APPENDIX C

ADDITIONAL CASES AND SOFTWARE

INTRODUCTION

This appendix provides two cases in addition to the running case in Chapters 4 through 13 of this text. The first case includes tasks ordered by each of the 10 knowledge areas discussed in Chapters 4 through 13. The second case includes tasks based on the five project management process groups. This appendix also includes information about using several project management simulation software tools and MindView Business mind-mapping software. Additional running cases and suggestions for other student projects are available on the instructor Web site.

The purpose of these cases is to help you practice and develop the project management skills you learned from this text. Several of the tasks involve using templates provided on the companion Web site (www.cengagebrain.com) and the author’s personal Web site (www.kathyschwaber.com). Instructors can download the suggested solutions for these cases from the password-protected section on Cengage Technology’s Web site. Contact a sales representative at www.cengage.com/coursetechnology using the “Find Your Rep” menu.

ADDITIONAL CASE 1: GREEN COMPUTING RESEARCH PROJECT

Part 1: Project Integration Management

You work for We Are Big, Inc., an international firm with more than 100,000 employees in several countries. A strategic goal is to help improve the environment while increasing revenues and reducing costs. The Environmental Technologies Program just started, and the VP of Operations, Natalie, is the program sponsor. Ito is the program manager, and there is a steering committee made up of 10 senior executives, including Natalie, who oversees the program. Several projects operate within this program, including the Green Computing Research Project. The CIO and project sponsor, Ben, has given this project high priority and plans to hold special interviews to hand-pick the project manager and team. Ben is also a member of the program steering committee. Before coming to We Are Big, Ben sponsored a project at a large computer firm to improve data center efficiency. This project, however, is much broader. The main purpose of the Green Computing Research Project is to research possible applications of green computing, including the following:

- Data center and overall energy efficiency
- Disposal of electronic waste and recycling
Appendix C

- Telecommuting
- Virtualization of server resources
- Thin client solutions
- Use of open source software
- Development of new software to address green computing for internal use and potential sale to other organizations

The budget for the project is $500,000, and the goal is to provide an extensive report, including detailed financial analysis and recommendations for which green computing technologies to implement. Official project request forms for the recommended solutions will also be created as part of the project.

Ben decided to have five people working full-time on this six-month project and to call on people in other areas as needed. He wanted to be personally involved in selecting the project manager and to have that person help him select the rest of the project team. Ben wanted to find people already working inside the company, but he was also open to reviewing applications for potential new employees to work specifically on his project as long as they could start quickly. Because many good people were located in different parts of the world, Ben thought it made sense to select the best people he could find and allow them to work virtually on the project. Ben also wanted the project manager to do more than just manage the project. The project manager would also do some of the research, writing, and editing required to produce the desired results. Ben was also open to paying expert consultants for their advice and to purchasing books and related articles as needed.

Tasks

1. Research green computing and green projects performed by large organizations such as IBM, Dell, HP, and Google. See [www.greenercomputing.com](http://www.greenercomputing.com) and similar sites provided on the companion Web site, or find sites yourself. Include your definition of green computing to incorporate all of the topics listed in the background scenario. Describe each area of green computing, including a detailed example of how at least one organization has implemented each area, and investigate the return on investment. Summarize your results in a short paper, and cite at least three references.

2. Prepare a weighted decision matrix using the template named wtd_decision_matrix.xls from the companion Web site. Ben will use this matrix to evaluate applicants for project manager for this important project. Develop at least five criteria, assign weights to each criterion, assign scores, and then calculate the weighted scores for four fictitious applicants. Print the spreadsheet and bar chart with the results. Write a one-page paper that describes the weighted decision matrix and summarizes the results.

3. Prepare the financial section of a business case for the Green Computing Research Project. Assume that this project will take six months to complete (in Year 0) and will cost $500,000. The costs to implement some of the technologies will be $2 million for year one and $600,000 for years two and three. Estimated benefits are $500,000 in the first year after implementation and $2.5 million in the following two years. Use the business case spreadsheet template (business_case_financials.xls) from the companion Web site to help calculate the NPV, ROI, and the year in which payback occurs. Assume a 7 percent discount rate, but make sure the rate is an input that is easy to change.
4. Prepare a project charter for the Green Computing Research Project. Again, assume that the project will take six months to complete and that the budget is $500,000. Use the project charter template (charter.doc) and examples of the project charters in Chapters 3 and 4 as guidelines. Assume that part of the approach is to select the project team as quickly as possible.

5. Because people will request changes to the project, make sure that you have a good integrated change control process in place. You also want to address change requests as quickly as possible. Review the template for a change request form (change_request.doc) provided on the companion Web site. Write a short paper that describes how you plan to manage changes on this project in a timely manner. Explain who will be involved in making change control decisions, what paperwork or electronic systems will be used to collect and respond to changes, and other related issues.

Part 2: Project Scope Management

Congratulations! You have been selected as the project manager for the Green Computing Research Project. The company’s CIO, Ben, is the project sponsor, and Ito is the program manager for the larger Environmental Technologies Program. Now you need to put together your project team and get to work on this high-visibility project. You will work with Ben to hand-pick your team. Ben had already worked with the HR department to advertise team openings internally and outside the company. Ben also used his personal contacts to let people know about this important project. In addition, you are encouraged to use outside consultants and other resources as appropriate. Initial estimates suggest that about $300,000 of the funds budgeted for this project will go to internal staffing, and the rest will go to outside sources. The main products you will create are a series of research reports—one for each green computing technology listed earlier and a final report that includes all data. You will also produce formal project proposals for at least four recommendations to implement some of these technologies. Ben suggested that the team should develop at least 20 different project ideas and then recommend the top four based on extensive analysis. Ben thought that some type of decision support model would make sense to help collect and analyze the project ideas. You are expected to tap into resources that are available from the Environmental Technologies Program, so you need to include some of those resources in your project budget. Ben mentioned that some research had already been done on increasing the use of telecommuting. Ben also showed you examples of what he considered good research reports. You notice that his examples are very professional, with plenty of charts and references; most are 20 to 30 pages and are single-spaced. Ben has also shown you examples of good formal project proposals for We Are Big, Inc. These proposals are quite detailed as well; they often reference other research and include a detailed business case.

Tasks

1. Document requirements for your project so far, including a requirements traceability matrix. Use the reqs_matrix.xls template provided on the companion Web site. Also include a list of questions you would like to ask the sponsor about the scope.

2. Develop a scope statement for the project using the template provided (scope_statement.doc). Be as specific as possible in describing product
characteristics and deliverables. Make assumptions as needed, assuming you received answers to your questions in Task 1.

3. Develop a work breakdown structure (WBS) for the project. Break down the work to level 3 or level 4, as appropriate. Use the wbs.doc template on the companion Web site and samples in the text as guides. Print the WBS in list form as a Word file. Be sure to base your WBS on the project scope statement, stakeholder requirements, and other relevant information. Remember to include the work involved in selecting the rest of your project team and outside resources as well as coordinating with the Environmental Technologies Program. Use the project management process groups as level 2 WBS items or include project management as a level 2 WBS item to make sure you include work related to managing the project.

4. Use the WBS you developed in Task 3 to create a Gantt chart for the project in Microsoft Project 2010. Use the outline numbering feature to display the outline numbers. Click Tools on the menu bar, click Options, and then click Show outline number. Do not enter any durations or dependencies. Print the resulting Gantt chart on one page, and make sure to display the entire Task Name column.

Part 3: Project Time Management

As project manager, you are actively leading the Green Computing Research Project team in developing a schedule. You and Ben found three internal people and one new hire to fill the positions on the project team as follows:

- Matt is a senior technical specialist in the corporate IT department. He works in the building next to yours and Ben’s. He is an expert in collaboration technologies, and he volunteers in his community to help organize ways for residents to dispose of computers, printers, and cell phones.
- Teresa is a senior systems analyst in the IT department in a city 500 miles away from your office. She just finished an analysis of virtualization of server resources for her office, which has responsibility for the company’s data center.
- James is a senior consultant in the strategic research department in a city 1,000 miles away from your office. He has a great reputation as being a font of knowledge and excellent presenter. Although he is over 60, he has a lot of energy.
- Le is a new hire and former colleague of Ben’s. She was working in Malaysia, but she was planning to move to your location and begin work about four weeks after the project started. Le wrote her doctoral thesis on green computing.

While waiting for everyone to start working on your project, you talked to several people who were working on other projects in the Environmental Technologies Program and you did some research on green computing. You can use a fair amount of the work already done on telecommuting, and you have the name of a consulting firm to help with that part of your project, if needed. Ito and Ben both suggested that you get up to speed
on available collaboration tools because much of your project work will be done virtually. They knew that Matt would be a tremendous asset for your team in that area. You have contacted other IT staff to get detailed information on your company's needs and plans in other areas of green computing. You also found out about a big program meeting in England next month that you and one or two of your team members should attend. Recall that the Green Computing Research Project is expected to be completed in six months, and you and your four team members are assigned full-time to the project. Your project sponsor, Ben, has made it clear that delivering a good product is the most important goal, and he thinks you should have no problem meeting your schedule goal. He can authorize additional funds, if needed. You have decided to hire a part-time editor and consultant, Deb, to help your team produce the final reports and project proposals. You know Deb from a past job. Your team has agreed to add a one-week buffer at the end of the project to ensure that you finish on time or early.

Tasks

1. Review the WBS and Gantt chart you created for Tasks 3 and 4 in Part 2. Propose three to five additional activities you think are needed to help you estimate resources and durations. Write a one-page paper that describes these new activities.
2. Identify at least four milestones for this project. Write a one-page paper that describes each milestone using the SMART criteria.
3. Using the Gantt chart you created for Task 4 in Part 2, and the new activities and milestones you proposed in Tasks 1 and 2 above, estimate the task durations and enter dependencies as appropriate. Remember that your schedule goal for the project is six months. Print the Gantt chart and network diagram.
4. Write a one-page paper that summarizes how you would assign people to each activity. Include a table or matrix that lists the number of hours each person would work on each task. These resource assignments should make sense given the duration estimates made in Task 3.
5. Assume that your project team starts falling behind schedule. In several cases, it is difficult to find detailed information on some of the green computing technologies, especially financial data. You know that it is important to meet or beat the six-month schedule goal, but quality is the most important goal. Describe contingency strategies for making up lost time and avoiding schedule slips in the future.

Part 4: Project Cost Management

Your project sponsor has asked you and your team to refine the cost estimate for the project so that a solid cost baseline exists for evaluating project performance. Recall that your schedule and cost goals are to complete the project in six months or less for under $500,000. Initial estimates suggested that about $300,000 would be spent on internal labor. You mistakenly thought that travel costs would be included in that $300,000, but now you realize that travel is a separate cost item. The trip to England early in the project cost $6,000, which you had not expected.
Tasks

1. Prepare and print a one-page cost estimate for the project, similar to the one provided in Chapter 7. Use the WBS categories you created earlier, and be sure to document assumptions you make in preparing the cost estimate. Assume a burdened labor rate of $100/hour for yourself (the project manager), $90/hour for Teresa, James, and Le, and $80/hour for Matt. Assume about $200/hour for outsourced labor.

2. Using the cost estimate you created in Task 1, prepare a cost baseline by allocating the costs by WBS for each month of the project.

3. Assume that you have completed three months of the project and have actual data. The BAC was $500,000 for this six-month project. Also assume the following:

\[ PV = \$160,000 \]
\[ EV = \$150,000 \]
\[ AC = \$180,000 \]

Using this information, write a short report that answers the following questions.

a. What is the cost variance, schedule variance, cost performance index (CPI), and schedule performance index (SPI) for the project?

b. Use the CPI to calculate the estimate at completion (EAC) for this project. Use the SPI to estimate how long it will take to finish this project. Sketch an earned value chart using the preceding information, including the EAC point. See Figure 7-5 as a guide. Write a paragraph that explains the information in the chart.

c. How is the project doing? Is it ahead of schedule or behind schedule? Is it under budget or over budget? Should you alert your sponsor or other senior management and ask for assistance?

4. Several tasks that involve getting inputs from consultants outside your own company have cost more and taken longer to complete than planned. You have talked to the consultants several times, but they say they are doing their best. You also underestimated travel costs for this project. Write a one-page paper that describes corrective action you could take to address these problems.

Part 5: Project Quality Management

The Green Computing Research Project team is working hard to ensure that its work meets expectations. The team has a detailed project scope statement and schedule, but as the project manager, you want to make sure that you’ll satisfy key stakeholders, especially Ben, the project sponsor, and Ito, the program manager. You have seen how tough Ito can be on project managers after listening to his critiques of other project managers at the monthly program review meeting. He was adamant about having solid research and financial analysis and liked to see people use technology to make quick what-if projections. You were impressed to see that several other project teams had developed computer models to help them perform sensitivity analysis and make important decisions. Most of the models were developed using Excel, which Ito preferred, and you were glad that you and Matt
were experts in Excel. Ito was easy on you at your first monthly review because things were just getting started, but he did give you a list of items to report on next month. You had Ben at the review to help answer some of the tough questions, but you wanted to be able to hold your own at future monthly meetings.

Tasks

1. Develop a list of at least five quality standards or requirements related to meeting stakeholder expectations, especially Ben and Ito's. Also provide a brief description of each standard or requirement. For example, a requirement might be related to the computer model, and might state that the computer model you create to analyze the 20 or more green technologies will be done in Excel 2010. Other standards or requirements might be related to the quality of the financial analysis and research you use.

2. Review the Seven Basic Tools of Quality. Pick one and create a scenario related to this project where the tool would be useful. Document the scenario and tool in a short paper.

3. Find a high-quality research report related to green computing. Summarize the report in a short paper that describes the high quality of the research.

Part 6: Project Human Resource Management

You are five weeks into the Green Computing Research Project, and the full-time team members are together for the first time. You, Ben, Matt, and Le all work in the same location, but Teresa and James are based out of town and do most of their work virtually. Le is also new to the company and has just moved to the United States. She is staying in a hotel and looking for a place to live. She'd like to buy her first home, but she wants to make sure it's a good investment and somewhere she'd like to stay for at least five years. You get along well with your project sponsor, Ben, and Matt is a great resource, although he is extremely reserved. Le is also very quiet, and you quickly discover that she is an excellent researcher and writer, but she is not comfortable speaking in public. Teresa and James are much more talkative and are excited to be working on this project. However, James seems to be reluctant to use much technology to share ideas, and he enjoys face-to-face meetings and discussions. You have made preliminary agreements with two outside consultants to assist you with editing and the teleconferencing topic for your research. You have to prepare a monthly progress report and presentation for Ito, the program manager. You also have short meetings as needed with Ben, your sponsor, and you send him a weekly progress report.

Tasks

1. Before this first face-to-face meeting, you asked everyone to send a brief introductory e-mail, including links to their personal Web sites, LinkedIn sites, and other sites. You also asked everyone to take a short version of the Myers-Briggs Type Indicator (MBTI) online and share the results with the rest of the team. Take this test yourself at www.humanmetrics.com and research how different MBTI types respond to work environments, especially for research projects and with virtual teams. Summarize your findings in a short paper. Also document what you would write in an e-mail to introduce
yourself, assuming you are the project manager for this project. Be creative in your response.

2. Prepare a responsibility assignment matrix in RACI chart format based on the WBS you created earlier and the information you have on project team members and other stakeholders. Use the template (ram.xls) and samples in the text. Document key assumptions you made in preparing the chart.

3. Because everyone will be in town for most of the week, you want to make sure they develop good working relationships. You also want everyone to work together efficiently. You asked Matt to review collaboration tools and recommend which ones the team should use for this project. As Matt starts demonstrating some of the tools, including webcams and wikis, you notice that a couple of team members seem uncomfortable, especially James. He thought that he would be in charge of certain aspects of the research reports, and was uncomfortable with the idea of other team members being able to change his work in a wiki. Le did not like the idea of using a webcam. She’d rather not have her face on video when communicating virtually. Discuss these human resource concerns and others that you think would be common in this situation. Include strategies for addressing these concerns as well.

Part 7: Project Communications Management

Several communications issues have arisen on the Green Computing Research Project in the three months since the project started. Your team had agreed to post all of its work on a shared site, but a couple of team members don’t seem to like using the site and prefer to use e-mails and attachments. When they do, other team members cannot easily see the work in one place or provide feedback using the wiki tools. It is also clear that some team members are better researchers and writers than others. When you have weekly conference calls with the webcams, at least a couple of team members don’t use the webcam and rely on the audio instead. You find that the meetings rarely end on time because some team members become very talkative. Also, you were grilled by Ito at the last monthly program review meeting. He thought you’d be much further along in the project by now and expects you to have a recommendation for a promising green computing project by next month. You haven’t seen any great ideas yet. You want to start having face-to-face meetings at least twice a month, but you know it would make your project go over budget even more. At least the Excel model is going well. You and Matt have put a good deal of time into developing it. If only you had enough good data to put into it.

Tasks

1. Write a short memo that describes some of the problems you are facing. You would like to discuss the problems with seasoned, objective project managers to get their advice.

2. Research the use of wikis and address the concerns that several team members have about using them, especially their fear of having others “mess up” their work. Document your findings in a short paper.

3. Write a short paper describing how you might approach two of the conflicts described above.
Part 8: Project Risk Management

Because several problems have occurred on the Green Computing Research Project, as described in the previous section, you decide to be more proactive in managing risks. You also want to address positive and negative risks.

Tasks

1. Create a risk register for the project using the risk_register.xls template. Identify six potential risks, including at least two positive risks.
2. Plot the six risks on a probability/impact matrix using the prob_impact_matrix.ppt template. Print the matrix. Assign a numeric value for the probability of each risk occurring and its impact on meeting the main project objectives. Use a scale of 1 to 10 to assign the values, with 10 being the highest. For a simple risk factor calculation, multiply the probability score by the impact score. Document the results in a one-page paper; include your rationale for how you determined the scores for one of the negative risks and one of the positive risks.
3. Develop a response strategy for one of the negative risks and one of the positive risks. Enter the information in the risk register and then print the complete risk register. Also, write a one-page paper describing the specific tasks needed to implement these two strategies. Include time and cost estimates for each strategy.

Part 9: Project Procurement Management

After a monthly program management review meeting four months into your project, Ito and Ben approved another $100,000 and an additional month to complete the work. You provided a strong rationale to justify additional travel funds and more money for outside consultants to help you find good research information. You decided to have James return to his old job because he didn’t seem open to sharing ideas with others. It would be best to have one of the participating consulting firms do the work that James was assigned to do, even though the cost would be greater. The lead consultant, Anne, has done a great analysis of improving overall energy efficiency for the company; her ideas could save millions of dollars each year. Ben, your project sponsor, was disappointed that you couldn’t meet the original time and cost goals, but he wants to make sure that the final results are of high quality.

Tasks

1. Draft a contract to have Anne’s consulting firm perform the work that James was supposed to do for this project. Assume that the contract would last for three months and that Anne would be working about half-time, earning $200/hour. She would also have other consultants do up to 100 hours of work at $150/hour. They would do most of the work virtually, but Anne would come to town at least once a month for face-to-face meetings. Limit the contract to two or three pages, and be sure to address specific personnel and travel requirements. Also make sure that all work produced is owned and copyrighted by your company exclusively.
2. Deb, the editor you hired for this project, has asked for your assistance in organizing the final comprehensive research report. Draft a one-page executive summary and a table of contents for the report.
3. Prepare a lessons-learned report for what you have learned so far as the manager of this project. Use the template provided on the companion Web site (lessons_learned_report.doc); be creative in your response. Although this is not really a procurement task, it is provided here for convenience.

**Part 10: Project Stakeholder Management**

Review what has happened so far in this case, especially the information from Part 7: Project Communications Management. Assume that the project is still in its early stages, and that you just presented information in the first monthly program review. Ito was upset about the lack of progress, and he told Ben, your project sponsor.

**Tasks**

1. Prepare a power/interest grid for stakeholders on this project.
2. Prepare part of a stakeholder management plan for the project, focusing on how you could develop and improve relationships with key stakeholders.
3. Create an issue log for the project using the template provided (issue_log.doc). List at least four issues and related information based on the scenario presented and information from the Communications section.

**ADDITIONAL CASE 2: PROJECT MANAGEMENT VIDEOS PROJECT**

**Part 1: Initiating**

You and several classmates are taking a project management class, and your instructor has suggested a project to find or create good video clips to illustrate concepts that are relevant to the class. For example, the *Oceans 11*, *Oceans 12*, and *Oceans 13* movies include great planning and execution clips. *Apollo 13* provides a great example of scope management and creative problem solving when the team must figure out how to keep the astronauts alive. *The Office* television show includes many examples of poor motivation techniques. In addition to providing the clips on DVD, you will write a summary of the clips, including their length and source; introductions for each clip; discussion questions that you can pose before and after each clip; and suggested answers to the questions. Your instructor has suggested that teams find or create two good clips per team member. If several teams in your class work on this project, you must coordinate with them to share resources and avoid duplicating clips. Everything your team creates for the project should fit on one DVD that runs on your instructor’s computer. The DVD will be for educational use only, so you should not face any copyright issues.

**Tasks**

1. To become more proficient at finding short video clips, do some preliminary research. Go to sites like [youtube.com](http://youtube.com) and search for videos related to project management. Search for articles related to project management in the movies, and visit sites such as [imdb.com](http://imdb.com) to see movie trailers. Find other...
sites that have legitimate movie and television clips. Also discuss movies or television shows that you and your teammates could use for this project. Write a short paper that summarizes your findings and cites all references.

2. To become familiar with creating or editing short video clips, research how to transfer short segments of an existing DVD to a computer. Research the devices and software needed to create, edit, and post your own videos. (For example, review Web sites such as theFlip.com and youtube.com.) Summarize at least three options, including price information. Write a short paper that summarizes your findings and cites all references.

3. Prepare a team contract for this project. Use the team_contract.doc template provided on the companion Web site, and review the sample in the text.

4. Prepare a draft project charter for the Project Management Videos Project. Assume that the project will be completed by the last day of class. Assume that costs will include an estimate of hours worked by the team and the cost of necessary hardware and software for the project, such as DVDs, a camcorder, and video editing software. Use the charter.doc template provided on the companion Web site, and review the sample in the text.

5. Prepare a draft schedule for completing all of the tasks for this project. Include columns that list each task by process group, estimated start and end dates for each task, the person with the main responsibility for completing each task, estimated hours for each task by person, and actual hours for each task by person. Complete the schedule as information becomes available.

6. Write a brief summary of your team’s MBTI types and how they might affect your team dynamics. You can take a version of the test from www.humanmetrics.com.

7. Prepare a 10-minute presentation that summarizes the results from the preceding initiating tasks. Assume that the presentation is for a review with your class and instructor. Be sure to document notes of any feedback received during the presentation and submit hard copies of everything you produced.

Part 2: Planning

Work with your teammates and instructor to perform several planning activities for this project.

Tasks

1. Develop a scope statement for the project. Use the scope_statement.doc template on the companion Web site and review the sample in the text. Be as specific as possible in describing product characteristics and requirements as well as key deliverables. Determine which video clips your team will provide and the resources you think you will need, such as DVDs and camcorders. Be sure to coordinate the clips with your instructor and other teams and get feedback before handing in your scope statement.

2. Develop a WBS for the project. Use the wbs.doc template on the companion Web site and review the samples in the text. Print the WBS in list form as a
Microsoft Word file. Be sure that the WBS is based on the project charter, scope statement, draft schedule, and other relevant information.

3. Create a milestone list for this project. Include at least 10 milestones and their estimated completion dates. Note that your instructor should have input for several of these milestones and completion dates. Use the milestone_report.doc template.

4. Develop a cost estimate for the project. Estimate the number of hours needed to complete each task, including tasks that are already completed, and estimate the costs of any items you would like to purchase for the project. Assume a rate of $10 per hour for all labor. Use the cost_estimate.xls template.

5. Use the WBS and milestone list you developed in Tasks 2 and 3 and the draft schedule you created earlier to develop a Gantt chart and network diagram for the project in Project 2010. Estimate task durations and enter dependencies as appropriate. Print the Gantt chart and network diagram. Also update the draft schedule you created for Task 5 in the Initiating section.

6. Create a quality checklist for ensuring that the project is completed successfully. Also define at least two quality metrics for the project.

7. Create a RACI chart for the main tasks and deliverables of the project.

8. Develop a communications management plan for the project. Use the comm_plan.doc template on the companion Web site and the sample plan provided in the text. Also create part of a stakeholder management plan, focusing on how you will manage relationships with key stakeholders.

9. Create a probability/impact matrix and list of prioritized risks for the project. Include at least 10 risks. Use the prob_impact_matrix.ppt template on the companion Web site and the sample matrix provided in the text.

10. Prepare a 10-minute presentation that you would give to summarize results from the preceding planning tasks. Assume that the presentation is for a review with your class and instructor. Be sure to document notes of any feedback received during the presentation and hand in hard copies of everything you produced. Plan to show one video clip along with the discussion questions to get feedback.

Part 3: Executing

Work with your teammates and instructor to perform several executing activities for this project.

Tasks

1. Find or create your video clips and put them on one DVD. Be sure that the DVD can run on your instructor’s computer.

2. Write the clip summaries, introductions, discussion questions, and suggested answers to the questions.

3. Document any change requests you have during project execution and get sponsor approval, if needed.
Part 4: Monitoring and Controlling
Work with your teammates and instructor to perform several monitoring and controlling activities for this project.

Tasks

1. Review the Seven Basic Tools of Quality. Pick one of these tools and create a chart or diagram to help you solve problems you face. Use the available templates and samples provided. Note that the companion Web site has only a template for the Pareto chart, which is called pareto_chart.xls.

2. Create and update an issue log as required. Use the issue_log.doc template provided on the companion Web site and the sample provided in the text.

3. As described in the final task for the initiating and planning sections, be ready to show progress you made as part of a project review. Also be sure to document actual hours on each task in the draft schedule. You created this schedule as Task 5 in the Initiating section and updated the schedule as part of Task 5 under Planning.

Part 5: Closing
Work with your teammates and instructor to perform several closing activities for this project.

Tasks

1. Prepare a 20-minute final presentation to summarize the results of the project. Describe the initial project goals, planned versus actual scope, time, and cost information, challenges faced, lessons learned, and key products created. Be sure to list all of the clips your team found and show at least two of them along with the discussion questions.

2. Prepare a final project report. Include a cover page and detailed table of contents, and get feedback from your instructor as required. Be sure to include all of the documents and products you have prepared as appendices.

3. Get feedback from your sponsor in the form of a customer acceptance/project completion form. You can use the template called client_acceptance.doc or collect the feedback in some other fashion. Also get feedback from your classmates.

4. If you are comfortable doing so, send a copy of your final project report and feedback on this case to the author of this text at schwalbe@augsburg.edu.

PROJECT MANAGEMENT SIMULATION SOFTWARE

Another way to practice your project management skills is by using simulation software. Several tools are available, including those listed in this section. Note that all are separate purchases. The following three tools are all Web-based and cost from...
$20 to $40 per student; discounts are available if you mention this book. Consult the suppliers for more details.

1. Fissure (www.fissure.com) now provides a Web-based tool to help students apply their project management skills in a simulated environment. The listed price in May 2012 was $39.95. Most students can run the simulation once within two to three hours. The following information was taken from the Fissure Web site in May 2012.

   SimProject®, the Alliance Prototype project, is a simulated project from Fissure Corporation used by many academic institutions around the world as part of their project management curriculum. SimProject, the Alliance Prototype project, has 7 tasks and 10 potential team members. SimProject can be given as stand-alone homework for students (individual or teams), or utilized as a classroom activity with teams of three or four students sharing the role of project manager. Purchase includes three runs or complete executions of the simulated project. SimProject will expire after the third run or after 120 days (even if all runs are not completed).

2. Double Masters (www.doublemasters.com) provides a project management simulation for academia. Instructors should contact info@doublemasters.com and mention this book to receive a 20 percent discount on the academic version. The price in May 2012 was $29.95 per student without the discount. Most students take about seven hours to run the entire simulation. The following information was taken from the Web site in May 2012:

   Double Masters simulations are offered via the Web on demand and can be run whenever convenient for the student or instructor. This means there is no software to download or manage and the simulation can be accessed from any computer in the world, as long as there is Internet connectivity. The process is simple and straightforward:

   • An instructor will sponsor a session: a session ID and access code are generated in order to group students into a single online course
   • The instructor defines the session duration: start and end date for student accessibility
   • The students create a user account and register for the session identified by their instructor
   • The students can only run the simulation during the established time constraints of the simulation

   Registering for the simulation is easy. Instructors should have their students consult the Student Guide for detailed instructions.

   Reports are provided that make it easy for instructors to track their students’ simulation run results. Key information reported includes:

   • Complete list of decisions made
   • Mail and documents read
   • Schedule and budget data
   • Final Earned Value Management metrics
The simulation provides each student with detailed feedback, using various metrics to gauge the effectiveness of his or her decisions. A Scorecard is available to both the student and instructor with a final score out of 100.

3. Sandbox Model (www.sandboxmodel.com) was available for $50 per student in May 2012; you can get a 30 percent discount by mentioning this book. Most students can run the Web-based simulation within 30 minutes. The following information was provided in May 2012:

The PTB™ is an award-winning training and simulation tool which is used in designing and managing real-world projects that require the use of all Project Management aspects. Originally developed at the Technion Institute of Technology, the software is now used by universities and practitioners around the world. The simulation engine has scientific foundations that are based on reality.

Using the PTB™, project managers of all levels can simulate real-world case studies and perform “what if” analysis to predict how the project they designed might play out in the real world. Providing life-like uncertainty, project managers cope with managing the ongoing project in an environment which emphasizes project monitoring and controlling to a level never seen before in a training tool. The PTB™ integrates different topics of project management into one complete tool. The users get a chance to see how everything connects through active hands-on training, rather than by listening to lectures.

While other project management simulation tools include a small number of predefined projects that the user can simulate, the PTB™ includes a user-friendly case study generator, facilitating the development of new case studies that suit a variety of businesses and projects. The module even allows for importing projects from third party software such as Microsoft Project. This feature enables using the PTB™ in different fields such as software development, construction, etc.

The PTB™ is the only project management simulator that takes variance into account. Each project task can be performed in a number of different modes. When the trainee selects the mode for execution, the decision affects the project cost, schedule and quality. Another unique feature is the History Mechanism. This permits users to “travel in time,” view past decisions made in the project life cycle, and correct them if necessary. After the project simulation ends, the mechanism allows the user to learn from past mistakes and to duplicate successful solutions.

The PTB™ won the PMI Project of the Year award. Brian Weiss, vice president of product management for PMI, said, “The experience project managers gain during the simulation is invaluable. Everything that takes place is based on actual project data, ensuring that the project manager’s education is a pragmatic experience versus an academic one.”

You might want to consider two additional simulation tools:

- Shark World: You can find out more about this tool from www.sharkworld.nl.
As mentioned in earlier chapters of this text, you can use mind-mapping software to perform a SWOT analysis, create a WBS, and more. Readers of this text can download a 60-day free trial of MindView Business software by Matchware, Inc. Go to www.matchware.com/itpm for more information. You can find numerous videos on how to use this powerful software, starting with the Quickstart video at the Matchware site. The following information was taken from www.matchware.com in May 2012:

**Kick-Start Your Planning Sessions!**

Need a better way to visualize your tasks and work streams? Frustrated by note taking during planning meetings? Looking for a professional Gantt chart tool that is fast and easy to use? Then MatchWare MindView 4 Business is the ideal project management software tool for you!

MatchWare MindView lets you use Mind Mapping to help every member of your team fully understand the project, contribute to planning, follow the project timeline and clearly visualize all tasks in an organized manner. It lets you take notes “on-the-fly” for criteria or risk management and allows you to attach relevant files to each task in your Mind Map (Excel® files, technical drawings, etc.). Task information such as resources, duration and priorities can also easily be applied directly onto your Mind Map.

MatchWare MindView Business bridges the gap between Mind Mapping and project planning by integrating a dynamic Gantt Chart. This allows you to create most of your project plan in the Mind Map view and then simply switch to the Gantt view for fine-tuning. Your final Gantt chart can then easily be printed or integrated with Microsoft® Project.

MatchWare MindView Business is fast, efficient, affordable and easy to use! Just follow these 4 easy steps:

1. Brainstorm using Mind Mapping
2. Apply task information
3. Fine tune project plans in the built-in Gantt view
4. Present your project plan

**Key Features of MindView 4 Business for Project Management**

- Built-in Gantt Chart
- Built-in Project Timeline
- Export/import to MS Office®
- Integration with MS Project®
- XML export import
- FREE viewer
End notes

3 Ibid.