Measuring and Controlling Project Performance

The following exercises are presented here:

- Exercise 9.1: Creating the Contract
- Exercise 9.2: Performing Quality Assurance
- Exercise 9.3: Understanding Your Stakeholders

**Exercise 9.1: Creating the Contract**

The objectives for Exercise 9.1 are as follows:

- Introduce concepts for creating a contract.
- Introduce the parts of a contract.
- Discuss some of the most important parts of a contract.
- Practice creating parts of a contract.

**Background**

Once you select your vendor, you will need to create the contract so you and your vendor can work together productively. The contract legally binds the vendor to provide the services and the buyer to pay for them. Begin using your organization’s contract templates or previous contracts as a basis for the new contract. Collect the requirements that you’ve determined must be included in the contract. Then work with your attorneys and the procurement department (if you have one) to put the contract together. If you need to move more quickly than this process allows, you can start the work using a temporary agreement, such as a memorandum of agreement or a time and materials contract.

As project manager, you might have input into (or actually participate in) negotiations for the contract. It is in your best interest to get involved early in the process so you can influence the content and quality of the contract. The negotiations can be a prelude to a very good relationship, if you go into them with the idea of creating a good relationship, mutually beneficial agreements with enough detail to be unambiguous, and protections for each party. It can be a difficult and arduous task if the negotiation process is not well managed or if it is confrontational or vague. In such a case, once the contract is signed, the relationship and the contract can end up being difficult to manage. If there is any way you can help influence the attitude and add to the expertise required for the contract negotiations, do so, but often it is out of your hands.

You might not understand some of the language in the contract; you might be even frustrated by it. Since the contract defines how to manage the contractor, the contractor’s work, and your mutual processes, you must take the time to understand its provisions and provide as much input as you can. You will manage the contract based on your detailed understanding of the work required. You need to know the details.
The contract should include the details described next and might include other sections based on the particular needs of your project’s product, service, or result. The information might not reside in sections exactly as stated, but be sure the information is included somewhere in the contract:

**Definitions** Define all the technical and other terms particular to the project requirements. The contract must indicate agreement on what is meant for the parties. This is not like a glossary—both parties need to understand the definitions and agree on them.

**Scope/statement of work** Describe the work or the work product you expect from the vendor. You might use the SOW that was used in the proposal as a basis, but you need to review it (and rewrite it as necessary) based on current knowledge and any details discovered between the vendor solicitation and contract award.

**Roles and responsibilities** Describe who does the work, who approves the work, who administers the contract, and who manages the processes described in it. This also might include who supplies equipment and facilities.

**Technical specifications and deliverables** Provide specific measurements, specifications, and other technical requirements for the vendor’s deliverables. The technical specifications and deliverables might include detailed service-level agreements for operations.

**Interpretation of requirements** Give the order of precedence (the order of what is most important) for the project requirements.

**Schedule and period of performance** State the dates for the milestones or deliverables expected from the vendor and the time frames for the performance of the contract.

**Quality assurance/control** Describe the inspections or audits expected. This section might include detailed service-level agreements, as well as a scorecard or testing quality expectations.

**Warranty/guarantee and support** Specify how long the product, service, or result is expected to last (for example, guaranteed for five years after acceptance), or provide expectations of meeting particular standards. They might include express warranties for equipment, workmanship, performance or process, and design. Another warranty to consider is the implied warranty by the seller that what the seller provides is suitable for the intended use. This is one of those legal agreements that does not have to be written but that the courts would accept as a good faith agreement. If there is no implied warranty, the contract must specifically state that requirement. The contract might also have a section describing how the product, service, or result will be supported.

**Contract administration and change control** Define the processes, time frames, and escalations for contract administration, including the change control procedures.

**Price and terms of payment** Include price information and the schedule for invoicing and payments, including the processes for doing so. This might include statements that indicate how the price may be adjusted for inflation or other economic factors.
Laws, regulations, and taxes that might apply  List any legal regulations or restrictions specific to your state or project for administering the project. Attorneys would probably create this section. Similarly, an accountant should probably determine what taxes will be involved.

Provisions  Include general and special terms and conditions negotiated with the vendor. Your attorneys usually create or at least review this section. It might include incentive/award fee provisions to optimize performance. It might also include who owns what parts of the product or service, especially when it comes to the results of the work, the data involved, or intellectual property.

Provisions for early termination  Describe how the contract would be dissolved and any work produced or payments would be distributed if, for some reason, the vendor or buyer cannot fulfill the contract.

Liabilities and insurance  Describe liability if the project or product is disrupted, is delayed, or fails. You should take into consideration damages and indemnity of the vendor or buyer, as well as force majeure (and uncontrollable event) and the results expected if there are delays due to natural causes or accidents. Plus, as protection, you should check your insurance needs, such as liability and general business insurance required for worker protection or property damage.

Confidentiality, privacy, and security  Describe confidentiality and nondisclosure requirements. You need to determine how to handle confidential information if the company does not already have a policy.

Employee recruiting  Include provisions to protect each party from recruiting each other's employees until after a certain time period.

Disputes  Specify escalations, arbitration, and other ways to settle disputes. Include time frames and the order in which escalations should be instigated.

Contract completion/product acceptance  Indicate when the contract ends. This may or may not be the same as when the product or service is finally delivered. The contract might cover several SOWs or might be extended for new work. But the contract itself should have an eventual end date. Closure should also center on formal acceptance of all deliverables and formal closure of the contract.

To administer the contract, whether you were part of the negotiations or not, you need to know and understand all the provisions of the contract and create project procedures that conform to the terms. A good habit for managing each contract is to study each major section in detail and, in your own words, write what the contract states. This is a lot of work, but it will help you in the long run. You can share the important parts of the contract with your team members so they too understand its implications and how they need to work with the contractor and what they need to do to review the contractor's work. You might suggest that you review the contract with the contractor's team as well. Since you are managing the project, you need to ensure that the work of the vendor contributes to the success of the project and that all team members understand their contractual obligations.
In this exercise, you will help Creative Cartoon Company (CCC) think about how to approach the various contract negotiations and what should be included in the provisions of contracts for vendors as CCC starts its first full-length animated feature-film production.

**Scenario**

As you continue your work with the Creative Cartoon Company (CCC), producer Marcus Manning is ready to create a procurement management process for the *Bouncing with Bob* animated film project. Based on CCC's most recent award-winning short, the company finally has obtained enough capital to create a feature-length animated film. You have been working with the team as a project management expert for several months.

For the new feature film, the company needs to procure outside services for sound production, background artwork, marketing, and animation software development. The background artwork candidates are located overseas. The animation services candidates must be creative and technologically advanced enough to implement the ideas Marcus has in order to move animation to the next level.

Marcus and the film's director, Sheila Wong, have high aspirations—they want the feature-length film to win an Oscar for best animated film, and they want their new animation ideas to bring them a second Oscar for technological achievement. To accomplish that, CCC executives are aware that they need help developing contracts and procurement processes that will protect the new technology and build good vendor relationships. Without the right vendors, their staff, facilities, creativity, and expertise, the *Bouncing with Bob* project might never be completed and certainly would never result in an Oscar-worthy film.

**Testing Your Knowledge of Creating a Contract**

Use your knowledge of CCC and contracts to answer the following questions to help CCC create good contracts with their vendors.

1. What specific warranties or guarantees would you recommend that CCC include in its contracts for the artwork and sound production vendors?
2. What kind of insurance might CCC require the marketing and software development vendor contractors carry?
3. What change controls might you recommend be included in the contract?
4. How would you recommend that CCC approach the negotiations for the software development vendor contract?
5. How would you suggest CCC train its team members to work with the contractors and the contract?

**Exercise 9.2: Performing Quality Assurance**

The objectives for Exercise 9.2 are as follows:

- Describe the tools and techniques used in Perform Quality Assurance.
- Describe the components of a quality audit.
Background

A lot of work goes into the planning of a project. You have done extensive work in planning the quality components of the project. How do you guarantee that the quality will be as good as you planned? This is where the Perform Quality Assurance process comes into play. Think of Perform Quality Assurance as a managerial process that is concerned with the process of quality. It assures that the quality system you have planned works.

The Perform Quality Assurance process has four tools and techniques. The first is quality-planning tools. These tools were covered in Exercise 4.4. They are benchmarking, cost-benefit analysis, design of experiments, additional quality-planning tools, and the cost of quality. Even though we talked about using these tools in the planning process, they also are used while the project is being executed to ensure that the quality requirements are met.

The second tool and technique is process analysis. This means you will examine the project management processes that are being executed and determine what improvements should be made to guarantee the output of the processes. This analysis also involves problems experienced because of the processes, constraints, and bottlenecks that are experienced because of the processes and, finally, any activities that do not add value to completing the processes.

The third tool and technique is quality control. There are 10 tools and techniques in the Perform Quality Control process that you can also use during quality assurance. They are flowcharts, cause-and-effect diagrams, control charts, histograms, Pareto charts, run charts, scatter diagrams, statistical sampling, inspection, and defect repair review. You will examine these tools and techniques in a future exercise.

The last tool and technique is a quality audit. The quality audit is a review of the quality management activities that are performed during the project. This in-depth review produces findings that should identify lessons learned that can be used to improve project performance. A quality baseline is set when a quality audit is performed after quality planning is completed and before the project begins execution. The quality baseline is used to compare what has been done to what was planned with respect to project quality. In the following section, you'll look at the components of a quality audit.

Components of a Quality Audit

The components of a quality audit cover who you should use as an auditor, the timeframes when an audit is performed, and finally the process of the audit.

Determining the auditor

Some companies hire a highly skilled specialist to perform an audit. Other companies look to internal resources to perform the audit to save money or provide the technical expertise required to audit the project. Regardless of whether you use internal or external resources, the auditor must have certain qualities to effectively conduct a quality audit. You need an individual who is independent of the day-to-day project activities. The person needs to be familiar with the business, technology, and processes used but should view the project's processes from a broad perspective. The person should be skilled in project management and know what to look for in a well-managed project.

Time frames to audit

There are three parts to the time frames to audit:

Initial assessment

This first audit should be conducted at the end of the planning process, before the project begins execution. The focus of this review is evaluating the planned quality
assurance work. This review creates a quality baseline for the project. It also familiarizes the auditor with items to look for in subsequent audits.

**Quality progress review**  Quality progress review audits should be planned at regular intervals or at key milestones during the execution of the project. The reviewer evaluates whether the quality activities that were outlined are being performed. They also inspect the project's quality processes to determine whether they are sound. The output of these audits are lessons learned documents that are used for continuous improvement.

**Quality completion review**  The quality completion review audit occurs at the end of the project. It should recap the quality assurance effectiveness in light of final project results. The output of this audit is also a lessons learned document that is used to improve the quality assurance processes for production operations and for future projects.

**Quality audit process**  The quality audit process should include a review log that identifies the items that will be reviewed during the audit. The reviewer should receive relevant materials (such as product description, quality policy, project plan, project schedule, status reports, and so on) prior to the review so that questions and suggestions for improvement can be prepared in advance. The review should result in suggested actions for the project manager to enhance the quality of the product. The project manager should work with the reviewer to follow up on action items, according to a schedule established during the audit.

In this exercise, you will analyze how you can apply quality to your project at USRemotes.

**Scenario**

You are still working as a temporary project manager for USRemotes, assigned to its WSAP project—a project to redesign the warehouse and shipping areas and the shipping processes. USRemotes is interested in quality and plans to obtain a quality certification. Company executives have asked you to design a system to ensure the quality of the project. Quality is also important to you, so you have put in a lot of time and effort thinking about what you need to do to assure the quality of the project. Quality audits are scheduled for the end of the planning phase and the end of the project, but you think the project could benefit from quality audits at other times. You’re considering calling for quality audits at key milestones.

**Testing Your Knowledge of Perform Quality Assurance**

Use your project management expertise and your knowledge of the WSAP project to answer the following questions on performing Quality Assurance:

1. What are the four tools and techniques of Perform Quality Assurance?
2. You’ve just completed the WSAP project planning phase of work and have scheduled a quality audit. Why is this a good idea?
3. As you continue laying out your plans for quality assurance, you schedule a quality audit at the end of the project. Why is this a good idea?
4. You’re considering scheduling quality audits at key milestones. Is this a good idea?
5. Name three quality-planning tools.
6. What is a quality baseline used for?
Exercise 9.3: Understanding Your Stakeholders

The objectives for Exercise 9.3 are as follows:

- Identify project stakeholders.
- Learn how to think about the needs of project stakeholders.
- Analyze the needs and expectations of stakeholders.
- Create a stakeholder analysis tool.

Background

Communication management includes knowing your stakeholders and communicating with them. It's important to discuss their needs and expectations regularly. A project stakeholder is anyone impacted, positively or negatively, by your project, including project team members. To be successful, you must identify all stakeholders and their needs and expectations as soon as possible. Stakeholders might be individuals or organizations and can include the project manager, the sponsor, team members, customers, the organization performing the work, functional managers providing team members, operations, and many others inside the organization sponsoring the project. There might also be stakeholders outside the organization. You also need to consider the external stakeholders (such as contractors, the government, your community, team member and company families, and the media) in your communication plans.

Before you can identify how to communicate with your stakeholders, you need to analyze their communication needs and preferences. Then, after you determine how best to communicate, you will need to manage stakeholder communications. One of the best tools for managing communications is regular and consistent status updates. Another tool for managing communications is the issues log. Keep your logs updated and resolve the issues systematically. And understand that there will be fewer issues to track if you analyze your stakeholders' communication needs well and execute your communication plan based on that analysis.

Stakeholder Analysis

Once you identify all the stakeholders (and this could be quite a list, depending on the complexity of the project), you need to identify their driving needs and expectations. Some might need only occasional, high-level status and progress information about the project. Others, such as decision makers and those who influence project direction or outcome (even if they don't have decision-making power on the project), will need to receive more detailed information regularly. It's important to understand these needs and expectations early in the project. You also need to understand that needs and expectations can change over the course of the project. The information a stakeholder needs in the planning phase can be very different from information needed in the controlling phase of the project. Update your analysis throughout the project as the stakeholders change and as you get to know and understand them better. If you identify stakeholders early and do your analysis up front, you will not be as easily swayed or pulled in different directions as the project progresses. The following expectations or needs are among those you need to consider as you analyze your stakeholders:

- Is the stakeholder a performer, influencer, decision maker, or technical or subject matter expert, or are they nonessential to the project but interested in it?
• What are the major issues or risks at stake for this stakeholder?
• How much influence does the stakeholder have? Can they threaten the success of your project?
• Will the project threaten or enhance the stakeholder’s position or organization in any way?
• Is the stakeholder important to analyzing or approving scope changes?
• Do they need to be included throughout the project or only when they are most impacted?
• How important is cost and profit to the stakeholder?
• How important is the schedule to the stakeholder?
• Is quality important to the stakeholder? How important?
• Do they care more about technology than other aspects of the project?
• Are results most important, or are they more concerned about how people are affected?
• What kind of information will the stakeholder require?
• How often do they need information about the project?
• In what form do they prefer to receive information?

You might want to keep your stakeholder list and analysis between yourself and your project sponsor. Some stakeholders might think they are decision makers on the project when they are really nonessential. Such stakeholders might look at the project as something that will enhance their position if they appear to be involved in it. Letting them see a list in which they are categorized as “nonessential” might be counterproductive. Also, sometimes the data you collect to identify and analyze stakeholders is sensitive. Depending on the sensitivity of the data gathered, you might find yourself to be the only person who should use (or even see) the stakeholder data you collected to help define the communication plan.

Creating a Stakeholder Needs Matrix

Now that you understand the philosophy behind stakeholder analysis and have collected information about the needs and expectations of your stakeholders, you can create a stakeholder needs matrix. To do so, follow these steps:

1. Identify criteria from the needs and expectations of your stakeholders. In addition to the items you looked at during your analysis, you might want to add more personal information about the individuals themselves, such as the following:

   • Do they require special care? (Does this person need to work closely with other people; require special materials or facilities because of a physical handicap, such as blindness; require early notification of meetings and deadlines because of an extremely demanding schedule; or need some other special treatment to achieve success on the project?)
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- Do they deal well with change? (If not, you might need to build in some special provisions to help them with change.)
- Do they need special recognition during the course of the project to feel more valued?
- Do they demonstrate the ability and desire to help solve problems? (Will you need to have someone else to call on for help when you need to solve a problem?)
- Are they people oriented?
- Do they need one-on-one meetings to help motivate or clarify project goals and tasks?

2. Decide on a rating scale (High/Medium/Low or 1 through 10) for each of the criteria so you can rate its importance to the stakeholder.

3. Include each and every individual and organizational stakeholder that you and your team can think of. Don’t forget people who are outside your organization such as the government or media. Prepare a brief description of each person or organization on the list.

4. Rate each needs criterion for each stakeholder, and record the information in matrix.

Remember to review and update your stakeholder matrix throughout the project, and be sure to set up the stakeholders’ issues log. You might want to design the log now so it’s ready when issues arise. Make sure you keep the log updated and close issues regularly.

Scenario

Bill Smith, project manager for the independent, nonprofit organization Health America that is creating reports on the status and quality of hospital health care in the United States, is preparing the communications management plan. Your task as a project management expert is to help Bill identify and analyze the stakeholders for this very complex, highly visible project. The research and reporting started about two years ago. The reports analyze major hospitals, rating whether they are achieving specific goals identified by the president of the United States. The Department of Health and Human Services (HHS) is your client and requires up-to-date information about budget and project status.

Interest in this project comes from a wide variety of sources. Bill works for Karen Palmer who wants to make sure that project management methodologies are applied to this project. Jeremy Checks is a peer of Karen’s who thinks that project management is a waste of time and is hoping the project will turn sour and that project management will be the cause. Kate Sullivan and Edward Salazar are researchers on the project. Because this project is so visible at Health America, Edward is hoping excellent work on this project will help promote him to manager of research one day. Once the research is completed and the program is implemented by all of the hospitals, Fran Freeing will be taking on incidental and follow-up research for the project. The media want to report on the goals being met or not met. The HHS is monitoring the project for the president and paying for the program. Hospitals across the country and the general public want to understand how this program is helping them.

Bill wants you to help him create a stakeholder matrix. He believes that this analysis will help him understand his stakeholders, their needs and expectations for communication, and the issues that might arise for his project.
Understanding Your Stakeholders

Use your knowledge of stakeholder analysis to help Bill create a stakeholder matrix by answering the following questions.

1. What criteria would you include to help identify stakeholder expectations and needs?
2. List the stakeholders. Don’t hesitate to list any you think might be important, even if they’re not mentioned in the scenario.
3. Rate the importance of each criterion for each of the stakeholders.
4. Based on your analysis, how often do you need to communicate with the HHS, and what would you communicate?
5. Based on your analysis, list the stakeholders who could adversely affect the program.
6. How often does the general public need to receive updated information about this program?