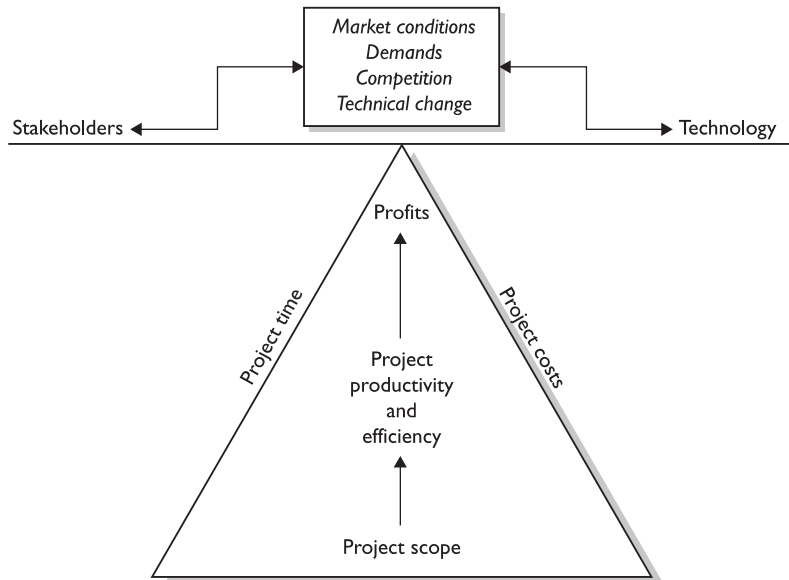
The business need of why a project has been created really drives the implementation of a project. Business needs can be to increase efficiency, to increase productivity, to respond to a customer request or a new regulation, or for countless other reasons a project is initiated. The project manager must understand what's driving the project and how the project supports the business need, the mission of the organization, and how the deliverable of the project will be used by the stakeholders.

Establishing the Project Requirements

Before the actual project work can begin, the project manager must establish the project requirements with the project stakeholders. Stakeholders are any individuals, groups, or communities that have a vested interest in the outcome of the project. On some projects, the stakeholders may be just one department. On others, when projects may affect every department, the stakeholders may be throughout the

FIGURE 1-2

A project manager must balance stakeholders, technology, and the project.



entire organization. Identifying stakeholders is important because their input to the project requirements early in the project initiation can ensure the project's success.

Of course, on most projects there will be key stakeholders who influence the project's outcome: department managers, customers, directors, end users, and other folks who have direct power over the project work or results. With the input of these key stakeholders, specifically their requirements for the project, constraints on the project, and time and cost objectives for the project, the project manager will be able to gather the project requirements to begin building a project plan to create the project deliverables. Stakeholders include

- **Customers and users** These are often called the end users, clients, or recipients of the project deliverables. These stakeholders could be internal to your organization or quite literally customers that purchase the deliverable your project creates.
- **Project sponsor** This is a person in the organization that has the authority to grant the project manager power over the project resources, assign a project budget, and support the existence of the project. This person also signs the project charter to officially launch the project and assigns the project manager to the project.

- **Portfolio review board** This group of stakeholders is responsible for determining which projects are worthy of the company's capital. They define the governance of projects and programs within an organization and oversee the selection of the projects, while considering a number of factors such as return on investment, project value, risk to reward of proposed projects, and predicted financial outcomes of launching a new project.
- **Program managers** A program is a collection of projects working together to realize benefits that the company could not realize if the projects were managed independently of one another. The program manager oversees all of these orchestrated projects in her program. If your project is operating within a program, then the program manager is a stakeholder.
- **Project management office** Some organizations use a project management office (sometimes called the PMO) to centralize and coordinate the management of projects within an organization, line of business, or department. PMO functions can vary by organization, though most offer project management support, guidance, and direction for projects within their business domain. It's not unusual for a PMO to direct the actual project management of a project.
- **Project team** These are the people that work on planning and executing the project plan. Depending on the organization, the project team may work full-time or part-time on the project, and they can come and go as the project work warrants or stick around for the duration of the project.
- **Functional management** Functional management consists of managers of the administrative functions of a company; consider finance, human resources, and accounting. Functional management has their own staff and their own day-to-day duties to keep the operations stable.
- **Operations management** These are managers of the core business area such as design, manufacturing, and product development. Operations managers oversee and direct the salable goods and services of the organization.
- **Business partners** These are the sellers, vendors, and contractors that may be involved in a project through a contractual relationship. Business partners can provide goods and services such as hardware, software, and subject matter experts like developers, technical writers, and software testers that you might need on your project.

- **Project manager** You are a stakeholder for your project. You're responsible for developing the project plans, keeping the project on track, monitoring and controlling the project, and communicating the project status and performance. As it goes in project management, if the project succeeds, it's because of everyone's efforts. If the project fails, then blame the project manager.

Clarity is paramount. When the decision has been handed down that your company will be implementing some new technology, and you'll be leading the way, you need a clear, thorough understanding of the project's purpose. Ambiguous projects are a waste of time, talent, and money. Before the project begins, you need to know what exact results signal the project's end. A project truly begins when you know exactly what the project will produce.

Once the project is defined, you need clearly stated objectives, requirements, and boundaries for the project. While management may have an ideal timeline for project completion, it'll take some planning and research to determine the exact duration of the project. The role of a project manager is not permanent but temporary. You, the project manager, are responsible for setting the goal, developing the steps to get there, and then leading the way for your team to follow.

How will you know what the end result of the project is to be? Ask! Who do you ask? People like the project sponsor can answer these kinds of questions. More about that later! You must have a clear vision of the end result, or the project will drone on and on forever and you'll never finish. Too often IT projects can roll into project after project stemming from an original, indecisive, half-baked wish list. Whether you are a full-time employee within an organization or a contract-based project manager, you must have a clear understanding of what the end results of the project will be.

Imagine your favorite archeologist maneuvering through a labyrinth of pitfalls, poison darts, and teetering bridges to retrieve a golden statue. In the movies, there's always some fool who charges past the hero straight for the booty and gets promptly beheaded. Don't be that guy. Before you can rush off toward the goal of any given project, you've got to create a clear, concise path to get there.

To create this path, you'll have to interview the decision makers, the users the change will affect, and any principals involved in the development of the technology. These are the stakeholders—the people who will use the project deliverables on a daily basis or will manage the people who will use the project deliverables. You must have a clear vision of what the project takes to create it or you're doomed. Often projects start from a wish list and evolve into a catalog of complaints about the

current technology. One of your jobs in the early stages of the project will be to discern valid input from useless gripes.

As you begin your project, consider the following questions.

Does the Project Have an Exact Result?

Projects that are as indecisive as a six-year-old at an ice cream stand rarely are successful. As a project manager, you must ensure the project has a definable, obtainable end result. At the creation of the project, every project manager, project sponsor (the initiator of the project), and team member should know and recognize the end result of the project. Beware of projects that begin without a clearly defined objective.

While you should be looking for exact requirements that a project is to include, you must also look for requirements that are excluded from a project (for example, a project that requires all mail servers to be upgraded in the operating system, but not the physical hardware). As the project takes form, the requirements to be excluded will become obvious given management, the time allotted for the project's completion, and the given budget.

Are There Industry or Government Sanctions to Consider?

Within your industry there may be governmental or self-regulating sanctions you will have to take into account for your project. For example, a banking environment will involve regulations dealing with the security of the technology, the backup and recovery procedures, and the fault tolerance for the hardware implemented. Government regulations vary by industry, and if your company is a government contractor, there are additional considerations for the project deliverables.

Within your industry there may be standards and regulations. Regulations are “must-haves” that are required by law. Of course, pharmaceuticals, utility companies, and food packaging companies have regulations that dictate their practices. If companies break regulations, fines and lawsuits may follow. Standards, however, are generally accepted guidelines and practices within an industry. Standards are heuristics, sometimes called guidelines, which are not laws but are usually followed. The project manager must be aware of regulations and standards that affect the project's work and deliverables.

Does the Project Have a Reasonable Deadline?

Massive upgrades, software rollouts, application development, and system conversions take teamwork, dedication, and time. Projects that don't have a clearly stated, reasonable deadline need one. Projects should not last forever—they are temporary. Acknowledge the work. Do the work. Satisfy the user with deliverables of the project. Once you've accomplished this, the project is done.

We'll talk more about project scheduling in Chapter 7, but the project manager must be aware of the project calendar and the resource calendar. The project calendar defines the hours in which the project work can take place. For example, if your project is to rewire an entire building with new network cable, the project calendar may specify access to the building between the hours of 8:00 P.M. and 6:00 A.M. Resource calendars are specific to the project team members. They take into consideration the hours employees are available, their vacations, and company holidays.

In addition, the project manager must consider how many working hours project team members will be able to devote to the project in a given day. Six hours of productivity is typical of an eight-hour day because of impromptu meetings, phone calls, and other interruptions. These factors directly influence the project schedule and if the project can meet the project deadline with the given resources.

Is the Project Sponsor Someone Who Has the Authority to Christen the Project?

Most IT folks hate politics, but we all know politics, personal interests, and department leverage are a part of every company. Make certain the project sponsor is the person who should be initiating the project—without stepping out of bounds. Make certain this individual has the resources to commit to the implementation and has the support of the people up the organization chart. And do it with the full knowledge and support of management.

The project sponsor should be an individual within the organization who has the power to assign team members, allocate funds, and approve decisions on the project work. The project sponsor is typically above the functional managers of the project team members assigned to the project work.

Does the Project Have a Financial Commitment?

If you do not have a clear sense of a financial commitment to the completion of the project, put on your hard hat and don't stand under any fans. Technology costs

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money because it makes money. The goal of a project, in the corporate world, is the same goal of any company: to make or save money. A tech-centric project requires a financial investment for quality hardware, software, and talent. If the project you are managing has a budget to be determined somewhere down the road, you've got a wish list, not a project at all.

Is Someone Else Doing This Already?

In large companies, it's easy for two projects to be competing against each other for the same end result. This comes back to communication among departments, teams, and the chief information officer. In a perfect world, IT projects fall under one umbrella, information is openly shared among departments, and everyone works together for the common goal of a company (to make money). This process can be administered through a Project or Program Management Office where projects are tracked across the enterprise. Of course, that doesn't always happen. You should do some initial research to ensure your project isn't being accomplished elsewhere in the company before you invest time, finances, and your career in it.

Possessing Multiple Personas

Are you an optimist? A pessimist? A realist? A project manager has to be all of these. You have to be an optimist so that you may lead your people, manage the resources, and implement the technology according to plan. You have to be a pessimist, secretly of course, because you need to look at the worst-case scenario for each piece of the technology implementation. You have to be a realist because you need to look at the facts of the projects completely, unattached, unemotional, and unencumbered.

When your project is developing, you should play devil's advocate to each cornerstone of the project. You need to question the concepts, the technology, and the time it may take for each step of the implementation. As you can see in Figure 1-3, you should question everything before you begin.

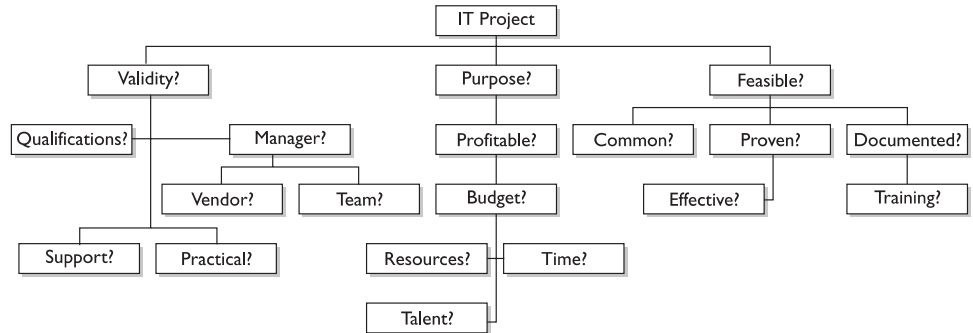
Questions to consider:

How Will This New Technology Affect Your Users?

Not all technology you implement has a direct effect on your users, but most of it does. Your life may be IT, but the accountant in the finance department doesn't like change. She likes everything the way it is now; that's everything from having to click

FIGURE I-3

Project managers must question all aspects of a project.



OK on a redundant error message to installing her favorite screen saver. If your technology changes her world, you should let her know ahead of time; otherwise, she'll be certain to let you know afterward. Your primary objective must be to make her job easier.

As technology has become integrated in practically all areas of an organization, users have become more tech-sophisticated. They want to know why the change is happening, why the change is needed, and how it will help them. This brings us back to requirements gathering and communication. Ninety percent of a project manager's job is communication. If the project manager wants buy-in from the stakeholders, particularly the users, he must communicate the benefits and rationale behind the technology project.

Will This Technology Affect Other Solutions?

How many times have you installed software without testing it, only to discover it disrupts something as unrelated as printing? I hope never, but it happens. You must question and test the ability of the new technology to work with your current systems. Of course, if you're considering a 100 percent change in technology, then there really isn't a software compatibility issue.

Will This Technology Work with Any Operating System?

How many operating systems are in your organization? While the goal may be just one, I'd wager you've got two or three different OSs floating around. Think about those graphic designers and their Macintoshes. Remember those salespeople and their Windows Vista laptops? And what about those mainframe and server-based

Linux users? If your company has multiple operating systems, you've got to question the compatibility of the technology for each.

What Other Companies Are Using This Technology?

The assumption is you are buying this solution rather than building it. Therefore, is it a bleeding edge solution? Are you first in line? No one likes to be first, but someone has to be. When embracing and implementing a new technology, ask that question of the vendor's salesperson. Hopefully the salesperson will be happy to report about all the large companies that have successfully installed, tested, and implemented the vendor's product. That's a good sign. If someone else has done it, you can, too.

Does the Vendor of This Technology Have a Good Track Record in the Industry?

From whom are you buying this technology? Has the vendor been around for a while and implemented its product many times over? Does the vendor have a history of taking care of problems when they arise? This is not to say you should not buy from a startup—every major IT player was a startup at some time in its history. You should feel fairly confident that the vendor selling the product today will be around to support it tomorrow.

What Is the Status of Your Network Now?

You may not always have to ask this question, but with so many network-intensive applications and new technologies today, it doesn't hurt. You don't want to install the latest bandwidth hog on a network that's already riding the crest of 90 percent utilization. You and your company won't be happy. By asking this question, you may uncover a snake pit that needs to be dealt with before your project can begin.

What If . . . ?

Finally, you need to dream up worst-case scenarios and see if there are ways to address each. You need to find out how the technology will react when your servers are bounced, lines go down, and processor utilization peaks. You want to ask these questions and have answers for them now rather than when the crisis hits during your four-week vacation to Alaska.

No Other Choices?

At the start of a project, in its very genesis, ensure that the proposed technology is the correct technology. Of course, sometimes you have no control over the technology that is to be implemented because some vice president and decision-maker heard about the product from his golf buddy who is CIO at another large firm and is now having you install it everywhere. It happens.

Other times, hopefully most of the time, you have some input to the technology implemented to solve a problem. You are the professional, the IT guru, so you should have a definite say regarding the technology that you'll be in charge of delivering. You'll need to create a list of questions and then find the appropriate technology that offers the needed solution, works with your current systems, and fits within your budget. Having the right technology to begin with ensures success at project's end.

Interviewing Management

To have a successful project, you need a clear vision of the delivered result. You need to know why the project is being implemented. You need a strong commitment of management to the project. You need to share management's vision of how the end results will benefit the company. How will you discover these facts? Ask!

When your boss comes to you, for instance, and reports that you are to manage a project to upgrade the mail servers, you need to find out why. It may not be that the manager really wants the mail servers upgraded; he could just be having trouble opening a cartoon his frat brother from Utah sent him and be blaming it all on the company's e-mail system.

When you approach management to find out why the project needs to happen, you aren't questioning their decision-making ability. You are, however, questioning what their vision is for the project. In your company, your immediate manager may be the most technically savvy genius in the world, and her decisions are always right on target. In others, if not most, managers know that a technology exists and can be implemented. However, they don't know exactly which technology they're after. Figures 1-4 and 1-5 show the difference between effective decision-making abilities and poor decision-making abilities.

FIGURE 1-4

Well-informed decisions result in success for everyone, not just the project.

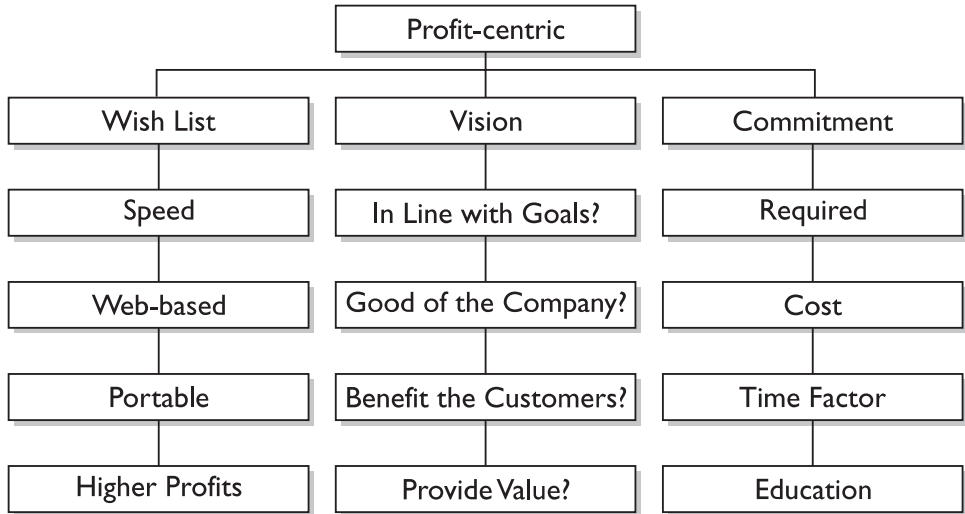
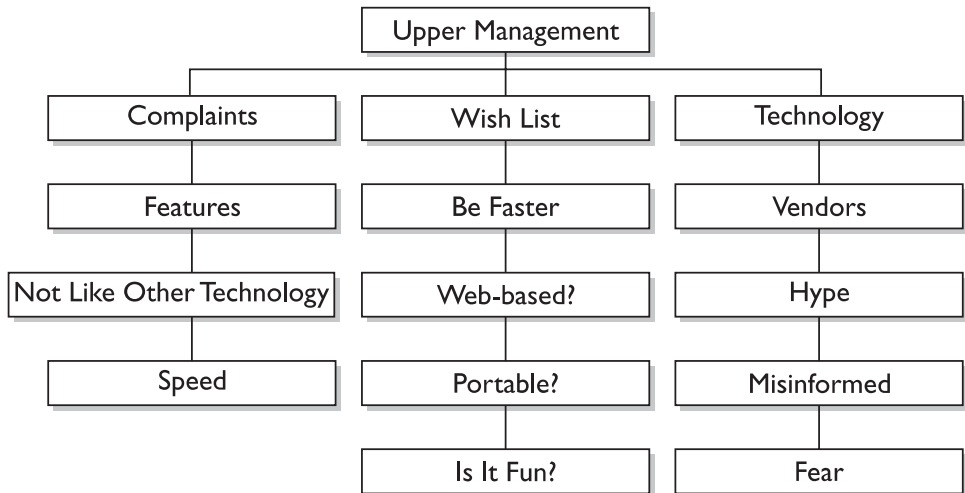


FIGURE 1-5

Decisions based on complaints, wishes, and sales spiels miss the mark.



As the project manager, your job is to ensure the success of your project and your career, and to ensure a successful impact on the bottom line. When you speak with management about the proposed project, you are on a fact-finding mission. Ask questions that can result in specific answers. For example,

- What do you want technology so-and-so to do?
- Why is this technology needed?
- How did you discover this technology?
- What led you to the decision this was the way for your company to go?

Sometimes a manager may come to you with a specific problem for you to solve. In these instances, the project is wider and more open-ended, and you'll have to drill deeper into the problem presented. Let's say for example that a vice president is complaining about the length of time it takes her to retrieve information on customers through your database. She just wants it faster.

Your questions may be something like this:

- Can you show me how the process is slow?
- Is it slow all the time or just some of the time?
- How long have you experienced this lag?
- Have others reported this problem?
- There are several things we can do to increase the speed of the process. Each may require a financial commitment initially but would result in faster responses for all of the database users. Do you want to investigate this route?

Notice how you're thinking like an executive. It's not technology for technology's sake. A new multiprocessor database server, gigabytes of memory, and faster switches are all cool stuff, but if they don't earn their keep, they are just toys. When you are inventing a project, think like an executive of a company and show how the investment in software, hardware, and talent can create more dollars by increasing productivity, safeguarding data, or streamlining business processes and ultimately making customers happy.

Your company may shift much of these requirement-gathering duties to a business analyst. That's fine, but you and the business analyst should still work together to examine the goals, requirements, and objectives of the project that will eventually

feed into your project scope. One approach that I've always liked is called SMART. For each project goal, you can determine if it meets all of the following to spell smart:

- **Specific** You to know what the specific requirements and deliverables are for your project.
- **Measurable** It's a good idea to avoid vague terms like fast, good, and happy. You need measurable metrics for the project requirements.
- **Achievable** The goals of the project should be achievable considering the resources, cost, and time required versus what's available in the organization. Management and customers that ask for a long list of requirements without providing a balance of time and monies are setting themselves up for disappointment.
- **Relevant** The goal of the project shouldn't be for someone's private agenda. The goals of the project should support the primary business need of the organization, provide an opportunity for the company, or solve a problem. Basically, all projects should either increase revenue or cut costs.
- **Time-bound** Requirements that are dreamy, are open-ended, and don't provide an easy link to conclusion aren't good requirements to accurately plan and create.

Interviewing the Stakeholders

As you know, stakeholders are individuals, groups, or organizations that have a direct interest in the outcome of the project. Your project's success or failure will directly affect the way they complete their work, use their existing technology, or continue to buy from your company. Stakeholders can include

- Management
- The project manager
- The project team
- Project sponsors
- Customers
- End users
- The community

In a technical project, the largest group of stakeholders is typically the users. Any project that has an impact on users needs to be discussed with them. This can be done in several different ways. The most popular, and sometimes most disruptive, is a focus group. Focus groups are often led by a professional, impartial moderator and are conversational in tone. Fair warning: if you don't have a good moderator that will direct the conversation to productive input, you might find that focus groups have a tendency to engage in gripe sessions about the problem rather than the solution. If you choose this route, take control of the discussion and keep the participants focused on the solution.

A focus group allows you to take a sampling from users from each affected department, present the project to them, and then listen to their input. You need to explain how the proposed technology will be better than the current, how it will solve problems, and, if necessary, why the decision is being made to change. Input from focus groups can alter your entire project for the good or the bad.

Another way to interview users is through an intranet site. This method can be an effective form of communication because users have the opportunity to share their opinions and have some say on your project. Of course, with this route, it's best to have your intranet site request responses to a survey so that the results can be tallied quickly. See Figure 1-6 for an example of an online survey.

Some project managers rely on the Delphi Technique. This approach is often used in risk management, but it can be applied to any consensus-gathering activity. The participants and their comments are anonymous. The participants are allowed to freely comment on the technology, their concerns, and their desires for the requirements. All of the comments are then shared with all of the participants, and they can agree with or discount them according to their opinions and experience. Because the process is anonymous, there is no fear of retribution or backlash, or of offending other participants. After several rounds of discussion, a consensus is formed on what is needed. An intranet site can automate the method and keep users anonymous.

Finally, learn how the users do their work now. This is especially important for situations like new software development, application upgrades, and new hardware technologies. This can be accomplished in a usability laboratory where mock screens, resembling the technology being implemented, are made available. Feedback from users helps design the solution to be implemented. By working with a user one-on-one, you can experience how the user is using the current technology, how the new technology will affect the user, and what the ultimate goal of a technical

FIGURE 1-6

An online survey can quickly tally users' input to a new technology.

Workflow Creation Survey

Your Name:

Your shift hours: Day Night

Check all the activities that you use on a daily basis:

Time reporting HR Reporting Fax submission
 Expense Request Expense Approval
 Room reservations Meeting Request
 Available time queries

Which form do you use the most?

Would you like to participate in the pilot testing group?
 No Yes

change should be: increased productivity and increased profits. Don't lose sight of that fact. This is really stakeholder observation, and it comes in two flavors:

- **Passive observation** Where the observer simply observes and documents the work and does not interact with stakeholders at all. It's sometimes called invisible observation.
- **Active observation** Where the observer interacts with the users, stops their work to ask questions, and can even get involved in the actual work to experience the users' processes. This approach is sometimes called visible observation.

As stakeholders are identified, they should be added to a stakeholder register. The stakeholder register helps with requirements gathering and also with project communication. The stakeholder register defines

- **Stakeholder identification information** Includes each stakeholder's contact information, role in the project, and organizational position.
- **Assessment information** Includes each stakeholder's specific requirements, project expectations, and project influence, along with the specific phases and deliverables each stakeholder is most interested in.

- **Stakeholder classification** Stakeholders that are for your project are considered positive stakeholders. Stakeholders that oppose your project are considered negative stakeholders or project resisters. Neutral stakeholders are indifferent to your project. This part of the stakeholder information may also include information on the stakeholder role in the company, such as internal employee, customer, or vendor.
- **Stakeholder management strategy** This may be included in the stakeholder register, though it's often a separate document. The stakeholder management strategy defines how the project manager will increase support for the project among the stakeholders and how interruptions and objections to the project can be minimized. The strategy considers which stakeholders wield power and influence over the project, interest level for the project, and strategies to overcome stakeholder objections.

Understanding how stakeholders complete their work can help the project manager and the project team understand how the project deliverables will be used. Understanding the end result of the project at project initiation will enable accurate identification of project goals.

Identifying the Project Needs

Thanks to Intel's Gordon Moore, it is a common belief that the processor chip speed of technology doubles every 18 months. This law has spread to practically all areas of technology, which, in turn, means the role of an IT project manager can be expected to change just as rapidly. IT project managers everywhere struggle with keeping teams, budgets, and goals focused. IT project management becomes even more tedious when you consider the economy, the instantaneous expectations of stockholders and management, the constant turmoil in the IT industry, and the flux of each team member's commitment to their own career.

Why do so many projects fail from the start? Projects fail for many different reasons: other projects take precedence, team members lose sight of the purpose of the project, and project managers try to do the work rather than lead the team, among others. At the root is a fundamental problem: vision. Vision, in project management terms, is the ability to clearly see the intangible and recognize the actions required to get there. One of your jobs is to develop, nurse, and transfer the vision to everyone on your team. The project manager, however, cannot have a clear vision of the project if the project needs are never clearly established.

Creating Reasonable Expectations

Once you've discovered your vision, create a goal. A *goal* should be a clearly stated fact, for example, "The new database will be installed and functional by December 6 of next year." A goal sums up the project plan in a positive, direct style. Every member of your team should know and pursue the goal. It's not all up to you. The goal establishes the direct need and purpose for undertaking the project.

When creating a goal for your project, be reasonable. Just as it would be foolish for a fat man to say, "I'm going to lose sixty pounds this month," it would be as unreasonable for you to create an impossible goal.

A logical goal is not just an idea, a guesstimate, or some dreamy date to be determined. A goal is actually the end result of a lot of hard work. Each IT project will, of course, have different attributes that determine each goal. Let's say for example that your company is going to be migrating your servers and desktops to the latest and greatest operating system.

With this scenario certain questions would have to be answered to determine the ultimate goal: Is the hardware adequate for the new OS? Will the applications work with the new OS? Will the team have adequate time to be trained and experiment with the new OS? These questions will help you create the end date for the goal.

Creating the Project Charter

Once you've determined the business needs for the project, it's time to create a project charter. A *project charter* is similar to the goal, but more official, more detailed, and in line with your company's vision and goals. Obviously a project can stem from a broad, general description of an IT implementation. A goal narrows the description and sets a deadline. A project charter formalizes the goal and serves as a map to the destination. Above all, however, a project charter formally authorizes the project.

Not only does a charter clearly define the project, its attributes, and its end results, it also identifies the project authorities. The project authorities are usually the project sponsor, the project manager, and the team leaders (if necessary), and the charter specifies the role and contact information for each.

Why do you need a project charter? Why not just hop right in and get to work? In a small company, plowing right into the project may turn out just fine. However,

in most companies, including smaller ones, a project charter is the foundation for success. Consider what the charter accomplishes:

- It authorizes the project.
- It defines the business need in full.
- It identifies the sponsor of the project.
- It identifies the project manager.
- It makes the project manager accountable for the project.
- It assigns authority to the project manager on behalf of the project sponsor.

Project Charter Elements

When you create the project charter, you can include just about any information on the project that you'd like. Generally though, consider these elements:

- **Official project name** Every project needs a name.
- **Project sponsor and contact information** The project sponsor should be someone in the organization who has the authority to assign the project manager power over the project resources.
- **Project manager and contact information** The project manager is officially named in the project charter.
- **Purpose of the project** The purpose defines the problem statement or opportunity the project will address.
- **Business case for the project** The business case defines why the project needs to happen and synchronizes the project to the company's strategic plan. The business case does not necessarily need to be included in the project charter, just referenced.
- **Key deliverables of the project** These are the primary products, services, or results the project should create.
- **General statement about how the team will approach the work** You might reference a software model you'll use or an approach you've used on similar projects in the past.

- **Basic timeline of when the project milestones will be reached** A milestone is an event in the project that shows progress. Milestones typically come at the end of a project phase.
- **Project resources, budget, staff, and vendors** Some of this information will be known at the launch of the project, given the nature of the work or the structure of the organization. Often, however, only the roles and responsibilities are known and the project is organized after the project charter is created.
- **Summary budget** Depending on the organization's rules and project approaches, this budget is usually based on a rough order of magnitude cost estimate with a defined range of variance or a maximum dollar amount for the project.
- **High level assumptions and constraints** An assumption is something that's believed to be true but hasn't necessarily been proven to be true, such as operating system and hardware compatibility. A constraint is anything that limits the project manager's options, such as that you're required to use the cinnamon roll software development model.
- **High-level risks** A risk is an uncertain event or condition that may have a positive or negative effect on the project. For example, data loss, network downtime, or the loss of key resources are all typical IT risks.

Every project needs a charter. It authorizes the project, creating a sense of responsibility for the project manager, a sense of ownership for the sponsor, and a sense of teamwork for the project team. The project charter will save you headaches, establish who's in charge, and move you to your goal more quickly and with more confidence.

Following is an example charter, based on a fictional company called Best Enterprises. The company's network currently consists of 380 computers running Windows NT, 11 Windows NT 4.0 servers, and 5 Novell NetWare servers. It has made a decision to move all the workstations to Windows Vista and all the servers, including the NetWare servers, to Windows 2008 Server.

Sample Project Charter

Project: Systems Upgrade: Workstations and Servers

Project Sponsor: Sharon Brenley, Chief Information Officer (x. 233)

Project Manager: Michael Sheron, Network Administrator (x. 234)

Project Team: Edward Bass, Ann Beringer, Mike Tallent, Carol Fox, Charlotte Harving, Kyle Hardie, Casey Murray, Dustin Bossmeyer, Mark Turner, Frank Simmons

Project Purpose All desktops will be upgraded to Windows Vista by December 30. All servers will be upgraded and moved to five Windows 2008 Servers by January 15 of the following year.

Business Case Windows NT has served our company for the past five years. We've learned to love it, embrace it, and grow with it. However, it's time to let it go. We'll be embracing a new technology from Microsoft, similar to Windows NT, but far superior: Windows Vista. Vista will allow us all to be more productive, more mobile, more secure, and more at ease.

In addition, there are new technologies that work excellently with Vista such as infrared networking for our manufacturing shop floors and new accounting software that will be implemented later this year.

Of course, our company will continue to embrace our web presence and the business we've earned there. Vista will allow us to follow that mindset and create greater opportunities for us all.

As our company has experienced over the past year, our servers are growing old, slow, and outdated. We'll be replacing the servers with six new multiprocessor servers loaded with RAM, redundant drives, and faster, reliable tape arrays—which means faster, more reliable, more productive work for us all. The operating system we'll be implementing for all of our servers will be Windows 2008.

Windows 2008 will allow our users to find resources faster, keep our network up longer, and provide ever-increasing security.

Project Results

- Windows Vista on every desktop and portable computer
- Windows 2008 Server installed on six new servers
- All implementation complete by January 15

Basic Milestone Timeline

- **September** Test deployment methods, capture user and application status, finalize deployment image, and create scripts.
- **October** Initial deployment of 100-user pilot group. Test, document, and resolve issues. Redeploy 100-user pilot group with updated images and scripts. Begin Windows 2008 Server testing and design.
- **November** Begin month-long four-hour training sessions. While participants are in class, Vista will be deployed to their desktops. Troubleshoot and provide floor support in coordination with Jamie Bryer, Help Desk Manager. Continue to test Windows 2008 Servers. Three Windows 2008 Servers will go live on November 15.
- **December** Finish deployment of Vista. Install new 2008 servers and create infrastructure. Move each existing server to Windows 2008 platform. Project completed by January 15.

Project Resources

- Budget: \$475,000 (includes Vista, 2008 servers, client access licenses, consultants, training)
- Test lab reserved for four-month duration
- On-site consultant from Donaldson IT

Project Constraints, Assumptions, and Risks

- The project must be completed by January 15.
- The project must not exceed \$500,000.
- Our preferred vendors should be able to deliver our new workstations and servers on time without affecting the project schedule.
- The learning curve for our employees to learn Vista could affect productivity and efficiency.

Your project charter can include as much or as little information as you deem necessary. Project charters are often shared with the entire company (with the exception of the budget), so you may have a few revisions before the charter is complete. Sharing a project charter

with the entire organization, especially one that will affect all users as in the sample charter, can get everyone involved, excited, and aware of coming changes. A project charter also creates a sense of responsibility for all involved.

Your project team members will get distracted, be pulled in different directions, and lose interest. Vacations pop up, kids get sick, people quit. Realize at the onset that not everyone will be as dedicated to your project as you are. Do your best to inspire, motivate, and lead. Set aside politics, egos, and aspirations and work toward the goal.

Finally, keep in mind that a charter can be called different things in different organizations and that the level of detail can vary, depending on the company or the project being created. Most charters, however, accomplish two primary things: authorizing the project work and defining the project work.

Finding the Completion Date

There's a cartoon that's probably posted in every auto mechanic's garage. In the cartoon, there's a bunch of people rolling around laughing uncontrollably. Above all this mayhem is the caption, "You want it when?" Of course, as an IT project manager, you can't take that same approach, but a reasonable deadline has to be enforced.

A firm end date accomplishes a few things:

- It creates a sense of responsibility toward the project.
- It gives the team something to work toward.
- It signifies a commitment from sponsors, team members, and the project manager.
- It confirms that this project will end.

How do you find the completion date for a project, and how do you know if it's reasonable? The magic end date is based on facts, research, and planning. In upcoming chapters, you'll get a more detailed look at project end dates and how you establish them. For now, know that projects are a sequence of steps, and each step will take time. The completion of each step will predict when a project should end. And it's not just the project execution that you must account for. A project manager must also consider the time for planning, meetings, and responses to project risks, issues, and the consideration of change requests that are inevitable in technology.

Some project managers create a flexible deadline. Don't do it. If you allow yourself a deadline that is not firm, you'll take advantage of it. And so will your team,

your sponsor, and your management. Set a deadline based on an informed opinion, and then stick with it. The charts in Figure 1-7 demonstrate how a missed completion date is bad for the project, the company, and morale.

A rule of economics that affects scheduling is “Parkinson’s Law.” Parkinson’s Law states that work will expand to fill the time allotted to it. In other words, if you give yourself extra time to complete a project, the project will magically fill the extra time. A firm deadline gives the project manager and the project team a definite date to work toward.

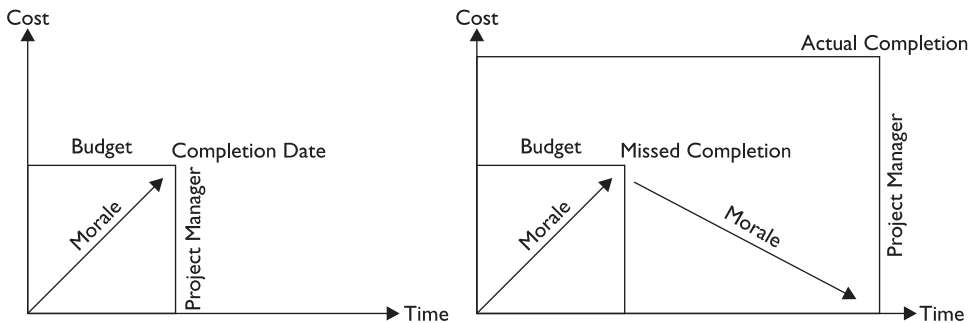
Some projects have a self-contained deadline. Remember the Y2K scare? With the year 2000 rolling in like a summer storm, every programmer and company found a way to make the deadline because it wasn’t movable.

Other factors can have an impact on your projected deadline:

- **Business cycles** Does your project deadline coincide with busy times of the year? Think of a retail giant. How willing do you think it would be to overhaul the database that handles shipping and store management around December?
- **Financial situations** A company may be more (or less) willing to invest in new hardware or software at a particular time of the year due to taxes, fiscal year ending, or the advent of a new budget. You’ve got to consider these factors when you request finances for your project.
- **Times of the year** When will your team members take vacation? How will their vacation plans coincide with your deadline? What other internal time commitments do they have? Will they be traveling to other sites? These factors can delay a project for weeks and months—ultimately resulting in a missed deadline. Work with your team members to ensure that their availability coincides with their responsibilities within the project plan.

FIGURE 1-7

If a project stays on schedule, so will the budget and the morale.



Initiating Processes and the CompTIA Project+ Exam

If you're using this book as a study guide for the CompTIA Project+ Exam, you're in luck. In each chapter you'll find a sidebar like this one. In this sidebar I'll highlight the exam specifics that you absolutely must know in order to pass your CompTIA Project+ Exam. All of these exam sidebars reflect the exam objectives as of this writing. I strongly encourage you to visit www.comptia.org and download the most recent exam objectives, as it's possible they've changed since I've written this book.

This first chapter, “Initiating the Project,” maps to the CompTIA Exam domain called “Pre-Project Setup/Initiating.” This exam domain accounts for 12 percent of your exam; while it's not the largest chunk of questions you'll face, there are some great objectives you should be able to recall to help your exam score. Here are the objectives and key points covered in this chapter:

Explain the Requirements to Complete a Preproject Setup This exam objective will test your comprehension on identifying and validating the project. This is really talking about why your organization needs a project, who's demanding the project, and what opportunity the project will realize or what problem the project will solve. Remember that the business analyst may assist in needs assessment and requirements gathering, but you and the business analyst should work together to fully capture and understand the project purpose.

You'll also need to prepare a project charter in order for the project to officially be authorized in the organization. The person that signs the project charter, the project sponsor, should have the authority to grant the project manager power over the resources the project needs to be successful. Some project charters may rely on contractual agreements if the vendor is the performing organization.

Identify the Characteristics of a Project Now you know that projects are short-term endeavors to create unique products, services, or conditions. Projects aren't part of operations, but they often create or deliver things that operations will use—such as software, workstations, servers, and even networks. Because projects do not last forever, they are considered to be constrained by time. This is evident in technology when you consider the temporary nature of technology—it's always changing and evolving.

Projects are constrained by the available resources. Resources are people, equipment, and money. Recall that the portfolio review board can examine potential projects and determine their worth in investment. Companies only have so much capital to invest in projects, and it's the project manager's responsibility to be accountable for the investment. Human resources are

(continued)

constraints implemented on projects; consider the availability, competence, and interest of the project team in your projects. Finally, resource constraints in technology projects can be older, slower equipment and software that the project must use or interact with.

Summarize the Steps Required to Validate a Project This exam objective spans Chapter 1 and Chapter 2, so you'll see more about this one coming up. The specific portion of this exam objective you learned about in this chapter is the justification of a project. All projects must be in alignment with the business case, the organizational strategic plan, and the mission of the company. Projects that don't map to these requirements should not be chartered.

You also learned about the identification of the project stakeholders. Project stakeholders are any people or groups that are affected by your project's existence. Stakeholders that are for your project are considered positive stakeholders, while those stakeholders that don't like your project are, no surprise, called negative stakeholders. Part of stakeholder identification is to create a stakeholder register with each stakeholder's contact information, project concerns, interests, and threats, and information about how the stakeholder will be involved in the project.

Stakeholder observation is a strategy to help you identify stakeholder needs and requirements and to learn how the stakeholders will use the project's solution. Recall that passive observation simply records what the observer sees while active observation allows the observer to interact with the stakeholders during their work.

Explain the Components of a Project Charter Charters authorize projects to exist in an organization, and they officially name the project manager. Charters have

- Key project deliverables
- High-level milestones
- High-level cost estimates
- Stakeholder identification
- A general project approach
- A problem statement
- High-level constraints and assumptions
- High-level risks
- Overall project objectives

These components of a project charter are identified at a high level here in project initiation. During project planning, the project manager and the project team will progressively elaborate on these components to fully create the project management plan.

Outline the Process Groups of the Project Life Cycle You know the five process groups of the project management life cycle, right? As a reminder, they are

- **Initiating** This is the preproject setup and launch of the project.
- **Planning** This is an iterative group of project processes that communicate the intent of the project.
- **Executing** This is the process group where the project manager directs project plan execution and the project team does the work to complete the project objectives. It's where the bulk of the project funds and time is spent.
- **Monitoring and controlling** This process group happens in tandem with project execution. It oversees the project work to ensure the work is being done according to plan.
- **Closing** These processes are used to close out a project phase and to close the project altogether. It's also in the process where you'll find the close procurement process.

While these process groups have distinct responsibilities and activities, there is plenty of overlap and movement between them. Consider how planning, executing, and monitoring and controlling all allow the project manager and the project team to shift between these groups of processes.

FROM THE FIELD

Interview with Carl Danneels

Name: Carl Danneels

Title and certifications: CEO, PMP, Prince2

Company: Plethon Consulting

Years as an IT project manager: 19

FROM THE FIELD *(continued)*

Carl Danneels is an independent project professional providing expert services in the areas of program and portfolio management. He is the Vice-PMI Project Manager of 2007 in Belgium and Luxemburg, having received this award for the setup of a project management office for the company Cetrel in Luxemburg. Carl has worked for companies with revenues ranging from €15 Millions up to €300 Millions, mainly in the sectors of telecom, government, and finance. He shares a deep knowledge of the PMI and Prince2 models.

Q: What's the most challenging part of launching a new IT project?

A: Launching a new IT project creates numerous challenges, but it all boils down to managing the expectations of your customer. Key ingredients to achieve this are identifying and talking to the right stakeholders (who all have a different perspective on what success means), striking a balance between commitment and prudence (especially when dealing with external customers), identifying risks, and writing and presenting a carefully thought-through project charter, including a project life cycle definition.

Q: How do you begin researching a new project?

A: The logical thing to do is to investigate the origination of the project. Before launch, every IT project has a history. As a project manager, you should get yourself acquainted with the background and content of the project, with special attention to the business benefits that are expected from the IT project. The summary of your readings and learning can typically be captured in a first version of a project charter.

Q: When researching an IT solution, what's the most important thing a project manager can do?

A: It is a blessing when you can count on the support of a senior, knowledgeable IT architect in your company to establish a "super duo" with you. The IT architect and you, the project manager, should closely cooperate to establish a common vision taking into account the necessary inputs from your customer and the relevant IT specialists.

Q: How do you delegate research activities to team members?

A: There are a number of ways to involve team members. Some examples, in increasing order of involvement, are to involve them in writing a project proposal when this is relevant, invite them to customer workshops (including preparation and debriefing work), and implement a proof of concept solution with your team.

FROM THE FIELD *(continued)*

Q: What challenges have you experienced with end users, vendors, and management when launching a technical project? How would you manage these challenges differently, based on your experience?

A: Very often, too much emphasis is placed on technical and functional requirements, without paying sufficient attention to soft aspects, business value and implementation realities. It is important to establish an environment of trust and open communication at the start of the project, taking the time to discuss opinions, strategies, and approaches to finally come up with a realistic plan that the key stakeholders feel comfortable with.

Q: What type of information is typically needed during project initiation for an IT project?

A: A project charter typically addresses all the relevant knowledge areas or themes of a project, starting with the “Magic Quadrant”: scope delineation, the establishment of a high-level schedule, identification of high-level cost estimates and constraints, and determination of the quality requirements (including project standards like the methodology). Next to that, risk, communication, human resources, and procurement aspects should be looked into.

Q: How do vendors affect new IT projects?

A: This obviously depends on the level of involvement of vendors. Let’s take two examples on each end of the scale: hardware supply and system integration services. Cooperation with hardware suppliers can heavily impact timing, cost, and operational quality on a project. A system integrator often has a solid presence in the customer organization, because of which a customer project manager should focus on cultural fit, methodology integration, internal/external balance, control, and trust. In both examples, win-win contracts are key.

Q: How do contracts affect the project research, feasibility study, and project charter?

A: Contract types can heavily impact the initial phase of a project. It matters significantly whether a contract is fixed price, time and materials, or even cost plus. Fixed-price projects, for example, need solid scoping definitions, which means that projects will not go into execution mode before it is sufficiently clear what needs to be done and before commonly agreed-upon change request handling procedures are put in place. A preliminary feasibility study or proof of concept stage often precedes fixed-price projects.

FROM THE FIELD *(continued)*

Q: What's a common trap IT project managers fall into, and how can they avoid it?

A: The misconception that the prime role of a project manager should be that of a top-down planner and controller convinced that success is guaranteed when requirements and activities are detailed out as much as possible up front. Although control and planning are important, they are largely insufficient when they are not accompanied by excellent soft skills to cope with the fast-changing and turbulent business world. Trust, autonomy, and agile practices are currently the buzzwords. If you think they're fads, think again.

Q: What approach do you use early in the project to involve the project stakeholders?

A: First, the stakeholders should be identified and categorized according to their involvement level in the project and the influence they can have on the project. Starting from there, the most relevant people should be interviewed and their inputs summarized in a project charter and solution definition documents. The more important they are for the success of your project, the more time should be spent talking to them. Depending on the stakeholder, the interview should be held in "listening mode" or "solution proposal mode."

Q: What are characteristics of successful business analysis, project initiation, and researching a feasible solution?

A: In case the question relates to an external customer, what you should be looking for as project manager of the supplier is a right balance between off-the-shelf/proven practices and customization to the needs of the customer. The balance point depends heavily on the change readiness of the customer company and on the preferred approach of the vendor company. However, always take care that the eventual solution is "fit for purpose."

Q: What advice can you offer IT project managers when it comes to launching new projects?

A: Don't just cross your fingers and hope for the best when stepping into project execution mode. Make sure you have created a foundation with the project charter as your main tool and a good team as your greatest asset. You should be confident and comfortable with your project team and vice versa. You should have at least one free project parameter you can still juggle with. If scope, time, cost, and quality are all set in stone, there is no room left to maneuver.

FROM THE FIELD *(continued)*

Q: What's the best thing you've learned in your experience as an IT project manager?

A: There is no such thing as a "one size fits all" approach to project management. Think out of the box by taking into account the golden triangle of strategy, culture, and structure of your customer's company to customize your project approach. Build in a solid go/no go after project initiation to guarantee that the critical success factors for your project are in place.

CHAPTER SUMMARY

Did you ever see one of those movies with the ace reporter scrambling into the newsroom with just minutes to go before his deadline? He writes a fantastic article on the mayor, the mob boss, or the sports team with just seconds to spare. Meanwhile, his cigar-chomping boss is ranting about this reporter's usual skin-of-the-nose behavior.

That's how IT project management can be. The really awful part? Sometimes it's not even that close. Projects are consistently late, over budget, and half-cooked. IT project management is not about implementing a technology. It's about leadership, integrity, decision-making ability, planning, and time management.

To be a successful project manager, you have to start each project with a clear, concise vision of what the project will yield, when it will end, and how you can lead your team to that destination.

Project management is governed by business cycles, dedication, time, and sometimes weekends. Successful project management takes more than implementing the latest whiz-bang technology. To succeed in project management is to succeed in leadership.

CHAPTER QUIZ

1. What is project management?
 - A. The ability to complete a task within a given amount of time
 - B. The ability to complete a task with a given budget
 - C. The ability to manage a temporary endeavor to create a unique product or service—on time and within budget
 - D. The ability to administer a series of chronological tasks within a given amount of time and under budget
2. All of the following are project management process groups except for which one?
 - A. Initiating
 - B. Planning
 - C. Implementing
 - D. Monitoring and controlling
3. You are a project manager in your organization and would like to present a project to management. What organizational component is most likely to review your project to determine if it is worthy of investment?
 - A. Project sponsor
 - B. Functional management
 - C. Program managers
 - D. Portfolio review board
4. Why must you interview the project decision makers before starting the project?
 - A. To detail the budget of the project
 - B. To determine the project results
 - C. To gain their support and trust
 - D. To determine the project completion date
5. What is the purpose of the project charter?
 - A. To launch the project team
 - B. To identify the project manager
 - C. To assign a budget to the project
 - D. To authorize a project

6. You are the project manager for your organization, and management has presented a new project to you. This project requires that you adhere to several government regulations for the project deliverable. In this instance, what are the government regulations considered?
 - A. Scope
 - B. Requirements
 - C. Assumptions
 - D. Standards
7. Marci is a project manager in her organization and she is collecting requirements for a new project. She is working with Frances, an end user, to see how Frances is using the current software that Marci's project deliverable will replace. Marci asks Frances questions as she works, stops Frances to explore the purpose behind the software activities, and quizzes Frances on each step of the software activity. What is Marci doing in this instance?
 - A. Gathering project requirements
 - B. Exploring the learning curve
 - C. Cross training
 - D. Active observation
8. You are helping to create the project charter. One of the elements you need to include is the high-level risks in your project. Which one of the following is the best definition of a risk?
 - A. A potential event that can cause the project to lose time and monies
 - B. An uncertain event or condition that can have a negative or positive effect on the project
 - C. An uncertain event or condition that will cause the project to lose time and/or monies should it come into fruition
 - D. A potential event or condition that may affect the project's ability to meet the project quality expectations
9. Management has asked that you hire a moderator for a new focus group. What is a focus group?
 - A. An interview process for elective team members
 - B. An interview process by the team members to determine the success of a project manager
 - C. A sampling of users affected by the proposed technology
 - D. A sampling of management affected by the proposed technology

- 10.** Why can a focus group be counterproductive?
- A. The participants may not understand the technology.
 - B. The management involved may not like the technology being implemented.
 - C. The participants may focus on the problems of the old technology rather than the goals of the project.
 - D. Team members may have political agendas against the project manager.
- 11.** A project manager would like to use an anonymous tool to gain a consensus on the needs of the project. Which tool is the project manager likely to use?
- A. A survey on an intranet site
 - B. The Delphi Technique
 - C. An e-mail message to all users within the organization
 - D. A Monte Carlo simulation
- 12.** You are working with management to evaluate and understand their goals for a new technical project you'll be leading. You want to use the SMART approach in your assessment of the project goals. What does SMART mean?
- A. Specific, measurable, achievable, relevant, time-bound
 - B. Specific, metrics, action, relevant, time-bound
 - C. Schedule, monitoring, action, risk, time-bound
 - D. Scope, metrics, action, risk, time-bound
- 13.** You are working with Sarah on developing a project charter for a new project. All of the following elements should be include in the project charter except for which one?
- A. Key project deliverables
 - B. High-level milestones
 - C. Stakeholders
 - D. Company mission statement
- 14.** You are working with your project team and management to determine how long the project will take. One of your team members suggests padding all of the activities by 10–20 hours to ensure there's enough time in case there are problems with the work. You disagree with this idea. Why?
- A. Law of Diminishing Returns
 - B. Moore's Law

- C. Parkinson's Law
 - D. Pareto's Law
15. What is the primary difference between a project and operations?
- A. Projects are temporary and operations are ongoing.
 - B. Projects are unique, while operations are administrative.
 - C. Projects are constrained by time and costs, while operations have budgets.
 - D. Projects are paid for by customers, while operations are paid for by management.

CHAPTER EXERCISES

Exercise 1

You are the project manager for Ogden Underwriters Insurance Company. This company has offices in Chicago, Des Moines, Seattle, Lincoln, and Atlanta.

You have been tasked with managing the rollout of a new web-based training program. You are to interview several members of your company to find out what their goals for the project are and work those into your plan as much as possible. As this is a simulated exercise, you'll find quotes from several key personnel in the following table.

To complete this exercise, analyze persons being interviewed and their concerns about the project, and then record the objective of each.

Person	Title	Concerns	Objectives
Nancy Gordon	Chief Executive Officer	I am very excited about this project. All employees should have access to the web site no matter where they are located in the country. The training should supplement our existing classroom training and provide new information as needed. I would also like to see videos of common tasks for quick review. Finally, the web-based training must be searchable, user friendly, and easy for learners to stop and resume lessons with ease. Have fun!	

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Person	Title	Concerns	Objectives
Cory Owens	Accountant	Will this thing really work? Our network seems pretty slow already. I don't have time to be waiting on images to load, downloads, and other stuff like that. My computer is so old, and so is everyone else's in this department, that we can't take another software upgrade if we have to. By the way, when are we going to get new computers? Mine at home is faster than the one here at work. Sigh.	
Sarah Sullivan	Claims Adjuster	This is a great idea; I just hope I have time to use it. I get interrupted a lot so I'd need to be able to pause and restart if necessary. Will this web-based training work with my computer? I'm using Linux here and Windows NT at home. I will be able to access it from home, won't I?	
Michael Bogner	Chief Information Officer	Web-based training will allow for training on demand in modular pieces. The thing to remember though is that all users will need computers with the technology to support your solution and a standardized web browser to take advantage of this. In fact, there are 240 PCs that need to be replaced in six months. Go ahead and work that into your budget and your plan. They'll need to use Windows Vista. I guess that'll mean these folks will need training on Vista too.	
Jill Vaughn	Web Design Manager	I've wanted to do WBT (web-based training) forever. My team will be using Macromedia's ColdFusion, Flash, Authorware, and Fireworks for everything. Make certain all the users have the correct plug-ins for their browsers.	
Jackson Dahl	Web Integrations Team Leader	We can do it—if a few things come true. We'll need a fatter pipe to our ISP if we're going to host the pages here. Of course, if users are coming from all over the country to this thing, we're going to need to talk about security, authentication, and types of access. We'll probably need another server for Jill's ColdFusion database.	

Exercise 2

Now that you've gleaned the key pieces of information from each of the key staff members, you need to write a charter for the project. Your sponsor for this project is Nancy Gordon. Here are some facts that must be included in your project charter:

- Official project name (use your imagination)
- Project goal
- Business case for the project
- High-level results of the project
- A basic timeline of how your team will implement the plan
- Required resources for the project (If you would like to find the prices of the new computers, software, and operating systems, you may, but they are not required for this exercise.)

QUIZ ANSWERS

1. C. Project management is the ability to manage a temporary endeavor to create a unique product or service on time, within budget. Answer D is incorrect because although completing a project under budget is nice, it reflects inaccurate planning of what the budget should have been at the project outset. In addition, the project goal must be met.
2. C. Implementing is not one of the five project management process groups. The five groups are initiating, planning, executing, monitoring and controlling, and closing. Some project managers remember the order of these groups by thinking about the syrup of ipecac where each letter represents the order of the process groups (the “cac” means controlling and closing—not quite the same as monitoring and controlling, but similar).
3. D. Of all the choices presented, the portfolio review board is the best selection. This board consists of upper management and organization’s decision makers. They’ll evaluate the worth of the project, its return on investment, and other factors to determine if the company should invest in the project or not. This is where “go/no-go decisions” originate.
4. B. Again, you must have a clear understanding of what the decision makers’ vision of the project results is before any other factor of the project implementation. After you have a clear understanding of the project vision, address issues such as budget and the completion date. Answer C is incorrect because you will gain the support and trust of the decision makers once you have obtained their vision of the project, not through an interview.
5. D. The purpose of the project charter is to authorize the project. Answer A is incorrect because the project team may not be selected until later in the project. Answer B, identifying the project manager, is also incorrect. The project manager is named and identified in the project charter, but the purpose of the charter is to authorize the project. Answer C is also incorrect; the project charter’s purpose is not to assign a budget to the project.
6. B. Government regulations are requirements and are never optional. You must always follow the government regulations, or the organization may face fines and penalties. Standards may be tempting, but standards are optional and don’t necessarily have to be followed by the project manager.
7. D. Marci is participating in active stakeholder observation. She is working with Frances through the usage of the current software to better understand how the new software can be developed for the end users. Choice A, gathering project requirements, is tempting but doesn’t answer the question as completely as choice D.

8. B. Risks can have a positive or negative effect on the project. Negative risks are often what project managers focus on, but positive risks can be demonstrated through cost savings, time savings, or new opportunities for income.
9. C. A focus group is a collection of users your project will affect. A moderator is an impartial person who leads the conversation of the focus group to help gather project requirements.
10. C. The participants may focus on the problems of the old technology rather than the goals of the project. An improperly organized focus group can result in a gripe session about the old technology and its flaws rather than the benefits and goals of the new project. A focus group requires a strong leader to help the participants focus on the future implementation rather than their complaints with the current technology.
11. B. The Delphi Technique allows for anonymous input from participants and provides rounds of discussion for consensus building. Answer A is incorrect because a survey on an intranet site may or may not provide anonymous input. Answer C, e-mail, is incorrect because it does not provide anonymous input from users. Answer D is incorrect. Monte Carlo simulation is a simulation tool testing variables, not a consensus-building approach.
12. A. SMART is a method to assess project goals; it means that each goal should be specific, measurable, achievable, relevant, and time-bound. All of the other choices are incorrect meanings of the SMART approach to goal assessment.
13. D. The project charter does not need the company's mission statement. Project charters should include high-level milestones, high-level cost estimates, stakeholder identification, a general project approach, a problem statement, high-level constraints and assumptions, high-level risks, and the project objectives.
14. C. Parkinson's Law states that work will expand to fill the amount of time allotted to it. If you pad the project activities, they will likely expand to use all of the time allotted to each activity—something you don't want when it comes to time estimates. The Law of Diminishing Returns addresses the amount of labor you can add to work to shorten the work duration in ratio to cost of the labor in proportion to the yield of the work. Moore's Law states that processor speed doubles every 18 months. Pareto's Law is also known as the 80/20 principle, such that 80 percent of your business income comes from 20 percent of your customers.
15. A. Projects are temporary endeavors, whereas operations are ongoing initiatives. For example, a project could be to design a new software application, but the support of the application in the workforce would be an operational activity.

EXERCISE SOLUTIONS

Exercise I: Possible Solution

Person	Title	Objectives
Nancy Gordon	Chief Executive Office	All employees should be trained uniformly across all locations. All employees should have access to the web site. Training should supplement existing training. Offer videos of common tasks. Site should be searchable. Users must be able to stop and resume lessons.
Cory Owens	Accountant	Speed issues need to be addressed. Computer needs to be brought current.
Sarah Sullivan	Claims Adjuster	Users should be able to pause and resume lessons. Need to take multiple operating systems into account. Include access from home and other remote sites.
Michael Bogner	Chief Information Officer	Upgrade computers to the organization's technical standard. Upgrade browsers. Replace 240 PCs as part of project. Systems require Vista operating system. Vista training required. The cost of the solution should be considerably less than the estimated cost of live training.
Jill Vaughn	Web Design Manager	Include plug-ins for browsers.
Jackson Dahl	Web Integrations Team Leader	Need faster bandwidth. Confirm security issues. Need new web server for ColdFusion database.

Exercise 2: Possible Solution

Project Charter

Project Name: Click and Learn: Web-Based Training Initiative

Project Sponsor: Nancy Gordon, CEO

Project Manager: Your name here

Project Goal: A new web-based training program will be created and implemented company-wide by January.

Business Case There's something new and exciting happening at Ogden Underwriters Insurance Company, and it's not a new life insurance policy. It's web-based training (WBT). WBT will allow us to replace and supplement traditional classroom training on all topics.

No longer will you have to enroll in the same four-hour class because you've forgotten how to do one ten-minute task. No longer will you get hours and even days behind schedule because you needed to attend a class on the latest procedure for your department. No longer will you need to pester help desk staff, your neighbor, or your favorite computer nerd about how to write a macro.

Instead you'll just click and learn.

Our WBT service will allow employees from around the world to access the information it contains. That means each office, each mobile user, and even those who work at home will be able to log in to our site and access the information they need anytime, day or night.

We'll provide forms, printable directions, and videos of various tasks for each department. Because this technology is web-based, it doesn't matter what operating system your computer is running. It's going to be great.

You'll be able to search for a specific topic or take an entire structured course. And thanks to our modular approach, you'll be able to pause your training should you get interrupted and then resume it minutes or even days later.

Required Resources Of course, with this technology there are fundamental changes that will affect all of us. For a start, all users will receive the latest version of *your favorite web browser* and the additional software required to view the videos and complete the WBT classes. We will replace 240 computers with new, speedy PCs running Windows Vista.

Our web server farm will grow to add an additional database server. Additionally, our Internet access will become faster and more responsive.

Timeline

- **First 30 days** Replace 240 older PCs with new computers. Begin offering classes on Windows Vista as part of rollout. Work with web developers to create schedule of course listings for each department.
- **Second 30 days** Continue development of web courses. Order T1 installation. Install and work with Jill Vaughn and Jackson Dahl on integration for ColdFusion server and current web servers.
- **Third 30 days** Begin creation of videos, streaming software, and bandwidth utilization issues. Work with Jill and Jackson on links for Microsoft Explorer upgrade scripts.
- **Final 30 days** Go live with initial classes and test usage. Throttle servers and document results. As month progresses, continue to go live with additional offerings. Create forms to request additional courses, troubleshooting, and support.