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<Enter Department Name>

<Project Name> **Requirement Management Plan**

From: < >
To: <>
File Name: *<file name>*
Date First Created: *<mm/dd/yyyy>*
Date Last Updated: *<mm/dd/yyyy this date is very important*
because there may be multiple versions
as new data is analyzed>

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PLANNING	Potential Deliverables
Identify the various stakeholders	*Section in RM Plan Template - Stakeholders list,*
Determine how needs will be developed into requirements(various types, levels, priorities)	*Section in Rm Plan Template - Methods, Tools, Techniques,*
Determine how requirements will be verified	*Section in Rm Plan Template - Methods, Tools, Techniques,*
Determine how changes to requirements will be managed	*Section in RM Plan Template - Reference to Project Change Mgmt Plan*
Integrated the Plans	*RM Plan Template or for lower complexity Projects use the Integrated Project Plan Template - RM Section*

Purpose of the Document

The purpose of the <PROJECT NAME> Requirements Management Plan is to establish and maintain an agreement with the customer and the project on the requirements, which represent the product scope that will be addressed by the project.

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Document Change Activity

The following is a record of the changes that have occurred on this document from the time of its original approval

#	Change Description	Author	Date

Template Instructions

The requirements management process is: 1) applicable to development of any type of product or service, 2) applicable to multiple life cycles, and 3) not aligned with any particular life cycle phase. However, tailoring, adaptation, and tool uses will be necessary for what makes sense for the type and complexity of your project.

Requirements management is an iterative process, requiring the process to be repeated depending on the development approach chosen.

The template instructions are brief and rely on the user to use the PM Guide and current examples both available on the PMO web site, http://www.dtpatwork.nl/pmo, or within the organization.

This template contains suggested boilerplate language and assumes that the project will make appropriate additions, deletions, and changes for their specific needs.

Insert information between left and right brackets - <>
Delete Brackets

Information in italics is additional template instructions
Delete all italicized instructions

In file on the menu go to properties and in the summary folder enter the document title and author (person or group)
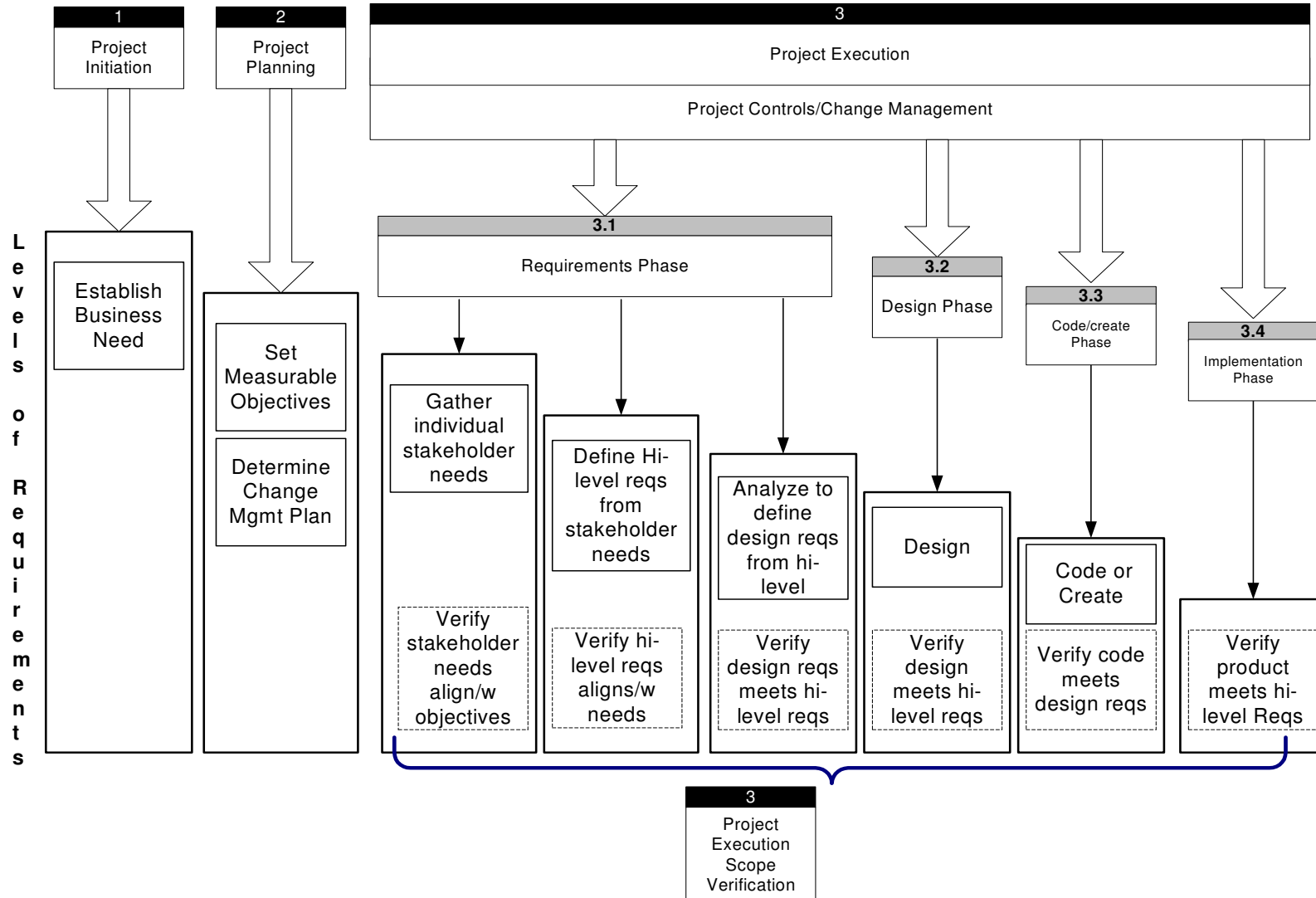
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The purpose of the <PROJECT NAME> Requirements Management Plan is to establish and maintain an agreement with the customer and the project on the requirements, which represent the product scope that will be addressed by the project. The requirements will be the basis for estimating, planning, executing and controlling the activities throughout the duration of the project.

This plan addresses how the <Project Name> project will manage requirement development and change to ensure that the initial business needs and project objectives are allocated into the technical and non-technical requirements needed to deliver the solution.
It details the process, assigns responsibilities, identifies the techniques to be used, associated tools, and documentation needs.

It is the responsibility of the <project name> project manager to ensure that the project team is aware of and follows this plan; it's process and associated responsibilities.

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The following diagram illustrates the various levels of requirements on the project and how they will be progressively detailed and regularly verified to ensure the work products meet their specified requirements.

			1		2		3		

1 Project Initiation

2 Project Planning

3 Project Execution

Project Controls/Change Management

L e v e l s o f R e q u i r e m e n t s

Establish Business Need

Set Measurable Objectives

Determine Change Mgmt Plan

3.1 Requirements Phase

3.2 Design Phase

3.3 Code/create Phase

3.4 Implementation Phase

Gather individual stakeholder needs

Define Hi-level reqs from stakeholder needs

Analyze to define design reqs from hi-level

Design

Code or Create

Verify stakeholder needs align/w objectives

Verify hi-level reqs aligns/w needs

Verify design reqs meets hi-level reqs

Verify design meets hi-level reqs

Verify code meets design reqs

Verify product meets hi-level Reqs

3 Project Execution Scope Verification

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1   REQUIREMENTS DEVELOPMENT

The <project name> project's Requirements development started with the initiation of the project, where the business need was defined and will span through the progressive detailing of requirements to define a capability, physical characteristic, or quality factor of a product or an enabling product needing created.

The Requirements Management development strategy will be <choose strategy – text based, or model or both>. The data requirements will be collected through a model<i.e., Erwin>, or use case requirements will be collected through a model <i.e. Rational>, or hardware requirements will be collected through a model <i.e. Visio> and all other requirements will use a text based tool (such as MS Word> or spreadsheet based tool <i.e. MS Excel> or a particular requirements management tool suite.

1.1   BUSINESS NEED AND PROJECT OBJECTIVES

The <project name> Product Description defines the business need objectives which have been approved to initiate the project.

The <project name> Integrated Project Plan defines measurable project objectives. The business needs were transformed into the project objectives to enable the project to plan and track progress against measurable criteria.   The project objectives are the basis for further requirements development.

Both documents have been filed in the project's standard directory structure and optionally as hardcopy in the project notebook.

Business need or project objective changes, which are uncovered during the progressive detailing, or verifying of requirements will use the project change management process. The process will determine if the change is of value and should be incorporated into the project, and adjust the original business needs and project objectives documents.

1.2 STAKEHOLDER NEEDS

The project will identify stakeholders and gather, validate, prioritize, and document stakeholder needs and constraints.

1.2.1 IDENTIFYING THE STAKEHOLDER

Stakeholders - A person or group who have a specific interest in, or are affected by decisions or changes to the product will be identified in the <requirements traceability matrix or database or other tool>.

Stakeholders may include end users, business partners, customers, regulatory groups, suppliers, technology support, policy developers, technical developers, producers, testers, and maintainers. The stakeholder may be an internal or external party.

The information collected about each stakeholder will be name of person or group, stakeholder identification, and general statement of the stakeholders' role or how they may be affected by the project. The <project name> project's <sponsor and or steering committee and or project manager> will approve this list of key stakeholders. This then, will be the set of people or groups in which the project will obtain stakeholder needs.

1.2.2 COLLECT AND DOCUMENT NEEDS

Please choose the appropriate data gathering technique or a combination of techniques for your project.

Stakeholder needs, including expectations, priorities, and constraints will be collected by use of <JAD Sessions, and or personal interviews, and or survey>. The information will be documented in the <requirements traceability matrix or database or other tool>.

The needs information collected from the stakeholders will contain the following: *The following are recommended.*

- Stakeholder name, group or ID expressing need

- Unique identifier for each need

- Requirement ID (to be input later – after requirements are defined. This column could have multiple requirements listed per one stakeholder need.)

- A description of each need expressed by stakeholder group.

- Stakeholder need priority

- Need constrained by, i.e. policy, law, standard, etc.

1.2.3 SYNTHESIZE STAKEHOLDER NEEDS

Conflicting stakeholder needs will be identified and resolved by meeting with the stakeholders whose needs are conflicting and negotiating. In the event the conflict cannot be negotiated the project's issue resolution process will be performed to seek decision by the <steering committee or sponsor>. Duplicated stakeholder needs will be modified to use the same need ID.

Based on resolutions, the stakeholders needs information will be updated and reviewed with the stakeholders to ensure that the documented needs are complete and correct.

Approval of the final stakeholder needs will be obtained from the <steering committee and or sponsor>. The approved version will become the baseline for stakeholder needs. Changes to stakeholder needs will be made through the project's change management process.

1.3 REQUIREMENTS DEFINITION

The project will transform needs into high-level requirements, evaluate and correct deficiencies, validate findings with stakeholders, and update the <requirements traceability matrix or database or other tool>.

1.3.1 TRANSFORM NEEDS INTO HIGH-LEVEL REQUIREMENTS

Each stakeholder need will be evaluated to determine the high-level requirements. The high-level requirement will be written to support a capability, physical characteristic, or quality factor. Each need may

have one to many requirements to fully define the need. The requirement will be defined to be measured/evaluated and support a potential solution.

Examples of a need and associated high-level requirements:

Need –" I need to track the office inventory."

H.L. 1 – The system shall provide online capability to add a new office inventory item.

H.L. 2 – The system shall provide the capability to perform an online search for office inventory item information.

The High-Level Requirements information will be added to the <requirements traceability matrix or database or other tool> and will contain the following:

- Unique identifier for high-level requirement

- Stakeholder need ID

- Subsystem (optional – many times the changes are being made to an existing system where the subsystems are already know – in this case the requirements can be traced to the subsystem).

- High-level requirement(s) derived from need

- Requirement Type (see requirements analysis section)

- Requirement Priority (note this is not the same as the stakeholder priority – this is the priority set by the steering committee)

- Relative Effort – to implement the requirement. They should be recorded as "H or M or L" indicating a high, medium, or low level of effort to implement the requirement.

- Verified – to show if a requirement has been verified. They could be recorded as yes "Y", no "N" or by date.

- Release (optional to eventually record which release the requirement will be implemented in).

- Use Case (optional to eventually record the use cases associated with the requirement)

- Test Case (optional to eventually record the test cases associated with the requirement).

If new of additional stakeholder needs are discovered during the transformation the appropriate stakeholder(s) must approve the new stakeholder need before adding to the <requirements traceability matrix or database or other tool>. Once approved these needs will be added to the original baseline and become the new baseline representing the stakeholder needs.

1.3.2 EVALUATE HIGH-LEVEL REQUIREMENTS

Each high-level requirement will be evaluated to ensure that the requirement is supportable for product development. The requirements will be evaluated against the following criteria and any deficiencies found will be corrected, restated, and re-recorded in the <requirements traceability matrix or database or other tool>.

Evaluation Criteria

1. Correct - Each requirement is one that the system or a component product shall meet. No requirement disagrees with another requirement.

2. Necessary - Each requirement is an essential capability, physical characteristic or quality factor. Deletion of the requirement would cause an unacceptable deficiency in the product.

3. Clear - Stated so that the requirement is unambiguous. That is, each requirement can have one and only one interpretation.

4. Attainable - Feasible within the current environment and achievable at a cost that meets the existing budget, schedule and other project plan constraints.

5. Traceable - The origin of each requirement is clear and can be traced forward to other products.

6. Verifiable - Stated in measurable terms and quantified in a manner that can be determined by inspection, analysis, demonstration, or testing.

1.3.3 VALIDATE HIGH-LEVEL REQUIREMENTS & PRIORITIZE

The following stakeholders will validate the high-level requirements:

- *This may be all stakeholders, stakeholder representatives, or key stakeholders.*

The validation approach will be <one-on-one meetings and/or group meetings and/or individual review>. *Best practices state that meetings are the best approach for validating the set of requirements because the structure and language or requirements may not be understandable to all stakeholders.*

The approach for prioritization of high-level requirements will be to <describe approach>.

The approved priority for each requirement will be recorded in the <requirements traceability matrix or database or other tool>.

1.4 REQUIREMENTS ANALYSIS

The project will assign and categorize the high-level requirements to requirement types, refine the high-level requirements to obtain greater precision and detail, and validate that these detailed requirements align with the high-level requirements.

1.4.1 ASSIGN HIGH-LEVEL REQUIREMENTS TO REQUIREMENT TYPES

Each high-level category will be assigned to a requirement type. High-level requirements that can be assigned to more than one requirement type should be reworded or split into two or more requirements. The following are the high-level requirement types for this project: *Note see the "Requirements Specification Template for a definition of the types.*

Functional	Data	Use

Performance	Operational	Security
Legal	Standards	Future

1.4.2 DETERMINE REQUIREMENTS ORGANIZATION

The requirements will be organized and documented in the <xyz requirements specification document or other tool that produces a written document specification>. If a modeling tool was used to collect a category of requirements, a reference to the model will be added in the appropriate section and a picture of the model will be pasted into the requirements document.

1.4.3 REFINE INTO DETAILED REQUIREMENTS

Each requirement will be refined into a more precise, well-defined detailed requirement(s). The level of detail is expected to vary, but will be sufficient to support subsequent product design, use cases, construction, test cases and updating the project plan.

The detailed requirement will be documented in the appropriate section of the <xyz requirements specification document, requirements traceability spreadsheet or other tool that produces a written document specification>.

Example of high-level requirement refined into detailed requirements:

H.L. 1 – The system shall provide online capability to add a new office inventory item.

> *D.R. 1.1 The add-item program will require entry of the item number, item description and base inventory level to add a new office inventory item.*

> *D.R. 1.2 The add-item program will initialize the total in stock field to zeros when adding a new office inventory item.*

H.L. 2 – The system shall provide the capability to perform an online search for office inventory item information.

D.R. 2.1 The item-search program will require an item number or item description as its search criteria.

D.R. 2.2 The item-search program will provide a field to select items currently in stock (item order records with a date disbursed of zeros).

DR 2.3 The item-search program will provide fields to select a date or date range search on the date ordered, date received or date disbursed fields.

DR 2.4 The item-search program will display the item number, item description, total in stock and base inventory level information.

DR 2.5 The item-search program display will contain one line of data (vendor, date ordered, date received, cost per item, date disbursed) per order selected using the above criteria.

2 REQUIREMENTS VERIFICATION

Verify through each phase of the project that the end product or deliverable meets the requirements specifications, i.e. the code meets the design specification.

Planned verifications of requirements will occur at minimum as follows:

Project Objectives Verification – the project objectives will be verified to ensure that they meet the original business need.

Stakeholder Needs Verification – the stakeholder needs will be verified to ensure that they are in line with and bound by the project objectives.

Requirements Verification – the high-level requirements will be verified to ensure that they represent the various stakeholders needs.

Design Verification – the Design Requirements will be verified to ensure that they meet the high-level requirements.

Code Verification – The Code will be tested to ensure that it meets the Design Requirements.

Other?

All products failing verification will be fixed before proceeding to the next phase. Waivers or approved deviations will be rare.

3   REQUIREMENTS CHANGE MANAGEMENT

The project's change management process will be used to manage: deletions, modifications and additions to stay in line with the original objectives or to formally modify these objectives, and the supporting schedule and resourcing.

4   REQUIREMENTS MANAGEMENT RESPONSIBILITIES

Identify who is responsible for the various levels of requirements development and verifications.

5   REQUIREMENTS DOCUMENTATION STANDARDS

List all documentations standards and templates the project intends to use to record requirements.

6   REQUIREMENTS TOOLS AND TECHNIQUES

List the selected Tools and Techniques that the project will use to perform the various requirements activities.   The following is a potential sampling:

Rational RequisitePro – a software tool that helps application development teams find, document, organize and track changes to customer requirements, software specifications, and test cases.

Document Templates and Spreadsheets – requirements are commonly recorded and tracked using simple document templates and spreadsheet tools.

Joint Application Development (JAD) – JAD is a structured, facilitated process for gathering and negotiating requirements and prototyping the user interface. It involves bringing together key players to focus on requirements and obtain stakeholder buy-in.

Interviews - An interview is a conversation with stakeholders to elicit or validate needs and requirements. An interview may include one or more stakeholders. The interview may also involve a question and answer session used to discover other potential stakeholders and any discrepancies between needs; the high-level requirements derived from those needs; and the resulting detailed requirements. Interviews facilitate obtaining approval from stakeholders on their needs, requirements, and any changes to them.

Survey Questionnaire - The Survey Questionnaire is a systematic method to collect information from stakeholders about their needs and requirements. The techniques range from sample surveys to complete censuses. The aim is to supply information that is not available from other sources, especially from stakeholders that may be large in number or difficult to bring together with the project team for an interview or JAD session.