FUNDAMENTALS OF PROJECT MANAGEMENT

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A PDF COMPANION TO THE AUDIOBOOK
AN OVERVIEW OF PROJECT MANAGEMENT

[ FIGURE 1-1 ]
TRIANGLES SHOWING THE RELATIONSHIPS AMONG P, C, T, AND S
[ FIGURE 1-2 ]
LIFE CYCLE OF A TROUBLED PROJECT

[ FIGURE 1-3 ]
APPROPRIATE PROJECT LIFE CYCLE
Define the Problem

Develop Solution Options

Plan the Project
What must be done?
Who will do it?
How will it be done?
When must it be done?
How much will it cost?
What do we need to do it?

Execute the Plan

Monitor & Control Progress
Are we on target?
If not, what must be done?
Should the plan be changed?

Close the Project
What was done well?
What should be improved?
What else did we learn?
EXERCISES

1. Project management is not just:
   a. Planning.
   b. Rework.
   c. Scheduling.
   d. Controlling.

2. The problem with being a working project manager is that, in a conflict between working and managing:
   a. You don’t know what priorities to set.
   b. Your boss will think you’re slacking off.
   c. There will never be enough time to do both.
   d. The work will take precedence, and managing will suffer.

3. The *PMBOK® Guide* refers to:
   a. The body of knowledge identified by PMI as needed by project managers to be effective.
   b. A test administered by PMI to certify project managers.
   c. An acronym for a special kind of risk analysis, like FMEA (Failure Mode and Effects Analysis).
   d. None of the above.

4. Project scope defines:
   a. A project manager’s line of sight to the end date.
   b. The magnitude or size of the job.
   c. How often a project has been changed.
   d. The limits of a project manager’s authority.
CHAPTER 3

PLANNING THE PROJECT

[ FIGURE 3-1 ]
TWO PAIN CURVES IN A PROJECT OVER TIME
EXERCISE

We have talked about strategy, tactics, and logistics.

Which must be decided first?

a. Strategy
b. Tactics
c. Logistics
d. Does not matter

What is the function of tactics?

When would you plan for logistics?
CHAPTER 4

INCORPORATING STAKEHOLDER MANAGEMENT IN THE PROJECT PLANNING PROCESS

[ FIGURE 4-1 ]
THE STAKEHOLDER GRID

[ FIGURE 4-1 ]
THE STAKEHOLDER GRID

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Influence</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Attitude</td>
</tr>
</tbody>
</table>

Positive Attitude

Negative Attitude

Influence

High

Low
### THE Stakeholders Engagement Assessment Matrix

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Unaware</th>
<th>Resistant</th>
<th>Neutral</th>
<th>Supportive</th>
<th>Leading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholder 1</td>
<td>C</td>
<td></td>
<td></td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Stakeholder 2</td>
<td></td>
<td>C</td>
<td></td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Stakeholder 3</td>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td>C</td>
</tr>
</tbody>
</table>

**KEY:**

- **Unaware.** Unaware of project and potential impact.
- **Resistant.** Aware of project and potential impacts and resistant to change.
- **Neutral.** Aware of project yet neither supportive nor resistant.
- **Supportive.** Aware of project and potential impacts and supportive to change.
- **Leading.** Aware of project and potential impacts and actively engaged in ensuring the project is a success.

C = Current engagement

D = Desired engagement
**[ FIGURE 4-3 ]
AUDIENCE GUIDE TO KNOWLEDGE AND COMMUNICATION**

<table>
<thead>
<tr>
<th>Audience Guides</th>
<th>Knowledge Level</th>
<th>Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>• Deeply knowledgeable about project/subject—knows technical terms, jargon, and acronyms.</td>
<td>• Acceptable to use jargon and acronyms and not explain terms.</td>
</tr>
</tbody>
</table>
| Client SMEs and Client PM| • Fairly knowledgeable about project/subject. Some knowledge about project process but not all technical terms. | • Translate technical language into project language.  
• Include a glossary of project/technical terms. |
| Project Sponsors         | • Have big picture.  
• Not focused on details.  
• Very limited to understanding of technical jargon.         | • They are most concerned about hitting project goals and vision.  
• Less technical jargon and detail required.                |
| Everyone Else (End Users, etc.) | • Know how things currently work.  
• No real project knowledge.                                   | • Translate terms.  
• Communicate vision and goals.                               
• Avoid technical terms.                                       |
## THE FIVE CULTURAL DIMENSIONS

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Cultures Scoring Low</th>
<th>Cultures Scoring High</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Power</td>
<td>Rely on consensus to make decisions.</td>
<td>Rely on hierarchical structures to make decisions.</td>
</tr>
<tr>
<td>2. Uncertainty Avoidance</td>
<td>Are comfortable with ambiguous or unknown situations.</td>
<td>Feel threatened by ambiguous or unknown situations.</td>
</tr>
<tr>
<td></td>
<td>Prefer structure and predictability.</td>
<td></td>
</tr>
<tr>
<td>3. Individualism</td>
<td>Value the team above the individual.</td>
<td>Value autonomy. Put the individual's needs ahead of the team's.</td>
</tr>
<tr>
<td>4. Assertiveness</td>
<td>Tend to be more modest.</td>
<td>Tend to self-promote.</td>
</tr>
<tr>
<td>5. Time Perspective</td>
<td>Look to what provides immediate benefits.</td>
<td>Look to what will benefit the organization in the long run.</td>
</tr>
</tbody>
</table>
CHAPTER 5

DEVELOPING A MISSION, VISION, GOALS, AND OBJECTIVES FOR THE PROJECT

[ FIGURE 5-1 ]

CHEVRON SHOWING MISSION, VISION, AND PROBLEM STATEMENT

Problem:
I have no place to live.

<table>
<thead>
<tr>
<th>MUSTS</th>
<th>WANTS</th>
<th>NICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 bedrooms</td>
<td>room for</td>
<td>fireplace in</td>
</tr>
<tr>
<td>2,500 sq. ft.</td>
<td>home office</td>
<td>family room</td>
</tr>
<tr>
<td>2-car garage</td>
<td>basement</td>
<td></td>
</tr>
<tr>
<td>1-acre lot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>large family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>room</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mission:
To find a place that meets all musts and as many of the others as possible.
What could go wrong?
1. Exposure wrong
2. Shots unacceptable
3. Film lost or damaged
4. Weather delays

Contingency
Bracket the exposure
Take extra photos
Hand-carry to client
Allow extra time
Choose a project that you are going to do or perhaps have just started. Answer the questions that follow to the best of your ability. If you need to confer with others to answer some of them, fine. Remember, the people who have to follow the plan should participate in preparing it.

- What are you trying to achieve with the project? What need does it satisfy for your customer? Who exactly is actually going to use the finished project deliverable(s)? (That is, who is your real customer?) What will distinguish your deliverable from those already available to the customer?

- Write a problem statement on the basis of your answers to the first question. What is the gap between where you are now and where you want to be? What obstacles prevent easy movement to close the gap?

- Write a mission statement, answering the two basic questions:
  1. “What are we going to do?”
  2. “For whom are we going to do it?”

Talk to your customer about these issues. Do not present your written statements to her. Instead, see whether you can get confirmation by asking open-ended questions. If you can’t, you may have to revise what you have written.
CHAPTER 6

CREATING THE PROJECT RISK AND COMMUNICATION PLANS

RISK ASSESSMENT TABLE

<table>
<thead>
<tr>
<th>Risk</th>
<th>Probability</th>
<th>Negative Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>M</td>
<td>L</td>
</tr>
<tr>
<td>B</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td>C</td>
<td>L</td>
<td>L</td>
</tr>
<tr>
<td>D</td>
<td>H</td>
<td>H</td>
</tr>
</tbody>
</table>

NUMBER-BASED RISK ASSESSMENT TABLE

<table>
<thead>
<tr>
<th>Risk</th>
<th>Probability</th>
<th>$ Impact</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3</td>
<td>× 1K</td>
<td>= 3K</td>
</tr>
<tr>
<td>B</td>
<td>7</td>
<td>× 1K</td>
<td>= 7K</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>× 14K</td>
<td>= 28K</td>
</tr>
<tr>
<td>D</td>
<td>5</td>
<td>× 3K</td>
<td>= 15K</td>
</tr>
</tbody>
</table>
[ FIGURE 6-1 ]
RISK MATRIX

[ FIGURE 6-2 ]
RISK REGISTER

<table>
<thead>
<tr>
<th>ID</th>
<th>Risk</th>
<th>Outcome/Response</th>
<th>Owner</th>
<th>P</th>
<th>I</th>
<th>Active</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P = Probability    I = Impact

[ FIGURE 6-3 ]
COMMUNICATION PLAN

<table>
<thead>
<tr>
<th>ID</th>
<th>Description</th>
<th>Owner</th>
<th>Medium</th>
<th>Frequency</th>
<th>To Whom</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Management status report</td>
<td>Nicolle</td>
<td>Meeting</td>
<td>Monthly</td>
<td>Sponsor</td>
</tr>
<tr>
<td>2</td>
<td>Team member status collection</td>
<td>Kyle</td>
<td>One-on-one</td>
<td>Bi-weekly</td>
<td>PM</td>
</tr>
<tr>
<td>3</td>
<td>Detailed project plan</td>
<td>Sue</td>
<td>Share drive</td>
<td>On-demand</td>
<td>Requester</td>
</tr>
</tbody>
</table>

EXERCISE

Choose one of your current or recent projects, and practice the Six-Step Process. Make a list of potential risks to the project and prioritize each, utilizing H-M-L or a simple metric-based scale. Pick any three risks and establish:

- Preventive measures
- Contingencies
- Trigger points

Two or three bullet points for each should suffice.
CHAPTER 7

USING THE WORK BREAKDOWN STRUCTURE TO PLAN A PROJECT

[ FIGURE 7-1 ]
WBS DIAGRAM TO CLEAN A ROOM

Clean Room

- Clean curtains
- Vacuum carpets
- Pick up toys & clothes
- Wash walls
- Dust furniture

Get vacuum out of closet
- Connect hose and plug
- Push around room
- Put vacuum back in closet
1. Program
2. Project
3. Task
4. Subtask
5. Work Package
6. Level of Effort

Figure 7-2. WBS level names.

[ FIGURE 7-3 ]
PARTIAL WBS

Design Airplane

Design Wing  Design Engine  Design Avionics
**Linear Responsibility Chart**

<table>
<thead>
<tr>
<th>Task Descriptions</th>
<th>Project Contributors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Productivity Factor**

<table>
<thead>
<tr>
<th>Productivity Factor</th>
<th>Hours</th>
<th>Cost/Hour</th>
<th>Labor Cost</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Estimate</td>
<td>40</td>
<td>$75</td>
<td>$3,000</td>
<td>5.00</td>
</tr>
<tr>
<td>Project Loss (15%)</td>
<td>6</td>
<td>$75</td>
<td>$450</td>
<td>0.75</td>
</tr>
<tr>
<td>Rework/Debug (10%)</td>
<td>4</td>
<td>$75</td>
<td>$300</td>
<td>0.50</td>
</tr>
<tr>
<td>Subtotal (Direct Cost)</td>
<td>50</td>
<td>$75</td>
<td>$3,750</td>
<td>6.25</td>
</tr>
<tr>
<td>Labor Overhead</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>0.75</td>
</tr>
<tr>
<td><strong>Total For Scheduling</strong></td>
<td><strong>56</strong></td>
<td>-</td>
<td>-</td>
<td><strong>7.00</strong></td>
</tr>
</tbody>
</table>

**HUMAN PRODUCTIVITY**

© American Management Association
As a person’s time is split, time is lost in stopping and restarting.

<table>
<thead>
<tr>
<th>Labor Hours Needed</th>
<th>Number of People Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As the number of people increases, communication and conflict increase.

**[ FIGURE 7-6 ]**
TIME, COST, RESOURCE TRADE-OFF

**[ FIGURE 7-7 ]**
CALCULATING THE STANDARD AVERAGE

Improving Accuracy Using Three-Point Estimates

Standard average = \( \frac{O + ML + P}{3} \)

**Key:**
- \( O \) = Optimistic estimate
- \( ML \) = Most likely estimate
- \( P \) = Pessimistic estimate
Improving Accuracy Using Three-Point Estimates

\[
\text{(PERT) weighted average} = \frac{O + 4ML + P}{6}
\]

**Key:**
- \(O\) = Optimistic estimate
- \(ML\) = Most likely estimate
- \(P\) = Pessimistic estimate

**EXERCISE**

Following is a list of tasks to be performed in preparation for a camping trip. Draw a WBS that places the tasks in their proper relationship to one another. The solution can be found in the Answers section.

- Arrange for supplies and equipment.
- Select campsite.
- Make site preparations.
- Make site reservation.
- Arrange time off from work.
- Select route to site.
- Prepare menu for meals.
- Identify source of supplies and equipment.
- Load car.
- Pack suitcases.
- Purchase supplies.
- Arrange camping trip (project).
CHAPTER 8

SCHEDULING PROJECT WORK

[ FIGURE 8-1 ]
BAR CHART

<table>
<thead>
<tr>
<th>Task</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>
**[ FIGURE 8-2 ]**

**ARROW DIAGRAMS**

An activity-on-node network

Activity A → Activity B → Activity D

Activity C

An activity-on-arrow network

Activity A → Activity B → Activity C → Activity D

**[ FIGURE 8-3 ]**

**WBS TO DO YARD PROJECT**

Yard Project

- **Cleanup**
  - Pick up trash-15
  - Bag grass-30
  - Hedge clippings-15
  - Haul to dump-45

- **Cut Grass**
  - Mow front-45
  - Mow back-30

- **Trimwork**
  - Weeds @ trees-30
  - Edge sidewalk-15

- **Prepare Equipment**
  - Put gas in equipment-5
  - Get out hedge clipper-5

- **Trim Hedge**
  - 30
Figure 8-4. CPM Diagram for Yard Project
EXERCISE

For the following WBS (figure 8-5), draw an arrow diagram. One solution is shown in the Answers section.

[ FIGURE 8-5 ]
WBS TO CLEAN ROOM

- Clean Room
  - Clean curtains
  - Vacuum carpets
  - Pick up toys & clothes
  - Wash walls
  - Dust furniture

- Get vacuum out of closet
- Connect hose and plug
- Push around room
- Put vacuum back in closet
PRODUCING A WORKABLE SCHEDULE

[ FIGURE 9-1 ]
NETWORK TO ILLUSTRATE COMPUTATION METHODS
[ FIGURE 9-1 ]
NETWORK TO ILLUSTRATE COMPUTATION METHODS

[ FIGURE 9-3 ]
DIAGRAM SHOWING CRITICAL PATH
**[FIGURE 9-4]**

Bar Chart Schedule for Yard Project

- Pick up Trash
- Put gas in equipment
- Get out hedge clipper
- Trim weeds
- Mow front lawn
- Edge sidewalk
- Trim hedge
- Mow backyard
- Bag grass & trash
- Bundle hedge clippings
- Haul away trash

**[FIGURE 9-5]**

Schedule with Resources Overloaded

A: Need 2
B: Need 1
C: Need 1
D: Need 2

Have 3 available

Time, weeks

Legend:
- Task with float
- Critical task
[ FIGURE 9-6 ]
SCHEDULE USING FLOAT TO LEVEL RESOURCES

[ FIGURE 9-7 ]
SCHEDULE WITH INADEQUATE FLOAT ON C TO PERMIT LEVELING
[FIGURE 9-8]

SCHEDULE UNDER RESOURCE-CRITICAL CONDITIONS

Time, weeks

A
B
C
D

Need 2
Need 1
Need 1
Need 3
Have 3 available
For the network in figure 9-9, calculate the early and late times and the float available on noncritical activities. Which activities form the critical path? Answers are in the Answers section.

[ FIGURE 9-9 ]
NETWORK FOR EXERCISE
CHAPTER 11

THE CHANGE CONTROL PROCESS

[ FIGURE 11-1 ]
TRIPLE CONSTRAINTS TRIANGLE

[ 34 ]
Objective Statement:
Relocation of the accounting department to suitable and renovated quarters for 22 persons within the same building no later than December 31, 2021.

Description of Change:
Site #2 will not be available for evaluation until August 21 or 22. This will cause a two-day delay in the evaluation of all sites. This change will probably not cause a delay to the project but may delay the final site decision by one day.

Reason for Change:
The site will not be available for review and evaluation due to major corporate planning sessions that will consume that space for two days.

Schedule Change Information

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Task</th>
<th>Orig. Start Date</th>
<th>Orig. Comp. Date</th>
<th>New Start Date</th>
<th>New Comp. Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Evaluate Site #2</td>
<td>8/15/21</td>
<td>8/20/21</td>
<td>8/17/21</td>
<td>8/22/21</td>
</tr>
</tbody>
</table>

Estimated Costs:

Approvals

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>Mr. Bill Boyd</td>
<td>8/11/21</td>
</tr>
<tr>
<td>Task Manager</td>
<td>Mr. Dan O’Brien</td>
<td>8/12/21</td>
</tr>
<tr>
<td>Functional Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior Manager</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### PROJECT CHANGE CONTROL LOG

<table>
<thead>
<tr>
<th>Change Number</th>
<th>Date of Change</th>
<th>Description of Change</th>
<th>Requested by</th>
<th>Status O/C</th>
<th>Schedule Impact</th>
<th>Budget Impact</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8/12/21</td>
<td>Site #2 not available on 2/21</td>
<td>Jim Morrison</td>
<td>2 days</td>
<td></td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

**EXERCISE**

Identify a recent change to a project of yours that required a response. On the basis of what you’ve learned in this chapter, answer the following questions:

1. Is it appropriate to accept the change?
2. Should a change control document be triggered?
3. How did this change impact the project triangle?
4. To whom should the response be communicated?
5. What change thresholds are appropriate to establish for this project?
CHAPTER 12

PROJECT CONTROL USING EARNED VALUE ANALYSIS

[ FIGURE 12-1 ]
BCWS CURVE

Cumulative Spending

Time

[ 37 ]
[ FIGURE 12-2 ]
BAR CHART SCHEDULE ILLUSTRATING CUMULATIVE SPENDING

<table>
<thead>
<tr>
<th>Task</th>
<th>Weekly Spending</th>
<th>Cumulative Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task A</td>
<td>800</td>
<td>800</td>
</tr>
<tr>
<td>Task B</td>
<td>3,800</td>
<td>4,600</td>
</tr>
<tr>
<td>Task C</td>
<td>6,200</td>
<td>10,800</td>
</tr>
</tbody>
</table>

(40 Hrs/Wk)(20 $/Hr) = $800/Wk
(100 Hrs/Wk)(30 $/Hr) = $3,000/Wk
(60 Hrs/Wk)(40 $/Hr) = $2,400/Wk

Figure 12-2. Bar chart schedule illustrating cumulative spending.

[ FIGURE 12-3 ]
CUMULATIVE SPENDING FOR THE SAMPLE BAR CHART

[ 38 ]
Figure 8-4. Plot Showing Project Behind Schedule and Overspent.

[FIGURE 12-4]
PLOT SHOWING PROJECT BEHIND SCHEDULE AND OVERSPENT

Figure 8-5. Project Ahead of Schedule, Spending Correctly.

[FIGURE 12-5]
PROJECT AHEAD OF SCHEDULE, SPENDING CORRECTLY
The relationships of P, T, C, and S

Figure 1.1. Triangles showing the relationship between P, C, T, and S.

[ FIGURE 12-6 ]
PROJECT IS BEHIND SCHEDULE BUT SPENDING CORRECTLY

[ FIGURE 12-7 ]
PROJECT IS AHEAD OF SCHEDULE AND UNDERSPENT

\[ \text{cv} = \text{cost variance} \]
\[ \text{sv} = \text{schedule variance} \]
Figure 12-8
 PERCENTAGE COMPLETE CURVE

[ FIGURE 12-8 ]
 PERCENTAGE COMPLETE CURVE
EXERCISE

Consider the report in figure 12-9, showing earned value figures for a project. Answer the questions by analyzing the data. Answers are provided in the Answers section.

1. Is the task ahead or behind schedule? By how much?
2. Is the task overspent or underspent? By how much?
3. When the task is completed, will it be overspent or underspent?

<table>
<thead>
<tr>
<th>WBS #</th>
<th>BCWS</th>
<th>BCWP</th>
<th>ACWP</th>
<th>SCHED.</th>
<th>COST</th>
<th>BUDGET</th>
<th>L. EST.</th>
<th>VARIANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>301</td>
<td>800</td>
<td>640</td>
<td>880</td>
<td>−160</td>
<td>−240</td>
<td>2,400</td>
<td>2,816</td>
<td>−416</td>
</tr>
</tbody>
</table>
CHAPTER 14

THE PROJECT MANAGER AS LEADER

[ FIGURE 14-1 ]
LEADERSHIP STYLE AND ALIGNMENT

Your Leadership Style

- Project Scenario 1
- Project Scenario 2
- Project Scenario 3

Stakeholder Behavioral Characteristics
<table>
<thead>
<tr>
<th>CURRENT STATE</th>
<th>GAPS</th>
<th>DESIRED STATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACTION PLAN
### VIRTUAL DECISION MATRIX

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immersive</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Chat</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Messaging</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screen Sharing</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Breakout Rooms</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Cost</th>
<th>Training</th>
<th>Approvals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H</td>
<td>M</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>H</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

X = Satisfies Requirements  
H-M-L = High / Med / Low  
Y/N = Yes / No  
*Remember to customize your matrix as appropriate*

---

### EXERCISE

Analyze the project environment in your organization.

- Make a list of ten important project leadership characteristics that help ensure success.
- From that list, identify the three most important characteristics.
- Then, contrast the list with your own abilities.

Which characteristics are your strongest?  
Which areas may need improvement?
# CLOSING THE PROJECT

[FIGURE 15-1]

LESSONS-LEARNED ANALYSIS

<table>
<thead>
<tr>
<th>ID</th>
<th>Type</th>
<th>Item</th>
<th>Description</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improve</td>
<td>Communications</td>
<td>More frequent status updates are required; correspondence must be more efficient.</td>
<td>Create common plan.</td>
</tr>
<tr>
<td>2</td>
<td>Improve</td>
<td>PERT duration estimates (See chapter 7)</td>
<td>Schedule estimates were overly optimistic.</td>
<td>Adjust PERT duration estimates for better accuracy.</td>
</tr>
<tr>
<td>3</td>
<td>Embrace</td>
<td>Risk management</td>
<td>Most risks were captured by the risk management plan; contingency plans were effective and implemented in a timely manner.</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>Embrace</td>
<td>WBS construction</td>
<td>Project scope was well defined—limited scope creep.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

[46]
[ FIGURE 15-2 ]  
PROJECT CLOSURE CHECKLIST

<table>
<thead>
<tr>
<th>Item</th>
<th>Owner</th>
<th>Action</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Steven</td>
<td>Internal documentation complete/archived</td>
<td>X</td>
</tr>
<tr>
<td>2</td>
<td>Laurie</td>
<td>All change requests have been closed/archived</td>
<td>?</td>
</tr>
<tr>
<td>3</td>
<td>Rocco</td>
<td>All financials closed out</td>
<td>X</td>
</tr>
<tr>
<td>4</td>
<td>Rocco</td>
<td>All project contracts are closed</td>
<td>X</td>
</tr>
<tr>
<td>5</td>
<td>Molly</td>
<td>All technical documentation is complete</td>
<td>X</td>
</tr>
<tr>
<td>6</td>
<td>Project Manager</td>
<td>Client/customer signs off on project deliverables</td>
<td>X</td>
</tr>
<tr>
<td>7</td>
<td>Steven</td>
<td>Project celebration has been scheduled</td>
<td>X</td>
</tr>
</tbody>
</table>

X = Completed  
? = Unknown

[ FIGURE 15-3 ]  
EARLY TERMINATION/CANCELLATION CHART

Project Initiation → Planning → Execution → Closure → Customer Sign-Off

Team conducts project closure
CHAPTER 16

PROJECT RECOVERY

[ FIGURE 16-1 ]
THE FADE PROCESS

FOCUS
Identify Project Problems/Variances

ANALYZE
Collect Data
Identify Patterns
Identify Root Causes

DEVELOP
Generate Solutions
Select a Solution
Develop a Recovery Plan

EXECUTE
Acquire Buy-In
Execute Plan
Monitor Recovery
Suppliers

- Late Deliveries
- Rejections
- Unresponsive

Material

- Poor Quality
- Wrong Material
- Insufficient

Resources

- Unqualified
- Poorly Trained
- Ill Defined
- Scope Creep
- Insufficient

Budget

Project Scope

[FIGURE 16-2]
The Fishbone Diagram
Chapter 1

1. c
2. d
3. a
4. b

Chapter 3

You should decide on project strategy before you begin implementation planning. At that point, you should develop tactics to execute strategy and plan logistics so that people will have what they need to execute the tactics.

Chapter 5

Check your work for:
    Prioritization factors: probability and impact.

Remember:
    Some risks cannot be prevented, but they can be mitigated.
    Your contingencies should represent specific actions if the risk occurs.
    Your trigger points should relate directly to a contingency.
Chapter 7

WBS for camping trip:

[ FIGURE A-1 ]
WBS FOR THE CAMPING TRIp

Arrange camping trip

- Make site preparations
- Arrange for time off
- Arrange for supplies and equipment
- Load car
- Pack suitcases

- Select site
- Select route
- Make reservations
- Prepare menus
- Identify sources
- Purchase supplies

Chapter 8

Solution to the WBS exercise:

[ FIGURE A-2 ]
ARROW DIAGRAM FOR HOUSE CLEANING

- Pick up toys and clothes
- Vacuum room
- Dust furniture
- Wash walls
- Clean curtains
- Finish
Chapter 9

Solution to the scheduling exercise:

[ FIGURE A-3 ]
SOLUTION FOR SCHEDULING EXERCISE

Chapter 11

Refer to the chapter to check your responses regarding a change to your project.

Chapter 12

1. It is behind schedule by $160 worth of work.
2. It is overspent by $240.
3. It will be overspent by $416.
You can use this exercise as you would a post-project “lessons-learned analysis.” Reinforce your strongest project leadership characteristics—work to improve characteristics where you are deficient.