Roadmap to a Project Management Office (PMO)

November 18, 2010

Project Summary

As State agencies continue to manage diverse projects along with different people, resources, technology, and various communication methods, the risk of failure is often far too high. As part of an effective solution, creating a centralized management structure for large groups of projects, namely the Project Management Office (PMO) seems ideal. The PMO provides state agencies with an infrastructure of people, procedures, and tools to achieve effective project management by leveraging project management standards, allocating resources, establishing consistent performance measures, and reducing duplication of efforts.

Project Goal

Establish a guideline for creating a project management office within any agency in the State of Ohio. The guide will cover areas such as:

- Gain Executive Leadership and Management support of the agency
- Establish a Governance Body (The decision-makers)
- Determine the structure and composition of the team (including the position within the Table
- of Organization)
- Develop PMO templates and tools to be used
- Identify and train PMO staff
- Establish a Pilot PMO
- Incorporate Continuous Quality Improvement Processes
- Establish Regular Progress Reporting

Project Outcome

The objective of this project is to provide a road map template to any state agency considering the implementation of a project management office (PMO). This guide will serve as a road map to creating a PMO. A model for state agencies to follow when establishing a PMO or PMO pilot which includes but is not limited to the following:

- Cost to initiate a PMO
- PMO Governance
- Funding the projects
- Senior management buy-in
- Phases (small pilots)
- Project Management Maturity

Project Benefits

There are many benefits to establishing an effective PMO. The PMO provides a framework for consistently managing projects through a standard methodology, as well as ensuring the projects are aligned with established agency goals and strategies. The PMO establishes clear lines of responsibility, facilitates the coordination of people, processes, and tools with one another, in order to avoid both gaps and overlaps between projects as well as reducing or eliminating duplication of efforts. This standardization will result in better communication within the agencies, reduced project costs, improved resource management, more accountability, improved quality, and better forecasting.
In summation, the establishment of a PMO will allow State agencies to significantly improve the success of various projects via the efficient use of their people and available resources.

Project Team

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Roadmap to a Project Management Office (PMO):

Guide

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II. Business Case - Project Proposal

III. Readiness and Maturity Assessment

IV. Project Governance

V. Pilot Rationale

VI. Cost

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VIII. Methodology

a. Project Management Process

b. Project and Portfolio Management Tools

c. Project Management Templates

I. Senior Management Buy-In

All state agencies have projects. Some have more than others, however the way agencies get projects done may not be the most efficient way to get projects completed. State agencies are always looking for ways to improve processes. Process improvement initiatives always start with an idea, that we can do the same job better.

A small committee may want to collect sufficient data on the current state of the way projects are handled in order to articulate the need for a project management office and secure top management buy-in and support. Such management buy-in will be looking forward to improving the current project management process by setting up a project management office. The buy-in of senior management should be considered and discussed at the early stages of the implementation of a PMO and the project management methodology.

Once the idea for a project management office has been realized then the need for top management buy-in will need to occur as stated above. When we speak of buy-in, we are simply saying that senior management will need to give their approval and be willing to finance the new venture of implementing a PMO. Thus showing they have a vested interest and stake in the success or failure of a project management office.

Buy-in from senior management normally comes from a person or group of people who are considered high level or possible executive level management. Once you have determined who the key players would be from top management, then one of these people should be considered as the projects sponsor. When securing the buy-in from management, the committee needs to make sure they get the staff of the agency engaged in all parts of the initial planning and implementation of the PMO. These staff members are your core stakeholders.

A PMO will help monitor and stream line projects from open to close. Keeping a customer service approach as well as being organized and transparent will secure the management buy-in needed for success. Having management buy-in is crucial for the implementation of a project management office. Without the necessary buy-in the project may fail before it even gets started.

Organizational commitment is needed for long term success for process improvement. Keeping employees and external stakeholders active in the problem solving activities and future process improvement will assure you get the senior management buy-in you desire for the implementation of the project management office for your state agency.

II. Business Case - Project Proposal

As State agencies continue to manage diverse projects along with different people, resources, technology, and various communication methods, the risk of failure is often far too high. As part of an effective solution, creating a centralized management structure for large groups of projects, namely the Project Management Office (PMO) seems ideal. The PMO provides state agencies with an infrastructure of people, procedures, and tools to achieve effective project management by leveraging project management standards, allocating resources, establishing consistent performance measures, and reducing duplication of efforts.

There are many benefits to establishing an effective PMO. The PMO provides a framework for consistently managing projects through a standard methodology, as well as ensuring the projects are aligned with established agency goals and strategies. The PMO establishes clear lines of responsibility, facilitates the coordination of people, processes, and tools with one another, in order to avoid both gaps and overlaps between projects as well as reducing or eliminating duplication of efforts. This standardization will result in better communication within the agencies, reduced project costs, improved resource management, more accountability, improved quality, and better forecasting.

Once you have assessed the need for a PMO by utilizing available tools (i.e., Gartner: PMOs: One Size Does not Fit All), the following steps can be followed to establish a PMO in State agencies:

1. Gain Executive Leadership and Management support of the agency
2. Establish a Governance Body (The decision-makers)
3. Determine the structure and composition of the team (including the position within the Table of Organization)
4. Develop PMO templates and tools to be used
5. Identify and train PMO staff
6. Establish a Pilot PMO
7. Incorporate Continuous Quality Improvement Processes
8. Establish Regular Progress Reporting

In summation, the establishment of a PMO will allow State agencies to significantly improve the success of various projects via the efficient use of their people and available resources.

III. Readiness and Maturity Assessment

For decades, organizations have been creating project management offices to facilitate one or more of the following activities:

- Match business goals with appropriate technology
- Provide centralized control of all projects
- Increase coordinated between projects in the portfolio
- Enforce standards
- Mange competing priorities
- Increase resource utilization
- Control scope, manage risk quality and cost among all projects (Filicetti)

However the success rate for establishing a PMO is estimated to be less than 50%. The failure rate can be attributed to not clearly aligning the roles and responsibilities of the PMO with the maturity of the organization. In order to bring these in alignment and therefore increase the likelihood of success, this guide provides two tools that will help the organization determine their readiness for a PMO and their current Project Portfolio Management (PPM) Maturity Level. (Fitzgerald)

▪ Readiness Survey
(Appendix III-A – Portfolio Management Adoption: Readiness Foundational Capabilities Matrix)

This tool provides a "model" which is used to determine the degree of capability and components readiness" within an organization, for the adoption of the portfolio management for projects discipline.

The tool list 14 components ranging from executive level sponsorship to level of working project management culture. One the organization has scored each component and the weighted score is calculated, the organization will have tangible evidence on whether or not to proceed with project portfolio management for an organization.

▪ Maturity Assessment
(Appendix III-B – PMOs: One Size Does Not Fit All)

The first step of the assessment is to review the characteristics:
People PPM Processes Technology Financial Management

Against the five levels of maturity:
0-Nonexistent 1-Initital 2-Developing 3-Defined 4-Managed 5-Optimized

Once the organization has determined their PPM maturity level, they can now map this maturity level to the appropriate PMO structure as shown below:

Level 0	Level 1	Level 2	Level 3	Level 4	Level 5
Community of Practice	Project Support Office	Project Management Office	Portfolio Office, Centers of Excellence	Federated PMO, Program Offices	Enterprise Program Management Office

For a complete explanation of each PMO structure, please see appendix III-B.

IV. Project Governance

Project Governance is the rules and regulations under which the projects function. It covers the mechanisms put in place to ensure compliance with certain standards.

The Governance Council reviews projects' statement of work, may solicit additional information and defines rules of engagement that support tasks, milestones, risks, budget, roles and documents. The Governance Council also defines roles and responsibilities for the Project Sponsor, Project Managers, Project Team Members and Stakeholders.

In summation, to achieve necessary oversight and control, all PMOs must begin with effective governance, providing oversight over multiple dimensions, including people, roles, structures and policies.

V. Pilot Rationale

A PMO proposal may threaten an organization's power structure with the prospect of title shifts, demotions, departmental transfers, and possible terminations. The advent of a PMO may be perceived as threatening to some in an organization. Thusly, its implementation may face anywhere from slight resistance-to-outright opposition. To mitigate opposition that may arise, and to facilitate departmental/agency-wide acceptance of the idea of a PMO, the prudent course appears to be the one in which downplays the structural shifts and up-plays the need for the system. The uses of a pilot PMO may aide a department's acceptance of, and increase its understanding of, the need and uses for a PMO. Incremental assimilation/implementation attracts far less criticism/opposition than perceived annexation and the prospect of potential displacements. Additionally, one bi product of the pilot is to have the PMO gain traction and/or experience some successes while adding concrete value to the organization/department.

VI. Cost

The formation of a PMO carries with it many challenges, not the least of which is the "how to calculate/estimate the cost of the implementation of the PMO", question. Much like what is involved in the estimation of a project's cost, the estimation of a PMO's implementation can be equally challenging. When considering the cost of the implementation of a PMO, one must pay heed to many factors; keeping in mind that the objective should be to arrive at an estimate. There is no one-size-fits-all formula for the estimate. Of the elements that should be considered are:

- Amount of necessary resources (staffing is a considerable piece of funding needs)
- Logistics (physical, internal cost, maintenance cost, training cost, tools/equipment)
- How long are these resources required
- The size and scope of the project(s)
- The funds available for the PMO

The lack of empirical research, on the subject of PMO start up cost, does not provide researchers with much on the subject of cost estimates, or the "how to estimate the cost of the implementation of a PMO", question. Ideally, the cost of a PMO should be funded by the project. Public (or State) projects should be funded by the department who commissioned/sponsored it. Ergo, the ability to successfully manage and implement the *ballpark estimate* becomes essential to the successful implementation of a PMO. (Phillips).

- ***The Ballpark Estimate*** *is also known as the Rough Order of Magnitude (ROM). A ROM estimate is based on high-level objectives, provides a bird's-eye view of the project deliverables, and has lots of wiggle room. Most ROM estimates, depending on the industry, have a range of variance from -25% all the way to +75%. Like I said, lots of wiggle room.* **(Phillips)**

VII. Funding

As with any startup, initial costs cannot be avoided. A critical point to consider when establishing a PMO is that it will become a department with staff that is 100% dedicated to that office. This will result logistical needs that any department requires: office space; supplies; IT hardware. As the methodologies and strategies for your PMO are identified, it will become clear what infrastructure resources will be required to effectively accomplish the intended goals (i.e. IT servers for project management tools). Implementation of new resources will require training on their use as well maintenance. Another important consideration is the effect that the creation of a PMO will have on current processes and the costs incurred to change them.

Industry consensus illustrates that once a Project Management Office is established it should be self-sufficient by funding itself through the costs of the projects they manage.

Funding projects in government may seem like a straight forward process, but with decreasing revenue due to the declining economic environment, state and local agencies must do more with less. Limitations to funding expenditures by regulations and statutes (i.e. OMB CircularA-87) present even further restrictions. Maintaining current projects while funding new ones through these circumstances can be sustained through alternative funding methods.

Many states employ alternative funding methods for Information Technology projects that can be adapted for projects beyond an IT scope. In 2008 thirty-one states participated in an online survey conducted by the National Association of State Chief Information Officers (NASCIO) providing information about alternative funding methods. The methods most being utilized were identified (and defined) as the following:

1. User-fee Revenue – Adding fees to services utilized by citizens (e.g. BMV Licensing).
2. Grant Funding – Includes private foundation grants, federal block grants, and state sponsored grant programs.
3. Budgeting and Appropriations Strategies – Retaining unspent funds at the end of a budget year, using uncommitted year-end funds, reallocating savings realized from previously implemented projects to fund other projects, and/or increase in-house expertise to reduce amounts spent on outsourcing.
4. Shared Services – Encouraging agency/stakeholder collaboration to spread costs across agencies. (Public to Public Partnerships)

("Innovative Funding for State IT…," September, 2008)

VIII. Methodology

a. Project Management Process

Even after the implementation of a project management office, there must be processes in place to manage projects. Having processes in place will allow management to focus on managing projects rather than having the difficult task of deciding which projects move forward and which ones don't.

The goal of having a process is the highest level objectives, the ends toward which all agency efforts are ultimately directed. The process should be broken down as follows: Tier 1; Tier 2; and The Parking Lot.

Tier 1 projects identify projects that are high priority. These projects directly support the fiscal years strategies.

Tier 2 projects identify projects that are necessary, but have not been found to be high priority. These projects will move forward, but only when resources are available.

Lastly we have the Parking Lot projects that identify projects that do not meet Tier 1 or Tier 2 criteria. These projects may still need additional research, resource or funding. Projects in the parking lot are deemed as non strategic projects.

Having a process in place for moving projects forward is key when trying to effectively manage projects within the project management office. The process allows the projects to move forward quickly if all the elements are in order to allow the project to move to Tier 1. The process also allows the employees and stakeholders to know where their projects rank with regards to the overall goal, direction and success of the agency. Stakeholders can visually see and understand why projects deemed Tier 1 or Tier 2 move forward.

b. Project and Portfolio Management Tools

Project and Portfolio Management (PPM) tools are applications designed to provide visibility into the current state of organizational initiatives, resources and spending through the centralized collection of data from multiple sources and perspectives (GARTNER). Organizations considering the purchase of a PPM tool must match provided capabilities of the tool against their current PPM maturity (see Appendix III-B). The organization should examine all the functional capabilities and identify initial functionality that meets immediate needs.

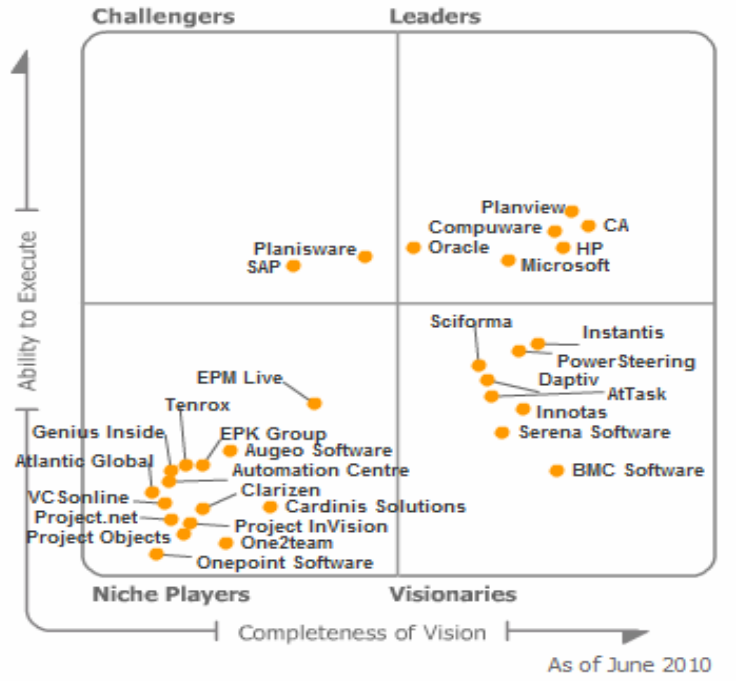
Once the need for a PPM tool has been established and alignment with the organizations current PPM maturity complete, the following are functionality to look for in any PPM tool: (Monteforte)

- Project Alignment
- Risk Assessment
- Demand Forecasting
- Portfolio Analysis and Reporting
- Resource Management
- Financial Analysis to Determine the True Business Value of a Project
- "What-if" Analysis
- Benefit Measurement
- Project Management Disciplines (scheduling, timing, tracking, etc…)

There are dozens of PPM software vendors that offer products providing much of the functionality listed above. When deciding which tool to purchase, organizations should consider the following criteria:

- Functionality & Templates
- Technology
- Vertical Specialization
- Pricing

In addition, it is suggested that organizations review the Gartner Magic Quadrant to see how each vendor scores relative each other on ability execute and completeness of vision.



When evaluating the various PPM tools, the single most important consideration is the organization's readiness to implement a tool based on their current PPM maturity and experience with PPM processes

c. Project Management Templates

Opportunity Assessment Templates

Project Request Document

- The Project Request Document (PID) is used to document and promote understanding of the business need and to provide information to support the decision to further investigate the need/solution. This document is started in the Opportunity Assessment and refined during the Initiating and Planning Processes.

Scope Statement

- The Preliminary Scope Statement documents key elements of the project scope based on information gathered during Initiating. The document focuses on project/product characteristics as well as the project boundaries. The Preliminary Scope Statement is completed in Initiating.

Project Organizational Chart

- An organizational chart is a graphical representation of the people assigned to the project team. The structure indicates the roles and relationship to other members of the team.

Initiating Templates

Benefits and Costs Checklist

- The checklist assists in the gathering and evaluation of cost and benefit analysis process

Concept Analysis Document

- The purpose of the Concept Analysis Document is to define alternate concepts or options that may satisfy a business need. As part of concept analysis each options benefits and costs are analyzed and a best solution is recommended. The Concept Analysis and Project Request Documents are used to define and document business requirements.

Project Classification

- Project classification allows the project team to scale project management processes and software development methodology. Classification helps determine how much of the methodology needs to be applied to the project, what type of process is required to receive funding, and what level of authority is required for approvals. Projects are classified as A, B, or C.

Impact Analysis

- Implications of the proposed change requirements.

Risk Identification Checklist

- Use this checklist to assist in identification of risks. This is not an all-inclusive list.

Project Charter

- The Project Charter recognizes the existence of a project and supports the decision to further refine the project solution. A charter signifies that functional managers and the project managers have reached consensus, agreeing about the vision, scope, authority and overall deliverables of the project. The Charter is started in the Opportunity Assessment Phase and completed in Initiating.

Planning Templates

Business Case

- To identify the objectives and proposed solution of the project along with quantifiable benefits and costs. This document is started in the Initiating Process and completed in the Planning Process.

Communications Matrix

- The objective is to document the project team's approach towards communication.

Project Schedule Generic

- An example of an MS Project schedule that is organized by project management process. This is only one way a schedule may be developed. The schedule should always match the Work Breakdown Structure (WBS) of the project.

Requirements Checklist

- The Checklist for Requirements is intended to verify the requirements are complete, correct, contain required attributes, provide traceability, and address any special issues.

Project Budget

- This document with project forecasts should be approved at the Planning Checkpoint. The budget documents the forecasted and actual project costs as the project progresses. The project manager or delegate will assume ownership of the budget for the entire project.

Requirements Specification

- The purpose of the Requirements Specification is to document requirements for the product, service, or deliverables associated with the project.

Work Breakdown Schedule (WBS)

- This is an example of a one way to create a project management Work Breakdown Structure.

Executing & Controlling

Change Log

- To provide and serve as a reference for approved changes in the project, including, scope, cost, duration, and deliverables. It is a record of all requests for change. Each change should have a Change Request Form that corresponds.

Deliverables Acceptance

- This document is to ensure that the requirements and expectations of the deliverable is met, approved and accepted. This document may be used at the end of the project or during each phase as deliverables are submitted to the requesting organization and/or client. This document is for non-software related projects. For Software Development projects, the User Acceptance Testing will be the Deliverable Acceptance.

Issues Log

- To document, track and resolve issues. "Issues" are problems or questions arising in the course of the project that need to be defined, researched, evaluated in terms of scope and impact, and resolved in order for a project phase or task to proceed. Typically, issues will be part of the Project Status Report and reviewed with the team weekly and/or monthly.

Meeting Agenda

- To provide a standard Meeting Agenda format to facilitate communication.

Meeting Notes

- To provide a standard Meeting Notes format to facilitate communication.

Project Status Report

- To provide a weekly or bi-weekly review for working team members on how the project is progressing. The project manager is responsible for determining what standard reports are produced.

Request for Change

- The (RFC), Request for Change is to document the detailed description of the change, analyze the project and business impact of the change if it occurs and to document the approval response.

Risk Register

- To document the description and assessment of risks and to offer action plans to respond to risks. The Risk Log provides a reference for the project team and supports their need to be apprised of and evaluate the risks.

Closing

Client Satisfaction Survey

- To document the client satisfaction level of the product/service. The project manager distributes the Client Satisfaction Survey form to customers and/or clients during the Closing Process. The project manager collects the forms and stores them in the project repository. The project manager should summarize the results of the Client Satisfaction responses in the Project Closeout Report.

Contractor Exit Checklist

- To review and verify the deliverables and work of the contractor. This will help the project manager determine if the provisions of the contract(s) were met and to provide feedback on performance to help improve possible future engagements. Typically, the project manager will use the checklist to assist when the project relationship with the contract company is closing.

Lessons Learned Log

- To identify and record lessons learned and future recommendations. This document is intended to collect information that has been learned during a phase of a project as well as the team's impressions of what worked well and what did not work well. This document should be updated throughout the entire lifecycle of a project and the results will be used to update or improve the overall process as appropriate.

Project Survey

- The Survey is used to capture input from team members and the project manager during the Closing Process. The objective is to learn from the experiences and continually improve the software development process. All comments will be considered as the overall project closeout document is assembled.

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Gartner

Gartner for IT Leaders Tool

Portfolio Management Adoption: Readiness Foundational Capabilities Matrix

This provides a "model" which is used to determine the degree of capability and components "readiness" within an organization, for the adoption of the portfolio management for projects discipline
There are three worksheets: one provides an explanation of the identified capabilities and components; the second provides a "typical" readiness profile which offers a good likelihood of adoption success; and the third provides a worksheet for your use.

Capabilities, Components, Metrics Explanation and Values

Readiness Elements	Description
Capability/Component	
Agreed Reason to Change	The potential value and contribution of the portfolio management discipline to major organizational goals and needs has been identified. There is agreement that its future benefits exceed the costs and time associated with a substantial organizational change effort required to master its functions and practices.
Executive-Level Sponsorship	Executives who are responsible for governance of the organization's major initiatives have reached consensus to move forward with a portfolio management adoption effort, and have agreed to provide the identified and required resources and funding to ensure its success.
Link to Major Organizational Goal/ Need	There is a generally agreed-on link at the executive level, defined as success enablement between the introduction of the portfolio management discipline and the achievement of a major organizational goal or need.
Executive Committee for Strategy and Initiatives	The organization possesses an executive function that approves major initiatives and sets priorities for its initiation and resource allocation based on the defined organizational strategy and direction.
Effective Policies and Practices for Initiatives Approval and Management	The organization possesses and generally follows a set of policies, procedures and practices that govern the identification, justification, approval and continuing management for major initiatives.
Effective Organizational Roles/Functions for Initiatives Approval and Management	The organization has defined individual and organizational roles, functions and decision rights for the identification, justification, approval and continuing management of major initiatives.
Effective Initiatives Funding Roles, Policies and Practices	The organization has defined and generally uses individual and organizational roles, functions and decision rights that govern the review, approval, and ongoing oversight of funding and spending for major initiatives.
Initiatives Roles and Responsibilities Well-Defined	The organization has defined, and generally uses individual and organizational roles, functions and decision rights that define the responsibilities for the planning, execution and oversight associated with major initiatives.
Resources Planning and Usage Tracking Functions and Practices	The organization has implemented individual and organizational roles, functions, practices and associated toolsets that identify all human resources associated with initiatives, their capabilities and skills, assignments and work execution for many of the planned and ongoing initiatives.
Working Project Management Culture	The individual and organizational capabilities, skills and practices associated with the discipline of portfolio management are generally applied to the planning and the management of most initiatives, and individuals are required to take formal continuing education courses or seek certification at a mastery level in their applications.
Work and Deliverables Process Culture	The organization and the staff associated with major initiatives possess capabilities, skills and practices associated with a process-driven approach to the planning and execution of initiatives. These are applied to most initiatives, with individuals required to take formal continuing education courses in process methods and life cycles, or to seek certification at a mastery level in their applications.
Performance Measurement Culture	The organization and the staff associated with major initiatives are oriented toward the continuing management of initiatives on the basis of metrics and data derived from solid planning and progress tracking practices. These are applied to drive decision making for most initiatives.

Effective Organizational Risk Management Roles and Practices	The organization and the staff associated with major initiatives possess capabilities, skills and practices, and are subject to published organizational policies with respect to identification and containment of risks associated with the planning and the execution of these initiatives. All these are applied with some regularity to most major initiatives. Identified risks are subject to regular monitoring, escalation and decision making.
Past Large-Scale Change Management Success	The organization has a history of general success and overall good management with regard to major efforts in change identification, planning and execution. Anticipated benefits and results are largely realized, and the effective application of good practices and good management to specific change-management-oriented efforts are associated with major initiatives.
Capability/ Component Assessment Value	
5	The capability has been mastered and is in general use across the organization. For a component, there is solid definition, value agreement, consensus for its need or contribution, and success when exercised or high potential for success.
4	The capability is in fairly general use, with some practitioners or use at the mastery level. For a component, there is general contents agreement, demonstrated value, major supporters for its need or contribution, and mostly successful application or significant potential for success.
3	The capability or component is understood in its basic elements across the organization, with significant application or use but at a variety of skill levels. For a component, there is basic understanding of contents, some value demonstration, advocates to its need or contribution, and some success in application or reasonable success expectation.
2	The capability or component is in limited use, with pockets of skills or mastery but not in broad use across the organization. For a component, there are a variety of local definitions/contents, some value and support for its use/introduction, and instances of success or likelihood of success.
1	The capability or component is emerging with individual usage but not in general use and no evidence of mastery. The component is in isolated use, with multiple views of its contents, and potential value and contribution with advocates and leaders emerging or a low chance of success.
Capability/ Component Contribution Weighting Metrics	
7	An absolute necessity to enable and support the adoption of portfolio management.
5	Makes a significant success and adoption contribution
3	Adds value and a certain enablement to the adoption
0	Neutral or no contribution

A Typical Readiness Profile

Capability/Component	Capability/ Component Score	Contribution Weight	Overall Score
Agreed Reason to Change	3	7	21
Executive-Level Sponsorship	4	7	28
Link to Major Organizational Goal/Need	2	5	10
Executive Committee for Strategy and Initiatives	3	5	15
Effective Policies/Practices for Initiative's Approval and Management	2	3	6
Effective Organizational Roles/Functions for Initiative's Approval and Management	2	3	6
Effective Initiatives Funding Roles, Policies and Practices	2	3	6
Initiatives Roles and Responsibilities Well-Defined	3	5	15
Resource Planning and Usage Tracking Functions and Practices	2	5	10
Working Project Management Culture	3	7	21
Work and Deliverables Process Culture	2	5	10
Performance Measurement Culture	1	3	3
Effective Organizational Risk Management Roles and Practices	1	3	3
Past Large-Scale Change Management Success	2	5	10
Total			164

This profile is typical of the readiness state of most organizations at the start of a portfolio management adoption effort.

At this readiness level, there is a good chance of success in the adoption of portfolio management, assuming solid executive support, a willingness to change, and leadership with knowledge of the discipline and experience with leading major change initiatives.

A variance of 10 points in the total score, plus or minus, is not significant.

Sample Heading			
Capability/Component	**Capability/ Component Score**	**Contribution Weight**	**Overall Score**
Agreed Reason to Change		**7**	
Executive-Level Sponsorship		**7**	
Link to Major Organizational Goal/Need		**5**	
Executive Committee for Strategy and Initiatives		**5**	
Effective Policies/Practices for Initiative's Approval and Management		**3**	
Effective Organizational Roles/Functions for Initiative's Approval and Management		**3**	
Effective Initiatives Funding Roles, Policies and Practices		**3**	
Initiatives Roles and Responsibilities Well-Defined		**5**	
Resources Planning and Usage Tracking Functions and Practices		**5**	
Working Project Management Culture		**7**	
Work and Deliverables Process Culture		**5**	
Performance Measurement Culture		**3**	
Effective Organizational Risk Management Roles and Practices		**3**	
Past Large-Scale Change Management Success		**5**	
Total			
A total score that is 10% or more below the typical example (shown on the Typical Readiness Profile worksheet) should give portfolio management leaders pause about the likelihood of success of a portfolio management adoption effort. This should be a caution, which suggests the planning and execution of capability/component improvement efforts to remediate low scoring areas prior to the initiation of the adoption effort.			

Gartner Research

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PMOs: One Size Does Not Fit All

Donna Fitzgerald

For more than a decade, project management offices (PMOs) have been regarded as necessary management structures to ensure project success. The problem is that PMOs have had a relatively high failure rate on their first try (by some estimates, more than 50%). We believe that this failure rate is the direct result of not matching the PMO mission and objectives to the real needs of the organization, and of not fine-tuning the role and responsibilities of the PMO to the maturity of the organization. To help alleviate some of these failures, we have defined eight types of PMOs to help organizations be successful from the start.

Key Findings

- The structure of the PMO needs to be aligned to the maturity of the organization and to the volatility or stability of the market conditions surrounding the organization.
- Organizations in stable environments, such as governments, have a tendency to develop what we call "federated" PMO structures much earlier in their organization than organizations in volatile industries, which tend to stay centralized until growth forces them to adopt a federated model.
- A "shared view" of the PMO becomes increasingly important as an enterprise reaches higher levels of maturity and the PMO operation becomes broader and more expansive.

Recommendations

- Begin with a community of practice (CoP).
- Consider adding a project support organization (PSO) as soon as the organization is ready for a formal structure.
- Consider adding a separate project portfolio office in addition to the PSO. Organizations that separate the "doing the right thing" from "doing things right" tend to be more successful in the long term.

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1.0 The Role of the PMO

In the 1980s the drum roll began that heralded the notion that everything was a project. In the 1990s it became clear (with the publication of the 1995 Standish Group Report) that while we might be busy doing projects, we weren't doing them very well. This begged the question as to what could be done to improve project performance. The answer was to establish some form of a PMO to capture knowledge, support or oversee the activities of the project.

Two trends have emerged during the past decade. The first is that while project failure rates have declined, they are still significant. The second is that many of the PMOs set up to improve project success have a very high rate of failure themselves. In fact, we've noted that the average life cycle for many PMOs has tended to begin with enthusiastic hopes followed by mixed results, increasing disillusionment, reorganization downward in the hierarchy and, eventually, dissolution.

If project failure is still above what we believe it should be, does that mean that the concept of a PMO is flawed? Absolutely not. We've learned a lot during the past 10 years about what works and what doesn't, and the environmental factors required for success.

The trick is to define a management structure that is truly in alignment with an organization's capabilities and tolerance for process. Note that we used the word organization rather than management. All program and portfolio management (PPM) leaders must be focused on the fact that their responsibilities entail what John C. Maxwell calls 360-degree leadership. Loosely translated, a PMO leader needs to manage downward, upward and sidewise, and create a situation where both the leader and the office are regarded as valuable.

Based on our experience and discussions with clients, we would like to propose a map of PMO structures that are often useful at various stages of a project- and program-based organization's maturity. In earlier research, we discussed a six-level maturity model that most PPM leaders see their organizations move through, and we've found that certain structures often become necessities at the various levels. Table 1 lays out the most frequently used structures we've seen and the common levels of maturity they often accompany. This order is not absolute and is in no way meant to imply that you can't establish a structure earlier in an organization's life cycle if necessary. Rather, this tablet is intended to suggest that if the organization is at a certain maturity level and hasn't considered building a particular structure, such as establishing a portfolio office or setting up a best-practice council to accompany its federated PMOs, it might be time to review how it is organized.

2.0 The Gartner PPM Maturity Model

Choosing the right form of PMO entails matching the PMO to the right level of maturity. Table 1 lays out the capabilities and the hallmarks of each maturity level.

Table 1. Gartner PPM Maturity Model

	Level 0: Nonexistent — ad hoc	Level 1: Initial — reactive	Level 2: Developing — emerging discipline	Level 3: Defined — initial integration	Level 4: Managed — increasing efficiency	Level 5: Optimized — enterprise-orientation
People	Staff assigned to projects on a first-available basis. PPM activity limited to interests and actions of individual managers.	Priority projects get appropriate staffing — everything else is "first available." Nascent PPM leader role — primarily still an individual-manager focus.	PMO(s) established. Programs increasingly managed in-house. Project staffing/resource capacity issues begin to be addressed.	PPM leader role formalized and increasing specialization trend beginning. Shared-resource pools formalized.	Network of PPM leaders exist companywide in a federated model. Centers of excellence improve workload management. Capacity planning enabled.	PPM leaders exist in all areas of the company. Accepted specialization (program, portfolio and strategy) supports maximum performance.
PPM Processes	Projects are assigned to line or staff managers. No formal PPM processes beyond high-level budgeting, except as provided by outside vendors.	All internal processes centered on management of critical projects. Vendors are often responsible for large initiatives.	Project processes in place. PMO(s) organized. Emerging understanding of PPM. Risk now reviewed.	PPM function established. Projects are approved on a portfolio basis. Enterprise architecture (EA) functions involved.	Similar projects managed as programs. Portfolio is actively maintained.	Portfolio extended beyond IT. Comprehensive PMO. Pipeline managed in real time.
Technology	Intermittent use of project schedulers, spreadsheets and other point tools on a "by project" basis.	Project scheduling tools and milestone reporting adopted.	Project collaboration and team workspaces supported.	Portfolio tool is in place. Reporting dashboards.	Workflow added to toolset. Business users adopt tools as useful.	Single, integrated system supports reporting, collaboration and analysis.
Financial Management	Projects done without formal cost, benefit or risk valuation.	Projects have budgetary estimates, Actual cost can be estimated. Some benefit statements.	Project cost and labor hours captured. Estimate of benefit made for each project.	Costs are captured and forecast. Benefits are identified and related to strategy in the portfolio.	The portfolio is modeled and appropriately optimized, factoring in risk. Benefit realization is tracked.	Programs have their own financial resources, and full life cycle costing is available.

Source: Gartner (February 2008)

3.0 Mapping the Eight PMO Structures to the Maturity Levels

Table 2 lists PMO structures that work well at each level. Some of these suggestions will be fairly intuitive to most PPM leaders, and some (like a separate portfolio office) are based on our experience of what structure provides the right focus at the appropriate level of maturity.

Table 2. PMO Structures Mapped to Maturity Levels

Level 0	Level 1	Level 2	Level 3	Level 4	Level 5
Community of Practice	Project Support Office	Project Management Office	Portfolio Office, Centers of Excellence, Best-Practice Councils	Federated PMO Program Offices	Enterprise Program Management Office

Source: Gartner (February 2008)

4.0 Communities of Practice Work Well at Level Zero

In Table 2 we show CoPs as the organizational form that naturally emerges at Level 0 or Level 1, regardless of industry type. This is not meant to imply that it's an organizational form that becomes outmoded at later levels of maturity. In our experience, a CoP is the foundational unit of the PPM community. PMOs may come and go, as will PPM leaders, but the project-focused CoP will remain, even if it's just a group of people who meet around a lunch table.

The beginning of any community of practice has its roots in what has classically been referred to as the "off-org" chart organization. Every company has one and it can now be documented using techniques from social networking analysis. At its most basic, it is simply a map of who people turn to when they need help getting work done.

For the astute PPM leader, this network can serve as the basis for creating what will ultimately turn into a community of practice. A community of practice emphasizes two things — sharing experiences and improving individual capabilities. A community of practice never imposes practices or sets requirements — it enables individuals to discuss their issues on projects and jointly come to agreement on ways that some of the common problems can be solved.

Having spoken with many PPM leaders who have been brought into organizations to "improve the project management processes," it can be difficult to accept that simply imposing a method and a process on a Level 0 organization is a great way to fail. After all, they tell us, if they were hired to do just that shouldn't they being doing it? The answer is that by starting with a CoP and allowing the organization to mature naturally (with the help of a seasoned leader who knows where the organization should be going), the movement up the maturity curve is actually faster than it would be if processes are imposed too early.

5.0 Project Support Office Helps at Level 1

In our report on the maturity model, we defined Level 1 as a period of disruption or significant change. In volatile industries, companies are growing, and in stable industries, a string of significant project failures or slow but steady growth that has exceeded the capabilities of the informal network cause a demand for more-formal help. At this stage, we recommend that a formal organization be established to support the needs of the (hopefully) pre-existing community of practice.

As is generally true, there is no one set of best practices for a PSO. Based on discussions with clients, we have found that at a minimum, the PSO should:

- Provide simple life cycle support (answering the chronic "what do I do next with this project" level of instructions.) Maybe a bit more here; like resourcing, scheduling, scoping, and so on
- Provide hands-on project assistance/mentoring at the requirements and planning stage of the project if requested to by the project manager.

This basic set of practices can be simple and agile or it can be highly detailed and structured; it all depends on the needs of the individual IT department. Because none of the tasks listed here are new, what is it about a PSO that would make it superior to a full-service PMO? The answer lies in its alignment with the concept of service/support rather than with the concepts of oversight and reporting.

The answer also lies with the PSO's definition of constituency. All too often in a conventional PMO structure, the tendency is to enforce management policy rather than help the project staff produce results. In working with clients, we find that the concept of service — when backed up by a 360-degree review mechanism for the PSO — has significantly increased the effective life span of the PSO. The shift in attitude can be subtle, but we've seen organizations completely rearrange their thinking about what job roles should be when told that they need to get positive evaluations from the project managers they are suppose to be supporting.

6.0 The PMO as Centralized Control Point at Level 2

At some point, the chaos and disruption of Level 1 finally dies down and the organization as a whole becomes interested in "becoming more efficient." There is a power shift that happens at this level of maturity. At Level 1, the organization depended on the skills and abilities of key performers to get work done; however, at Level 2 there is a drive by management to reduce this dependency and to establish reliable processes. We call this level "emerging discipline." In organizations that have built on a functioning community of practice and an active project support organization, establishing a PMO simply means adding formalized project tracking and reporting to the mix. It can also be easy under these circumstances to gain agreement throughout the organization that it is time to document previously compiled best practices in a more formal way, and then add a structure where new hires can be quickly brought up to speed on how best to get project work done in the organization. The chosen process at this time might be linear or it might be agile, depending on the volatility of the market environment, but everyone agrees on the premise that the important thing is to get some consistency and that variations and adjustments can be made later (at Level 3)

Unfortunately, this pretty picture of the way things should work fails about half the time. In too many cases, there isn't a functioning community of practice or PSO in place when an organization decides to "get more efficient" about doing projects. So because it seems the logical thing to do, the organization attempts to jump right into Level 2, and begins by imposing a single high overhead process on an organization that is not only not ready, but in many cases actively resistant. At this point, the project environment breaks into two groups: 1) previously successful project managers (what SEI's Capability Maturity Model refers to as "heroes") who have no use for the dictates of the PMO and 2) new project managers who have come into the organization under the auspices of the PMO and are fine with following the approach they learned when they got certified. Eventually, senior management gets tired of the dissention in the ranks and the PMO is dissolved, which leads the organization to slip back to a level known as Level Minus 1.

It isn't our intention to dwell on the negative, but if 50% of PMOs fail, it's important to describe the circumstances that brought about these failures. It's also important to point out that Level Minus 1

really doesn't exist. Organizations that have failed once have a very high probability of succeeding the second time they try, even if they try again with a full-fledged PMO. The reason is that the opposition to the old PMO created some strong and active social networks and possibly even informal CoPs that can be leveraged by the new PMO. Additionally, we've found that what ever method the original PMO tried to deploy probably did gain some level of acceptance in the organization creating an environment where the notion of a single method is no longer as foreign or objectionable as it was the first time.

Whether the PMO is an outgrowth of the project support organization or a new structure built on the vestiges of a previous PMO, its focus needs to be 360 degrees. Management wants to know not only how projects are performing but whether or not the projects — once completed — delivered value. On the other hand, the project teams need to know that they can still get advice and support when they need it to get a project done on time. PPM leaders in this circumstance need to structure their charters and staff appropriately to be able to fulfill both functions.

7.0 Picking the Right Structure for Level 3 — Portfolio Offices, Centers of Excellence and Best Practice Councils

Level 3 is defined in the maturity model as "initial integration." Where Level 2 attempted to establish a consistent baseline of processes, Level 3 is targeted at supporting an increasing variety of specialized processes — all of which need to work together seamlessly.

7.1 Increasingly Specialized Forms for PMOs Yield Improved Results at Level 3

In addition to a project support office or a PMO, two different organizations can be formed at Level 3: 1) a dedicated project portfolio office (PPO), and 2) a center of excellence for project/program management. At Level 3, we've noticed some slight variations between our government clients and industry clients. While many government PMOs are moving closer to the industry model, some government units skip the step of a strong centralized PMO and adopt a federated model a level earlier than most industry clients.

7.1.1 Project Portfolio Office

Based on a survey of PPM leaders conducted by Gartner in 2007, 19% of all organizations have opted to establish a separate organization that focuses solely on portfolio management.

The PPO should be tasked with managing the pipeline of projects, tracking progress, measuring results, ensuring optimum use of assets and meeting the information needs of executives. The function of the PPO would be analogous to the management of an investment portfolio and, as such, would be staffed and managed by individuals with potentially very different skills than found in a PSO or PMO. At a minimum, the PPO should:

- Provide an updated list to management about the status of the projects in the current portfolio.
- Oversee the project pipeline process and ensure that submitted projects have appropriate business cases and supporting value statements.
- Support pruning the portfolio by making recommendation on which projects should be canceled, delayed or combined with other efforts.

Much of the PPO's value is in its ability to maintain and coordinate the project pipeline. An organization staffed with individuals that work well with business units to establish what needs to be done and why can reduce the demand on senior management time for portfolio review.

One of the reasons that many organizations opt to separate the PPO from the PMO is that it enables the PPO to operate in more of an oversight capacity and frees the PMO to concentrate on methods, process, and technology and project support.

7.1.2 Center of Excellence

During the past few years, we've noticed many organizations opting to have project managers report to the head of the PMO, beginning at Level 2. That's fine, although it often leads to the creation of a hybrid model between a PMO and a PSO. Occasionally, we talk to PPM leaders who feel whipsawed by the variety of demands on their time. As a result, we often find that waiting until things are a little more organized and then creating a center of excellence (CoE) for project and program managers at Level 3 is often a more satisfactory alternative.

In the best of cases, CoEs are often CoPs that have moved up the maturity levels with the organization.

Three primary benefits can be realized from establishing a formal CoE.

- **An increased opportunity for investment in people through mentoring.** The assumption in this case is that if I have an office next to you or down the hall from you I'm much more likely to make myself available when you need the help. It doesn't need to be formal — it just needs to happen.
- **Upgrade skills through on the job as well as formal training.** PPM is best learned by watching what someone more experienced does and then doing it yourself. In groups where project managers are centralized, there is more flexibility to assign apprentice PMs to teams with exactly the right PM for them to learn from
- **Leverage tacit knowledge.** The same value we discussed as accruing from a CoP happens when people are placed in proximity (often whether it's physical or virtual). The ability to share "war" stories with each other improves the performance of all.

In very large companies, a true CoE (as defined by only the best — not all of a like skill) can also be formed. In our experience, this form of CoE really is limited to large companies, because the best use of these individuals is as consultants or project turnaround experts. Because their skills are so very valuable to the organization, our experience has shown that they rarely have the time to mentor or share their knowledge, so pulling them away from other project managers is often not as detrimental as it might first appear to be.

7.2 Level 3 Structures in Governmental Organizations — Best-Practice Councils

In some government organizations, it isn't possible to establish one overarching PMO with centralized authority. Although agencies or departments operate independent of each other, that doesn't eliminate higher-level governmental units from pressuring everyone to adopt the same playbook. In this case, we often find Level 3 defined by representatives from the various project support organizations getting together to share their practices. Essentially a *best-practices council* is a form of CoP initiated formally by the organization itself. In some cases, these councils are backed up by a centralized PMO that serves as the formal repository for the methods and standards that are agreed to by the council, but the central PMO does not have the authority to impose a standard on any of the other organizations.

7.3 Specialized PMO Organizations Are Flexible Regarding Level

It is important to note that this model is intended to define eight possible PMO structures that an organization can select. Beginning with a CoP always makes sense, but some clients add them later. Likewise, our recommendation to add a PPO and a CoE at Level 3 is not set in stone; for some clients, adding these structures earlier at Level 2 might make more sense.

8.0 Picking the Right PMO Structures for Level 4

At Level 4, the focus shifts to increasing efficiency. To accomplish this, organizations often decide to decentralize day-to-day operations, while at the same time deciding to launch enterprisewide change initiatives.

8.1 Program Office

In most cases, organizations often begin to look at large, significant change opportunities at this stage that combine business process re-engineering with new IT capabilities.

In our experience, large strategic programs do not report into IT PMOs from a day-to-day management perspective. They might report results if they are using IT funding, but they almost never require direct supervision from the PMO (if a program manager does, then she or he is, the wrong persons for the job).

By maturity Level 3 or Level 4, most organizations have become sophisticated enough to manage their own large programs without external software vendors or consulting firms taking the lead. For the purposes of this discussion, a program office is generally chartered with the end-to-end process, tool and change management work related to a major corporate initiative. These programs are large, expensive and lengthy — and cross organizational lines.

Each program office provides its own unique functions and services, depending on the program's goals, executive-defined outcomes, interactions with other components of organizational governance and the organization's program management policies. While chartered to only work on their own programs, we have seen program offices take the lead in defining methods, and improving tool use that far outstripped the capabilities of the main PMO. We regard this as a healthy and low-risk way for an organization to expand its overall management capabilities without creating too much disruption in the organization as a whole.

8.2 Federated PMO

The federated PMO model at Level 4 generally consists of a corporate/enterprise PMO and a number of operating/divisional PMOs where the corporate PMO takes responsibility for methods, training and tools while the operating unit PMOs are directly responsible for project reporting, oversight and — in some cases — even delivery.

The adoption of this model is almost always a response to the size of the organization. It also is a reflection of the standard corporate life cycle model that shows a natural rhythm of movement between centralized and decentralized organizational approaches. We also see this model frequently adopted to address the divergent needs of various project groups. For example, one large firm has opted to set up PMOs for security, infrastructure and applications out in the divisions; and a corporate PMO that focuses primarily on tools and methods.

It should go without saying that for a federated PMO model to really work, the corporate PMO needs to lead with a light hand and really listen to the divisional PMOs. It is also incumbent on the corporate PMO to be very sensitive to the fact that many of the divisional PMOs are at lower levels of maturity than the rest of the company as a whole (since divisions and business units are

constantly changing). It is with this in mind that the corporate PMO should understand how to tailor their offerings to support some mixture of Level 1, Level 2 and Level 3 organizations, rather than assume everyone is at Level 4.

9.0 Level 5 — the Rise of the True Enterprise Program Management Office

In earlier research, we suggested that Level 5 definitely involved the creation of an enterprise PMO.

The enterprise PMO we are discussing here should not be viewed as an ivory tower of best-practice processes or the pinnacle of all project reporting (a role that might be filled by the corporate PMO as discussed in the federated PMO model). The enterprise PMO as described here concerns itself with reporting and oversight of major company initiatives (about five to 20 projects). In some cases, its charter can also be expanded to include functioning as a strategy support office with responsibility for scenario planning and strategic analysis. In addition, the enterprise PMO can serve as the focal point for exploring new ways to work, such as different collaborative models with suppliers, customers and trusted network partners.

We believe that it's appropriate to acknowledge here that our particular view of the enterprise PMO is often hotly debated. The underlying issues behind these disagreements all center on whether or not any project-centered organization has an active role in planning and strategy. Our answer is that it depends on who's running the organization. The office itself doesn't carry with it a guaranteed entitlement, but opportunities exist for the right PPM leader.

10.0 Mapping Between the Original Repository/Coach/Manager Model and the New PMO Maturity Model

In the initial research done on the PMO by Matt Light and Matt Hotle in "Project Management Office: The IT Control Tower" they document three different types of project organizations.

- The repository
- The coach
- The manager

These three models had their roots in project offices dedicated to application development projects. Our research on PMOs has expanded to include all the organizational constructs our clients use to manage project-based work, including all IT projects, business projects, change initiatives and strategic programs. Therefore, the models presented here can be used as a guide for the large set of situations that PPM leaders need to address.

11.0 Recommendations

- No matter what level of maturity or form of organization your company has, ensure that there is at least a community of interest or a community of practice around PPM. Our suggested rule of thumb is that no organization is ever too big, too old or too experienced to benefit from people talking about how to best accomplish project work.
- Ensure staff rotation in the PSO. Membership on the PSO staff should be limited to two years, with the possible exception of the director of the PSO. The combination of staff rotation and 360-degree feedback helps keep the PSO on track and focused on ensuring that things are done in a manner that is right for its particular company culture.

Staff rotation also has the added advantage of easily supporting organic change in the project environment.

- PPM takes a different personality and a different set of analytical skills than project management. Look to your business analyst as future project portfolio managers.

All eight forms of project-centered organizations need good leaders at the helm. The secret is developing the knack for being a "servant leader." The task of a servant leader is to ensure that the individuals whom the leader supports develop into productive and useful leaders themselves as a result of the help they've been given. This philosophy easily encompasses supporting senior management in making better and more-informed decisions for the company as a whole through providing useful insight and analysis. It supports the career growth of project managers by ensuring they have a helping hand from somewhere in the organization when they need it the most (often at the beginning of a project), and it supports peer relationships by building commitments to share responsibilities for tasks getting done (especially between the business and IT).

RECOMMENDED READING

"The Program Office: An Essential Program Element"

"Cultivating Communities of Practice," Etienne Wenger, Richard McDermott and William M. Snyder; Harvard Business School Press, 2002

The 360 Degree Leader: Developing Your Influence From Anywhere in the Organization by John C. Maxwell; Thomas Nelson, 2006

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Gartner

Opportunity Assessment Templates

Project Request Document

- The Project Request Document (PID) is used to document and promote understanding of the business need and to provide information to support the decision to further investigate the need/solution. This document is started in the Opportunity Assessment and refined during the Initiating and Planning Processes.

Scope Statement

- The Preliminary Scope Statement documents key elements of the project scope based on information gathered during Initiating. The document focuses on project/product characteristics as well as the project boundaries. The Preliminary Scope Statement is completed in Initiating.

Initiating Templates

Project Charter

- The Project Charter recognizes the existence of a project and supports the decision to further refine the project solution. A charter signifies that functional managers and the project managers have reached consensus, agreeing about the vision, scope, authority and overall deliverables of the project. The Charter is started in the Opportunity Assessment Phase and completed in Initiating.

Risk Identification Checklist

- Use this checklist to assist in identification of risks. This is not an all-inclusive list.

Planning Templates

Business Case

- To identify the objectives and proposed solution of the project along with quantifiable benefits and costs. This document is started in the Initiating Process and completed in the Planning Process.

Communications Matrix

- The objective is to document the project team's approach towards communication.

Project Schedule Generic

- An example of an MS Project schedule that is organized by project management process. This is only one way a schedule may be developed. The schedule should always match the Work Breakdown Structure (WBS) of the project.

Project Budget

- This document with project forecasts should be approved at the Planning Checkpoint. The budget documents the forecasted and actual project costs as the project progresses. The project manager or delegate will assume ownership of the budget for the entire project.

Requirements Specification

- The purpose of the Requirements Specification is to document requirements for the product, service, or deliverables associated with the project.

Work Breakdown Schedule

- This is an example of a one way to create a project management Work Breakdown Structure (WBS).

Executing & Controlling

Change Log

- To provide and serve as a reference for approved changes in the project, including, scope, cost, duration, and deliverables. It is a record of all requests for change. Each change should have a Change Request Form that corresponds.

Issues Log

- To document, track and resolve issues. "Issues" are problems or questions arising in the course of the project that need to be defined, researched, evaluated in terms of scope and impact, and resolved in order for a project phase or task to proceed. Typically, issues will be part of the Project Status Report and reviewed with the team weekly and/or monthly.

Meeting Agenda

- To provide a standard Meeting Agenda format to facilitate communication.

Meeting Notes

- To provide a standard Meeting Notes format to facilitate communication.

Project Status Report

- To provide a weekly or bi-weekly review for working team members on how the project is progressing. The project manager is responsible for determining what standard reports are produced.

Request for Change

- The (RFC), Request for Change is to document the detailed description of the change, analyze the project and business impact of the change if it occurs and to document the approval response.

Closing

Client Satisfaction Survey

- To document the client satisfaction level of the product/service. The project manager distributes the Client Satisfaction Survey form to customers and/or clients during the Closing Process. The project manager collects the forms and stores them in the project repository. The project manager should summarize the results of the Client Satisfaction responses in the Project Closeout Report.

Contractor Exit Checklist

- To review and verify the deliverables and work of the contractor. This will help the project manager determine if the provisions of the contract(s) were met and to provide feedback on performance to help improve possible future engagements. Typically, the project manager will use the checklist to assist when the project relationship with the contract company is closing.

Lessons Learned Log

- To identify and record lessons learned and future recommendations. This document is intended to collect information that has been learned during a phase of a project as well as the team's impressions of what worked well and what did not work well. This document should be updated throughout the entire lifecycle of a project and the results will be used to update or improve the overall process as appropriate.

Project Survey

- The Survey is used to capture input from team members and the project manager during the Closing Process. The objective is to learn from the experiences and continually improve the software development process. All comments will be considered as the overall project closeout document is assembled.

(Project Management & Software Development Methodology: Templates and examples)

Works Cited

Project Management & Software Development Methodology: Templates and examples. (n.d.). Retrieved from Project Management Community of Practice: http://pmcop.ohio.gov/

Project Request Document

Purpose: To promote understanding of the business need and to provide information to decision-makers for resources and staff to further investigate the need/solution. This information is gathered during the Opportunity Assessment by the business partner and refined in the Initiating Process. <Utilize the blank template on the Web, or delete the instructions on this document. >

PROJECT IDENTIFICATION

PROJECT IDENTIFICATION - PROJECT SPECIFICS		
Project Name	**Project Number**	**Date Created**
Project Sponsor	**Project Owner**	
Program Manager	**Project Manager**	

PROJECT REQUEST

REQUEST SUMMARY
Description of Business Need – high-level description of the business need, this is the explanation, not solution. This should include the vision and purpose of the project.

HIGH LEVEL BUSINESS REQUIREMENTS – REQUIREMENTS OF THE PROJECT

CRITICAL SUCCESS FACTORS - USED TO DETERMINE IF THE PROJECT IS SUCCESSFUL

Primary Clients – requesting organization	**Users –** individuals or organizations that will be using the system/product

BENEFITS
Tangible – these are benefits that can be measured in actual dollar return
▪ ▪
Intangible – challenging to quantify, but beneficial
▪ ▪

Related Projects/ Affected Systems

PROJECT STAKEHOLDERS – INDIVIDUALS AND ORGANIZATIONS WHO HAVE INTEREST IN THE PROJECT	
Name – Title	**Area**

NECESSARY TO PROCEED
Next Phase Activities/Resources – resources to move to the next phase(s), Initiating

APPROVAL			
Name	**Title**	**Date**	**Approved**

Business Case

Purpose: To identify the objectives and proposed solution of the project along with quantifiable benefits and costs. This document is started in the Initiating Process and completed in the Planning Process.

<Use the blank template on the Web, or use this document and delete the instructions contained in each block as it is filled out. Similar information is documented on the Scope Statement and Project Charter and used for the decision for the project to proceed with resources and monies for the next Processes.

The objective of this information is to gain approval during the Project Funding Checkpoint. >

PROJECT IDENTIFICATION	
Project Name	**Project Number**
Program Manager	**Project Manager**
Date Submitted	**Business Partner**

EXECUTIVE SUMMARY
Objective – opportunity to state your case and gain interest

PROBLEM / OPPORTUNITY

PROPOSED SOLUTION
Industry Comparison

STRATEGIC ALIGNMENT
Business Strategy

Technology Strategy

Milestones
• • • •

BENEFIT ANALYSIS

Benefit	Savings
•	$
•	$
•	$
•	$

COST SUMMARY

Economic Feasibility

Capital			
Labor			
	Total Labor		
Hardware			
	Total Hardware		
Software			
	Total Software		
Total Capital			
Expense			
	Maintenance		
	Expense labor		
	Support personnel		
Total Expense			
Total Project Costs			

INVESTMENT ANALYSIS
Business Impact Analysis

RETURN ON INVESTMENT	
Simple ROI	
Proposal A	
Total Cash Benefit	
Total Cash Cost	
Net Benefit	
Simple ROI = 60/130	
Proposal B	
Total Cash Benefit	
Total Cash Cost	
Net Benefit	
Simple ROI = 100/130 =	

Payback on ROI	Initial	Year 1	Year 2	Year 3	Year 4
Proposal A					
Cash Flow					
Cumulative					
Payback					
Proposal B					
Cash Flow					
Cumulative					
Payback					

Attachments -

- Requirements Specification
- Project Timeline

- Project Organization Chart
- Funding Form
- Technical Evaluation Template, if applicable
- Software Requirements Specification, if applicable

Purpose: The Project Charter recognizes the existence of a project and supports the decision to further refine the project solution. A charter signifies that functional managers and the project managers have reached consensus, agreeing about the vision, scope, authority and overall deliverables of the project. The Charter is started in the Opportunity Assessment Phase and completed in Initiating.

PROJECT IDENTIFICATION

PROJECT IDENTIFICATION - PROJECT SPECIFICS		
Project Name	**Project Number**	**Date Created**
Project Sponsor	**Project Owner**	
Program Manager	**Project Manager**	

PROJECT CHARTER

PROJECT OVERVIEW
Project Background – historical information that relates to this project
CURRENT SITUATION – "AS IS" SITUATION

STRATEGIC ALIGNMENT – OBJECTIVES OF THE PROJECT	
Part One •	
Part Two **Organizational Drivers**	
Organizational Goals	
Program Management Goals	

PRODUCT DESCRIPTION CHARACTERISTICS OF THE PRODUCT OR SERVICE THAT THE PROJECT IS UNDERTAKEN TO CREATE
Scope Statement – What work needs to be completed during the project

Out of Scope – Implied project work that will not be part of the project

-

Deliverables – What will be delivered at the end of the project

-

OPTION ANALYSIS - THE ALTERNATIVE SOLUTIONS THAT WERE CONSIDERED

PROPOSED SOLUTION – "TO BE" SITUATION; THE SOLUTION TO THE BUSINESS NEED

RISK IDENTIFICATION – FACTORS THAT MAY HAVE A NEGATIVE IMPACT ON THE PROJECT

-

ASSUMPTIONS/CONSTRAINTS – ITEMS BELIEVED TO BE TRUE FOR AND PROJECT LIMITS

-
-

NECESSARY TO PROCEED

Next Phase Activities/Resources – required to move to the next phase, Planning

APPROVAL

Name	Title	Date	Approved

Attachments, as applicable:

Requirements Specification

Purpose: The purpose of the Requirements Specification is to document requirements for the product, service, or deliverables associated with the project. The Requirements Specification should be used in conjunction with the business requirements documented in the Scope Statement.

PROJECT IDENTIFICATION		
Project Name	**Project Number**	**Date Created**
Program Manager	**Project Manager**	

REQUIREMENTS

The Requirements section provides information on the requirements that the product, service, or deliverable must provide. To organize requirements consider categorizing them in a logical and/or hierarchical manner.

<CATEGORY 1> REQUIREMENTS				
Description				**Priority**
Other Comments				
Requirement ID	**Requirement Description**	**Source of Requirement**	**Priority**	**Status**
R1-1				
R1-2				
R1-3				
R1-4				

<CATEGORY 2> REQUIREMENTS				
Description				**Priority**
Other Comments				
Requirement ID	**Requirement Description**	**Source of Requirement**	**Priority**	**Status**
R2-1				
R2-2				
R2-3				

ACCEPTANCE CRITERIA

The Acceptance Criteria section provides an area to define acceptance requirements that will be used as a basis for developing and conducting the final Customer Acceptance Review. Acceptance criteria

may be assigned to the project, categories, or individual requirements. Acceptance criteria provide a standard for judging how well the project; its products, services or deliverables have met client expectations.

ACCEPTANCE CRITERIA	
Acceptance Criteria	**Description**

Purpose: The Preliminary Scope Statement documents key elements of the project scope based on information gathered during Initiating. The document focuses on project/product characteristics as well as the project boundaries. The Preliminary Scope Statement is completed in Initiating.

PROJECT IDENTIFICATION

PROJECT IDENTIFICATION - PROJECT SPECIFICS		
Project Name	**Project Number**	**Date Created**
Project Sponsor	**Project Owner**	
Program Manager	**Project Manager**	

Scope Statement

PROJECT/PRODUCT OBJECTIVES

Describe the objectives of the project and product or service being developed.

All projects should support and tie to strategic goals. The objectives should be **SMART**:

- **S**pecific
- **M**easurable
- **A**ttainable
- **R**esults – Oriented
- **T**ime-specific

PRODUCT DESCRIPTION CHARACTERISTICS OF THE PRODUCT OR SERVICE THAT THE PROJECT IS UNDERTAKEN TO CREATE

Scope Statement – What work needs to be completed during the project

<Describe the parameters of the project. The scope describes the work that must be completed to deliver a product or service to the specified functions and requirements. The scope is agreed upon by key stakeholders to encompass the boundaries of what is to be completed by the project team and what is not. The project scope will be measured against the Project Notebook for ensured success and baselining.

Examples

- Supply upgraded hardware to developers of the application
- Develop the new software application
- Deploy the new software application to all organizations
- Provide initial training to users >

Out of Scope – Implied project work that will not be part of the project

<Since the Scope Statement focuses on what efforts are within the boundaries of the project, clearly identify work that may be necessary but not within the bounds of the effort by this project team.

Examples

- Supply upgraded hardware to all users of the application
- Provide on-going training to users >

Deliverables – What will be delivered at the end of the project

< List the specific outputs that will be delivered by the project team at the end of the project. A deliverable is any outcome that must be produced to complete the project or part of a project. List as many as needed with the most important starting first on the top left. The deliverables listed are the top level of the work breakdown structure and may be expanded and further refined during the Planning Process and documented in the Project Plan and Project Notebook.

Examples

- Software application
- Training
- User manuals>

SCHEDULE

< Provide the initial, high-level project milestones. >

OPTIONS ANALYSIS

<In bullet form, list the alternative options to the business need. If more detail is required, complete a Business Case Analysis as appropriate for each option.) >

BUDGET

<Provide an estimate of the project cost, including the estimate range (e.g., +/- 50%). >

RISK IDENTIFICATION – FACTORS THAT MAY HAVE A NEGATIVE IMPACT ON THE PROJECT

< List in bullet format the risks of the project if it proceeds, and if this project does not proceed>
A **risk** is an event that may affect the project negatively. Keep the risks related to the project. Be sensible and do not list every risk imaginable. This area should not be blank at this time. Some risks at this point should have been identified. Each risk stated here, would be listed in the Risk Register and the Project Notebook (during the Planning Process), will summarize response strategies to minimize the impact on technical performance, schedule, cost, customer relations, and other areas. As the project moves into Executing/Monitoring/Controlling, each risk will be listed on the Risk Register and depending on its risk level may need to be further refined.

ASSUMPTIONS/CONSTRAINTS – ITEMS BELIEVED TO BE TRUE FOR AND PROJECT LIMITS

<List in bullet format the known assumptions and constraints that have the potential to impact the project. List any assumptions/constraints that have been made in recommendations for the purpose of project planning. **Assumptions** are items the project team believes to be true as a basis for their project execution. Assumptions may have to do with resource availability, consistency of support from another area and other factors, **i.e.,** John Doe will be available around Sept. 15th.
Constraints are typically given to a team. The team has limited ability to change the constraint, **i.e.** Testing must be completed in 3 months due to a related system upgrade ("must finish by" date).
The focus here is not to spend time deciding which is an assumption and which is a constraint, they will be listed separately in the Project Notebook, the focus at this point is to discover and document.>

-
-

ACCEPTANCE CRITERIA

<Describe how the project/product will be reviewed to verify the project objectives have been achieved. Include interim reviews, quality assurance activities, and which organization(s) have final approval authority.>

APPROVAL

Name	Title	Date	Approved
<List the Name. >	<List the title of the person listed.>	<Use the format mm/dd/yy, to document the date the request was approved. >	<Yes, No or pending>
<Gather signatures if applicable. >			

Attachments, as applicable:

<List any documents that support the information in the Charter
Examples

- Business Case
- Project Request Document
- Concept Analysis Document >

PROJECT BUDGET

Project Name
Program Manager
Project Manager

Purpose:

This document with project forecasts should be approved at the Planning Checkpoint. The budget documents the forecasted and actual project costs as the project progresses. The project manager or delegate will assume ownership of the budget for the entire project. Refer to the Budget Guideline for more detail.
The categories should align with the accounting categories for the Project Funding process.

Use the Categories below and delete categories that do not apply. The Total Labor dollar amount should correspond and match the number of labor hours that are documented in the Project Plan. Many formulas are built into the spreadsheet.
See the tab at the bottom of the page for instructions.

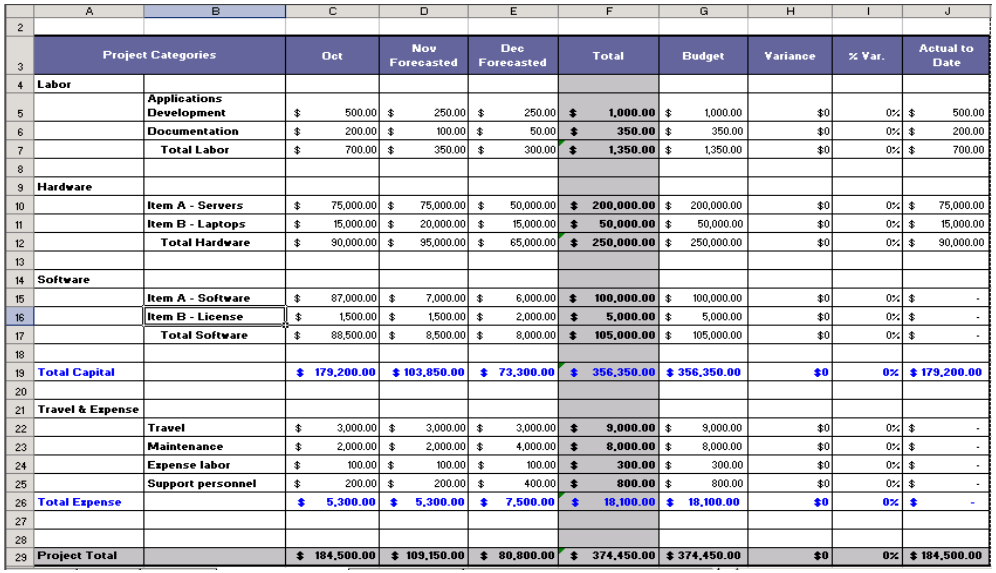
Project Categories	Jan	Feb	Mar	Apr	May	Jun	July	Estimate at Completion	Budget	Variance	% Var.	Actual to Date
Capital												
Employee Labor	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**#DIV/0!**	**$ -**
Applications Development	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	#DIV/0!	**$ -**
Documentation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	#DIV/0!	**$ -**
Testing	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	#DIV/0!	**$ -**
Vendor Labor	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**#DIV/0!**	**$ -**
Applications Development	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	#DIV/0!	**$ -**
Other	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	#DIV/0!	**$ -**
Hardware	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**#DIV/0!**	**$ -**
Item A	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	#DIV/0!	**$ -**
Item B	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	#DIV/0!	**$ -**
Software	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**#DIV/0!**	**$ -**
Item A	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	#DIV/0!	$ -
Item B	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	#DIV/0!	$ -

Total Capital	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**#DIV/0!**	**$ -**
Expense												
Travel	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	#DIV/0!	$ -
License	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	#DIV/0!	$ -
Labor	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**#DIV/0!**	**$ -**
Requirements Development	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	#DIV/0!	$ -
Applications Development	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	#DIV/0!	$ -
Support Personnel	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	#DIV/0!	$ -
Total Expense	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**		**$ -**	**#DIV/0!**	**$ -**
Project Total	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	$ -	$ -	0%	$ -

Instructions for Simple Budget Preparation

The sample spreadsheet will be used for explanation of instructions.

Field	Description
Project Categories	These categories should line up with the items listed for accounting on the CER Form. Example under Software items A or B, be sure the list Software license cost. Add as appropriate such as a line for Vendors.
Month	List the months of the project in consecutive order. Type the first month, full name or 3 letters and then take the lower right hand corner with a line black cross and drag to fill in. Type actual in per month and distribute the rest of the budget based on work across the appropriate months.
Estimate at Completion	Actual plus forecasted total. Example: **F19** would have a formula such as: **=sum(C19:E19)**
Budget	Planned totals that are allocated across each month based on work.
Variance	Difference of Budget and Total in dollars.
% Variance	Difference of Budget and Total in percent.
Actual to Date	The monies of each month that have been spent to date.



	A	B	C	D	E	F	G	H	I	J
2										
3	Project Categories		Oct	Nov Forecasted	Dec Forecasted	Total	Budget	Variance	% Var.	Actual to Date
4	Labor									
5		Applications Development	$ 500.00	$ 250.00	$ 250.00	$ 1,000.00	$ 1,000.00	$0	0%	$ 500.00
6		Documentation	$ 200.00	$ 100.00	$ 50.00	$ 350.00	$ 350.00	$0	0%	$ 200.00
7		Total Labor	$ 700.00	$ 350.00	$ 300.00	$ 1,350.00	$ 1,350.00	$0	0%	$ 700.00
8										
9	Hardware									
10		Item A - Servers	$ 75,000.00	$ 75,000.00	$ 50,000.00	$ 200,000.00	$ 200,000.00	$0	0%	$ 75,000.00
11		Item B - Laptops	$ 15,000.00	$ 20,000.00	$ 15,000.00	$ 50,000.00	$ 50,000.00	$0	0%	$ 15,000.00
12		Total Hardware	$ 90,000.00	$ 95,000.00	$ 65,000.00	$ 250,000.00	$ 250,000.00	$0	0%	$ 90,000.00
13										
14	Software									
15		Item A - Software	$ 87,000.00	$ 7,000.00	$ 6,000.00	$ 100,000.00	$ 100,000.00	$0	0%	$ -
16		Item B - License	$ 1,500.00	$ 1,500.00	$ 2,000.00	$ 5,000.00	$ 5,000.00	$0	0%	$ -
17		Total Software	$ 88,500.00	$ 8,500.00	$ 8,000.00	$ 105,000.00	$ 105,000.00	$0	0%	$ -
18										
19	Total Capital		$ 179,200.00	$ 103,850.00	$ 73,300.00	$ 356,350.00	$ 356,350.00	$0	0%	$ 179,200.00
20										
21	Travel & Expense									
22		Travel	$ 3,000.00	$ 3,000.00	$ 3,000.00	$ 9,000.00	$ 9,000.00	$0	0%	$ -
23		Maintenance	$ 2,000.00	$ 2,000.00	$ 4,000.00	$ 8,000.00	$ 8,000.00	$0	0%	$ -
24		Expense labor	$ 100.00	$ 100.00	$ 100.00	$ 300.00	$ 300.00	$0	0%	$ -
25		Support personnel	$ 200.00	$ 200.00	$ 400.00	$ 800.00	$ 800.00	$0	0%	$ -
26	Total Expense		$ 5,300.00	$ 5,300.00	$ 7,500.00	$ 18,100.00	$ 18,100.00	$0	0%	$ -
27										
28										
29	Project Total		$ 184,500.00	$ 109,150.00	$ 80,800.00	$ 374,450.00	$ 374,450.00	$0	0%	$ 184,500.00

Example of a Completed Budget

Project Categories	Oct	Nov Forecasted	Dec Forecasted	Estimate at Completion	Budget	Variance	% Var.	Actual to Date
Labor	$ 700.00	$ 350.00	$ 300.00	**$ 1,350.00**	$ 1,350.00	$0	0%	$ 700.00
Applications Development	$ 500.00	$ 250.00	$ 250.00	**$ 1,000.00**	$ 1,000.00	$0	0%	$ 500.00
Documentation	$ 200.00	$ 100.00	$ 50.00	**$ 350.00**	$ 350.00	$0	0%	$ 200.00
Hardware	$ 90,000.00	$ 95,000.00	$ 65,000.00	**$ 250,000.00**	$ 250,000.00	$0	0%	$ 90,000.00
Item A - Servers	$ 75,000.00	$ 75,000.00	$ 50,000.00	**$ 200,000.00**	$ 200,000.00	$0	0%	$ 75,000.00
Item B - Laptops	$ 15,000.00	$ 20,000.00	$ 15,000.00	**$ 50,000.00**	$ 50,000.00	$0	0%	$ 15,000.00
Software	$ 88,500.00	$ 8,500.00	$ 8,000.00	**$ 105,000.00**	$ 105,000.00	$0	0%	$ -
Item A - Software	$ 87,000.00	$ 7,000.00	$ 6,000.00	**$ 100,000.00**	$ 100,000.00	$0	0%	$ -
Item B - License	$ 1,500.00	$ 1,500.00	$ 2,000.00	**$ 5,000.00**	$ 5,000.00	$0	0%	$ -
Total Capital	**$ 179,200.00**	**$ 103,850.00**	**$ 73,300.00**	**$ 356,350.00**	**$ 356,350.00**	**$0**	**0%**	**$ 179,200.00**
Travel	$ 3,000.00	$ 3,000.00	$ 3,000.00	**$ 9,000.00**	$ 9,000.00	$0	0%	$ -
Maintenance	$ 2,000.00	$ 2,000.00	$ 4,000.00	**$ 8,000.00**	$ 8,000.00	$0	0%	$ -
Expense labor	$ 100.00	$ 100.00	$ 100.00	**$ 300.00**	$ 300.00	$0	0%	$ -
Support personnel	$ 200.00	$ 200.00	$ 400.00	**$ 800.00**	$ 800.00	$0	0%	$ -
Total Expense	**$ 5,300.00**	**$ 5,300.00**	**$ 7,500.00**	**$ 18,100.00**	**$ 18,100.00**	**$0**	**0%**	**$ -**
Project Total	**$ 184,500.00**	**$ 109,150.00**	**$ 80,800.00**	**$ 374,450.00**	**$ 374,450.00**	**$0**	**0%**	**$ 184,500.00**

Formula Example

Project Categories	Oct	Nov Forecasted	Dec Forecasted	Estimate at Completion	Budget	Variance	% Var.	Actual to Date
Labor	=SUM(B5:B6)	=SUM(C5:C6)	=SUM(D5:D6)	**=SUM(B4:D4)**	=SUM(F5:F6)	=SUM(F4-E4)	=SUM(F4-E4)	=SUM(B4)
Applications Development	500	250	250	**=SUM(B5:D5)**	1000	=SUM(F5-E5)	=SUM(F5-E5)	=SUM(B5)
Documentation	200	100	50	**=SUM(B6:D6)**	350	=SUM(F6-E6)	=SUM(F6-E6)	=SUM(B6)
Hardware	=SUM(B10:B11)	=SUM(C10:C11)	=SUM(D10:D11)	**=SUM(B9:D9)**	=SUM(F10:F11)	=SUM(F9-E9)	=SUM(F9-E9)	=SUM(B9)
Item A - Servers	75000	75000	50000	**=SUM(B10:D10)**	200000	=SUM(F10-E10)	=SUM(F10-E10)	=SUM(B10)
Item B - Laptops	15000	20000	15000	**=SUM(B11:D11)**	50000	=SUM(F11-E11)	=SUM(F11-E11)	=SUM(B11)
Software	=SUM(B15:B16)	=SUM(C15:C16)	=SUM(D15:D16)	**=SUM(B14:D14)**	=SUM(F15:F16)	=SUM(F14-E14)	=SUM(F14-E14)	=SUM(B14)
Item A - Software	87000	7000	6000	**=SUM(B15:D15)**	100000	=SUM(F15-E15)	=SUM(F15-E15)	=SUM(B15)
Item B - License	1500	1500	2000	**=SUM(B16:D16)**	5000	=SUM(F16-E16)	=SUM(F16-E16)	=SUM(B16)
Total Capital	**=SUM(B14,B9,B4)**	**=SUM(C14,C9,C4)**	**=SUM(D14,D9,D4)**	**=SUM(B19:D19)**	**=SUM(F14,F9,F4)**	**=SUM(F19-E19)**	**=SUM(F19-E19)**	**=SUM(B19)**
Travel	3000	3000	3000	**=SUM(B22:D22)**	9000	=SUM(F22-E22)	=SUM(F22-E22)	=SUM(B22)
Maintenance	2000	2000	4000	**=SUM(B23:D23)**	8000	=SUM(F23-E23)	=SUM(F23-E23)	=SUM(B23)
Expense labor	100	100	100	**=SUM(B24:D24)**	300	=SUM(F24-E24)	=SUM(F24-E24)	=SUM(B24)
Support personnel	200	200	400	**=SUM(B25:D25)**	800	=SUM(F25-E25)	=SUM(F25-E25)	=SUM(B25)
Total Expense	**=SUM(B22:B25)**	**=SUM(C22:C25)**	**=SUM(D22:D25)**	**=SUM(B26:D26)**	**=SUM(F22:F25)**	**=SUM(F26-E26)**	**=SUM(F26-E26)**	**=SUM(B26)**
Project Total	**=SUM(B26,B19)**	**=SUM(C26,C19)**	**=SUM(D26,D19)**	**=SUM(B29:D29)**	**=SUM(F26,F19)**	**0**	**=SUM(F29-E29)**	**=SUM(B29)**

ESTIMATING SHEET

Purpose: This is to assist with calculations and information prior to documenting on the Budget. If this worksheet is not needed do not use it.

Labor

Project Categories	# of Resources	% of Effort	Duration (in days or hours)	Resource Cost (Option 1)	Resource Cost (Option 2)	Total Resource (Option 1)	Total Resource (Option 2)	Assumptions/ Constraints	Total (Resources)	Funding Source
Capital										
Employee Labor										
Applications Development				$ -	$ -					
Name		0%								
Name		0%								
Documentation				$ -	$ -					
Name										
Name										
Testing				$ -	$ -					
Name		0%		$ -	$ -					
Name		0%		$ -	$ -					
Vendor Labor										
Applications Development		0%		$ -	$ -					
Name		0%								
Other		0%		$ -	$ -					
Total Capital										

Items

Project Categories	# of Units	Unit Cost	Duration (if applicable)	Assumptions/ Constraints	Total (Units)	Funding Source
Hardware						
Item A		$ -				
Item B		$ -				
Software						
Item A		$ -				
Item B		$ -				
Total Capital		$ -				

Expense

Project Categories	# of Units	Unit Cost	# of Locations (if applicable)	Duration (if applicable)	Assumptions/ Constraints	Total (Units)	Funding Source
Travel		$ -					
License		$ -					
Labor		$ -					
Requirements Development		$ -					
Applications Development		$ -					
Support Personnel		$ -					
Total Expense		$ -					

Risk Register

Use the following checklists to assist in identification of risks. This is not an all-inclusive list, but rather to serve as memory joggers. Once you have identified the risks, then document them on the Risk Log.

Project Management Risks

☐ Schedules activities and tasks are documented and not set in realistic timeframes, overly optimistic

☐ Schedule was based on the use of specific team members, but those team members were not available. Cannot build a product of the size specified in the time allocated

☐ Product is larger than estimated (in lines of code, function points, or percentage of previous project's size)

☐ Effort is greater than estimated (per line of code, function point, module, etc.)

☐ Estimations ignores project history

☐ Target date has moved up with no corresponding adjustment to the product scope or available resources

☐ Creeping requirements list

☐ Financial budget is not realistic and based on adhoc estimations

☐ Inaccurate progress tracking results in not knowing the project is behind schedule until late in the project

☐ The project scope, vision, objectives, and deliverables are not clearly defined or understood

☐ The technical process and design are not well defined

☐ Functional requirements development lacks user involvement

☐ Project does not have senior management "Buy In"

☐ Other similar projects have been delayed or canceled

☐ The benefits are not defined

☐ Performance standards are unrealistic or absent

☐ No appropriate contingency plans have been developed

☐ The project has a high chance of success but at the expense of burning out the team members, which could cause excessive staff turnover

☐ The project has a high degree of success but the customer is not interested in or committed to the project

Resource Risks

☐ Friction between developers and clients

☐ Hiring takes longer than expected

☐ Team members do not buy into the project and consequently do not provide the level of performance estimated

☐ Personnel need extra time to learn unfamiliar software tools or environment

☐ The personnel most qualified to work on the project are not available for the project

☐ New development personnel are added late in the project, and additional training is required

☐ People's assignments do not match their strengths

Client Risks

☐ Client will not participate in review cycles for plans, prototypes, and specifications or is incapable of doing so—resulting in unstable requirements and time-consuming changes

☐ Client communication time (e.g., time to answer requirements-clarification questions) is slower than expected

☐ Client will not accept the software as delivered even though it meets all specifications

☐ Client has expectations for development speed that developers cannot meet

Technical Risks

(Design and Implementation) – Technical Risks

☐ Overly simple design fails to address major issues and leads to redesign

☐ Product is implemented in a low level language (e.g., assembler), and productivity is lower than expected

☐ Necessary functionality cannot be implemented using the selected code or class libraries; developers must switch to new libraries or custom-build the necessary functionality

☐ Code or class libraries have poor quality, causing extra testing, defect correction, and rework

☐ Components developed separately cannot be integrated easily, requiring redesign and rework

☐ Upstream quality-assurance activities are shortchanged, resulting in time-consuming rework downstream

☐ Inaccurate quality tracking results in not knowing about quality problems that affect the schedule until late in the project

☐ Development tools are not in place by the desired time

☐ Development tools do not work as expected; developers need time to create workarounds or to switch to new tools

End-Users (Technical Risks)

☐ End-user ultimately finds product to be unsatisfactory, requiring redesign and rework

☐ End-user input is not solicited, so product ultimately fails to meet user expectations and must be reworked

Requirements (Technical Risks)

☐ Requirements have not been baselined and continue to change

Product (Technical Risks)

☐ Error-prone modules require more testing, design, and implementation work than expected

☐ Development of the wrong user interface results in redesign and implementation

☐ Requirements for interfacing with other systems, other complex systems, or other systems that are not under the team's control result in unforeseen design, implementation, and testing

☐ Dependency on a technology that is still under development lengthens the schedule

☐ Requirement to operate under multiple operating systems takes longer to satisfy than expected

☐ Operation in an unfamiliar or unproved software environment causes unforeseen problems

☐ Operation in an unfamiliar or unproved hardware environment causes unforeseen problems

☐ Development of a kind of component that is brand new to the organization takes longer than expected

External Environment

☐ Product depends on government regulations, which change unexpectedly

☐ Product depends on draft technical standards, which change unexpectedly

Vendor Risks

☐ Contractor does not deliver components when promised

WBS Example

This is an example of a one way to create a project management Work Breakdown Structure (WBS).

Element Number	WBS Element
1	**Opportunity Assessment Phase**
1.01	Idea Generation
1.01.01	Receive and/or or solicit ideas.
1.01.02	Define the Opportunity Assessment Team.
1.01.03	Refine the idea through discussions.
1.02	Idea Structuring
1.02.01	Identify and confirm sponsorship.
1.02.02	Document high level description of business need.
1.02.03	Identify high-level requirements and critical success factors.
1.02.04	Identify primary clients and users.
1.02.05	Define high-level business benefits.
1.02.06	Identify related projects and affected systems.
1.02.07	Identify other stakeholders.
1.02.08	Outline scope and schedule for the next phase.
1.02.09	Prepare the Project Request Document.
1.03	Opportunity Assessment Approval
1.03.01	Finalize and submit the Project Request Document.
1.03.02	Prioritize ideas/business needs based on business-defined criteria.
1.03.03	Conduct the Opportunity Assessment Review. Obtain approval to proceed.
1.03.04	If approved, enter information into the project database and establish the potential project in the time reporting system.
1.03.05	If not approved, communicate decision to impacted resources.
1.04	Process Closure
1.04.01	Assess the Opportunity Assessment Process to capture lessons learned and opportunities for improvement.
2	**Initiating Phase**
2.01	Process Start Up
2.01.01	Define/refine Initiating team.
2.01.02	Review Project Request information, lessons learned, and Initiating Processes of similar projects.
2.01.03	Refine Initiating tasks and create Initiating schedule.
2.01.04	Implement time tracking procedures. Establish status reporting.
2.02	Project Definition
2.02.01	Understand and further define background and current situation, as well as the project objectives.
2.02.02	Define/refine project scope and deliverables.
2.02.03	Develop and analyze potential options that meet the business need.
2.02.04	Select the best alternative and develop a recommended approach.
2.02.05	Develop rough order of magnitude (ROM) estimate for resources/ costs. Develop a high-level schedule/timeline for the project.
2.02.06	Initiate Business Case development. Focus on business benefits and high-level costs in this phase.
2.02.07	Identify high-level project risks.
2.02.08	Identify project manager and determine appropriate division of responsibilities for remainder of the project.
2.02.09	Plan for next phase. Develop schedule, budget and identify resources for the next phase.
2.02.10	Refine Project Request section and complete Scope Statement.

Element Number	WBS Element
2.03	Initiating Approval
2.03.01	Finalize and submit the Scope Statement, Concept Analysis Document, Business Case, and other supporting documentation to appropriate manager(s).
2.03.02	Prioritize project based on business-defined criteria.
2.03.03	Participate in Initiating Approval Checkpoint Review. Request funding and approval to proceed.
2.03.04	If approved, obtain resource and funding commitments to the project from the appropriate authority.
2.03.05	If not approved, communicate decision to impacted resources and take appropriate measures to ensure work is not continued.
2.04	Process Closure
2.04.01	Assess the Initiating Process to capture lessons learned and opportunities for improvement.
3	**Planning Phase**
3.01	Process Start Up
3.01.01	Define/refine the Planning team. Review roles and responsibilities.
3.01.02	Prepare for and conduct Planning Kick-Off Meeting.
3.01.03	Expand and/or update the Planning activities in the existing Project Schedule.
3.02	Project Approach
3.02.01	Define project measures of success.
3.02.02	Refine project scope, objectives, and deliverables.
3.02.03	Identify the requirements decision makers and a process for making effective decisions.
3.02.04	Gather and document project requirements.
3.02.05	Identify, define, and document technology, infrastructure (hardware, desktop, network, etc.), and support requirements for the project.
3.02.06	Refine/validate project approach.
3.02.07	Initiate the development of a work breakdown structure (WBS) for organizing project activities.
3.02.08	Refine the Business Case based on the additional information developed in the Planning Process activities.
3.02.09	Define the Project Organization, including the Steering Committee, Project Team members, and Subject Matter Experts. Document in an organization chart.
3.02.10	Determine communications requirements and document the communications approach.
3.03	Project Schedule/Budget
3.03.01	Refine the work breakdown structure (WBS).
3.03.02	Identify task sequence and dependencies.
3.03.03	Based on project team members' input, estimate work effort (hours) and duration (time).
3.03.04	Identify resource requirements.
3.03.05	Create the Project Schedule.
3.03.06	Establish the project budget.
3.03.07	Review the Project Schedule and Project Budget with the project team, sponsors, and other appropriate stakeholders.
3.04	Project Planning
3.04.01	Identify project constraints, dependencies, and assumptions.
3.04.02	Identify, analyze, and prioritize project risks.
3.04.03	Determine management approaches (e.g., integration, scope, time, cost, quality, human resources, communications, risk, procurement).
3.04.04	Determine change enablement approach, if applicable, addressing communications, learning, and rewards.
3.04.05	Refine project documentation based on information gathered in the Planning Process.
3.05	Planning Approval
3.05.01	Determine the funding source of project monies.

Element Number	WBS Element
3.05.02	Prepare Project Funding deliverables and review with Controller.
3.05.03	Discuss the Project Funding deliverables with senior staff, as appropriate.
3.05.04	Prepare for, schedule, and participate in Project Funding Checkpoint (Planning) Review.
3.05.05	Revise the Requirements Specification, Project Schedule, Project Budget, and supporting documentation.
3.05.06	If approved, obtain resource and funding commitments from the appropriate authority. Baseline requirements, schedule, and budget and place all documents in the project repository.
3.05.07	If the project is not approved, document the rationale for the decision not to continue and close the project in the project database.
3.06	Process Closure
3.06.01	Assess the Planning Process to capture lessons learned and opportunities for improvement.
4	**Executing / Monitoring / Controlling**
4.01	Process Start Up
4.01.01	Define/refine the project team. Review roles and responsibilities.
4.01.02	Prepare for and conduct the implementation (or phase) kick-off meeting.
4.01.03	Review and update the Project Schedule and Project Budget, as required.
4.01.04	Begin planning for the implementation of the project solutions. Document strategy and plan.
4.02	Integration Management
4.02.01	Manage project issues in accordance with the issues management approach defined in the Planning Process. Issues management includes identifying project issues, assessing the issues' impacts, determining and implementing resolutions, and closing issues.
4.02.02	Manage change control in accordance with the change management approach defined in the Planning Process. Change management includes analyzing situations, authorizing change request impact assessments, assessing requested changes, creating plans to address changes, determining change actions, and implementing approved changes.
4.02.03	Manage project information in accordance with the project information management approach defined in the Planning Process. Project information management should address file naming conventions, documentation storage location(s), version control, information owners, and information management flows.
4.03	Scope Management
4.03.01	Review deliverable requirements with the team and project stakeholders in accordance with the scope management approach defined in the Planning Process.
4.03.02	Conduct deliverable reviews to validate each deliverable against documented requirements.
4.03.03	Complete deliverable review follow-up.
4.04	Time Management
4.04.01	Collect actual schedule progress in accordance with the time management approach defined in the Planning Process.
4.04.02	Update the Project Schedule with actual data during the control interval. Generate required reports to meet the identified needs of the team and supporting organization.
4.04.03	Identify and resolve schedule conflicts and resource issues that surface throughout the project.
4.04.04	Prepare for and conduct milestone reviews, as appropriate. This review includes reviewing the latest estimates for completing current activities and determining if the project is still on schedule. Prepare a progress reports and/or executive reports and distribute.
4.05	Cost Management
4.05.01	Measure and monitor cost progress against the budget and assess variation in accordance with the cost management approach.
4.05.02	Revise cost estimates, as appropriate, and report revisions to appropriate managers.
4.06	Quality Management
4.06.01	Perform quality assurance in accordance with the quality management approach defined in the Planning Process. To perform quality assurance, identify quality assurance resources, review quality planning procedures, review quality control procedures, and define quality improvement plans.

Element Number	WBS Element
4.06.02	Conduct quality control reviews in accordance with the quality management approach defined in the Planning Process.
4.07	HR Management
4.07.01	Manage the team in accordance with the human resources management approach defined in the Planning Process. Team management includes team administration, implementing team operating guidelines, administering team recognition and reward procedures, and coordinating team member training.
4.07.02	Manage business interfaces in accordance with the human resources management approach defined in the Planning Process.
4.08	Communications Management
4.08.01	Review the communications matrix with the project team, as appropriate.
4.08.02	Collect project status and progress information in accordance with the communications management approach defined in the Planning Process.
4.08.03	Distribute information in accordance with the Communications Matrix.
4.09	Risk Management
4.09.01	Identify project risks throughout the project lifecycle.
4.09.02	Analyze risks in accordance with the risk management approach defined in the Planning Process.
4.09.03	Develop risk responses, as necessary. Responses to consider include acceptance, avoidance, mitigation, or transference.
4.09.04	Respond to actual risk events and update the risk and response log, as required.
4.10	Procurement Management
4.10.01	Ensure contract terms are fulfilled by reviewing the contents of the contract at several points in the project. Negotiate and execute any changes to the contract.
4.10.02	Manage the relationship with the contractor, ensuring the contractor(s) are doing what was expected and satisfying commitments.
4.10.03	Close out contracts and perform contractor exit reviews as contracts are completed. If a formal contract with the vendor exists, conduct a performance review to determine the degree to which the provisions of the contract(s) were met and provide feedback on performance to help improve future engagements.
4.11	Client Acceptance
4.11.01	Prepare for and conduct Final Deliverable Review(s) and obtain client approval.
4.11.02	If approved, continue with the Closing Process.
4.11.03	If the review identifies deficiencies, address deficiencies and re-route deliverables for review. If it is determined that a deficiency will be addressed in a separate project, document that decision to obtain approval to continue into the Closing Process for the current project.
4.12	Process Closure
4.12.01	Assess the Executing/Controlling Process to capture lessons learned and opportunities for improvement.
5	**Closing Phase**
5.01	Project Completion
5.01.01	Collect and organize final project schedule and cost information. Update the original and revised estimates with actual data and update productivity estimates for future use.
5.01.02	Archive all project files and media.
5.01.03	Close out all logs (e.g., risk, change, issues) to ensure work is complete and issues are closed.
5.01.04	Close the project in the time reporting system so that no time will be logged against the project after the project is complete.
5.01.05	Close the project in the project database.
5.01.06	Enter appropriate information into best practice, risk, and estimating data knowledge repositories.
5.01.07	Begin preparing the Project Closeout Report using information gathered in the Project Completion activity
5.02	Post-Project Review
5.02.01	Administer team member questionnaire. Collect and store information in the project repository.

Element Number	WBS Element
	Summarize the results of the questionnaire in the Project Closeout Report.
5.02.02	Assess client satisfaction. Collect and store information in the project repository. Summarize the results of the questionnaire in the Project Closeout Report.
5.02.03	Consolidate lessons learned from previous processes (or phases).
5.02.04	Prepare for and conduct a Post-Project Review. Review the draft Project Closeout Report. Review lessons learned and identify any additional lessons learned. Record any recommended changes to the process, metrics, tools, techniques, and standards.
5.02.05	Follow-up after Post-Project Review, update the Project Closeout Report, and distribute the report to appropriate team members and stakeholders of the project organization.
5.02.06	Enter the project's lessons learned in the lessons learned knowledge base.
5.03	HR Management Closure
5.03.01	Conduct final reviews and evaluations of all project staff, acknowledge/recognize team members, and release project resources in accordance with policies and procedures.

COMMUNICATION MATRIX

Project Name <Project Name>
Program Manager <Program Manager>
Project Manager <Project Manager>

Purpose: The objective is to document the project team's approach towards communication. This matrix is part of the Change Enablement Plan for the project. Refer to the Change Enablement Guideline for more information. This document captures the analysis completed as part of communications planning and serves as a tool to guide the project team throughout the Executing/Controlling Process. This approach will be summarized in the Project Notebook for the team.

Event – message that needs to go out to the targeted audience; "What".
Target Audience – who needs to know; "Who".
Message – content of the communication; "Why".
Timing – the frequency of the message; "When".
Vehicles – the communication approach; "How".
Sender – the person distributing the message.
Feedback Mechanism – a way to capture the responses to the message.
Impact – effect of the communication; goal low effort, high impact.
Comments – any changes or needed information.

Event	Target Audience	Message Objective	Timing	Vehicles	Sender	Feedback Mechanism	Impacts	Comments

Communication Matrix Instructions

Field	Description
Event (What)	Describe the message that needs to go out to this audience, for example "Status." Consider the following when defining the message: • What does the project need to communicate to its audiences? • Who is authoring, sponsoring and/or standing behind the message? • What's going to happen? What other needs or work is it related to? • How far along are we? When is it going to happen? • Where is it going to happen, in what offices? Where is it *not* going to happen? • How is it going to take place, in what steps or increments? • How will the project team help you get through the change? • What does the recipient need to do, and by what date? • When will there be further communications? Second warnings, etc. • Where can they get morw information? Who should they call?
Target Audience (Who needs to know)	Who is the audience for each communication? Check the Project Charter, Statement of Work and other project documents to determine audiences. Some messages will go to audiences defined by function or group membership: • Project (key project stakeholders, all project personnel, project managers, project sponsors, business area project manager, consultants). • IT (all of IT, key support people, all managers, some managers, Direct Reports, focus groups, ancillary groups). • Business Area (business group participants not on the project team, cross-business groups, business group by business group notification). • Corporate (Executive Committee, selected executive officers). • IT user population (users in key groups involved with the project, all users, "power users," users who "don't care" or are "mildly interested," other selected users). • Outside customers (customers who use the service or system application involved). Some audiences will be defined by the project phase, milestones and status: • Introductory audience. • Audience for various phases and milestones. • Testing audience. • Implementation audience, by phase. • Conclusion audience for project review and sharing the success.
Message Objective (Why)	Why is this communication event taking place? • What is the intended effect? • What do we hope to achieve? • What are the benefits
Timing (When)	Consider theScope Statement stakeholders and the advice of project team members and key stakeholders to determine a communication approach and timing.
Vehicles (How)	*How* to communicate will depend on the phase of the project, the audience, etc. It generally takes face-to-face communication to achieve buy-in, support, and to get someone to take action. At other times, hard copy print and electronic media or combinations of media are effective. Consider the following: • One on one meetings • Group meetings • Telephone (conference calls, etc.) • Video conferencing • Letters and other hard copy • Electronic mail (e-mail) • Flyers and pamphlets

Sender	For each message in the Communication Plan: • Who will prepare the message, develop the media and coordinate the delivery? • Who will author or sign the communication? (Who is the message from?)
Feedback Mechanism	A way to capture responses pertaining to the message delivered. • What current avenues are available? • What new avenues need to be put in place?
Impact	The effect of the communication on the overall project. Areas for review and tracking progress. The goal is low effort with high impact.
Comments	As needed. Document any changes in the current Project Notebook and modifications.

Meeting Date:
Meeting Place:
Meeting Time:
Conference Call No.

Meeting Purpose
_

Facilitator:
Recorder:

Attendees:		
Invitees:		
TIME	**AGENDA**	**WHO**

Agenda Topics:

TIME	Queued Item	Participants	Date

Action Items:

Action Items	Assigned To	Due Date

Out Of Office:

Name	When	Fill In?

Meeting Notes	<Project Name> <Meeting Name> <Date>

	Attendees: **Invitees:** **Purpose:**

Handouts:

Agenda/Topics Covered:

General Information

-
-
-
-
-
-
-

Key Decisions Made

-
-
-
-
-

Other

-
-

Action Items

Item	Responsibility	Date Due

Request For Change

Purpose: The Request for Change (RFC) is to document the detailed description of the change, analyze the project and business impact of the change if it occurs and to document the approval response.

PROJECT IDENTIFICATION

Project Name	Project Number
Program Manager	**Project Manager**
Date Submitted	**Submitted By**

CHANGE DESCRIPTION

Change No.	Priority	PM Process	Lifecycle Phase
		▪	

IMPACTS

Factor	Description
Scope	
Schedule	
Resources	
Budget	
Assumptions	
Impact of not doing the Change	
Other	

RECOMMENDED ACTION

- ▪
- ▪
- ▪

OTHER RELEVANT INFORMATION

Alternative Soltions

- ▪
- ▪
- ▪

Request For Change

CHANGE APPROVAL			
Name	**Title**	**Date**	**Approved**
	Technical Manager		
	Project Manager		
	Project Owner		
	Program Manager		
	Project Sponsor		

CHANGE LOG

Project Name <Project Name>
Program Manager <Program Manager>
Project Manager <Project Manager>

Purpose: To provide and serve as a reference for approved changes in the project, including, scope, cost, duration, and deliverables. It is a record of all requests for change. Each change should have a Change Request Form that corresponds.
< Hover by the red triangle in the top left corner for more detail. Use the Instructions on the next tab , refer to bottom of page.>

CHG NO.	Change Description	PM Process	Lifecycle Phase	Date Submitted	Submitted By	Status	Priority	Estimated (Days)	Estimated (Dollars)	Comments

Change Log Instructions

Change No.	Enter the change number on the Project Change Request Form in order to cross-reference the Form with the Change Log. The Change Number is the identification number assigned to the change request when the change is recorded in the Project Change Log. Use a sequential numbering scheme that will be applied to all changes for the project, **i.e.,** 1, 2 ect.
Change Description	Briefly describe the change based on the information in the Project Change Request Form. **Note:** If a change to requirements happens list that if affects requirements in the description.
PM Process **Lifecycle Phase**	For non-software development projects, list the Project Management Process this change corresponds to. Opportunity Assessment, Initiating, Planning, Executing/Controlling and Closing. **Note:** If a change to requirements happens list the phase you are in that it was identified. List the Phase that this change in taking place in. For Software Development the Phases are: Opportunity Assessment, Concept, Requirements, Design, Development, Testing, Documentation & Training, Deployment and Post Deployment. **Note:** If a change to requirements happen, list the current phase that you are in that it was identified and requirements.
Date Submitted	Date the change request was submitted to the Project Manager.
Submitted By	The person who submitted the change request. This person is vital if follow up is needed. **NOTE:** Be sure to include the Enterprise Architect if a design change or change to requirements.
Decision Date	Date that this change is accepted, cancelled or deferred. If accepted, the work and schedule impact of the change should be incorporated in the Project Notebook.
Status	List the Status of the change: Under Review, In Progress, Cancelled or deferred.
Priority	This priority code indicates the impact of this change on the project: **H** = High (extremely important or imperative to project success) **M** = Medium (important to project success, but a work around exists) **L** = Low (this change is desirable, but with little impact if the change is not made)
Estimated (Days)	Enter the estimated days this change will add and or reduce from the project.
Estimated (Dollars)	Enter the estimated increase or decrease in dollars for the change.
Comments	Include any comments related to this change. List any supporting documentation, if applicable.

ISSUE LOG

Project Name <Project Name>
Program Manager <Program Manager>
Project Manager <Project Manager>

Purpose: To document, track and resolve issues. "Issues" are problems or questions arising in the course of the project that need to be defined, researched, evaluated in terms of scope and impact, and resolved in order for a project phase or task to proceed. Typically, issues will be part of the Project Status Report and reviewed with the team weekly and/or monthly.

< Hover by the red triangle in the top left corner for more detail. Use the Instructions on the next tab , refer to bottom of page.>

Issue No.	Date Created	Created By	Issue Description	Deliverable	Priority	Target Date	Owner	Resolution	Status	Date Closed	Comments

Issue Log Instructions

Field	Description
Issue No	The Issue Number is the identification number assigned to the issue when recorded in the Project Issues Log. Use a sequential numbering scheme that will apply to all issues for the project, **i.e.,** 1, 2 ect.
Date Created	The date the issue is entered into the log.
Created By	The person who initially entered the issue into the log.
Issue Description	A complete description of the issue. If you need more space, create an additional description document and use the Issue No. to cross-reference it to the Log
Deliverable	List the deliverable that this issue is affecting. If a deliverable cannot be tied, leave this blank.
Priority	The priority code indicates the impact of this issue on the project: **H** = High (extremely important, the project cannot be successful without this issue being resolved) **M** = Medium (important to project success, but a work around exists) **L** = Low (desirable, but with little impact to project success if the issue is not resolved)
Target Date	Date the issue is to be resolved. The date selected should minimize any negative impacts to schedule and/or cost.
Owner	The person who is to investigate and resolve the issue. This person is the owner of that issue and will report progress to the project manager.
Resolution	When an issue has been resolved, this field should contain a complete history and how the issue was resolved. If applicable, include references to supporting documents.
Status	Indicates the issue status: New, In Progress, Under Review, Completed.
Date Closed	Use the format mm/dd/yy, to list the date the issue was closed.
Comments	Include any comments related to this change. List any supporting documentation, if applicable.

Project Status Report

Purpose: To provide a weekly or bi-weekly review for working team members on how the project is progressing. The project manager is responsible for determining what standard reports are produced. There are two classes of standard reports: The report used by the project team performing the work, and the report used by senior management to oversee the project.
The project manager in the weekly or bi-weekly team meetings to facilitate communication and to ensure project goals and work allocation among the team would use this document. Consider the audience when reviewing risk. If more detail is required for the team, attach the Risk Log.

Period Covered by the Report:
Period beginning date:
Period ending date:
Prepared by:

RECIPIENTS:

PROJECT IDENTIFICATION - PROJECT SPECIFICS	
Project Name	**Project Number**
Program Manager	**Project Manager**

KEY ACCOMPLISHMENTS
Current Period
▪ ▪ ▪ ▪ ▪
Planned for Next Period
▪ ▪ ▪

OVERALL SCHEDULE:

COMMENTS

MILESTONES				
Milestone	**Original Target Date**	**Revised Target Date**	**% Complete**	**Comments**

Financial Overview - *(TAKE THIS INFORMATION FROM THE PROJECT BUDGET. LIST THE BUDGETED COSTS OF THE PROJECT, THE ESTIMATE AT COMPLETION (**EAC** = ACTUAL COSTS PLUS ESTIMATE TO COMPLETION (ETC)), AND THE ACTUAL COSTS TO DATE.)*

	Expense	**Capital**	**Overall Total**
Budget Costs	$	$	$
Estimate at Completion (EAC)	$	$	$
Actual Costs to Date	$	$	$

KEY RISKS

Risk	Response	Date Identified	Status	Owner
▪ ▪ ▪ ▪ ▪				

KEY ISSUES

Description	Action
▪ ▪ ▪ ▪	▪ ▪ ▪ ▪

CONTRACTOR EXIT CHECKLIST

Project Name: <Project Name>
Program Manager: <Program Manager>
Contract Company: <Name of Vendor>
Project Manager: <Project Manager>
Date: <Date>

Purpose: To review and verify the deliverables and work of the contractor. This will help the project manager determine if the provisions of the contract(s) were met and to provide feedback on performance to help improve possible future engagements. Typically, the project manager will use the checklist to assist when the project relationship with the contract company is closing.

Key Activities		Comments	Date
Review activities needed to complete the contract.	☐		
Verify requirements standards have been satisfied.	☐		
Review deliverables based upon the schedule.	☐		
Document actual delivery dates of all contractual deliverables and other contractual obligations.	☐		
Review any requests from the contractor asking for release from any further obligations.	☐		
Conduct a project closeout meeting with the contract lead.	☐		
Gather any project files, i.e., schedules, charts.	☐		
Gather any confidential artifacts.	☐		
Enter project information into Knowledge Bases, as applicable.	☐		

Key Activities		Comments	Date
Archive project files in repository.	☐		
Review project performance with the contract lead or make notations in the project repository, as applicable.	☐		
Collect and place contract files in appropriate storage for contract files.	☐		
Have office space cleared and any desk keys forwarded.	☐		
Gather security badges and parking passes.	☐		
Have voicemail deleted, if applicable.	☐		
Have e-mail account deleted, if applicable.	☐		
Document possibilities for project or contract extensions or other related new business.	☐		
Obtain commitment for extension, if applicable.	☐		
Perform audit on final charges and costs.	☐		
Verify final payment.	☐		
Notify contractor/vendor of final completion.	☐		

Lessons Learned Log

Purpose: To identify and record lessons learned and future recommendations. This document is intended to collect information that has been learned during a phase of a project as well as the team's impressions of what worked well and what did not work well. This document should be updated throughout the entire lifecycle of a project and the results will be used to update or improve the overall process as appropriate.

Some cells have a comment in the top right corner. To see the comment hover over the red triangle.

#	Date	Name	Role	Lesson Description	Recommended Items to add to the process	Recommended Items to remove from the process	PM Process	System Development Phase	Knowledge Area
1									
2									
3									
4									
5									
6									
7									
8									
9									

Instructions for Lessons Learned

Field	Description
#	Lesson Learned Number. They should be in numerical order 1, 2 and so on, even if the Phase or Process is different.
Date	Use the format mm/dd/yy for the date the lesson learned is being recorded.
Name	List the name of the person with the lesson learned. This name is the person to follow up with if further information is needed.
Role	State the role of the person whose name is listed with the lesson learned. (i.e., project manager, project lead, GUI developer, DBA, Business Analyst etc.).
Lesson Description	1- *Describe* the lesson in language that a novice, not from your business unit, could understand, (i.e., Requirements were not well defined and caused rework.) 2 - List the *type* of lifecycle if applicable: Waterfall, Spiral. {If more information is required about types of lifecycles, refer to the Software Development Project Handbook}.
Recommendation	Describe the lesson learned and the corrective action taken or not taken. This is a suggested improvement area to prevent and/or avoid this issue next time. Be specific and watch using jargon/acronyms. If acronyms are used, document the entire word and/or meaning. (Example: Since the requirements were not fully defined, the project manager will conduct a meeting with the team after Requirements are set before Design begins, so clarity and consensus is reached. This would reduce the amount of rework by the developers. Be sure to include the system business analysts, who will list the business and technical requirements).
Recommended Items to add to the Process	For this area, define what items, knowledge assets, plans, and practices, materials that could be added to benefit the process. Be sure to indicate the team member and/ or organization that provided the component for reusability. (i.e., Roles Matrix, Project Management Guide and SDPH -Software Development Project Handbook).
Recommended Items to remove from the Process	List the items, tools, materials that should be removed during this process. Be sure to indicate the name of the item and a description. This information will be beneficial to future projects, so redundancy and poor tools are not reused.
Importance (1 - 5)	State in your opinion the importance of this lesson learned, using the 1-5 numerical scale, 1= low 5= high. (i.e., Requirements are not clear, importance is 5 to a developer). {Caution: This cell has a restriction so a whole number between 1- 5 must be entered}
PM Process:	If this is a non-software project, select from the list the Project Management Process that applies: Opportunity Assessment, Initiating, Planning, Executing/Controlling and Closing.
Software Development Phase	If this is a software development project, list the lifecycle phase the lesson applies to. There must be at least one lesson learned documented per project phase. For Software Development the phases are: Opportunity Assessment, Concept, Requirements, Design, Development, Testing, Documentation and Training, Deployment, Post Deployment.
Knowledge Area	Select from the list the Knowledge Area if applicable: Project Integration; (Issues and Change Control), Scope, Time, Cost, Quality, Human Resources, Communication, Risk Management, Procurement. {If more information is needed about the Knowledge Areas, please refer to the Knowledge Area Overview in the Project Management Guide.}

Leading questions for Lessons Learned

Consider the following questions when identifying lessons learned.
Please do not limit yourself to these topics, they are provided as general memory joggers. You may have a lifecycle that is different than these. Be sure to list the Phase for the lesson you are documenting.

Project Management

Opportunity Assessment

Was the Program Manager involved as early as they needed to be?
Were contractors and other vendors brought in early/late, just in time?
Was there sufficient upper management support for the project to continue?

Initiating Process

How well was the project vision understood by team members?

Were success criteria determined and understood?

Planning

Was the project schedule useful and accurate?

Did the project team adhere to the schedule?

Was the skill set of the team members sufficient?

Executing/Controlling

Were there many defects that were tracked back to new requirements?
Did the change control process adequately address changes to the project?
Was the process for change clearly understood by all team members?

Closing

What could have been improved during the project?

What went well on the project?

Software Development

Opportunity Assessment

Were the business partners involved as early as they needed to be?
Were contractors and other vendors brought in early/late, just in time?
Was there sufficient upper management support for the project to continue?

Concept Phase

How well was the project vision understood by team members?
Were success criteria determined and understood?

Requirements

Were the requirements complete?
Were the requirements stable or were there many changes?
Were the requirements easy to understand, or were they misrepresented?
Were the software specifications clear?

Development

Were there problems with the design, coding, and unit testing?

Were there issues with the daily builds?
Was the software integration with other systems smooth?
Were there many changes made to the requirements after sign off?

Testing

Were there issues with the test planning, test case development, and test development work?
Any issues with the automated testing?
Were the number of users in the test audience truly representative of the target audience?

Documentation and Training

Is the documentation written for the user and not technical person user?
Does the training take into consideration the target audience?

Deployment

Was the implementation strategy accurate and effective?
Was there a smooth transition from the test environment into production?
Any problems with the way releases were rolled out?

Post Deployment

What went well on the project?

Project Survey

Purpose: The Survey is used to capture input from team members and the project manager during the Closing Process. The objective is to learn from the experiences and continually improve the software development process. All comments will be considered as the overall project closeout document is assembled.

Answer these questions as candidly and as completely as possible. Return this document to the project manager before your assignment on the project is completed or before the project review is held, as appropriate. If you have any questions, please contact the project manager for clarification.

RESPONDENT NAME	ROLE	DATE
PROJECT NAME	**PROJECT MANAGER**	**PROGRAM MANAGER**

TEAM MEMBER QUESTIONS ABOUT THE PROJECT
▪ **How well was the project vision understood by project team members?**
▪ **Did the finished product meet the stated/agreed upon deliverables?**
▪ **How well were the requirements understood by team members?**
▪ **How accurately did the end product meet the objective of the project's vision statement?**
▪ **Did the concept phase properly define the project deliverables?**
▪ **How would you rate the project's control over changing requirements?**
▪ **If the project required resources from multiple teams, were all teams adequately involved in the development process and other phases at the appropriate times?**
▪ **What went well on the project?**
▪ **What could have been improved on the project?**

Project Survey

PROJECT MANAGER QUESTIONS ABOUT THE PROJECT
▪ **How well did the project meet the overall critical success factors?**
▪ **How would you rate the project's control over changing requirements?**
▪ **If the project required resources from multiple teams, were all teams adequately involved in the development process and other phases at the appropriate times?**
▪ **Did the project finish on time and within budget?**
▪ **How accurate do you believe the estimates of the project were?**
▪ **What went well on the project?**

CLIENT SATISFACTION SURVEY

Purpose: To document client satisfaction level of the product/service. The project manager distributes the Client Satisfaction Survey form to customers and/or clients during the Closing Process. The project manager collects the forms and stores them in the project repository. The project manager should summarize the results of the Client Satisfaction responses in the Project Closeout Report.

PROJECT IDENTIFICATION - PROJECT SPECIFICS		
Customer Name	**Date Created**	**Project Name**
Program Manager		**Project Manager**

As a valued client, your perception of the service is important. Please take a moment and grade the product/service on the following statements.

Please respond with an "x" from 1 to 5 or N/A to the following statements. (1 = low, 5 = high)	1	2	3	4	5	N/A
The team displayed a total commitment to the project.						
Project team met or exceeded my expectations.						
Communicated appropriately and effectively, to the right people at the right times.						
Product/Service met due date commitment or provided the best possible alternative if the original due date could not be met.						
Communicated project goals to all customers and kept them involved and informed.						
Ensured timely monitoring and follow-up of project objectives and milestones.						
Used timely, effective escalation to ensure customer satisfaction.						
Conducted timely project meetings and conference calls customers; had control of meetings.						
Negotiated and published project plans.						
The specific product and/or service requirements were meet.						
Had good knowledge of products and services involved in the project.						
Conducted a post project evaluation and provided feedback on successes or suggestions for improvement.						
The project was handled professionally.						

CLIENT SATISFACTION SURVEY

Additional Comments