

## Chapter 2

# PROJECT MANAGEMENT

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## 2.1 – Chapter Introduction

### Overview

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#### Synopsis

Strong project management goes beyond the creation of a schedule with deadlines. Strong project managers consider the:

- Scope – What deliverables will this project produce?
- Schedule – When will these deliverables be complete?
- Resources – What do we need (people, funding, equipment) to produce this scope by this schedule?

Strong project management produces the desired *scope* (e.g., quality documents, course materials, products) using desired *resources* (e.g., people, equipment, funding) within a desired *schedule* (e.g., timeline, deadlines, milestones).

#### Project Management for Course Development

The majority of this SOP focuses on the steps for successful course development following the ADDIE process (A - Analysis, D - Design, D - Development, I - Implementation, and E - Evaluation). Project management occurs throughout the entire ADDIE process for Coast Guard course development, as depicted in the image below.



Strong project management ensures the ADDIE process is implemented efficiently. When you apply project management techniques, your project sponsors, students, stakeholders, and team members are more likely to be satisfied with the outcome.

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## Overview, Continued

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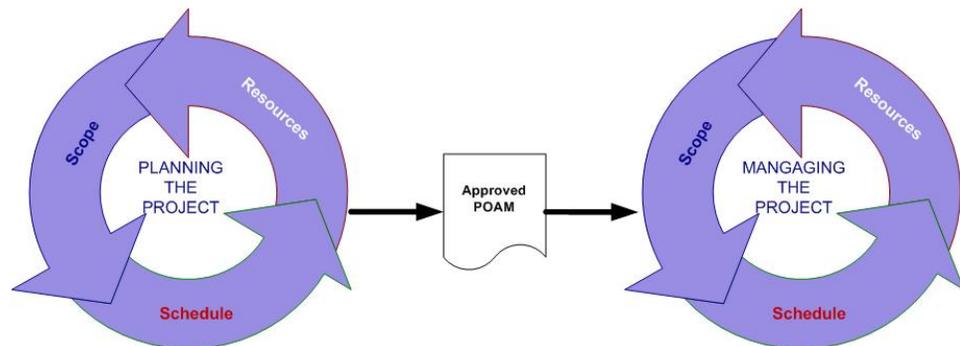
**Audience** The audience for this chapter includes:

Primary Audience – Coast Guard personnel responsible for the *internal* project management of resident training development; Coast Guard Performance Systems Branch managers, Instructional Systems Specialist Supervisors, and/or Project Leads.

Secondary Audience – All personnel involved in course development efforts, and support of a management role.

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**Purpose** The purpose of this chapter is to introduce a simple two-part model for successful project management. The model includes: (1) planning the project and (2) managing the project.



After completing this chapter you should be able to:

1. Create an approved Plan of Action and Milestones (POAM) per chapter success criteria (*planning the project*).
  2. Implement your approved POAM per chapter success criteria (*managing the project*).
-

## Overview, Continued

### Using this Chapter

Your Situation....	Recommendation
Project seems small or minor; wondering whether formal Project Management is necessary	<p>Does your project....</p> <ul style="list-style-type: none"> <li>• Exceed 80 hours to complete project? __YES __NO</li> <li>• Require &gt;1 dedicated resource? __YES __NO</li> <li>• Have high priority or strategic impact? __YES __NO</li> <li>• Have an urgent deadline? __YES __NO</li> </ul> <p>If you answered ...</p> <ul style="list-style-type: none"> <li>✓ <b>Yes</b> to two or more statements above, a formal project management process is required.</li> <li>✓ <b>Yes</b> to only one statement above, a formal project management process is strongly encouraged.</li> <li>✓ <b>No</b> to all statements above, a formal project management process may not be necessary. Talk with your sponsor(s) and management to confirm.</li> </ul>
Our project is just getting started.	Complete this entire chapter.
We're experiencing trouble mid-way into our project.	<p>Explore any option below as appropriate:</p> <ul style="list-style-type: none"> <li>✓ <b>Option 1:</b> Go to 2.3 - <i>Managing the Project</i>, and review the topic Change Management.</li> <li>✓ <b>Option 2:</b> Scan the sections listed in the Table of Contents in this chapter and review topics that might apply to your situation.</li> <li>✓ <b>Option 3:</b> Compare your current POAM with the POAM elements presented in this chapter. Identify opportunities to strengthen your current project plan.</li> </ul>
<p>We're mid-way through the project and everything is going very well</p> <p>(OR)</p> <p>I'm already an expert in project management</p>	<p>Explore any option below as appropriate:</p> <ul style="list-style-type: none"> <li>✓ <b>Option 1:</b> Go to the Table of Contents in this chapter and select the topics of interest.</li> <li>✓ <b>Option 2:</b> Go to the Appendix and review the Job Aids and POAM example to confirm all elements have been defined for your project and are now being tracked.</li> </ul>
I'm almost done with my project	Go to 2.3 - <i>Managing the Project</i> , and review the topic Project Wrap Up.

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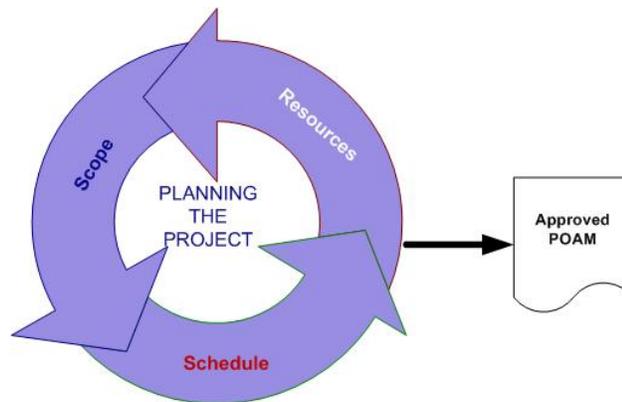
## 2.2 – Planning the Project

### Introduction

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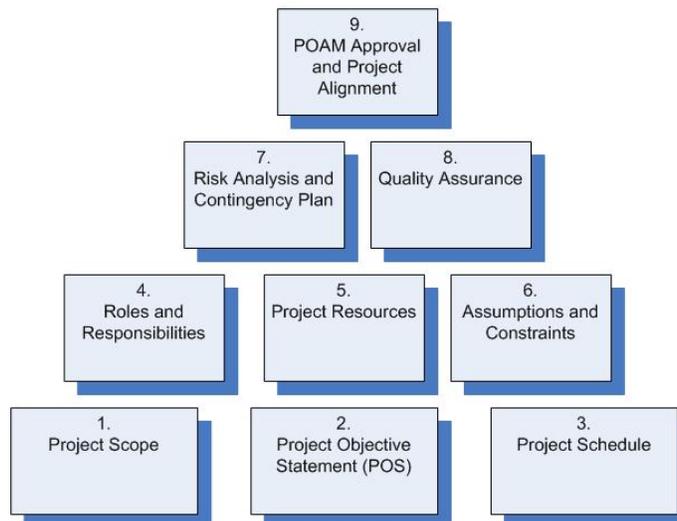
#### Overview

The Project Management model introduced in this chapter consists of two parts: (1) planning the project and (2) managing the project. In this section we will explore in more detail the first part of the model: planning the project.



The output of project planning is an approved *Plan of Action and Milestones* (POAM) document. The sub sections that follow offer more detail on each of the nine elements necessary to achieve that final output – an approved POAM.

### Elements of a POAM



## Introduction, Continued

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**Purpose** The purpose of project planning is to plan the production of desired deliverables given a certain amount of resources (e.g. people, funding) and a desired schedule (e.g. deadlines).

During project planning, the Project Manager devises a method to achieve a successful project, documents this method in a POAM, and then obtains team consensus and sign-off for this plan.

---

**Inputs** Project planning inputs are referenced in the POAM document and include:

- Project Scope: *What are the project deliverables?*
  - Project Objective Statement (POS): *What is our goal?*
  - Project Schedule: *When must the deliverables be provided and the project completed?*
  - Roles and Responsibilities: *Who is doing what?*
  - Project Resources: *Who is on the team? What roles have not yet been filled? What equipment is required? What funding is needed?*
  - Assumptions and Constraints: *What unspoken assumptions are we making about this project? What constraints are we facing with this project?*
  - Risk Analysis and Contingency Plan: *What could go wrong, and then what would we do?*
  - Quality Assurance: *How will we ensure the highest quality in our deliverables/products?*
  - POAM Approval and Project Alignment: *Are we all in alignment with the project's priorities, timeline, and deliverables?*
- 

**Outputs** The project planning output includes an approved POAM with:

- Sections on every input listed above
  - Signatures from all key stakeholders
- 

**Example** If you have never created a POAM before, review the explanations and examples of each of the eight sections of a POAM, which are provided in this section.

*Appendix C (EX-C.1) provides a complete example of a POAM.*

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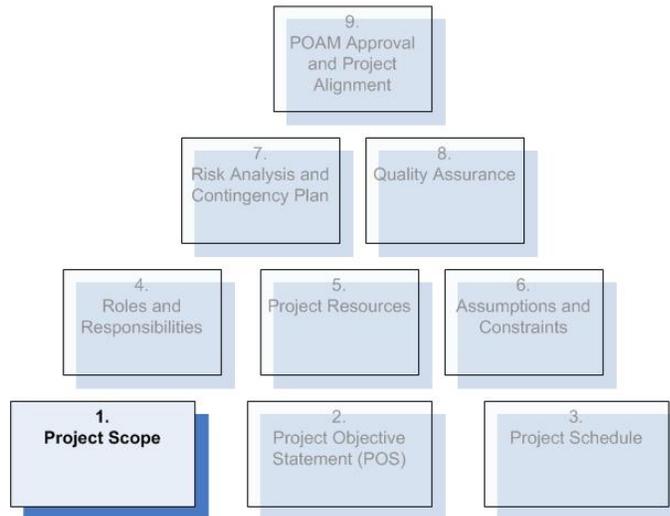
## Defining the Project Scope

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### Overview

Each of the nine elements necessary to achieve an approved POAM, are listed in the image below. This sub-section introduces the first element of your POAM document – *project scope*.

### Elements of a POAM



### Purpose

The purpose of the scope is to define the deliverables of the project. Examples of scope include: a Job Aid Booklet, an Instructor Guide, an eLearning course, Performance Tests, etc.

Some common mistakes when defining the project scope include:

- Over-promising too many deliverables that can't be achieved with current resources or by current deadlines.
  - Under-estimating the amount of time needed to produce a deliverable; assuming nothing will go wrong.
  - Not including sufficient details, leaving the deliverable subject to interpretation.
  - Allowing additional deliverables to be added mid-project (known as "scope creep") without defining the impact on the project schedule and resources.
  - Experiencing changes in scope, schedule, or resources and not communicating the trade-offs and impact to your sponsor (for example, losing a designer and then not adjusting the schedule deadline to reflect this loss).
-

## Defining the Project Scope, Continued

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**Example**

Here is one example of how the scope might be featured in a POAM document.

See *Appendix C* for another example found within a complete POAM (EX-C.1).

Project Scope: XYZ Widgets Course Module		
Item	Quality Metrics	Deadline
Instructor Guide	<ul style="list-style-type: none"> <li>- School template</li> <li>- Aligned to student guide</li> <li>- Quiz answers</li> <li>- Instructor script</li> <li>- Objectives</li> </ul>	1/25
Student Guide	<ul style="list-style-type: none"> <li>- Exercise Instructions</li> <li>- Aligned to instructor guide</li> <li>- Objectives</li> </ul>	1/25
Lab Lesson on Basic Widgets	<ul style="list-style-type: none"> <li>- Performance-based tests</li> <li>- Passing Grades</li> <li>- Job Aid with graphics</li> <li>- High scores on perception survey (students, Instructors)</li> </ul>	2/23

What IS included: (in this project)	What IS NOT included: (in this project)
<i>Widget Lab Instructor Guide Student Guide</i>	<i>eLearning course on widget prerequisites</i>

## Defining the Project Scope, Continued

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### Define the Deliverables

When defining project scope, you will list deliverables as well as the following information for each deliverable:

- Primary audience
- Success/completion metrics (e.g., quality)
- Date constraints (if relevant)

Also, include a table which outlines both what *is* and what *is not* included in your project. Communicating this information prevents a potential misunderstanding about what can be accomplished within a given timeframe.

*Appendix A, Job Aid-A. 1*, provides additional guidance on defining the Project Scope. The following list provides a brief summary of people most likely involved in defining the scope of your project:

- Project Sponsor(s) is the person (or people) funding, championing, and/or evaluating your project's success. Examples: Training Officer, Headquarters, Division Training Manager, Captain, etc.
- Key Stakeholder(s) is the person (or people) who have a stake in your project. Examples: The School, Course Chief, etc.
- Target Audience is the group of people who will be using the project deliverables. Although you will probably not interview anyone from the target audience when defining scope, confirm with your sponsors and stakeholders who they identify as the target (primary) audience of your project.

**Note:** *When you meet with your key sponsors and stakeholders to define scope, take the opportunity to discuss the fluid nature of project management.*

*Let them know that if project scope changes after the project launches, it could potentially impact the schedule and/or resources.*

*Set the expectation up front that you are flexible and can accommodate project scope changes during the project as long as the sponsors understand the implications that their changes may produce.*

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## Defining the Project Scope, Continued

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### Changes in Project Scope

After POAM sign-off and project launch, you might be faced with a request to add and define new deliverables, thus expanding your project scope (which is also called *scope creep* or *scope change*). This usually happens for at least one of the following reasons:

#### *Reason 1: Sponsor Request*

In the middle of a project, a sponsor might request new content, deliverables, etc. If this happens:

- a) The Project Manager should consult the entire team to determine how the requested scope change might impact the schedule and/or resources as defined in the POAM.
- b) After consulting the team, the Project Manager should inform the sponsor(s) how the proposed scope change could impact the schedule and/or resources, and offer alternate choices (for example, adding another team member, or pushing out the schedule several months).

#### *Reason 2: Discovery*

Another reason for scope changes mid-project is that the team discovers the need to alter deliverables during one of the course development phases. For example:

- **Analysis Phase:** Team discovers additional deliverables are needed to meet performance criteria.
- **Design Phase:** Team discovers that content redundancy allows deletion of some deliverables.
- **Development Phase:** Team later determines the need for eLearning, which requires a new deliverable.
- **Implementation Phase:** Team discovers during a Test Run that a learning activity is incorrect and must be altered using different deliverables.

Later in this chapter you will learn how to track and manage these changes through Change Management. (*2.3 - Managing the Project*)

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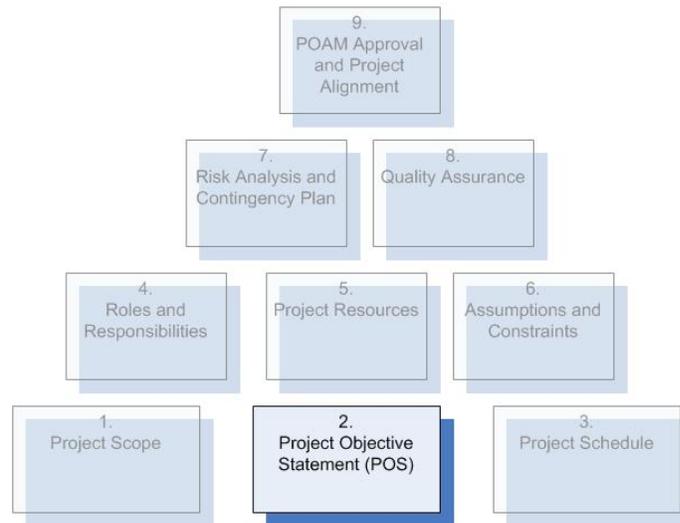
## Writing the Project Objective Statement

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### Overview

In the previous sub-section, you learned how to define project scope. In this sub-section, you will learn how to write the Project Objective Statement (POS).

### Elements of a POAM



### Purpose

The purpose of a POS is to describe in 28 words or less *what* you will produce (deliverables) by *when* (schedule) with *what* resources (money/people/tools).

A strong POS starts the project off in a positive way with everyone agreeing on one simple sentence, which clarifies what the project will accomplish, by when, and with whom.

A POS also sets expectations and boundaries, and conveys to the project sponsors and team what the most important aspects of the project are.

Additionally, a POS can be helpful for change management. If, for instance, your scope changes so much that your POS becomes invalid, it could be an indication that you may need to revise the entire POAM (schedule, scope, resources).

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## Writing the Project Objective Statement, Continued

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### Example

Below are some examples of a POS:

- *Re-format the information systems chapter in the Widget Instructor Guide for Level 3 specialists in six months with at least one designer and one editor.*
  - *Revise the Networking module aligned with 2005 performance objectives no later than 6/06 using three designers, one editor, and three Accomplished Performers.*
- 

### Process Overview

1. Gather Data
2. Validate the draft POS
3. Secure approval of the POS
4. Include approved POS in the POAM

*Refer to Appendix A: JA-A.2: Writing the Project Objective Statement Job Aid for further details on this process.*

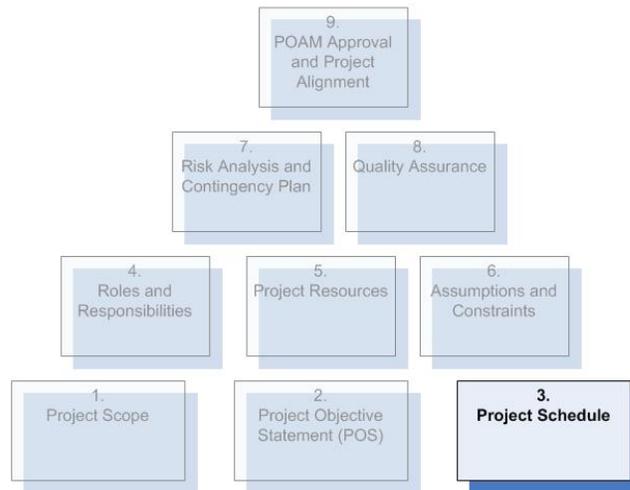
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## Determining the Project Schedule

### Overview

In the previous section, you learned how to define project scope and write your project objective statement (POS). This sub-section introduces the next element of your POAM document – the *project schedule*.

### Elements of a POAM

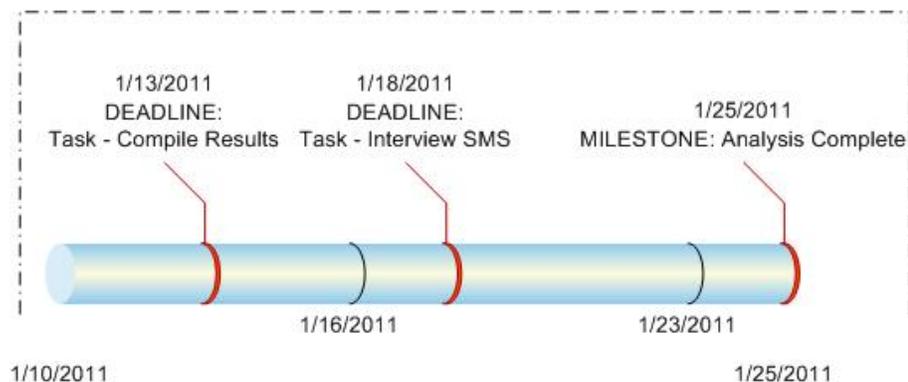


### Purpose

The purpose of a project schedule is to clarify *what* will be achieved by *when* and with *whom*. A strong project schedule includes both deadlines and milestones.

- *Milestones* are major dates marking the end of an important phase (e.g., analysis phase, design phase).
- *Deadlines* are dates marking the completion of smaller activities that lead up to a phase milestone.

### Analysis Phase



*Continued on the next page*

## Determining the Project Schedule, Continued

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### Purpose, Continued

Some common mistakes regarding a project schedule include:

- Not enough time estimated per task
  - Tasks omitted for a key phase
  - Tasks listed at too broad a level (e.g., one long task lasting six months, instead of multiple smaller tasks with two- to three-week durations)
- 

### Design Ratio Guidelines

As per industry standard, it is important to allocate appropriate amounts of time to complete the key milestones. You can use the following ratio guidelines<sup>1</sup> to help you determine the number of hours, days, weeks, or months to include on your project schedule:

Phase	Ratio
Needs Identification	10:1
Analysis	30:1
Design and Development	<i>See Below</i>
Implementation And Evaluation	10:1

*Continued on the next page*

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<sup>1</sup> Freisen, Kaye and Associates, *Designing Instruction: Support Manual* (Friesen, Kaye and Associates, 1998), p. 13.

## Determining the Project Schedule, Continued

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### Design Ratio Guidelines, Continued

Design and Development ratios as per Instructional Strategies:

Instructional Strategy	Description	Design/Develop Ratio	Total Ratio
Self Instruction	<ul style="list-style-type: none"> <li>Objectives and Tests Developed</li> </ul>	3:1	53:1
Job Aid	<ul style="list-style-type: none"> <li>Checklist/flowchart</li> </ul>	3:1	53:1
	<ul style="list-style-type: none"> <li>Manual</li> </ul>	20:1	70:1
	<ul style="list-style-type: none"> <li>Online document</li> </ul>	100:1	150:1
On-the-job	<ul style="list-style-type: none"> <li>Supervisor guide, tests developed</li> </ul>	25:1	75:1
Leader-led	<ul style="list-style-type: none"> <li>Minimal materials</li> </ul>	15:1	65:1
	<ul style="list-style-type: none"> <li>Sophisticated, detailed materials</li> </ul>	30:1	80:1
Self-directed Learning – Paper	<ul style="list-style-type: none"> <li>Infrequent learner response</li> </ul>	35:1	85:1
	<ul style="list-style-type: none"> <li>Frequent learner response; test for understanding and feedback incorporated</li> </ul>	50:1	100:1
Self-directed Learning – CBT	<ul style="list-style-type: none"> <li>Interactive tutorial, minimal graphics, no special animation, etc.</li> </ul>	200:1	250:1

### POAM Schedules

The POAM shall include *milestone dates* for the key phases of the instructional systems design methodology: Analysis, Design, Development, Implementation, and Evaluation. Milestone dates identify the completion marker or date of a key phase.

The schedule in your POAM should be high-level. You need only to list the key milestones for each phase of your project. To accommodate changes in the project scope on the schedule, see the **Change Management** sub-section in *2.3: Managing the Project*.

Following are some examples of schedules.

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## Determining the Project Schedule, Continued

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### Example 1

This example shows phases and target completion dates:

- **ANALYSIS** complete: March 15, 2011
  - **DESIGN** complete: June 1, 2011
  - **DEVELOPMENT** complete: August 10, 2011
  - **IMPLEMENTATION** complete: Oct. 5, 2011
  - **EVALUATION** complete: Dec. 12, 2011
- 

### Example 2

This example includes phases, target completion dates and major milestones within each phase.

- **ANALYSIS** complete: March 15, 2011
    - Task Analysis done
    - Terminal Performance Objectives done
    - Performance Tests complete
  - **DESIGN** complete: June 1, 2011
    - Curriculum mapping done
    - Content Sequencing done
    - Lesson design done
    - Testing strategies complete
  - **DEVELOPMENT** complete: August 10, 2011
    - Instructor Guide/Student Guide done
    - Lesson/Lab/Exercises done
    - eLearning done
  - **IMPLEMENTATION** complete: Oct. 5, 2011
    - Test runs done
    - Pilot course complete
    - Validation complete
    - Evaluation complete
-

## Determining the Project Schedule, Continued

### Example 3

Another way to present your schedule in a POAM is to provide detail surrounding key milestones (see the sample table below).

Status as of <ENTER DATE>		Project: <TITLE>					
Project Mgr: <NAME>		Course ID: <ID HERE>				Course Code: <ENTER HERE>	
Phase	Task	Est. Hrs	Est. Start Date	Actual Start Date	Est. End Date	Actual End Date	Owner
Analysis Done 4/30/10	Kick Off Meeting w/ Steering Committee	N/A	3/10/10	Xy/10	Xy/10	Xy/10	J. Smith
	SMS /AP identified / recruited	3	3/12/10	Xy/10	Xy/10	Xy/10	K. Harris
	Interviews Complete	5	3/12/10	Xy/10	Xy/10	Xy/10	K. Harris
Design Done 4/30/10	SMS/AP interviews	5	3/30/10	Xy/10	Xy/10	Xy/10	L. Marion
	Data Analysis	8	4/25/10	Xy/10	Xy/10	Xy/10	P. Georges
Development Done 5/30/10	Design analysis	16	Xy/10	Xy/10	Xy/10	Xy/10	K. Harris
	Design signed-off	26	Xy/10	Xy/10	Xy/10	Xy/10	K. Harris
Implementation Done 7/25/10	xxxxxxxxx	52	Xy/10	Xy/10	Xy/10	Xy/10	K. Harris
Eval Done 8/2/10	xxxxxxxxx	16	Xy/10	Xy/10	Xy/10	Xy/10	J. Marks
Wrap Up 9/12/10	xxxxxxxxx	4	Xy/10	Xy/10	Xy/10	Xy/10	L. Marion

**Note:** This table provides more detail than what would be included in a POAM. Your POAM typically just needs the key milestone titles and dates (see Phase column above).

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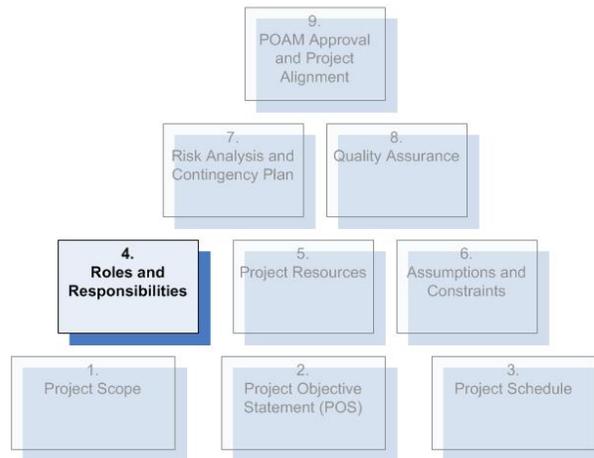
## Determining the Roles and Responsibilities

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### Overview

In the previous sub-section you learned how to create your project schedule and define the milestone dates for the major phases of the project. This sub-section introduces the next element of your POAM document – *roles and responsibilities*.

### Elements of a POAM



### Purpose

The purpose of the *Roles and Responsibilities* section of your POAM is to clarify who is doing what in your project. By clarifying boundaries and responsibilities at project launch, the Project Manager facilitates accountability and team cohesion.

The *Roles and Responsibilities* section of your POAM should list the names of everyone who will play an important role in the project, along with key responsibilities within that role.

Most projects include the following roles:

- Project Manager and/or Project Leader
- Project Sponsor
- Steering Committee
- Project Team Member
- Instructional Designers
- Subject Matter Specialists
- Accomplished Performers
- Instructors
- Graphic Designers
- Editors
- Learning Technology Experts (programmers)

*Continued on the next page*

## Determining the Roles and Responsibilities, Continued

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### Purpose, Continued

#### *Additional Information:*

- **Names:** *Sometimes the Project Manager knows certain roles will be needed, but the actual people (names) have not yet been assigned at POAM approval. In this situation, list the required roles and the skills needed in each role, and include a comment clarifying that specific people will be assigned later.*
  - ✓ *Example: Subject Matter Specialist (SMS): Provide content expertise in Telephony, Networking Management, and Remedy System. Instructor level expertise required. Strong communication skills for designer interviews highly desired.*
- **Unexpected Roles:** *As your project progresses, new roles may surface. For this reason it's a good idea to state the possibility of some change in roles as the project moves forward.*
  - ✓ *Example: The Roles and Responsibilities in this POAM reflect current assumptions regarding scope, schedule, and resources. It is possible that the roles might change as the project moves forward. Any changes will be communicated in a timely manner through Project Reports and scheduled update meetings.*

### Process Overview

1. Review the summary descriptions of some key project roles.
  2. Determine which roles apply to your project.
  3. Determine which roles are not listed in the table, but need to exist for your project.
  4. Write a description of each role not defined.
  5. Review your list of roles with your project sponsor(s) and management to confirm your understanding of the roles unique to your project.
  6. Include your roles and responsibilities table in your POAM.
-

## Determining the Roles and Responsibilities, Continued

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### Example

The following table shows how you might present the roles for your project in your POAM. See *Appendix C* for an example of this table within the POAM.

See *Job Aid (JA-A.4)* in *Appendix A* for a table of key roles and a description of those roles most common to ISD projects.

Title/Name	Role/Responsibilities
Project Manager / Jenna Harris	<ul style="list-style-type: none"> <li>• <b>Drive</b> POAM creation and secure POAM approval by those funding or supporting the project at an executive management level</li> <li>• <b>Ensure</b> team members understand and accept their responsibilities and receive assistance when needed</li> <li>• <b>Take timely adaptive action</b> when needed; track/ make changes to adaptive action for desired outcome</li> <li>• <b>Set priorities</b> among project activities; track performance and project management against POAM processes/ criteria</li> <li>• <b>Arbitrate</b> and resolve conflict within the project</li> </ul>
Project Sponsor / Training Officer - Rod Koniges	<ul style="list-style-type: none"> <li>• Provide strategic guidance</li> <li>• Set priority</li> <li>• Ensure resources</li> </ul>
Core Team Designers: - Sue Kreins - Jim Scott	Provide instructional design services for course analysis, design, development, evaluation, and implementation per POAM specifications
Subject Matter Specialists and Accomplished Performers	Names To Be Determined (TBD): <ul style="list-style-type: none"> <li>• SMS: Provide technical expertise, overview, review, input, technical integrity of course materials</li> <li>• AP: Provide real world perspective, audience voice.</li> </ul>
Editor / Ashanti Lewis	Provide graphic design and editing services per schedule milestones

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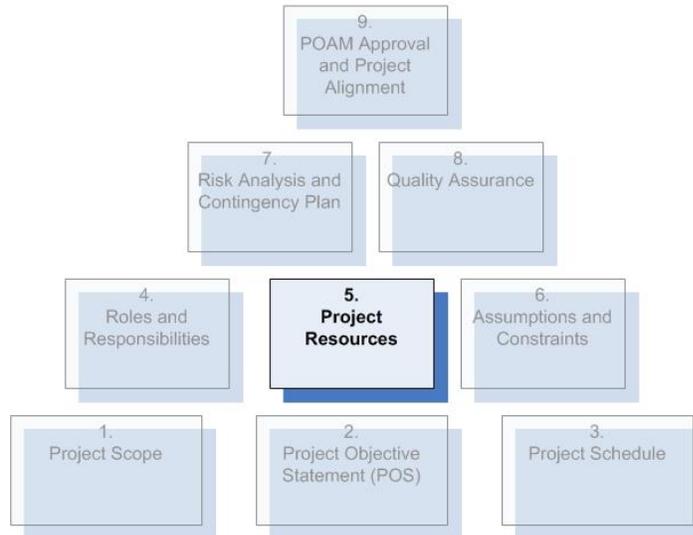
## Determining the Project Resources

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### Overview

In the last sub-section you learned how to list the Roles and Responsibilities for your project. This sub-section introduces the next element of your POAM document – *project resources*.

### Elements of a POAM



*Project Resources* are the people, equipment, software, and other related materials required to produce POAM deliverables within a set schedule or timeline. A strong **Project Resources** section in your POAM ensures you have the necessary staffing, funding, and equipment for successful completion of the project.

### Purpose

The purpose of the **Project Resources** section of your POAM is to identify the people, equipment, and other resources that are required to produce expected deliverables within the timeframe.

Some common mistakes when defining project resources include:

- Selecting team members based on technical skills alone, without consideration to soft skills (personalities)
- Not including a statement in your POAM stressing that resource requirements could change if deliverables (scope) changes.

## Determining the Project Resources, Continued

### Example

You may want to separate your resource requirements by *type* (such as people and non-people related resources). The following are examples of both, driven by specific project deliverables:

#### *People-Related Resources:*

To Produce this Deliverable	We Need People With These Skills	Individual(s) with Ideal Skill Set	Estimated Duration	Estimated Date
Instructor Guide and Student Guide for Telephony	DESIGNER: <ul style="list-style-type: none"> <li>ADDIE /ABCD</li> <li>MS Live Meeting</li> </ul>	(NAME) (NAME) (NAME)	25 days	Fall 2009 – Winter 2010
	EDITOR: <ul style="list-style-type: none"> <li>Graphic design</li> <li>Formatting</li> <li>Layout</li> </ul>	(NAME) (NAME) (NAME)	4 days	Winter 2010 – Fall 2010
eLearning module	DESIGNER: <ul style="list-style-type: none"> <li>ADDIE /ABCD</li> <li>Authoring tool (MS)</li> </ul>	(NAME) (NAME) (NAME)	60 days	Fall 2010 – Winter 2011
*Resource requirements could change mid-project if the scope (deliverables) changes.				

#### *Non-People-Related Resources:*

To Produce this Deliverable	We Need This Equipment:	Estimated Duration	Estimated Date
Instructor Guide and Student Guide for Telephony	<ul style="list-style-type: none"> <li>Computer</li> <li>MS Office</li> <li>Printer</li> </ul>	25 days	Fall 2009 – Winter 2010
	<ul style="list-style-type: none"> <li>Color printer</li> <li>PhotoShop</li> <li>PowerPoint</li> </ul>	4 days	Winter 2010 – Fall 2010
eLearning module	<ul style="list-style-type: none"> <li>Computer</li> <li>Authoring tool</li> <li>Conference room with white board</li> </ul>	60 days	Fall 2010 – Winter 2011
*Resource Requirements could change mid-project as design requirements are confirmed.			

## Determining the Project Resources, Continued

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### Defining Resource Requirements

When defining the resource requirements, keep in mind the following:

- **You may not have a complete perspective of the required resources at the launch of a project.**

In course development, the exact resource requirements may be unknown until after subsequent phases in the development process.

For example, you might conduct an analysis and discover every student should have his or her own workstation to achieve an objective. If no workstations exist, you'll need to request these as an unexpected new resource.

To position the project for success, inform your project sponsors *prior to POAM sign-off* that resource requirements will need to be reviewed and confirmed after each phase of the project.

- **Expect resource changes over the life of the project.**

Just because you have the right team at project launch doesn't mean you'll keep the same people throughout the project.

Communicate required skill sets to your project sponsors at project launch to stress the priority of keeping your current team intact. Communicate the potential impact to schedule and scope should the members of the team change mid-project.

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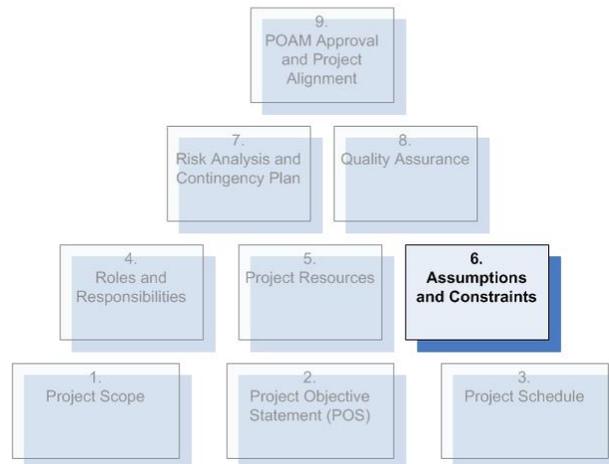
## Determining the Assumptions and Constraints

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### Overview

In the previous sub-section you learned about resource requirements. This sub-section introduces the next element of the POAM document – *assumptions and constraints*.

### Elements of a POAM



Assumptions and constraints in the POAM highlight the things you assume to be true going into the project (the assumptions), and the things that everyone knows will present challenges during the project (constraints).

---

### Purpose

The purpose of presenting an *Assumptions and Constraints* section in your POAM is to avoid miscommunication that could later derail the project.

Some common mistakes people make involving assumptions and constraints include:

- The assumption that everyone will remember the decisions made at the launch of the project regarding what will and will not be included, and thus, these assumptions are not documented
- The assumption that resources (such as team members) won't change during the project, and thus, these constraints are not documented
- The assumption that the parameters (scope) of the project won't change, so scope creep is not accounted for in the project schedule

*Continued on the next page*

## Determining the Assumptions and Constraints, Continued

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### Purpose, Continued

The fact is projects change! If projects didn't change, we wouldn't need project managers to keep them on track.

One way to anticipate change and proactively control change is to list the assumptions and known constraints or challenges facing the project.

**Assumptions:** An *Assumptions List* highlights one to five items that you assume about the project. If any of these assumptions turn out to be untrue, it will impact the project.

**Constraints:** A *Constraints List* and a *Priority Matrix* helps to identify the challenges facing the project and how you will prioritize the schedule, scope, and resources.

---

### Defining Assumptions and Constraints

You can avoid misunderstandings mid-project when you properly establish the assumptions and constraints. If assumptions are not properly identified, it could result in an impact to the scope, schedule and/or resources.

**Defining Assumptions:** Ask yourself the following questions when defining the assumptions:

- What has derailed other projects here?
- What assumptions am I making about schedule, resources, and scope that should be documented upfront at the beginning of this project?
- Is there a topic most likely to generate disagreement? What assumptions have I made about this topic that should be documented now?

**Defining Constraints:** Ask yourself the following questions when defining the constraints:

- What unique challenges are facing this project?
  - What limitations have been placed on the scope, schedule, or resources that will challenge this project?
  - Are there any trends that could jeopardize the success of this project?
-

## Determining the Assumptions and Constraints, Continued

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**Example** Assumptions and constraints are unique for each project; however, examples of each are provided below:

### Assumptions List:

- Team members will not be assigned additional projects
- Performance Criteria for Audience will not change after the project launch
- The Primary Audience is the E4 IT Specialist
- Certification will not be required

### Constraints List:

- Limited to two Instructional Designers
- Instructors will only be available in July to review content
- No Accomplished Performers are available for the new technology tools, as these have never been used before
- The project must be completed for the September course delivery

### Priority Matrix:

Area	Priority		
	Most Constrained (NO Change)	Somewhat Constrained (Can Change a Little)	Least Constrained (Change is OK)
Schedule			X
Scope	X		
Resources		X	

In this example of a Priority Matrix, the *Schedule* can change without creating a problem, *Resources* can change somewhat (for example, adding another team member), but the *Scope* cannot change without creating a significant impact. In other words, this project has specific deliverables that must be achieved, such as meeting job performance requirements.

Refer to *Appendix A, Job Aid (JA-A.5)* for steps to help in determining your project Constraints/Priority Matrix.

## Determining the Assumptions and Constraints, Continued

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### Completing a Priority Matrix

Every project has expectations concerning the scope, schedule, and resources, but rarely does a project meet its original deadline and scope, using its original resources. Typically, priorities change due to constraints.



A Priority Matrix can help you rank the schedule, scope, and resources so that the highest **quality** product is delivered. Ranking these aspects assists you with decision-making throughout the life of the project.

Project sponsors may claim that scope, schedule, and resources are all equally important and equally constrained. For example, a project sponsor might say the project absolutely must be done by July (schedule), absolutely must be completed with only two designers (resources), and absolutely must achieve all performance criteria (scope).

It is likely, however, that once the project begins, the sponsor will want to change something. For example, they may request a new course module, and extend the schedule or add another designer to the team to ensure that the new module is included. In this example, the scope of the project emerges as the most important aspect; however, at the start of the project the sponsor may not have realized this.

Ultimately, there is always a priority to schedule, scope, and resources: The sponsor expects his or her criteria to be met for one, while the other two have a little more flexibility. The Priority Matrix forces a discussion about priority and constraints with your project sponsor(s) before the project launch. It will also help your team in decision-making and priority-setting, and enhance sponsor satisfaction.

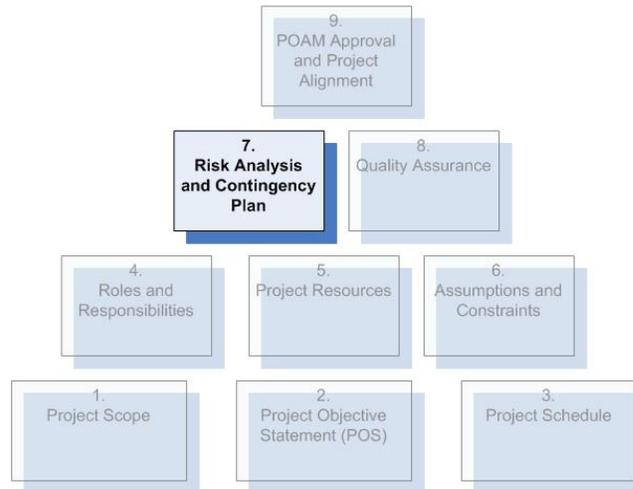
## Creating the Risk Analysis and Contingency Plan

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### Overview

In the previous sub-section you learned about *Assumptions and Constraints*. This sub-section introduces the next element of your POAM document – *risk analysis and contingency plan*.

### Elements of a POAM



A *risk analysis* considers the likelihood of a specific detrimental event occurring and the potential impact on your project.

A *contingency plan* outlines what you might do if such an event does occur.

In essence, the risk analysis provides an assessment of the likelihood of something negative occurring, and the contingency plan offers a course of action if the event occurs.

---

### Purpose

The purpose of creating a risk analysis and contingency plan is to increase awareness of what might derail your project, and to offer a solution to mitigate any negative impact should this event occur.

Every project carries inherent risks. Some risks are predictable, other risks are impossible to predict. Later, in the **Change Management** section, you'll learn how to mitigate risks that are impossible to predict. For now, though, we will examine *predictable* risks, and then the proactive *contingency planning* you can implement for each of them.

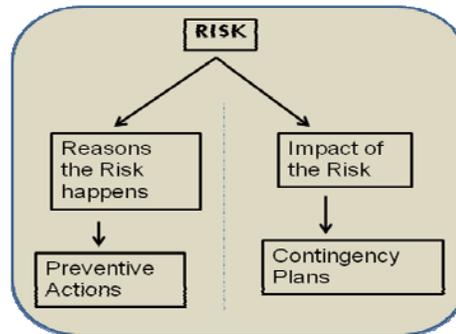
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## Creating the Risk Analysis and Contingency Plan, Continued

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**Common Terms** Common terms used in this process:

- **Risk:** An unexpected event that jeopardizes the project.
- **Preventive Action:** The steps taken to prevent a known risk from occurring.
- **Contingency Plan:** The established course of action should the risk actually occur.



In the image above, *preventive actions* assert how to prevent the event from happening by taking action based on *why* it *might* occur, whereas *contingency plans* state what to do *after* a detrimental event has occurred.

- **Trigger:** An indication that a potentially detrimental event is about to happen (a warning sign).

The trigger should be measurable. Examples of measurable triggers include:

- *Our text books might arrive late.*
    - ✓ Trigger: Text books haven't arrived 10 days prior to course launch date.
  - *Our Internet service might fail.*
    - ✓ Trigger: Internet service was having trouble on Tuesday and our course starts on Thursday.
  - **Owner:** The person who is responsible for recognizing when an event has happened. This person alerts the project management and helps implement the contingency plan.
-

## Creating the Risk Analysis and Contingency Plan, Continued

### Example

#### *Risk Analysis:*

Identified Risk	Potential Impact	Likelihood of Occurrence	Difficulty of Timely Detection	Overall Risk*
RPQs Change	Minimal to High, depending on RPQ	Moderate	Moderate	Moderate
Resources Compromised	High	Minimal	Low	Low
Certification Required	High	High	Moderate	High

#### *Contingency Plan:*

Identified Risk	Preventive Action	Contingency Action	Trigger	Owner
RPQs Change	Course Chief maintains communications with Rating Force Master Chief	Course Chief escalates to Project Leader for schedule impact	First discussion / rumor from HQ	Richards
Resources Compromised	Strong team communications to monitor progress and "scope creep" by other projects	Seek additional resources if we lose a resource or partial resource	New project; resource is pulled away	Escobedo
Certification Required	Course Chief maintains communications with Rating Force Master Chief	Course Chief escalates to Project Leader for schedule impact; additional resources sought as appropriate	First discussion / rumor from HQ	Dabrowski

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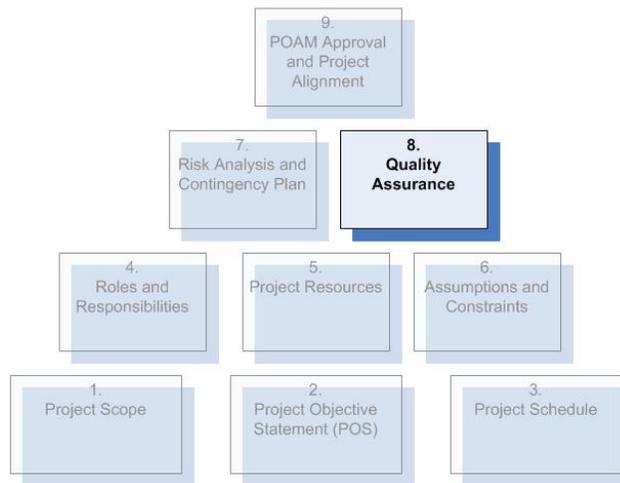
## Determining the Quality Assurance Plan

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### Overview

The eighth element of the POAM document is *quality assurance*. We previously discussed quality as it relates to assumptions and constraints. In that section, we used a Priority Matrix to help you rank the schedule, scope, and resources so that the highest **quality** product is delivered.

### Elements of a POAM



“Quality” means different things to different people. For this reason it’s important to define the meaning as it relates to the project. It’s also important to state how quality will be evaluated throughout each phase of your project and by whom.

Many supervisors of curriculum development projects either have a standard for quality assurance or use the CAP checklists provided in Chapter 7. However, if there are no given standards for quality, or ownership of course review and approval throughout the ADDIE process, it’s best to define it now. The **Quality Assurance (QA)** section in the POAM will help prevent any misunderstanding later in the project.

In *Chapter 7: Evaluation* you can find a series of checklists that serve as a *quality metric* from which one can ensure deliverables throughout the project are designed and developed to an established set of QA standards.

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## Determining the Quality Assurance Plan, Continued

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### Purpose

The purpose of the Quality Assurance Plan is to provide guidance during the project to ensure the project stays on track, and that it is developed according to defined quality standards throughout the project.

Some common mistakes regarding Quality Assurance include:

- Waiting until the test “Pilot Course” implementation to assess the quality of your materials, lesson plans and tests, rather than integrating evaluation throughout all phases of course development (Analysis, Design, Development, Implementation)
- Assuming everyone has the same definition of the term “high quality”
- Not assigning quality metrics to your project

**Note:** *This Standard Operating Procedures (SOP) Guide provides guidelines for quality assurance at critical stages of course development. For overviews regarding quality assurance pertaining to your project, refer to the specific chapter in this guide which provides more detail for each ADDIE phase.*

### Example

The POAM shall include a high-level overview of who is responsible for Quality Assurance at key stages of the project, as depicted in the sample table below.

Quality Assurance Strategy	Responsible Party (-ies)
POAM Criteria Tracking	Project Leader
Deliverables Evaluation	<ul style="list-style-type: none"> <li>• SMS – Technical Integrity</li> <li>• AP – Audience Relevance</li> <li>• Designers – Instructional Integrity re: Terminal Performance Objectives, Performance Tests, Performance Criteria</li> </ul>
Curriculum Flow Evaluation	<ul style="list-style-type: none"> <li>• Course Chief</li> <li>• Designers</li> <li>• Project Leader</li> </ul>
Communications Plan and Project Reporting	<ul style="list-style-type: none"> <li>• Project Leader</li> <li>• Project Manager</li> </ul>

*Continued on the next page*

## Determining the Quality Assurance Plan, Continued

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### Example, Continued

Quality Assurance is not just a “specific section” in the POAM. It also permeates every section of the POAM – from the measurable success criteria defined for your deliverables (scope) to the due diligence you spent estimating tasks for milestone dates (schedule) to specifying what people you’ll need to get the job done (resources).

### Quality Assurance for scope

#### Instructor Guide

##### *Success/Quality Completion Criteria*

- ✓ *Template SOP formatting*
- ✓ *Instructor script per PowerPoint slides*
- ✓ *Content Validation by Lead Technical SMS*
- ✓ *Maximum 105 pages, double-sided*
- ✓ *Completed by May 2012*

### Quality Assurance for a schedule

#### Analysis Phase

##### *Major Accomplishments Defined*

- ✓ *Recruit SMS – 4 hours*
- ✓ *Interview SMS – 12 hours*
- ✓ *Compile results – 4 hours*
- ✓ *Route Major Accomplishments for Review – 2-4 days*
- ✓ *Revise per feedback – 3 hours*
- ✓ *Major Accomplishments approved – 1 hour*

### Quality Assurance for resources

#### Core Team

- ✓ *2 instructional designers*
  - ✓ *1 graphic artist*
  - ✓ *1 eLearning programmer*
  - ✓ *1 editor*
-

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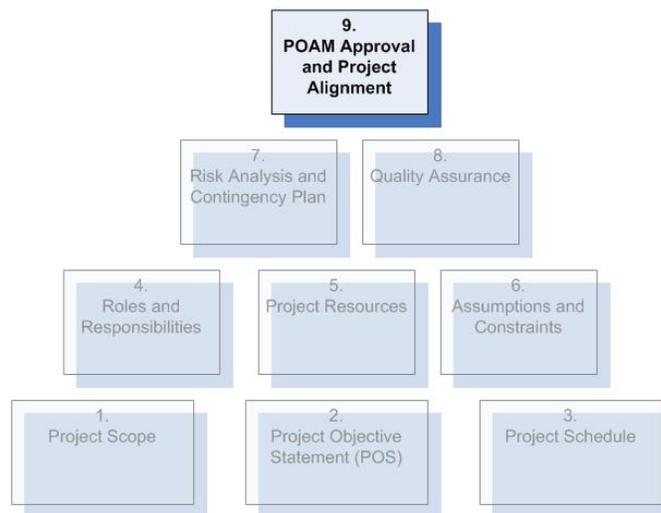
## Approving the POAM and Scheduling the Project Alignment Meeting

### Overview

The project alignment should include answering all the questions you need answered before you can begin with the ADDIE process. Several specific inputs are detailed as you move into Analysis, but each project begins with different requirements, so following the POAM process will lead you down the right path. Ideally, every project launches with a formal alignment meeting, and a completed and approved POAM draft.

The final element, or state, of the POAM includes document approval by all the stakeholders and the project alignment.

### Elements of a POAM



### Purpose

The purpose of the POAM approval process is to formally review the completed draft POAM with your key stakeholders and project sponsors, to make any revisions, and then to secure formal sign-off of the POAM.

POAM approval is typically completed at a “kick off” meeting, or alignment meeting. The purpose of this meeting is to ensure everyone is in agreement with the project description provided in the POAM.

## Approving the POAM and Scheduling the Project Alignment Meeting, Continued

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### Process Overview

To approve the POAM, the Project Manager performs the following steps:

1. Interview the Project Sponsor(s) for clarification on project scope, schedule, and resource expectations.
  2. Create first draft of POAM sections working with appropriate resources to generate content.
  3. Circulate a revised draft of POAM per feedback, and schedule a Kick Off/Alignment meeting for final POAM Approval.
  4. Secure the POAM signatures at Kick Off/Alignment Meeting; Project Manager communicates POAM to Headquarters for Approval.
  5. Set up the project infrastructure required to implement POAM and transition into managing the project (part two of the Project Management process).
-

## Approving the POAM and Scheduling the Project Alignment Meeting, Continued

**Example** Below is an example of a POAM Alignment/Kick-Off Meeting Agenda, and a worksheet can be found in *Appendix B*.

 <b>ALIGNMENT MEETING AGENDA FOR Project: (NAME)</b>		<b>(DATE)</b>
<b>Project Objective:</b> (STATE)		
<b>Project Manager</b>	Jane Doe	<b>Project Lead</b> John Smith
Key Stakeholders		
	Executive Sponsor	Primary CG POC
	Branch Chief	Supervisor, IST
	School Chief	Contract Mgr.
	Quality Assurance	Project Team Members, Developers
Agenda		
TOPIC	NAME	TIME (min)
Welcome and Introductions	xxxx	15
Discussion: POAM – PROJECT SCOPE	xxxx	15
Discussion: POAM – PROJECT OBJ. STATEMENT	xxxx	10
Discussion: POAM – PROJECT SCHEDULE	xxxx	10
Discussion: POAM – ROLES & RESPONSIBILITIES	xxxx	5
Discussion: POAM – PROJECT RESOURCES	xxxx	5
Discussion: POAM – ASSUMPTIONS & CONSTRAINTS	xxxx	5
Discussion: POAM – RISK ANALYSIS & CONTINGENCY PLANNING	xxxx	10
Discussion: POAM – QUALITY ASSURANCE	xxxx	5
Discussion: POAM – SIGN OFF (W/WO CHANGES?)	xxxx	5
Discussion: Trends? Next Steps?	xxxx	5
TRENDS		
- New technology for phones could make xxxxx obsolete in 2008.		
NEXT STEPS		
- Project Manager recruits Subject Matter Specialists by March 23		

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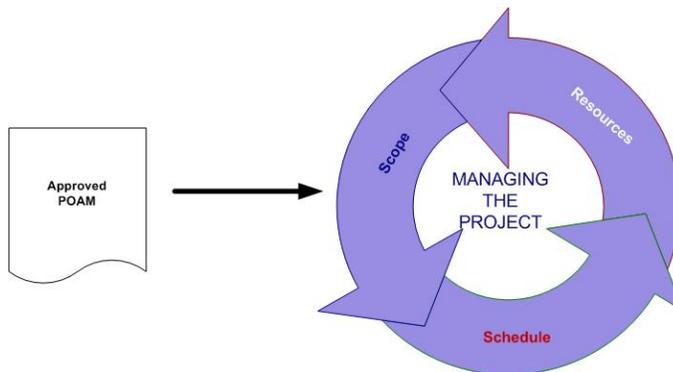
## 2.3 – Managing the Project

### Introduction

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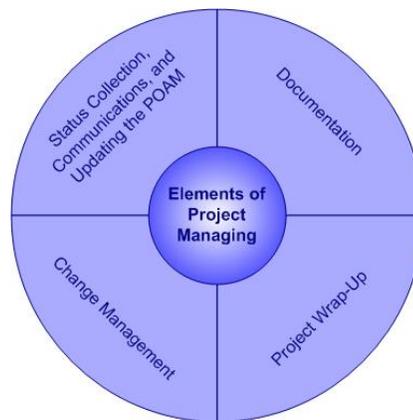
#### Overview

After completing the POAM and gaining project alignment, you are ready to launch your project and proceed with managing your project. In the Project Management implementation model, the project enters the next stage in which the scope, resources and schedule are monitored, tracked, and managed in order to produce the highest quality product while adhering to the POAM.



This stage enables you to monitor and manage the progress of the project to ensure the highest quality product possible while adhering to the expectations defined in your POAM regarding scope, schedule, and resources. This stage has four key elements:

- Status Collection, Communication and Updating
- Documentation
- Change Management
- Project Wrap-up



## Introduction, Continued

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### Purpose

The purpose of *Managing the Project* is to ensure the goals of the project are met. The four elements that will help ensure the project stays on track include:

**1. Status Collection, Communications and Updating**

How will status be collected, updated, and reported? To whom and when will this information be shared?

**2. Documentation**

How will we manage version control? How will we manage template design, editing, and audit trails regarding how decisions were made (if applicable)?

**3. Change Management**

When an unanticipated event occurs that threatens the project schedule, how will we respond in this situation? What is our change management strategy, and who will own its implementation? Who will evaluate the success of the strategy that was implemented?

**4. Project Wrap-Up**

How will we conduct the project wrap-up/Hot Wash? How will we ensure an easy transition for future designers? How will we ensure current and future instructors maintain quality once ownership of the deliverables has transitioned?

When reviewing this section, consider the following options:

- ✓ Option 1: If you are new to project management or have never tracked a POAM before, read the entire section.
- ✓ Option 2: If you are experienced and successful in project management, skip to the sub-section of interest or review the job aids in *Appendix A*.

These four elements are described in the sub-sections that follow this introduction.

---

## Introduction, Continued

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### Inputs

Managing the Project inputs include:

- **Status Collection, Communications and Updating:** How will the project status be collected, updated, and reported? To whom and when will the status be provided?
  - **Documentation:** How will we manage version control? How will we manage template designs, editing, and audit trails regarding how decisions were made (if applicable)?
  - **Change Management:** When something goes wrong or an unexpected situation threatens to push out our schedule or derail our project, how will we manage this situation? Essentially, what is our change management strategy, and who will own its implementation and the evaluation of its success?
  - **Project Wrap-Up:** How will we conduct the project wrap-up? How will we ensure an easy transition for future designers? How will we ensure the level of quality of our products is maintained once they have been turned over to the instructors or customer?
- 

### Outputs

Managing the Project outputs includes:

- Timely informative project status updates
    - Per team-defined frequency/detail/format standards
  - Easily accessed up-to-date documents
    - Clear online folder/file navigation with version control
  - Decisive action with desired results
    - Change tracking and communication
    - Expectations managed with key stakeholders
    - Success evaluated per POAM (or revised) criteria
  - Implementation of the transition strategy
    - Lessons learned documented
    - Future recommendations documented
    - Customer satisfaction / performance results
- 

### Example

Examples of some of the elements of Managing the Project are found in *Appendix C*.

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## Status Collections, Communications, and Updating

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### Overview

The first element of managing the project is *Status Collection, Communications, and Updating*.

The outcome of correctly implementing this element (*Status Collection, Communications, and Updating*) is timely and informative project status updates, which follow a standard format for frequency, detail, and format.

---

### Purpose

The purpose of collecting project status, communicating this status, and updating this status in a consistent way is to prevent miscommunication, misunderstanding, and missed expectations.

There is no such thing as “too much communication” when it comes to project management. The Project Manager must continuously ask the following questions:

- What is happening now vs. what should be happening?
  - What is happening next and are we ready to do it?
  - Does everyone know the answers to the previous two questions?
- 

### Process Overview

To create team guidelines for collecting, communicating, and updating project status, follow these steps:

1. Organize a meeting with your project’s core team.
2. Review the questions below.
3. Document answers to these questions, and email these answers to the team.

#### *Team Discussion*

#### **Status Updates**

- How will we assess progress?
- How will we obtain the deadline and milestone statuses from project team members and others involved in the project?
- How often will we request this data?
- At what level of detail will we track the project?
- What method will we use to communicate status information (e.g., email, teleconference, voicemail, meetings)?

*Continued on the next page*

## **Status Collections, Communications, and Updating, Continued**

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### **Process Overview, Continued**

#### **Meetings**

- What types (e.g., general, steering committee, core team), how frequently, and where will we hold meetings?
- Who will define the strategy and method for managing meetings effectively? Who will run the meetings? Who will produce an agenda for pre-meeting distribution?
- Who will track the time and agenda during the meeting?
- Who will attend which meetings?
- Who will write the minutes for action items and accountability, and distribute them after each meeting?

#### **Reports**

- What type of reports will we create, who will create them, and who will receive them?
- What content and level of communication is appropriate for whom?
- How detailed should reports be and in what format?

#### **Escalation**

- When is it appropriate to escalate a problem to the Project Manager?
  - What is the course of action if the Project Manager is not available?
  - What is the conflict resolution process, for example, if APs or SMSs do not agree with each other?
  - Who has final decision making authority to resolve the conflict?
  - What information will and will not be exchanged?
-

## **Status Collections, Communications, and Updating, Continued**

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### **Additional Considerations**

Other considerations when creating a status tracking process include:

1. Determine the method(s) of status collection with the team.

For example:

- Will the team use simple email text, or a formal status template? If a template is expected, who will create this and post it in the master folder for team access?
2. Use the following list as a guide to determine the frequency of status collection with the team:
    - Let the Core Team determine the frequency of status collection
    - Usually every one to two weeks, depending on the complexity of the project
    - Usually less than 15 tasks per status update period
    - Progress data collected too frequently will cause too heavy a workload on the project team and Project Manager
  3. Continuously collect both hard and soft data.

*Hard Data* – Quantitative/Easy to measure and collect (a deadline date, # of hours to do a task, etc.) Ask: Did the task start yet? How long will this task take? Etc.

*Soft Data* – Qualitative/Hard to measure and collect (trends, rumors, personality conflicts, charter wars). Soft data can have the worst impact on a project. Collect soft data at meetings, 1:1 debriefs, coffee stand chats, etc.

---

## Status Collections, Communications, and Updating, Continued

### Example

Below is one example of a project manager's strategy for collecting, communicating, and updating project status. *Appendix C* contains five different examples.

Type of Communication	Intended Audience	Method/ Frequency	Purpose	Owner
Status updates	CG School Liaison Team members	Online email / Weekly	One-way communication of accomplishments that week	Project Leader
Steering Committee	Members of Steering Committee	Quarterly / Face-to-Face	Formal update on project progress, with Q&A	Project Manager
Project Management Update	Project Leader and Project Mgr.	Weekly / Face-to-Face	Formal discussions on project deadlines, issues, adjustments, decisions	Project Leader
Team updates	Team members	Weekly / Face-to-Face	Formal discussions on recent problems, successes, etc.	All team members
Emergency Change Update	As appropriate per change	As needed/ Face-to-Face	Formal plan of action regarding change management	Project Leader and Project Manager and "other" per change

## Documentation

---

### Overview

The second element of managing the project is *Documentation*. The outcome of this element will be accessible and up-to-date documents.

---

### Purpose

The purpose of documentation is to avoid duplication of effort or confusion as to file creation, location and version control. Clearly outlining the document or version control processes is recommended in your communication plan or POAM to ensure the following common errors do not occur.

Some common mistakes concerning documentation include:

- Older documents are accidentally saved over newer documents because there is no version control
  - It becomes impossible to locate the newest documents because files are nested inside folders nested inside even more folders, all with similar names and dates
  - Team members use different templates, fonts, or header styles, resulting in a final product without cohesion or standards that requires extensive time for rework and editing which takes time away from design work
- 

### Process Overview

To ensure efficient documentation standards are applied to your project (including version control and templates), follow these steps:

1. Review the following questions with the project team members, and note the responses.
    - *What master folder will we use?*
    - *Who will manage the online folders?*
    - *What naming convention will we use for files?*
    - *Who will back up our online files and how frequently?*
    - *What version control will we use to track our latest files?*
    - *Where will we archive old documents that provide insight and an audit trail for decisions that were made?*
  2. Distribute the responses to the team.
-

## Documentation, Continued

**Example** Here is an example of version control and documentation guidelines for a project:

Documentation Guidelines		
Topic	Description	Owner
Master Folder	Located at <a href="http://www.syiw.skcs.ed.mil">http://www.syiw.skcs.ed.mil</a>	Team
Project Folders	<p>One Folder per Topic with one nested folder for Archives:</p> <ul style="list-style-type: none"> <li>• <b>WIDGETS</b> <ul style="list-style-type: none"> <li>○ Folder: Archives</li> <li>○ Working File</li> <li>○ Revised (for revisions to FINAL drafts only)</li> </ul> </li> <li>• <b>BOXES</b> <ul style="list-style-type: none"> <li>○ Folder: Archives</li> <li>○ Working File</li> <li>○ Revised (for revisions to FINAL drafts only)</li> </ul> </li> <li>• <b>WIRES</b> <ul style="list-style-type: none"> <li>○ Folder: Archives</li> <li>○ Working File</li> <li>○ Revised (for revisions to FINAL drafts only)</li> </ul> </li> </ul>	Topic Owners
Back-Up	Weekly back-up for all files so we still have our latest files in the event of a catastrophic crash	James B.
File Naming Conventions	<p>Filenames for working files are “<i>Topic name + Date (yyyymmdd)</i>” (e.g. <i>ProjectManagement 20100920.doc</i>)</p> <p>Filenames for final drafts are “<i>FINAL + Topic name + Date (yyyymmdd)</i>” (e.g. <i>FINAL ProjectManagement 20100920.doc</i>)</p>	Topic Owners
Template Design	Use standard templates located in folder called TEMPLATES (in master folder)	Project Leader
Version Control Process		
<ul style="list-style-type: none"> <li>• During the first week of each month, the design team will walk through an audit of version control for quality assurance.</li> <li>• If the content changes after the final sign-off, the topic owner will create a “<i>Revised</i>” sub-folder under the topic directory, and save the file in this folder using the following naming convention: “<i>FINAL+ Topic name + Date (yyyymmdd).doc</i>”.</li> </ul>		

## Change Management

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**Overview** The third element of managing the project is *Change Management*. It's not a matter of *if* your project will change, but *when* and by *how much*. A project manager skilled in change management is able to keep a project on track, and informs the project sponsor(s) of changes in scope, schedule, and resources.

The outcome of this element is a project that maintains its primary focus despite changes in scope, schedule, or resources. It also maintains strong satisfaction with its project sponsors despite the need to reset expectations due to unexpected surprises.

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**Purpose** The purpose of change management is to ensure small and large changes to a project are managed efficiently. Some common mistakes concerning change management include:

- Underestimating the impact of changes to project deliverables.
- Saying “yes” to small requests without fully assessing how these seemingly small changes could push out a deadline, burn out your team, or negatively affect other deliverables.
- Not communicating the trade-offs for implementing a change request with your project sponsors. For example, explaining to a project sponsor that an extra job aid can be created but that it will push out the deadline three weeks.

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**Process Overview** To manage changes on a project, follow these steps:

1. Based on the data you have collected, use the following definitions to determine whether your project is experiencing a variance in scope, schedule, or resources.
  - ✓ *SCOPE* – A scope variance occurs when someone or something impacts your deliverables; for example, a project sponsor decides they want your team to produce a Job Aid Booklet that was not listed on the POAM, or you produce the POAM deliverables but these don't meet the quality standards in the POAM and you must go back and rework the deliverables.
  - ✓ *SCHEDULE* – A schedule variance occurs when new tasks are added to your schedule unexpectedly, or when a task takes longer to complete than anticipated.
  - ✓ *RESOURCES* – A resource variance occurs when the project loses a resource or requires additional resources to complete a task.

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## Change Management, Continued

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### Process Overview, Continued

2. Discuss the variance and impact to the project's scope, schedule, and/or resources with team members.
  - Revisit the POAM's Risk Analysis and Contingency Planning for guidance.
  - Revise or discard strategies that do not apply to the current situation (since front-end risk analysis cannot accurately predict every possible scenario).
  - Revisit your assumptions and constraints in the POAM.
  - Consider all possible solutions, including:
    - Allocating resources in a different way
    - Adding a resource from another department that is under-utilized
    - Exploring different ways to meet deliverables without impacting quality or criteria, etc.
3. Inform the Steering Committee of any variances as soon as possible.

**Note:** *Don't assume longer work days will make up for a variance. Team burnout will not enhance quality and chances are you will still not resolve the variance completely. Similarly, it is recommended to inform the Steering Committee at the earliest opportunity of any variances to reduce the impact to the deliverables.*

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### Implement Change Management

One of the most important tasks for a Project Manager during POAM implementation is tracking any changes and assessing the impact of that change.

During implementation, every project goes through changes in scope, schedule, and/or resources.

The Project Manager must analyze the data for these changes, determine the impact to the project, and then plan and implement the appropriate adaptive action.

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## Change Management, Continued

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### Example

The following table provides change management guidelines for a project.

Step	Action
1	<p><i>Request for Change</i></p> <p>All change requests must begin with the PROJECT LEADER</p>
2	<p><i>Document Request for Change</i></p> <p>Project Leader documents the Request for Change, including:</p> <ul style="list-style-type: none"> <li>• Date of Change:</li> <li>• Description of Change:</li> <li>• Expected Impact of Change:</li> <li>• Rationale for Assessed Impact:</li> <li>• Recommendations to Mitigate Change:</li> <li>• Decision-Makers Regarding Change Approval:</li> <li>• Agreed upon Adaptive Action, if Any:</li> <li>• Change form must be approved by Project Manager and Project Leader</li> </ul>
3	<p><i>Decision on Request for Change</i></p> <p>Project Leader documents the decision, communicates the decision to the team/stakeholders along with the ramifications to the project, and saves this document in the folder, <i>CHANGE MANAGEMENT DECISIONS</i>.</p>
4	<p><i>Action / Non Action</i></p> <p>Pending the decision, the Project Leader or Project Manager initiates the action for change (or takes no action, depending on decision).</p>

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## Project Wrap Up

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<b>Overview</b>	<p>The fourth and final element of managing the project is <i>Project Wrap Up</i>.</p> <p>The wrap up (or <i>post mortem</i>) meeting offers the project team a forum to share information such as lessons learned, best practices followed, and other facts about the project, as well as opportunities to recognize the effort put forth by the team. The wrap up meeting provides closure of the project for all those involved in it, as well as a foundation of knowledge for the next project.</p>
<b>Purpose</b>	<p>The purpose of the project wrap up is to revisit the project requirements and confirm that these requirements have been met to the project sponsors' satisfaction. The project wrap up is also the time to confirm the files are well organized for easy access by future design teams.</p> <p>Some common mistakes during Project Wrap Up include:</p> <ul style="list-style-type: none"> <li>• Not recognizing the value of holding a wrap up meeting upon the completion of a successful project</li> <li>• Using the wrap up meeting to blame individuals or circumstances for an unsuccessful project</li> <li>• Not including the design team – the people actually working on the project – in the wrap up meeting to understand what happened and why, and how things might be adapted in the future</li> </ul>
<b>Process Overview</b>	<p>Sometimes a team will think their project is done, only to discover there is still work to be done because a project sponsor expects more!</p> <p>When preparing to wrap up your project, keep in mind that a project is only ready for completion when one of the following criteria are met:</p> <ul style="list-style-type: none"> <li>✓ All requirements have been satisfied and the Executive Sponsor and Key Project Sponsor(s) and/or Steering Committee have approved all project deliverables, OR</li> <li>✓ Project Sponsor(s) have decided to terminate the project before planned completion, substantially altered the expected deliverables, or postponed the project completion</li> </ul>

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## Project Wrap Up, Continued

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### Process Overview, Continued

Project wrap up should include an audit history trail for future designers, instructors, or anyone accessing your project's documents after your project team has disbanded.

To ensure an effective project wrap up, consider the following recommendations:

- If the success criteria of a deliverable changed mid-project, include documentation of this change when the deliverable is submitted
- Ensure everyone who needs to access your materials knows how to do so (e.g., instructors know where the Instructor Guides are located, etc.)
- Ensure a quality assurance process is in place that retains the integrity of the deliverable once your team has disbanded. For example, consider saving documents in PDF “read-only” format if a formal review cycle is required for changes to these documents.

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### Planning the Wrap Up Meeting

When planning a project wrap up meeting, it's important to include a diverse cross-section from the team. This meeting should include all levels of the project, from the individual contributor to management. These include:

- **Required:** Core Team (including designers and developers), Project Lead, Project Manager, customer representation (e.g. project sponsors)
- **Strongly Recommended:** Executive Project Sponsor, Neutral Facilitator
- **Optional:** Extended team members

When conducting a Project Wrap Up meeting, it's critical to focus on enhancement and the lessons learned, as well as team recognition. If the project encountered many challenges, the facilitator must ensure the meeting remains positive and avoids blaming individuals or circumstances for unmet expectations.

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## Project Wrap Up, Continued

### Example

The following table provides a sample agenda for a project wrap up meeting. You can also find this template in *Appendix B*.

		Project: (NAME)	
		(DATE)	
Project Objective: (STATE)			
Project Manager	xyz	Project Lead	xyz
<b>Key Stakeholders</b>			
CDR xyz (TO)	Executive Sponsor	ITC xyz (CC)	Primary CG POC
LCDR xyz	Branch Chief	LT xyz	Supervisor, IST
ITCM xyz	School Chief	xyz	Contract Mgr.
ITCS xyz	Asst School Chief	xyz	Contract Team Lead
xyz (DCD)	Quality Assurance	xyz xyz xyz	Project Team Members, Developers
<b>Agenda</b>			
1) Welcome, Purpose		xyz	5 minutes
2) Revisit Project Scope		xyz	10 minutes
3) Revisit Project Schedule		xyz	15 minutes
4) Revisit Project Resources		xyz	10 minutes
5) Discuss Best Practices and Lessons Learned		xyz	15 minutes
6) Project Team Recognition		xyz	20 minutes
<b>TRENDS</b>			
<ul style="list-style-type: none"> <li>o DHS Security Requirements (certification?)</li> <li>o Phone System- Moving to one "Brand"</li> <li>o XYZ phone system does not meet DOD regulations and will be phased out</li> <li>o C4IT SOP which may set standards for xyz</li> </ul>			
<b>NEXT STEPS</b>			
<ol style="list-style-type: none"> <li>1) J. Higgins and W. Smith to confirm folder structure and back up.</li> <li>2) I Reynolds and T. Richardson to document lessons learned and best practices and distribute to project team and post in master folder.</li> </ol>			

## Project Wrap Up, Continued

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### Wrap Up Meeting

The following information is commonly discussed during a wrap up meeting:

1. Describe what went well (strengths)
  2. Describe the lessons learned that could benefit other projects
  3. Discuss the overall process including:
    - New processes that should be created
    - Existing processes that need to be refined
    - Old processes that no longer work and could be removed
  4. Discuss the effectiveness of the communications plan
  5. Discuss how the lessons learned will be recorded and applied to future projects and processes
  6. Discuss the POAM regarding accuracy, hindsight, changes, and revisions.
  7. Discuss the change management and quality assurance processes.
  8. Acknowledge individual efforts that contributed to the completion of the project.
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