<organization>

<name of project>
Software Project
Management Plan

<date>

<data security notice>

<instructions to reviewers, if appropriate>

Approvals Signature Block

Organization Responsibility	Signature	Date
Project Manager		
Software Quality Assurance Leader		
Software Configuration Management Leader		
User Documentation Leader		
User Training Leader		
Project Sponsor		
Customer or Customer Representative		

<revision information>

Table of Contents

Briefly describe the scope and context of the plan and the intended audience. [Omit this section, if the following section is sufficient.]

1. OVERVIEW OF THE PROJECT

Provide an overview of the project. [Omit this section, if the following section is sufficient.]

1.1 PURPOSE, SCOPE, AND OBJECTIVES

Describe the purpose, scope and objectives of the project. Describe the business or system needs being satisfied by the project. Explain how they fit within a broader vision of any overall program or product life cycle. Identify the project boundaries. Describe what is out of the scope of this project as well. Provide a reference to any other documents that drive this project.

Business Need	
Element	**Description**
The problem of	<describe the problem>
affect	<identify stakeholders affected>
in that	<state how>
the results of which	<describe the impact of the problem>
A solution	<describe the proposed solution>
Will bring the benefits of	<list some benefits>

Customer's business objectives for this project

Development team's objectives for this project

Vision Statement

Scope of this Release	
Items in Scope	**Items out of Scope**

1.2 ASSUMPTIONS AND CONSTRAINTS

Describe assumptions on which the project is based, constraints related to schedule, budget, resources, products to be reused, technology to be employed, products to be acquired, etc., and dependencies upon other products, projects, and organizations.

Assumptions and Constraints	Comments or Plan Impact

If priorities have been established among the competing dimensions of the project, document those here. For example, if the project is optimizing scope, while constraining cost, and accepting the resulting schedule, document that agreement. It may be useful to use a table like one of the following. If using the first table, use only one check in each row and column. If using the second table, indicate the priority among the competing dimensions.

Project Dimension	Optimize	Constrain	Accept
Cost/Resources			
Time/Schedule			
Scope/Function			

Project Dimension	Priority
Cost/Resources	
Time/Schedule	
Scope/Function	

1.3 PROJECT DELIVERABLES

List the major deliverables or services to be provided by this project, or provide a reference to where such a list can be found. Include planned delivery dates, responsible organizations, delivery mechanisms and/or locations.

Major Deliverable	Planned Delivery Date	Author	Delivery Mechanism / Location

1.4 SCHEDULE AND BUDGET SUMMARY

Provide a summary of the project schedule and budget or a reference to where such information can be found. Include all aspects of the project, including support functions, quality assurance, configuration management, and subcontracted work, and reference any related documents.

1.5 EVOLUTION OF THE PLAN

Describe how this plan will be completed, disseminated, and put under change control. Describe how both scheduled and unscheduled updates will be managed.

2. REFERENCES

Provide a list of all documents and other sources of information referenced in the plan. Include the title, any identifier that helps locate the document, date, author, and publishing organization. Also include a reference to the authorizing document for this project (i.e. the Statement of Work, Marketing Requirements, Charter, etc.)

Reference Title and Version Number	Identifier	Date	Author	Publishing Organization

3. DEFINITIONS AND ACRONYMS

Define (or provide references to the definition of) all terms and acronyms required to properly interpret this plan.

Term	Definition

Acronym	Meaning

4. PROJECT ORGANIZATION

Describe the organization for the project, using the sections that follow.

4.1 EXTERNAL INTERFACES

Describe the administrative and managerial interfaces between the project and the primary entities with which it interacts.

Organization	Interface
Customer: <name>	*<name>*
User Documentation	
<etc>	

4.2 INTERNAL STRUCTURE

Describe the internal management structure of the project, as well as how the project relates to the rest of the organization. Include employees and contract staff that are managed as part of this project.
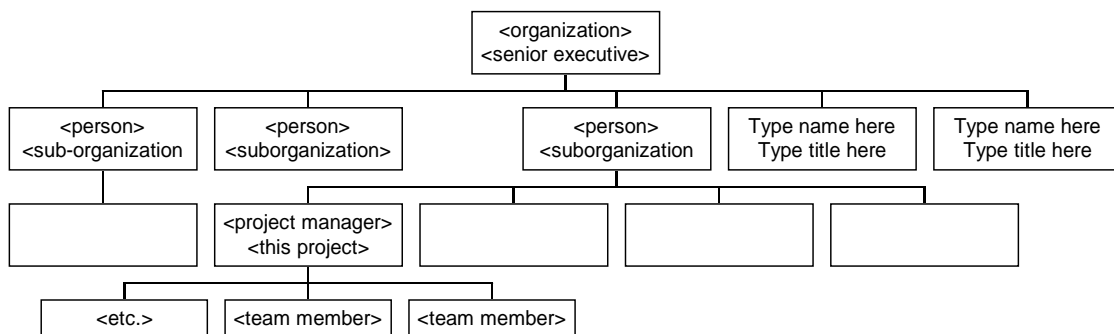
4.3 ROLES AND RESPONSIBILITIES

Identify responsibilities assigned to each major role in the project, and identify the individuals who are responsible for those functions and activities.

Role	Responsibilities	Person
Project Manager	*<definition>*	*<name>*
Technical Team Leader(s)	*<definition>*	*<name>*
<etc.>	*<etc.>*	

4.4 TEAM METHODS OF OPERATION

Describe the methods to be used by the project team for regular coordination and collaboration. Include information as appropriate on items such as standard team meetings, decision-making processes, and team member status reporting.

5. MANAGERIAL PROCESS PLANS

Describe the project management processes for the project. The sections that appear here may evolve over the lifetime of the project, and only a subset of them may be relevant; use elements accordingly. If there are documented processes that the project team is following refer to those and do not reproduce them as part of this plan.

5.1 START-UP PLAN

Describe how the project effort, cost, and schedule will be estimated, including methods, tools, and techniques.

Describe how staffing will be done, along with the expected level of staffing by phase of the project, types of skills needed, and sources of staff (may be employees or contract personnel).

Role/Skill	Source	Phase or Phases Involved

For any resources needed in addition to personnel, describe the plan for acquiring those resources (such as hardware, facilities, service contracts, and software).

Describe any training that will be needed by the project staff to conduct this project, in both technical and managerial skills. Include a schedule for the training to be provided, number of people to be trained, and how the training will be conducted.

Type of Training to be Provided	Method	Duration	Scheduled Dates	Number of Trainees	Cost

5.2 WORK PLAN

Describe the work activities, schedule, resources, and budget details for the project. Much of this content may be in appendices that are maintained as living documents, supported by project planning and tracking tools. Include at a minimum here a list of the key elements in the project work breakdown structure and a description of those activities. If the work breakdown is developed in elements other than "work activities", such as product components or product functions, adapt the descriptions here to conform to those elements.

5.2.1 Work Activities

Specify (or refer to a location that contains a list of) the work activities and their relationships depicted in a work breakdown structure. Decompose the structure to a low enough level to facilitate sound estimating, tracking, and risk management. Activities and tasks detailing the approach, needed resources, duration, work products, acceptance criteria, predecessors and successors.

5.2.2 Schedule Allocation

Specify (or refer to a location that contains) the schedule for the project, showing sequencing and relationships between activities, milestones, and any special constraints.

5.2.3 Resource Allocation

Identify (or refer to a location that contains a description of) the resources associated with each of the major deliverables or work activities.

5.2.4 Budget Allocation

Show (or refer to a location that contains a description of) the budget allocated to each of the major deliverables or work activities. Use the organization's standard cost categories such as personnel costs, travel, equipment, and administrative support.

5.3 CONTROL PLAN

Describe how the project will be monitored and controlled, using the following areas.

5.3.1 Requirements Management

Describe the process to be used for evaluating, reporting, and controlling changes to the project requirements.

Requirements Management Activities	Performed By Whom	Comments
Establish the requirements baseline		
Review, evaluate, and prioritize the requirements change requests		
Provide impact analysis for proposed change		
Notify project team of approved changes to requirements		
Incorporate requirements changes into the project plan		

Requirements Management Activities	Performed By Whom	Comments
Evaluate risks associated with the change in requirements and place under Risk Management. See the Top Risk Chart template for an example of a risk logging form		
Escalate changes in the planned cost, schedule, or quality that the changed requirements will cause, and that cannot be realistically absorbed in the current plan		
Keep work products consistent through Traceability. See the Requirements Traceability Matrices template for examples of traceability forms		

If it is not clear from the table above and the Configuration Management process described below in the Supporting Process Plans section, describe the techniques to be used for the process steps above.

5.3.2 Schedule Control

Describe how progress will be monitored and controlled. Address how the schedule will be controlled (milestones, progress to plan on activities, corrective action upon serious deviation from the plan), when reporting will be done for both the project team and management, and what tools and methods will be used.

5.3.3 Resource Control

Describe how project resources will be monitored, controlled, and evaluated. Address how the resources will be assigned and sustained as appropriate throughout the project life cycle to ensure they are available when needed. Define resource constraints and dependencies, which may impact project success. Determine how resource performance and/or deficiencies will be measured and reported, and document corrective action procedures.

5.3.4 Budget Control

Describe how performance to budget will be monitored and controlled. Address how the actual cost will be tracked to the budgeted cost, how corrective actions will be implemented, at what intervals cost reporting will be done for both the project team and management, and what tools and techniques will be used. Include all costs of the project, including contract labor and support functions.

5.3.5 Reporting and Communication Plan

Describe the mechanisms, formats, frequencies, and flow of information for communicating status of the project work, progress of the project, and other information as needed by the project. Use one of the tables below, or develop one that better suits your needs.

Information	Frequency Sent	From Whom	To Whom	Medium

Communication	From	To	Time Period

A Project Status Report form can be used to report project progress. See the Project Status Report template for an example.

5.3.6 Measurement Plan

Describe how the project measures will be selected (may be a project team effort, based on key issues faced by the project; may be set by external requirements; may be organization standards). Describe how the measures will be collected, analyzed, reported, and used. Include any performance measures that will be used to assess the business impact of this project, including the gathering or development of current baseline values.

Measures Required (and where these are defined)	Frequency Collected	Collected by Whom	Analyzed by Whom	Used by Whom

5.4 RISK MANAGEMENT PLAN

Describe the process that will be used to identify, analyze their probability and impact, build mitigation and contingency plans, and manage the risks associated with the project.

Risk Management Activities	Performed By Whom	Comments
Select risk identification team and process to be used for analyzing impact of selected risks		
Identify sets of risk factors		
Identify the specific risk(s) to the project, citing for each the condition that could arise and the consequence to the project		
Estimate for each risk item the probability of occurrence and loss if the risk occurs; compute exposure		
Rank in order of exposure		
Identify an action to handle each key risk, estimate the effort and cost, and develop contingency plans		
Incorporate risk handling actions into project plan		
Regularly review and update status for each key risk		
Revise risk handling actions if needed and proceed with contingency plan when necessary		
Prepare risk status report for project reviews		
Periodically analyze the project status to identify new risks as they occur.		

Risk factors that should be considered when identifying the specific project risks include contractual risks, organization-related risks, technological risks, risks due to size and

complexity of the product, risks in personnel acquisition and retention, risks in achieving customer acceptance of the product, and others specific to the context of the project.

The specific risks for this project, the mitigation actions, and the contingency plans are kept in another document that is a living record of the current risk information. See the Top Risk Chart template for an example of such a risk tracking form.

5.5 CLOSEOUT PLAN

Describe the plan for closing out this project. See the Lessons Learned Survey template, for an example of a Lessons Learned Survey form.

Closeout Activities	Performed By Whom	Comments
Identify and determine disposition of outstanding work		
Prepare next release, operations, maintenance or transition plan		
Close all logs and accounting records		
Conduct post-project review and document lessons-learned		
Complete project team post-assignment evaluations and release team members to next assignment		
Complete customer satisfaction review		
Analyze initial cost/benefit, project metrics, product quality, and issue final project report		
Update estimating models and risk factor tables		
Archive documents and notify appropriate personnel		

6. TECHNICAL PROCESS PLANS

Describe the processes and approaches to be used for developing the work products or services for the project.

6.1 PROCESS MODEL

Specify the life cycle model to be used for this project or refer to an organizational standard model that will be followed. A process model includes roles, activities, entry criteria and exit criteria, milestones, baselines, major deliverables, and reviews for the project. It may include phases for project initiation and project termination. If the project's process is

tailored from the organization's standard process model, that tailoring should be described here.

6.2 METHODS, TOOLS, AND TECHNIQUES

Identify the computing system(s), development method(s), standards, policies, procedures, team structure(s), programming language(s), and other notations, tools, techniques, and methods to be used to specify, design, build, test, integrate, document, deliver, modify or maintain the project deliverables.

6.3 INFRASTRUCTURE PLAN

Describe the plan for establishing and maintaining the project work environment (hardware, software, facilities), as well as any infrastructure policies, procedures, and standards needed for the project.

6.4 PRODUCT ACCEPTANCE PLAN

Describe (or refer to a separate document that provides) the plan for acceptance of the project deliverables by the customer or acquirer of the product. Include the objective criteria to be used for acceptance. Describe roles and responsibilities for reviewing the plan, generating the acceptance tests, running the tests, and reviewing results. Describe the final approval process for product acceptance.

Product Acceptance Activities	Performed By Whom	Comments
Review requirements and establish acceptance criteria		
Develop acceptance test plan		
Identify test personnel		
Define final approval process		
Define acceptance tests and procedures		
Conduct acceptance test and review the results		
Execute the approval process		
Others?		

6.5 DEPLOYMENT PLAN

Describe (or refer to a separate document that provides) the plan for releasing and installing the project deliverables or deploying them to the acquirer or customer site. The plan may need to include hardware installation, telecommunications or database infrastructure preparation, and other information, as well as describing the means of distributing the software.

Describe (or refer to a separate document that provides) the plan for operating and maintaining the system after deployment. Unless it is described elsewhere, include a description of how users and operations personnel will be trained on the new or changed system.

If this project develops a product that is packaged and shipped to customers for their installation, describe how the product will be prepared for release and shipment.

Deployment Activities	Performed By Whom	Comments
Determine roll-out/release schedule		
Establish communication methods for use during deployment		
Prepare facilities to store and maintain the product(s).		
Train people who will be handling the product(s)		
Establish operational support procedures (call flow, escalation, etc.)		
Test operational readiness		
Verify that necessary infrastructure is in place for transition, conversion, migration		
Monitor the production system during warranty period		
Others?		

7. SUPPORTING PROCESS PLANS

Provide plans for the supporting processes here, or refer to the appropriate plans and where they can be found. In some cases, the organization's standard processes can provide the majority of the information and need not be reproduced in a plan.

7.1 CONFIGURATION MANAGEMENT PLAN

Describe (or refer to the description of) the processes, methods, and tools that will be used for configuration management. Include these areas: identification of configuration items and baselines, setting up and controlling the software library, change control, auditing of configurations and configuration items, reporting of status, and release management. Change control processes should support reporting, review, approval, and tracking of change requests for product requirements changes, work product defects, and project process changes.

Configuration Management Activities	Performed By Whom	Comments

Configuration Management Activities	Performed By Whom	Comments
Develop Configuration Management Plan		
Identify configuration items		
Implement Change Control processes		
Perform baseline audits		
Track defects		
Participate on Change Control Board (CCB)		
Release/deliver baselines		
Control internal baselines (test plans, requirements specs, etc.)		
Report status of CM activities		
Others?		

Members of the Change Control Board	
Role or Person	**Interest Being Represented**

7.2 PRODUCT TESTING AND REVIEWS PLAN

Describe (or refer to the description of) the processes, techniques, and tools that will be used for verification and validation of the work products and activities. Identify which work products will receive what types of peer reviews (such as inspection, walkthroughs, and technical reviews) and what roles will participate in such reviews. Identify the types of testing that will be done throughout the life cycle, and which roles will be involved in each (such as unit testing, module testing, integration testing, system testing, and acceptance testing). For each type of testing, describe who will plan the tests, review the plans, develop the tests, test the product, and review the test results.

7.3 DOCUMENTATION AND WORK PRODUCT PLAN

Describe (or refer to the description of) the processes, techniques, and tools that will be used for generating the deliverable and non-deliverable work products for the project.

Documents often found useful to perform the technical processes for developing software that satisfies the requirements include the following:

- *User Requirements Specification – description of the problems to be solved, user needs to be served, in the words of the user*
- *Software Requirements Specification – detailed technical descriptions of the product requirements, addressing functionality, quality attributes, interfaces, design constraints, and other information helpful to product design*
- *Design Documentation – descriptions of major components of the product design, including architecture, process design, user interfaces, database design, and internal interface design*

- *Test Documentation – test plans, test procedures, and test cases at all relevant levels of testing (unit, module, integration, system, acceptance, alpha, beta)*

In addition, include the product deliverables described earlier in this plan, as well as the various supporting plans and other documentation used by the project team to conduct the project (such as traceability matrices, test plans, and reviews reports).

Work Product	Relevant Template or Standard	Prepared By	Reviewed By	Distributed To

7.4 QUALITY ASSURANCE PLAN

Describe (or refer to the description of) the processes, techniques, and tools that will be used for assuring that the project meets its commitments to plans, standards, and processes, and that it demonstrates that the products meet the agreed-to requirements. Include in this description any reviews and audits in support of quality assurance, as well as what roles are performing those. Include a description of how non-compliance will be handled. Identify the processes and standards that will be followed by the project, both internal to the organization and any industry or regulatory standards that apply.

Quality Assurance Activities	Performed By Whom	Comments
Develop and follow QA plan		
Review work products vs. standards		
Evaluate level of quality of work products (content, correctness)		
Coach team on use of processes		
Help tailor processes and process assets to meet project needs		
Document and track process deviations		
Review results of QA activities with management		
Independent QA Audit (i.e. outside audit of the QA process)		
Others?		

7.5 PROJECT PROGRESS REVIEWS

Describe the planned schedule for conducting project progress reviews, who is to be involved, and what procedures will be used for preparing and conducting the reviews. Include reviews that are done for the project team only, for local management, and for any external organizations, such as an acquirer or subcontractor.

Review Name and Purpose	Performed By Whom	Comments

7.6 ISSUE MANAGEMENT

Describe the resources, methods, and tools to be used for reporting, analyzing, prioritizing, and handling project issues. See the Issues Tracking Report template for an example of an issue tracking report form.

Issue Management Activities	Performed By Whom	Comments
Submit issues		
Record issues		
Assign issues		
Track and review issues		
Update issues log		
Report status on issues		

Resolving issues may involve negotiation between one or more parties. If the parties are unable to agree, the issue must be escalated to higher levels of project leadership to help resolve the issue. Identify the project's normal escalation path and any special cases that need to be considered for particular types of issues.

7.7 CHANGE MANAGEMENT

Describe (or refer to the description of) the processes, techniques, and tools that will be used for requesting, analyzing, prioritizing, reporting, and handling changes. See the Change Tracking Report template and the Change Request and Evaluation Checklist template for examples of a report used to track changes and a checklist for reporting and evaluating change requests. Changes may, arise from new requirements, defects in work products, or process changes.

Change Management Activities	Performed By Whom	Comments
Submit change request describing the proposed change and indicating the importance to the user		

Change Management Activities	Performed By Whom	Comments
Review and evaluate the requested change request		
Estimate the required work effort and the impact of the change to the project schedule, cost, and resource availability		
Approve, defer or deny the change request		
Update the project plan for authorized change requests		
Make approved changes and document resolution		
Place approved and completed changes under CM		
Close change request		
Others?		

7.8 SUBCONTRACT MANAGEMENT (ACQUISITION MANAGEMENT) PLAN

Describe (or refer to the description of) the processes, techniques, and tools that will be used for managing any subcontracted product for this project. Include in that description the approaches for defining the work, selecting a subcontractor, developing and negotiating a contract, monitoring the subcontractor, accepting the subcontracted product, and transitioning the subcontracted product into use. Include the life cycle support functions for monitoring supplier quality assurance, monitoring supplier configuration management, verification and validation, joint reviews, problem resolution, and audits.

Where large or complex sections of work are being subcontracted, a separate Subcontract Management Plan is should be done. Where work being subcontracted is under the management and processes of the project's organization, that work should be described within the standard flow of the project plan. Management of contract personnel should be described in the section on staffing in the Startup Plan section of this plan.

Describe the overall acquisition strategy for Commercial off-the-shelf products (COTS), if any are to be acquired by this project.

Note: For help in evaluating COTS products see the COTS Evaluation Checklist template.

7.9 PROCESS IMPROVEMENT PLAN

Describe the activities that will be done to periodically assess the project's processes, identify areas for improvement, and implement improvement plans. Describe the process improvement models, self-assessment techniques or other methods used to assess progress

towards the process improvement goals. If this project carries a responsibility for defining, testing, or using some new organization process, describe how that is incorporated into the project's work. If this project is responsible for showing the impact to the business of using some new process, describe how that is included in the project's measurement plan.

8. ADDITIONAL PLANS

If there are any other plans required by this project, include them here.

DOCUMENT CONTROL

CHANGE HISTORY

Version	Date	Author	Description [list of changed pages and reason for change]

DOCUMENT STORAGE

This document was created using <application> The file is stored **<file location>**.

DOCUMENT OWNER

<Individual name> is responsible for developing and maintaining this document.

APPENDICES

Include a list (or provide a reference or link to) any relevant appendices, likely to include the work activities, risks, schedule, resources, and budget details.

Appendix	Title	Location or Link