Project Management At Penn
PMAP Fundamentals

♦ Course Objective
  - To provide you with an overview of PMAP

♦ Topics
  - Project Management at Penn (PMAP)
  - Project Governance
  - PMAP Phases & Project Management Activities
  - Project Management Practices
  - Glossary of Terms
Project Management at Penn (PMAP)

- Definitions & Introduction
- PMAP Objectives & Benefits
- Overview of Life Cycle Phases & Key Activities/Deliverables
Introduction - Basic Definitions

PMI Definitions

♦ Project
  • A temporary endeavor undertaken to provide a unique product or service
  • Project Management
    – The application of knowledge, skills and techniques to project activities in order to meet stakeholders needs and expectations from a project
    – Or in more simplistic terms
      – Using a set of tools and techniques to manage a project

♦ Program
  • A group of related projects/activities managed in a coordinated way to obtain benefits and control not available from managing them individually
  • Program Management
    – The centralized coordinated management of a program to achieve strategic benefits and objectives
Introduction

PMAP:

✓ A systematic approach to planning, controlling and executing all tasks that must be accomplished for a project

✓ Provides a set of roles and responsibilities and a phased, structured process for managing projects.

✓ It is a methodology, framework for Project Management

- It is NOT a Software Development Lifecycle (SDLC)!
Introduction

Why PMAP?

- PMAP encourages early and complete planning
- Provides a consistent, common approach that is repeatable
- Ensures that clients are formally involved in all stages of a project
- Provides Project Governance
- Decision-making is informed by frequent reality checks on project costs, benefits, schedule, and scope.
Introduction

◆ PMAP divides a project into **phases** in order to ensure a complete planning effort before implementation and that “go/no go” decisions can be made at strategic milestones:
  - Definition, Planning, Execution, Close-out

◆ The heart of PMAP is **phased approval of projects**.
  - The project's sponsor(s) approve, upon recommendation of owners, the project phase by phase, as enough information becomes available to make judgments wisely.
PMAP Phases and Key Activities/Deliverables

**Project Definition**
- Project Status
- Proposal Request
- Project Proposal

**Project Planning**
- Project Status
- Develop & Manage
  - Communication, Testing, Rollout, EUS & Training Plans
  - Project Scope, Schedule & Budget
  - Commitments
  - Project Issues
  - Risk Mgmt.

**Project Execution**
- Project Status
- Manage Plans & Activities established in Planning Phase
- Major Phases in SDLC
  - Design/Development
  - Testing
  - Implementation/Rollout
  - Steady State

**Project Close-Out**
- Project Status
- Lessons Learned & Best Practice Report
- Transition to Installed Base
- Performance Feedback
- Release Resources
- Close-out Project

Phase Gate Recommendation

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University of Pennsylvania
When is PMAP generally used?

- Projects that take longer than 3 months and
  - Involve substantial effort or expense
  - Span multiple organizations
  - Are part of a larger effort

- Or, any project, as designated by executive management, where a more rigorous project management approach is desired
PMAP is designed to be flexible

- Project manager may select/combine PMAP components to be utilized based on project needs
- Activities can be adapted for smaller projects
- Can serve different types of projects
- Templates and forms are adaptable
- Varying levels of formality
- Allows iteration in planning and execution phases
PMA P Objectives and Benefits

♦ Provide a *common* project management methodology
  ✓ *Provides a reliable, sustainable PM process*
  ✓ *Diminishes rework*
  ✓ *Provides a set of standards and reportable project metrics*
  ✓ *Maintains greater consistency in managing projects*

♦ Provide an *adaptable* project management methodology
  ✓ *Supports scalability for different size projects*
  ✓ *Provides flexibility to adapt to specific projects*
  ✓ *Adaptable to changing client needs*
PMAP Objectives and Benefits

♦ Improve Project Management Controls

- *Improves scope* management
- *Facilitates on time* delivery
- *Provides for progressive elaboration of estimates*
- *Ensures a complete planning effort*
- *Emphasizes phased approval of projects*
- *Improves the budgeting process*
PMAP Fundamentals Topic 2

- Project Governance
  - Organization
  - Roles/Responsibilities
Project Organization

Project Sponsor(s)  
Functional & ISC

Project Owner(s)  
Functional & ISC

Project Manager(s)  
Functional & ISC

Project Team
- Functional Team Leader (s)
- ISC Team Leader (s)
- Implementation, Communications, Training, ISC Auxiliary Teams

Some positions can be combined depending on project size & scope

Office of Audit & Compliance

Resource Management, if applicable

Subject Matter Experts  
(Working/Advisory Groups)

Some positions can be combined depending on project size & scope
Roles & Responsibilities

♦ Project Sponsors
- The Project Sponsors are the most senior executives who commission a project for the University
- The sponsors have both the responsibility and authority to provide funding for the project.

♦ Project Owners
- The Project Owners are the high-level executives who make the business decision that the project is needed by the University
- The Project Owners are committed to the successful completion of the project and are ultimately responsible for its implementation, ongoing integration and long term operation
Roles & Responsibilities

♦ Project Managers

Responsible to the Owners, Sponsors & Team

• Track/report ongoing progress of the project including schedules, milestones, deliverables and costs

• Monitor and coordinate the teams’ work and lead team efforts to identify all project related business decisions and recommend appropriate action

• Act as chief liaison and arbitrator between technical, functional, and/or infrastructure team issues
Roles & Responsibilities

♦ **Functional Team Leader(s)**
  - Functional Team Leaders are responsible to ensure that all deliverables and milestones are completed on schedule.
  
  - They lead the efforts of participants working on functional and user support aspects of the program including processes, policies and organizational issues.

♦ **Technical Team Leader(s)**
  - Technical Team Leaders are responsible to ensure that identified functional business requirements are implemented in an efficient and effective manner.
  
  - They also coordinate all efforts with the Functional Team Leader, lead the effort of technical team participants and serve as System Architect.
Roles & Responsibilities

♦ Implementation/CoreTeam
  • Works to ensure smooth implementation of both functional and technical requirements of the project, including security and training
  • Consists of functional and technical personnel may also include vendor and/or supplemental external resources
  • Depending on the size of the project, there may be a single or several implementation teams

♦ Working/Advisory Groups
  • Generally used to broaden representation & participation for activities like requirements definition, review of design and/or prototypes, testing, and review of test results.
  • Advisory groups are used to provide advice to the project owners on process and policy issues as appropriate.
Roles & Responsibilities

♦ **Communications Team**
  - Collaborates with team leaders and program/project managers to develop and deliver project communications to the appropriate audiences as per the Communication Plan
  - Communication strategies, approach and significant communications are reviewed with executive owners

♦ **Internal Audit**
  - Raises awareness and ensures compliance with internal and external regulations, security policies, and procedures; also advises on risk management and process controls

♦ **Infrastructure Participants/Team**
  - Responsible for providing the technical infrastructure, including security and training to support the core system as well as associated systems
  - Depending on project size & scope, sometimes participants are active members of the implementation team rather than members of a separate infrastructure team
PMAF Fundamentals Topic 3

 ➢ PMAF Phases & Project Management Activities
  ▪ Definition
  ▪ Planning
  ▪ Execution
  ▪ Close-out
PMAP Phases: Definition Phase

♦ Develop Work Request
  – *Client Representative/Team Leader/Project Manager develops request based on input from client/end-user*
  – *Work Request may or may not lead to a proposal*
PMAF Phases: Definition Phase

- Develop Project Proposal
  - Business Need/Opportunity
  - Business Vision/Goals
  - Objectives Estimate resource requirements
  - Estimate effort (order of magnitude)
  - Estimate costs (order of magnitude)
  - Outline objectives
  - Specify benefits
  - Map out a rough schedule
  - Identify Scope

- Complete Capital Request (if required)

- Conduct Phase Gate review
PMAP Phases: Planning Phase

- Refine estimates made in definition phase
  - Scope, Effort, Budgets & Resource needs

- Planning Phase can be iterated to accommodate various degrees of size, risk and complexity

- Establish and manage activities to execute project
  - Discrete Activities in Planning Phase
    - Develop Communications plan
    - Determine Project scope
    - Develop Project schedule
    - Develop Project budget
    - Set up Project repository
    - Develop Deliverable approval plan
    - Develop Risk Management Plan
    - Conduct phase gate review.
PMP Phases: Planning Phase (cont’d)

- Establish and manage activities to execute project (cont’d)
  - *Ongoing Activities in Planning Phase*
    - Communicate project status
    - Execute communications plan
    - Manage project scope
    - Manage project schedule
    - Manage project budget
    - Manage changes to project commitments
    - Manage project issues
    - Manage project repository
    - Manage deliverable approval plan
    - Manage Risks
PMP Phases: Execution Phase

- Can be iterated to accommodate various degrees of project size, risk, and complexity
- Manage ongoing activities to execute project
  - Communicate project status
  - Execute/manage communications plan
  - Manage project scope
  - Manage project schedule
  - Manage project budget
  - Manage changes to project commitments
  - Manage project issues
  - Manage deliverable approval plan
  - Establish/Manage Steady State Plan
  - Manage risks
- Conduct Phase Gate Review
Communicated throughout all phases of project

- Occurs on a periodic and regular schedule – frequency can vary (e.g., weekly, bi-weekly, monthly, quarterly) based on needs of each project

Stakeholders are provided with accurate and up to date project progress and status

Project status report should include all project variances
  - Schedule, Scope and Budget
Frequent and targeted communications strengthen the partnership between ISC and its clients.

The Communications Plan identifies:

- *What information*
- *To whom*
- *Frequency*
- *Communications medium*

All external communications require:

- *Project owner approval*
PMAP Ongoing Project Activities: Manage Project Scope

♦ All of the project management and product deliverables within the project
  – Define deliverables clearly and precisely
  – Basis for schedule and budget
  – Obtain agreement with project stakeholders
  – Should contain what is and what is not included
PMA Project Activities: Manage Project Schedule

- Schedule should be comprehensive and accurate – this is your roadmap of what needs to be done in order to complete the project, contains:
  - Phases, activities, tasks, milestones and critical path
  - Resources (who)
  - Timeframe (when and in what sequence)

- The level of detail within phase may vary from project to project

- Baselines of your schedule should be taken at appropriate points
  - Baselines allow variances in the schedule to be recorded and reported
PMAP Ongoing Project Activities: Manage Project Budget

- Project and Product budgets should reflect five year projections

- Project costs and ongoing operational costs
  - Software Acquisition and Maintenance
  - Hardware Acquisition and Maintenance
  - Business Continuity
  - Labor (includes ISC, Functional and Contract staff)
  - Communications and Change Management
  - Training, Administration & Recognition
  - Other
  - Contingency
PMAO Ongoing Project Activities: Manage Changes to Project Commitments

- Scope baseline
- Schedule baseline
- Budget baseline
- Deliverable approval criteria
PMAP Ongoing Project Activities: Manage Project Issues

- Issues are events that impact project progress
- Establish a consistent process to address
- Issues may turn into commitment change
  - *Scope*
  - *Schedule*
  - *Budget*
- Any team member can log an issue
- Team members may be assigned action items to resolve issues
PMAP Ongoing Project Activities: Manage Deliverable Approval Plan

- The purpose of the Deliverable Approval Plan is to ensure that deliverables meet expectations when completed.

- For each deliverable identified in project scope, specify clear measures that signify approval for a deliverable.
PMAP Ongoing Project Activities: Conduct Phase Gate

- At the conclusion of each Phase, the Phase Gate provides for a formal review of:
  - Requirements
  - Budget
  - Schedule
  - Scope
  - Resources
  - Risks

- Go/No Go Decision
PMAP Phases: Close-out Phase

- Complete Post Implementation Report
  - *Capture lessons learned*

- Provide performance feedback on resources

- Close out any unfinished activities

- Complete Operational Transfer
  - *Knowledge Transfer, Documentation, SLA,*
  - *Product Evolution*

- Conduct Phase Gate review
PMAP Fundamentals Topic 4

- Project Management Practices
The project management practices provide guidance about HOW to perform the necessary activities and produce the required project management deliverables

- *Project management life cycle describes WHAT needs to be done during the course of the project*

A project management practice is a collection of techniques, processes, and tools applicable to a specific aspect of managing the work effort, such as schedule or issue management.
Eight Project Management Practices:

- Communications
- Scope Definition and Management
- Schedule & Budget Definition and Management
- Commitment Management
- Project Issue Management
- Project Information Management
- Project Governance and Acceptance Management
- Risk Management
## Project Management Practices

<table>
<thead>
<tr>
<th>PM Practices</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Communications</td>
<td>This practice deals with building a partnership with the project’s clients, and promoting communications among all project stakeholders that address their project information needs.</td>
</tr>
<tr>
<td>Scope Definition &amp; Management</td>
<td>This practice deals with getting agreement and commitment from all parties about what deliverables (from both project management and product development perspectives) the project will produce, and maintaining that consensus throughout the project life cycle.</td>
</tr>
<tr>
<td>Schedule &amp; Budget Definition/Mgmt</td>
<td>This practice deals with building a comprehensive and realistic schedule and budget for the project and then managing schedule and budget projections accurately throughout the project life cycle.</td>
</tr>
<tr>
<td>Commitment Mgmt.</td>
<td>This practice deals with tracking changes to the commitments made to the project, whether in terms of agreed-upon baseline (that is, scope, schedule, and budget approved at Phase Gate reviews) or in terms of previously approved deliverables. This practice also deals with managing commitment variances.</td>
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<td>Project Issue Mgmt.</td>
<td>This practice deals with documenting, tracking, and resolving all project issues, especially the ones that may impact the project baseline.</td>
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<tr>
<td>Project Information Mgmt.</td>
<td>This practice deals with collecting, storing, and managing information generated by and about the project, and capturing historical information in a repository for future use or analysis.</td>
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<tr>
<td>Project Governance &amp; Acceptance Mgmt.</td>
<td>Project Governance deals with defining accountabilities and responsibilities for strategic decision-making for a project, whereas Acceptance Management deals with ensuring that every deliverable produced by the project fully meets the needs of the client. Gaining client acceptance of deliverables produced will help ensure total success of the project.</td>
</tr>
<tr>
<td>Risk Management</td>
<td>Risk Management practice deals with identifying, tracking and managing project risks</td>
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Glossary of Terms
Goal (s)

- What you intend to do/accomplish. The goal provides *purpose* and *direction* to the project. The goal(s) are usually written in a language of the business so that anyone who reads it will understand it without further explanation from anyone. You should not use ‘jargon’ in your goal(s). The goal statement should be short and to the point.

- Goals must be S.M.A.R.T
  - *Specific, Measurable, Assignable, Realistic, Time-related*

- Question you might ask yourself: What am I trying to do? What problem/opportunity will I solve?
Glossary of Terms

Scope:

• Scope defines the boundaries of a project. It tells not only what will be done, but what will not be done. The scope becomes the foundation for all project work to follow.

• Question you might ask yourself: What is included and not included?
Objective (s) :

- Decomposition of the goal/scope, clarifies the exact boundaries of a project

- An objective should state what is to be accomplished and HOW. Objectives can also contain timeframes, where a goal will not. Objectives should also should reflect the measures of success.

- Question you might ask yourself: What will I accomplish when I complete the goal?