CMMI® Level 2 thru 5
Policies & Procedures

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(Consists of original content by David F. Rico created in October 2002)

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Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	REQUIREMENTS MANAGEMENT
Practice	1.0 OBTAIN AN UNDERSTANDING OF REQUIREMENTS

1.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive submitted requirements for obtaining an understanding of requirements, project managers shall review submitted requirements for identifying sets of requirements, project managers shall identify sets of requirements from review of submitted requirements, project managers shall document sets of requirements identified from review of submitted requirements, relevant stakeholders shall evaluate sets of requirements, senior management, program management, and functional area Managers shall review and approve sets of requirements, and project managers shall baseline sets of requirements.

1.2   REVISION HISTORY

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1.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

1.4   POLICY

The policy of this organization is to ensure that:

1.4.1   Project managers receive submitted requirements for obtaining an understanding of requirements.

1.4.2   Project managers review submitted requirements for identifying sets of requirements.

1.4.3   Project managers identify sets of requirements from review of submitted requirements.

1.4.4   Project managers document sets of requirements identified from review of submitted requirements.

1.4.5   Relevant stakeholders evaluate sets of requirements.

1.4.6   Senior management, program management, and functional area managers review and approve sets of requirements.

1.4.7   Project managers baseline sets of requirements.

1.5   DEFINITIONS

1.5.1   <u>Sets of Requirements</u>: a refinement of the customer requirements into the developers' language, making implicit requirements into explicit derived requirements, used to guide the design and building of the product.

1.6   RESPONSIBILITIES

1.6.1   Project managers are responsible for receiving submitted requirements for obtaining an understanding of requirements, reviewing submitted requirements for identifying sets of requirements, identifying sets of requirements from review of submitted requirements, documenting sets of requirements identified from review of submitted requirements, and baselining sets of requirements.

1.6.2   Relevant stakeholders are responsible for evaluating sets of requirements.

1.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving sets of requirements.

1.7   PROCESS

1.7.1   Receive Submitted Requirements for Obtaining an Understanding of Requirements

Project managers shall receive submitted requirements from configuration management for obtaining an understanding of requirements.

1.7.2   Review Submitted Requirements for Identifying Sets of Requirements

Project managers shall review and analyze submitted requirements for identifying sets of requirements, which are a refinement of the customer requirements into the developers' language, making implicit requirements into explicit derived requirements, used to guide the design and building of the product.

1.7.3   Identify Sets of Requirements from Review of Submitted Requirements

Project managers shall identify sets of requirements from review of submitted requirements, which includes

establishing criteria for distinguishing appropriate
requirements providers; establishing objective criteria for
the acceptance of requirements; analyzing requirements to
ensure that the established criteria are met; and reaching
an understanding of the requirements with the requirements
provider so the project participants can commit to them.

1.7.4 Document Sets of Requirements Identified from Review of Submitted Requirements

Project managers shall document sets of requirements
identified from review of submitted requirements, for
obtaining commitment to requirements, managing requirements
changes, maintaining bi-directional traceability of
requirements, and identifying inconsistencies between
project work and requirements.

1.7.5 Evaluate Sets of Requirements

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate sets of requirements, and make necessary additions,
deletions, enhancements, and corrections.

1.7.6 Review and Approve Sets of Requirements

Senior management, program management, and functional area
managers shall review and approve sets of requirements as
well as any additions, deletions, enhancements, and
corrections to sets of requirements by relevant
stakeholders.

1.7.7 Baseline Sets of Requirements

Project managers shall submit requirements to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED

Process	REQUIREMENTS MANAGEMENT

Practice	2.0 OBTAIN COMMITMENT TO REQUIREMENTS

2.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive sets of requirements for obtaining commitment to requirements, project managers shall review and analyze sets of requirements for obtaining commitments to requirements, project managers shall obtain commitments to requirements from review of sets of requirements, project managers shall document commitments to requirements identified from review of sets of requirements, relevant stakeholders shall evaluate commitments to requirements, senior management, program management, and functional area managers shall review and approve commitments to requirements, and project managers shall baseline commitments to requirements.

2.2   REVISION HISTORY

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2.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

2.4   POLICY

The policy of this organization is to ensure that:

2.4.1   Project managers receive sets of requirements for obtaining commitment to requirements.

2.4.2   Project managers review and analyze sets of requirements for obtaining commitments to requirements.

2.4.3   Project managers obtain commitments to requirements from review of sets of requirements.

2.4.4   Project managers document commitments to requirements identified from review of sets of requirements.

2.4.5   Relevant stakeholders evaluate commitments to requirements.

2.4.6   Senior management, program management, and functional area managers review and approve commitments to requirements.

2.4.7   Project managers baseline commitments to requirements.

2.5   DEFINITIONS

2.5.1   <u>Commitment</u>: pacts that are freely assumed, visible, and expected to be kept by all parties.

2.6   RESPONSIBILITIES

2.6.1   Project managers are responsible for receiving sets of requirements for obtaining commitment to requirements, reviewing and analyzing sets of requirements for obtaining commitments to requirements, obtaining commitments to requirements from review of sets of requirements, documenting commitments to requirements identified from review of sets of requirements, and baselining commitments to requirements.

2.6.2   Relevant stakeholders are responsible for evaluating commitments to requirements.

2.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving commitments to requirements.

2.7   PROCESS

2.7.1   Receive Sets of Requirements for Obtaining Commitment to Requirements

Project managers shall receive sets of requirements from configuration management for obtaining commitment to requirements.

2.7.2   Review Sets of Requirements for Obtaining Commitments to Requirements

Project managers shall review and analyze sets of requirements for obtaining commitments to requirements, which are pacts that are freely assumed, visible, and expected to be kept by all parties.

2.7.3   Obtain Commitments to Requirements from Review of Sets of Requirements

Project managers shall obtain commitments to requirements from review of sets of requirements, which includes assessing the impact of requirements on existing commitments and negotiating and recording commitments.

2.7.4   Document Commitments to Requirements Identified from Review of Sets of Requirements

Project managers shall document commitments to requirements identified from review of sets of requirements, for managing requirements changes, maintaining bi-directional traceability of requirements, and identifying inconsistencies between project work and requirements.

2.7.5   Evaluate Commitments to Requirements

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate commitments to requirements, and make necessary additions, deletions, enhancements, and corrections.

2.7.6   Review and Approve Commitments to Requirements

Senior management, program management, and functional area managers shall review and approve commitments to requirements as well as any additions, deletions, enhancements, and corrections to commitments to requirements by relevant stakeholders.

2.7.7   Baseline Commitments to Requirements

Project managers shall submit commitments to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	CMMI V1.1	Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	REQUIREMENTS MANAGEMENT		
Practice	3.0 MANAGE REQUIREMENTS CHANGES		

3.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive commitments to requirements for managing requirements changes, project managers shall review and analyze commitments to requirements for identifying changes to requirements, project managers shall identify changes to requirements from review of commitments to requirements, project managers shall document changes to requirements identified from review of commitments to requirements, relevant stakeholders shall evaluate changes to requirements, senior management, program management, and functional area managers shall review and approve changes to requirements, and project managers shall baseline changes to requirements.

3.2   REVISION HISTORY

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3.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

3.4   POLICY

The policy of this organization is to ensure that:

3.4.1   Project managers receive commitments to requirements for managing requirements changes.

3.4.2   Project managers review and analyze commitments to requirements for identifying changes to requirements.

3.4.3   Project managers identify changes to requirements from review of commitments to requirements.

3.4.4   Project managers document changes to requirements identified from review of commitments to requirements.

3.4.5   Relevant stakeholders evaluate changes to requirements.

3.4.6   Senior management, program management, and functional area managers review and approve changes to requirements.

3.4.7   Project managers baseline changes to requirements.

3.5   DEFINITIONS

3.5.1   <u>Requirements Changes</u>: modifications, additions, or deletions to sets of requirements.

3.6   RESPONSIBILITIES

3.6.1   Project managers are responsible for receiving commitments to requirements for managing requirements changes, reviewing and analyzing commitments to requirements for identifying changes to requirements, identifying changes to requirements from review of commitments to requirements, documenting changes to requirements identified from review of commitments to requirements, and baseline changes to requirements.

3.6.2   Relevant stakeholders are responsible for evaluating changes to requirements.

3.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving changes to requirements.

3.7   PROCESS

3.7.1   Receive Commitments to Requirements for Managing Requirements Changes

Project managers shall receive commitments to requirements from configuration management for managing requirements changes.

3.7.2   Review Commitments to Requirements for Identifying Changes to Requirements

Project managers shall review and analyze commitments to requirements for identifying changes to requirements, which are modifications, additions, or deletions to sets of requirements.

3.7.3   Identify Changes to Requirements from Review of Commitments to Requirements

Project managers shall identify changes to requirements from review of commitments to requirements, which includes capturing all requirements and requirements changes that are given to or generated by the project; maintaining the requirements change history with the rationale for the

changes; evaluating the impact of requirement changes from the standpoint of relevant stakeholders; and making the requirements and change data available to the project.

3.7.4 Document Changes to Requirements Identified from Review of Commitments to Requirements

Project managers shall document changes to requirements identified from review of commitments to requirements, for maintaining bi-directional traceability of requirements and identifying inconsistencies between project work and requirements.

3.7.5 Evaluate Changes to Requirements

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate changes to requirements, and make necessary additions, deletions, enhancements, and corrections.

3.7.6 Review and Approve Changes to Requirements

Senior management, program management, and functional area managers shall review and approve changes to requirements as well as any additions, deletions, enhancements, and corrections to changes to requirements by relevant stakeholders.

3.7.7 Baseline Changes to Requirements

Project managers shall submit changes to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	REQUIREMENTS MANAGEMENT
Practice	4.0 MAINTAIN BI-DIRECTIONAL TRACEABILITY OF REQUIREMENTS

4.1   PURPOSE

This procedures establishes the guidelines by which project managers
shall receive changes to requirements for maintaining bi-directional
traceability of requirements, project managers shall review and
analyze changes to requirements for performing traceability
analysis, project managers shall perform traceability analysis from
review of changes to requirements, project managers shall document
requirements traceability from performing traceability analysis,
relevant stakeholders shall evaluate requirements traceability,
senior management, program management, and functional area managers
shall review and approve requirements traceability, and project
managers shall baseline requirements traceability.

4.2   REVISION HISTORY

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4.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

4.4   POLICY

The policy of this organization is to ensure that:

4.4.1   Project managers receive changes to requirements for
          maintaining bi-directional traceability of requirements.

4.4.2   Project managers review and analyze changes to requirements
          for performing traceability analysis.

4.4.3   Project managers perform traceability analysis from review
          of changes to requirements.

4.4.4   Project managers document requirements traceability from
          performing traceability analysis.

4.4.5   Relevant stakeholders evaluate requirements traceability.

4.4.6   Senior management, program management, and functional area managers review and approve requirements traceability.

4.4.7   Project managers baseline requirements traceability.

4.5   DEFINITIONS

4.5.1   Traceability Analysis: a process linking and tracking the relationships between the top level requirements down through the lowest level product components, including all intermediate requirements and product components.

4.6   RESPONSIBILITIES

4.6.1   Project managers are responsible for receiving changes to requirements for maintaining bi-directional traceability of requirements, reviewing and analyzing changes to requirements for performing traceability analysis, performing traceability analysis from review of changes to requirements, documenting requirements traceability from performing traceability analysis, and baselining requirements traceability.

4.6.2   Relevant stakeholders are responsible for evaluating requirements traceability.

4.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving requirements traceability.

4.7   PROCESS

4.7.1   Receive Changes to Requirements for Maintaining Bidirectional Traceability of Requirements

Project managers shall receive changes to requirements from configuration management for maintaining bi-directional traceability of requirements.

4.7.2   Review Changes to Requirements for Performing Traceability Analysis

Project managers shall review and analyze changes to requirements for performing traceability analysis, which is a process linking and tracking the relationships between the top level requirements down through the lowest level product components, including all intermediate requirements and product components.

4.7.3   Perform Traceability Analysis from Review of Changes to Requirements

Project managers shall perform traceability analysis from

review of changes to requirements, which includes maintaining requirements traceability to ensure that the source of lower level (derived) requirements is documented; maintaining requirements traceability from a requirement to its derived requirements as well as to its allocation of functions, objects, people, processes, and work products; maintaining horizontal traceability from function to function and across interfaces; and generating the requirements traceability matrix.

4.7.4 Document Requirements Traceability from Performing Traceability Analysis

Project managers shall document requirements traceability from performing traceability analysis, for identifying inconsistencies between project work and requirements.

4.7.5 Evaluate Requirements Traceability

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate requirements traceability, and make necessary additions, deletions, enhancements, and corrections.

4.7.6 Review and Approve Requirements Traceability

Senior management, program management, and functional area managers shall review and approve requirements traceability as well as any additions, deletions, enhancements, and corrections to requirements traceability by relevant stakeholders.

4.7.7 Baseline Requirements Traceability

Project managers shall submit traceability to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	REQUIREMENTS MANAGEMENT
Practice	5.0 IDENTIFY INCONSISTENCIES BETWEEN PROJECT AND WORK REQUIREMENTS

5.1   PURPOSE

This procedures establishes the guidelines by which project managers
shall receive requirements traceability for identifying
inconsistencies between project and work requirements, project
managers shall review and analyze requirements traceability for
identifying inconsistencies in requirements, project managers shall
identify inconsistencies in requirements from review of requirements
traceability, project managers shall document requirements
inconsistencies identified from review of requirements traceability,
relevant stakeholders shall evaluate requirements inconsistencies,
senior management, program management, and functional area managers
shall review and approve requirements inconsistencies, and project
managers shall baseline requirements inconsistencies.

5.2   REVISION HISTORY

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5.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

5.4   POLICY

The policy of this organization is to ensure that:

5.4.1   Project managers receive requirements traceability for
         identifying inconsistencies between project and work
         requirements.

5.4.2   Project managers review and analyze requirements
         traceability for identifying inconsistencies in
         requirements.

5.4.3   Project managers identify inconsistencies in requirements
         from review of requirements traceability.

5.4.4 Project managers document requirements inconsistencies identified from review of requirements traceability.

5.4.5 Relevant stakeholders evaluate requirements inconsistencies.

5.4.6 Senior management, program management, and functional area managers review and approve requirements inconsistencies.

5.4.7 Project managers baseline requirements inconsistencies.

5.5 DEFINITIONS

5.5.1 Requirements Inconsistency Identification: a process of finding the inconsistencies between the requirements and the project plans and work products and initiating the corrective action to fix them.

5.6 RESPONSIBILITIES

5.6.1 Project managers are responsible for receiving requirements traceability for identifying inconsistencies between project and work requirements, reviewing and analyzing requirements traceability for identifying inconsistencies in requirements, identifying inconsistencies in requirements from review of requirements traceability, documenting requirements inconsistencies identified from review of requirements traceability, and baselining requirements inconsistencies.

5.6.2 Relevant stakeholders are responsible for evaluating requirements inconsistencies.

5.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving requirements inconsistencies.

5.7 PROCESS

5.7.1 Receive Requirements Traceability for Identifying Inconsistencies Between Project and Work Requirements

Project managers shall receive requirements traceability from configuration management for Identifying Inconsistencies Between Project and Work Requirements.

5.7.2 Review Requirements Traceability for Identifying Inconsistencies in Requirements

Project managers shall review and analyze requirements traceability for identifying inconsistencies in requirements, which is a process of finding the inconsistencies between the requirements and the project plans and work products and initiating the corrective action to fix them.

5.7.3 Identify Inconsistencies in Requirements from Review of

Requirements Traceability

Project managers shall identify inconsistencies in
requirements from review of requirements traceability, which
includes reviewing the project's plans, activities, and work
products for consistency with the requirements and the
changes made to them; identifying the source of the
inconsistency and the rationale; identifying changes that
need to be made to the plans and work products resulting
from changes to the requirements baseline; and initiating
corrective actions.

5.7.4   Document Requirements Inconsistencies Identified from Review
of Requirements Traceability

Project managers shall document requirements inconsistencies
identified from review of requirements traceability, for
project planning, project monitoring and control, supplier
agreement management, measurement and analysis, process and
product quality assurance, and configuration management.

5.7.5   Evaluate Requirements Inconsistencies

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate requirements inconsistencies, and make necessary
additions, deletions, enhancements, and corrections.

5.7.6   Review and Approve Requirements Inconsistencies

Senior management, program management, and functional area
managers shall review and approve requirements
inconsistencies as well as any additions, deletions,
enhancements, and corrections to requirements
inconsistencies by relevant stakeholders.

5.7.7   Baseline Requirements Inconsistencies

Project managers shall submit inconsistencies to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	PROJECT PLANNING		
Practice	6.0 ESTIMATE THE SCOPE OF THE PROJECT		

6.1   PURPOSE

This procedures establishes the guidelines by which project managers shall receive sets of requirements for estimating the scope of the project, project managers shall review and analyze sets of requirements for identifying the scope of the project, project managers shall identify the scope of the project from review of sets of requirements, project managers shall document the scope of the project identified from review of sets of requirements, relevant stakeholders shall evaluate the scope of project, senior management, program management, and functional area managers shall review and approve the scope of project, and project managers shall baseline the scope of the project.

6.2   REVISION HISTORY

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6.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

6.4   POLICY

The policy of this organization is to ensure that:

6.4.1   Project managers receive sets of requirements for estimating the scope of the project.

6.4.2   Project managers review and analyze sets of requirements for identifying the scope of the project.

6.4.3   Project managers identify the scope of the project from review of sets of requirements.

6.4.4   Project managers document the scope of the project identified from review of sets of requirements.

6.4.5   Relevant stakeholders evaluate the scope of project.

6.4.6   Senior management, program management, and functional area managers review and approve the scope of project.

6.4.7   Project managers baseline the scope of the project.

6.5   DEFINITIONS

6.5.1   Project Scope Identification: a process of creating work breakdown structures that provide a reference and organizational mechanism for assigning effort, schedule, and responsibility and are used as the underlying framework to plan, organize, and control the work done on the project.

6.6   RESPONSIBILITIES

6.6.1   Project managers are responsible for receiving sets of requirements for estimating the scope of the project, reviewing and analyzing sets of requirements for identifying the scope of the project, identifying the scope of the project from review of sets of requirements, documenting the scope of the project identified from review of sets of requirements, and baselining the scope of the project.

6.6.2   Relevant stakeholders are responsible for evaluating the scope of project.

6.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving the scope of project.

6.7   PROCESS

6.7.1   Receive Sets of Requirements for Estimating the Scope of the Project

Project managers shall receive sets of requirements from configuration management for estimating the scope of the project.

6.7.2   Review Sets of Requirements for Identifying the Scope of the Project

Project managers shall review and analyze sets of requirements for identifying the scope of the project, which is a process of creating work breakdown structures that provide a reference and organizational mechanism for assigning effort, schedule, and responsibility and are used as the underlying framework to plan, organize, and control the work done on the project.

6.7.3   Identify the Scope of the Project from Review of Sets of Requirements

Project managers shall identify the scope of the project from review of sets of requirements, which includes developing a work breakdown structure; identifying the work packages; identifying work products that will be acquired; and identifying work products for reuse.

6.7.4   Document the Scope of the Project Identified from Review of Sets of Requirements

Project managers shall document the scope of the project identified from review of sets of requirements, for establishing estimates of work product and task attributes, defining project life cycles, determining estimates of effort and cost, establishing the budget and schedule, identifying project risks, planning for data management, planning for project resources, planning for needed knowledge and skills, planning stakeholder involvement, establishing the project plan, reviewing plans that affect the project, reconciling work and resource levels, and obtaining commitment.

6.7.5   Evaluate Scope of Project

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate scope of project, and make necessary additions, deletions, enhancements, and corrections.

6.7.6   Review and Approve Scope of Project

Senior management, program management, and functional area managers shall review and approve scope of project as well as any additions, deletions, enhancements, and corrections to scope of project by relevant stakeholders.

6.7.7   Baseline Scope of Project

Project managers shall submit scope of project to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	PROJECT PLANNING
Practice	7.0 ESTABLISH ESTIMATES OF WORK PRODUCT AND TASK ATTRIBUTES

7.1   PURPOSE

Project managers shall receive scope of project for establishing estimates of work product and task attributes, project managers shall review and analyze scope of project for identifying estimates of products and attributes, project managers shall identify estimates of products and attributes from reviewing scope of project, project managers shall document estimates of products and attributes identified from reviewing scope of project, relevant stakeholders shall evaluate estimates of products and attributes, senior management, program management, and functional area managers shall review and approve estimates of products and attributes, and project mangers shall baseline estimates of products and attributes.

7.2   REVISION HISTORY

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7.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

7.4   POLICY

The policy of this organization is to ensure that:

7.4.1   Project managers receive scope of project for establishing estimates of work product and task attributes.

7.4.2   Project managers review and analyze scope of project for identifying estimates of products and attributes.

7.4.3   Project managers identify estimates of products and attributes from reviewing scope of project.

7.4.4   Project managers document estimates of products and attributes identified from reviewing scope of project.

7.4.5   Relevant stakeholders evaluate estimates of products and attributes.

7.4.6   Senior management, program management, and functional area managers review and approve estimates of products and attributes.

7.4.7   Project mangers baseline estimates of products and attributes.

7.5   DEFINITIONS

7.5.1   <u>Estimates of Products and Attributes</u>: approximations of size as the primary input to many models used to estimate effort, cost, and schedule, or on inputs such as connectivity, complexity, and structure.

7.6   RESPONSIBILITIES

7.6.1   Project managers are responsible for receiving scope of project for establishing estimates of work product and task attributes, reviewing and analyzing scope of project for identifying estimates of products and attributes, identifying estimates of products and attributes from reviewing scope of project, documenting estimates of products and attributes identified from reviewing scope of project, and baselining estimates of products and attributes.

7.6.2   Relevant stakeholders are responsible for evaluating estimates of products and attributes.

7.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving estimates of products and attributes.

7.7   PROCESS

7.7.1   Receive Scope of Project for Establishing Estimates of Work Product and Task Attributes

Project managers shall receive scope of project from configuration management for establishing estimates of work product and task attributes.

7.7.2   Review Scope of Project for Identifying Estimates of Products and Attributes

Project managers shall review and analyze scope of project for identifying estimates of products and attributes, which are approximations of size as the primary input to many models used to estimate effort, cost, and schedule, or on inputs such as connectivity, complexity, and structure.

7.7.3   Identify Estimates of Products and Attributes from Reviewing

Scope of Project

Project managers shall identify estimates of products and attributes from reviewing scope of project, which includes determining the technical approach for the project; using appropriate methods to determine the attributes; estimating the attributes of the work products and tasks; and estimating the labor, machinery, materials, and methods that will be required by the project.

7.7.4   Document Estimates of Products and Attributes Identified from Reviewing Scope of Project

Project managers shall document estimates of products and attributes identified from reviewing scope of project, for defining project life cycles, determining estimates of effort and cost, establishing the budget and schedule, identifying project risks, planning for data management, planning for project resources, planning for needed knowledge and skills, planning stakeholder involvement, establishing the project plan, reviewing plans that affect the project, reconciling work and resource levels, and obtaining commitment.

7.7.5   Evaluate Estimates of Products and Attributes

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate estimates of products and attributes, and make necessary additions, deletions, enhancements, and corrections.

7.7.6   Review and Approve Estimates of Products and Attributes

Senior management, program management, and functional area managers shall review and approve estimates of products and attributes as well as any additions, deletions, enhancements, and corrections to estimates of products and attributes by relevant stakeholders.

7.7.7   Baseline Estimates of Products and Attributes

Project managers shall submit estimates to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	PROJECT PLANNING		
Practice	8.0 DEFINE PROJECT LIFE CYCLE		

8.1   PURPOSE

This procedures establishes the guidelines by which project managers
shall receive estimates of products and attributes for defining
project life cycles, project managers shall review and analyze
estimates of products and attributes for identifying project life
cycles, project managers shall identify project life cycles from
reviewing estimates of products and attributes, project managers
shall document project life cycles identified from reviewing
estimates of products and attributes, relevant stakeholders shall
evaluate project life cycles, senior management, program management,
and functional area managers shall review and approve project life
cycles, and project managers shall baseline project life cycles.

8.2   REVISION HISTORY

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8.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

8.4   POLICY

The policy of this organization is to ensure that:

8.4.1   Project managers receive estimates of products and
         attributes for defining project life cycles.

8.4.2   Project managers review and analyze estimates of products
         and attributes for identifying project life cycles.

8.4.3   Project managers identify project life cycles from reviewing
         estimates of products and attributes.

8.4.4   Project managers document project life cycles identified
         from reviewing estimates of products and attributes.

8.4.5   Relevant stakeholders evaluate project life cycles.

8.4.6   Senior management, program management, and functional area managers review and approve project life cycles.

8.4.7   Project managers baseline project life cycles

8.5   DEFINITIONS

8.5.1   <u>Project Life Cycle</u>: the period of time that begins when a system is conceived and ends when the system is no longer available for use.

8.6   RESPONSIBILITIES

8.6.1   Project managers are responsible for receiving estimates of products and attributes for defining project life cycles, reviewing and analyzing estimates of products and attributes for identifying project life cycles, identifying project life cycles from reviewing estimates of products and attributes, documenting project life cycles identified from reviewing estimates of products and attributes, and baselining project life cycles.

8.6.2   Relevant stakeholders are responsible for evaluating project life cycles.

8.6.3   Senior management, program management, and functional area managers are responsible for review and approve project life cycles.

8.7   PROCESS

8.7.1   Receive Estimates of Products and Attributes for Defining Project Life Cycles

Project managers shall receive estimates of products and attributes from configuration management for defining project life cycles.

8.7.2   Review Estimates of Products and Attributes for Identifying Project Life Cycles

Project managers shall review and analyze estimates of products and attributes for identifying project life cycles, which are the periods of time that begin when a system is conceived and end when the system is no longer available for use.

8.7.3   Identify Project Life Cycles from Reviewing Estimates of Products and Attributes

Project managers shall identify project life cycles from reviewing estimates of products and attributes, which includes analyzing customer requirements and standards,

analyzing business requirements and standards, analyzing project requirements and standards, and analyzing technical requirements, technologies, and resource constraints.

8.7.4 Document Project Life Cycles Identified from Reviewing Estimates of Products and Attributes

Project managers shall document project life cycles identified from reviewing estimates of products and attributes, for determining estimates of effort and cost, establishing the budget and schedule, identifying project risks, planning for data management, planning for project resources, planning for needed knowledge and skills, planning stakeholder involvement, establishing the project plan, reviewing plans that affect the project, reconciling work and resource levels, and obtaining commitment.

8.7.5 Evaluate Project Life Cycle

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate project life cycles, and make necessary additions, deletions, enhancements, and corrections.

8.7.6 Review and Approve Project Life Cycles

Senior management, program management, and functional area managers shall review and approve project life cycles as well as any additions, deletions, enhancements, and corrections to project life cycles by relevant stakeholders.

8.7.7 Baseline Project Life Cycles

Project managers shall submit project life cycles to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	PROJECT PLANNING		
Practice	9.0 DETERMINE ESTIMATES OF EFFORT AND COST		

9.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project life cycles for determining estimates of effort and cost, project managers shall review and analyze project life cycles for deriving estimates of effort and cost, project managers shall derive estimates of effort and cost from review of project life cycles, project managers shall document estimates of effort and cost identified from review of project life cycles, relevant stakeholders shall evaluate effort and cost estimates, senior management, program management, and functional area managers shall review and approve effort and cost estimates, and project managers shall baseline effort and cost estimates.

9.2   REVISION HISTORY

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9.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

9.4   POLICY

The policy of this organization is to ensure that:

9.4.1   Project managers receive project life cycles for determining estimates of effort and cost.

9.4.2   Project managers review and analyze project life cycles for deriving estimates of effort and cost.

9.4.3   Project managers derive estimates of effort and cost from review of project life cycles.

9.4.4   Project managers document estimates of effort and cost identified from review of project life cycles.

9.4.5   Relevant stakeholders evaluate effort and cost estimates.

9.4.6   Senior management, program management, and functional area managers review and approve effort and cost estimates.

9.4.7   Project managers baseline effort and cost estimates.

9.5   DEFINITIONS

9.5.1   <u>Effort and Cost Estimates</u>: approximations of the time required to develop requirements, develop designs, build system components, and test the system components, measured in staff hours, days, weeks, months, and years (cost is the financial value of effort).

9.6   RESPONSIBILITIES

9.6.1   Project managers are responsible for receiving project life cycles for determining estimates of effort and cost, reviewing and analyzing project life cycles for deriving estimates of effort and cost, project deriving estimates of effort and cost from review of project life cycles, documenting estimates of effort and cost identified from review of project life cycles, and baselining effort and cost estimates.

9.6.2   Relevant stakeholders are responsible for evaluating effort and cost estimates.

9.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving effort and cost estimates.

9.7   PROCESS

9.7.1   Receive Project Life Cycles for Determining Estimates of Effort and Cost

Project managers shall receive project life cycles from configuration management for determining estimates of effort and cost.

9.7.2   Review Project Life Cycles for Deriving Estimates of Effort and Cost

Project managers shall review and analyze project life cycles for deriving estimates of effort and cost, which are approximations of the time required to develop requirements, develop designs, build system components, and test the system components, measured in staff hours, days, weeks, months, and years (cost is the financial value of effort).

9.7.3   Derive Estimates of Effort and Cost from Review of Project Life Cycles

Project managers shall derive estimates of effort and cost from review of project life cycles, which includes collecting the models or historical data that will be used to transform the attributes of the work products and tasks into estimates of the labor hours and cost; including supporting infrastructure needs when estimating effort and cost; and estimating effort and cost using models and/or historical data.

9.7.4 Document Estimates of Effort and Cost Identified from Review of Project Life Cycles

Project managers shall document estimates of effort and cost identified from review of project life cycles, for establishing the budget and schedule, identifying project risks, planning for data management, planning for project resources, planning for needed knowledge and skills, planning stakeholder involvement, establishing the project plan, reviewing plans that affect the project, reconciling work and resource levels, and obtaining commitment.

9.7.5 Evaluate Effort and Cost Estimates

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate effort and cost estimates, and make necessary additions, deletions, enhancements, and corrections.

9.7.6 Review and Approve Effort and Cost Estimates

Senior management, program management, and functional area managers shall review and approve effort and cost estimates as well as any additions, deletions, enhancements, and corrections to effort and cost estimates by relevant stakeholders.

9.7.7 Baseline Effort and Cost Estimates

Project managers shall submit estimates to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	PROJECT PLANNING		
Practice	10.0 ESTABLISH THE BUDGET AND SCHEDULE		

10.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive effort and cost estimates for establishing the budget and schedule, project managers shall review and analyze effort and cost estimates for developing the budget and schedule, project managers shall develop the budget and schedule from review of effort and cost estimates, project managers shall document budget and schedule identified from review of effort and cost estimates, relevant stakeholders shall evaluate budget and schedule, senior management, program management, and functional area managers shall review and approve budget and schedule, and project managers shall baseline budget and schedule.

10.2   REVISION HISTORY

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10.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

10.4   POLICY

The policy of this organization is to ensure that:

10.4.1   Project managers receive effort and cost estimates for establishing the budget and schedule.

10.4.2   Project managers review and analyze effort and cost estimates for developing the budget and schedule.

10.4.3   Project managers develop the budget and schedule from review of effort and cost estimates.

10.4.4   Project managers document budget and schedule identified from review of effort and cost estimates.

10.4.5 Relevant stakeholders evaluate budget and schedule.

10.4.6 Senior management, program management, and functional area managers review and approve budget and schedule.

10.4.7 Project managers baseline budget and schedule.

10.5 DEFINITIONS

10.5.1 <u>Budget and Schedule</u>: pre-approved allocated resources for conducting project life cycles and the planned dates for performing the project life cycle activities and milestones.

10.6 RESPONSIBILITIES

10.6.1 Project managers are responsible for receiving effort and cost estimates for establishing the budget and schedule, reviewing and analyzing effort and cost estimates for developing the budget and schedule, developing the budget and schedule from review of effort and cost estimates, documenting budget and schedule identified from review of effort and cost estimates, and baselining budget and schedule.

10.6.2 Relevant stakeholders are responsible for evaluating budget and schedule.

10.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving budget and schedule.

10.7 PROCESS

10.7.1 Receive Effort and Cost Estimates for Establishing the Budget and Schedule

Project managers shall receive effort and cost estimates from configuration management for establishing the budget and schedule.

10.7.2 Review Effort and Cost Estimates for Developing the Budget and Schedule

Project managers shall review and analyze effort and cost estimates for developing the budget and schedule, which are pre-approved allocated resources for conducting project life cycles and the planned dates for performing the project life cycle activities and milestones.

10.7.3 Develop the Budget and Schedule from Review of Effort and Cost Estimates

Project managers shall develop the budget and schedule from review of effort and cost estimates, which includes identifying major milestones; identifying schedule

assumptions; identifying constraints; identifying task dependencies; defining the budget and schedule; and establishing corrective action criteria.

10.7.4 Document Budget and Schedule Identified from Review of Effort and Cost Estimates

Project managers shall document budget and schedule identified from review of effort and cost estimates, for identifying project risks, planning for data management, planning for project resources, planning for needed knowledge and skills, planning stakeholder involvement, establishing the project plan, reviewing plans that affect the project, reconciling work and resource levels, and obtaining commitment.

10.7.5 Evaluate Budget and Schedule

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate budget and schedule, and make necessary additions, deletions, enhancements, and corrections.

10.7.6 Review and Approve Budget and Schedule

Senior management, program management, and functional area managers shall review and approve budget and schedule as well as any additions, deletions, enhancements, and corrections to budget and schedule by relevant stakeholders.

10.7.7 Baseline Budget and Schedule

Project managers shall submit budget/schedule to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	PROJECT PLANNING		
Practice	11.0 IDENTIFY PROJECT RISKS		

11.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive budget and schedule from configuration management for identifying project risks, project managers shall review and analyze budget and schedule for identification of project risks, project managers shall identify project risks from review and analysis of budget and schedule, project managers shall document project risks identified from review and analysis of budget and schedule, relevant stakeholders shall evaluate project risks, senior management, program management, and functional area managers shall review and approve project risks, and project managers shall baseline project risks.

11.2   REVISION HISTORY

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11.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

11.4   POLICY

The policy of this organization is to ensure that:

11.4.1   Project managers receive budget and schedule from configuration management for identifying project risks.

11.4.2   Project managers review and analyze budget and schedule for identification of project risks.

11.4.3   Project managers identify project risks from review and analysis of budget and schedule.

11.4.4   Project managers document project risks identified from review and analysis of budget and schedule.

11.4.5　Relevant stakeholders evaluate project risks.

11.4.6　Senior management, program management, and functional area managers review and approve project risks.

11.4.7　Project managers baseline project risks.

11.5　DEFINITIONS

11.5.1　<u>Project Risks</u>: discrete occurrences that may affect the project for better or worse.

11.6　RESPONSIBILITIES

11.6.1　Project managers are responsible for receiving budget and schedule from configuration management for identifying project risks, reviewing and analyzing budget and schedule for identification of project risks, identifying project risks from review and analysis of budget and schedule, documenting project risks identified from review and analysis of budget and schedule, and baselining project risks.

11.6.2　Relevant stakeholders are responsible for evaluating project risks.

11.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving project risks.

11.7　PROCESS

11.7.1　Receive Budget and Schedule for Identifying Project Risks

Project managers shall receive budget and schedule from configuration management for identifying project risks.

11.7.2　Review Budget and Schedule for Identification of Project Risks

Project managers shall review and analyze budget and schedule for identification of project risks, which discrete occurrences that may affect the project for better or worse.

11.7.3　Identify Project Risks from Review and Analysis of Budget and Schedule

Project managers shall identify project risks from review and analysis of budget and schedule, which includes identifying risks; documenting the risks; reviewing and obtaining agreement with relevant stakeholders on the completeness and correctness of the documented risks; and revising the risks as appropriate.

11.7.4　Document Project Risks Identified from Review and Analysis of Budget and Schedule

Project managers shall document project risks identified from review and analysis of budget and schedule, for planning for data management, planning for project resources, planning for needed knowledge and skills, planning stakeholder involvement, establishing the project plan, reviewing plans that affect the project, reconciling work and resource levels, and obtaining commitment.

11.7.5 Evaluate Project Risks

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate project risks, and make necessary additions, deletions, enhancements, and corrections.

11.7.6 Review and Approve Project Risks

Senior management, program management, and functional area managers shall review and approve project risks as well as any additions, deletions, enhancements, and corrections to project risks by relevant stakeholders.

11.7.7 Baseline Project Risks

Project managers shall submit project risks to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	PROJECT PLANNING		
Practice	12.0 PLAN FOR DATA MANAGEMENT		

12.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project life cycles for planning for data management, project managers shall review and analyze project life cycles for identifying data management plans, project managers shall identify data management plans from review of project life cycles, project managers shall document data management plans identified from review of project life cycles, relevant stakeholders shall evaluate data management plan, senior management, program management, and functional area managers shall review and approve data management plan, and project managers shall baseline data management plan.

12.2   REVISION HISTORY

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12.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

12.4   POLICY

The policy of this organization is to ensure that:

12.4.1   Project managers receive project life cycles for planning for data management.

12.4.2   Project managers review and analyze project life cycles for identifying data management plans.

12.4.3   Project managers identify data management plans from review of project life cycles.

12.4.4   Project managers document data management plans identified from review of project life cycles.

12.4.5   Relevant stakeholders evaluate data management plan.

12.4.6   Senior management, program management, and functional area managers review and approve data management plan.

12.4.7   Project managers baseline data management plan.

12.5   DEFINITIONS

12.5.1   Data Management Plan: resource plans to specify various forms of documentation required to support a program in all of its areas (e.g., administration, engineering, configuration management, financial, logistics, quality, safety, manufacturing, and procurement).

12.6   RESPONSIBILITIES

12.6.1   Project managers are responsible for receiving project life cycles for planning for data management, reviewing and analyzing project life cycles for identifying data management plans, identifying data management plans from review of project life cycles, documenting data management plans identified from review of project life cycles, and baselining data management plan.

12.6.2   Relevant stakeholders are responsible for evaluating data management plan.

12.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving data management plan.

12.7   PROCESS

12.7.1   Receive Project Life Cycles for Planning for Data Management

Project managers shall receive project life cycles from configuration management for planning for data management.

12.7.2   Review Project Life Cycles for Identifying Data Management Plans

Project managers shall review and analyze project life cycles for identifying data management plans, which are resource plans to specify various forms of documentation required to support a program in all of its areas (e.g., administration, engineering, configuration management, financial, logistics, quality, safety, manufacturing, and procurement).

12.7.3   Identify Data Management Plans from Review of Project Life Cycles

Project managers shall identify data management plans from review of project life cycles, which includes establishing requirements and procedures

to ensure privacy and security of the data; establishing a mechanism to archive data and to access archived data; and

determining the project data to be identified, collected, and distributed.

12.7.4 Document Data Management Plans Identified from Review of Project Life Cycles

Project managers shall document data management plans identified from review of project life cycles, for planning for project resources, planning for needed knowledge and skills, planning stakeholder involvement, establishing the project plan, reviewing plans that affect the project, reconciling work and resource levels, and obtaining commitment.

12.7.5 Evaluate Data Management Plan

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate data management plan, and make necessary additions, deletions, enhancements, and corrections.

12.7.6 Review and Approve Data Management Plan

Senior management, program management, and functional area managers shall review and approve data management plan as well as any additions, deletions, enhancements, and corrections to data management plan by relevant stakeholders.

12.7.7 Baseline Data Management Plan

Project managers shall submit data plan to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	PROJECT PLANNING		
Practice	13.0 PLAN FOR PROJECT RESOURCES		

13.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive budgets and schedules for planning for project resources, project managers shall review and analyze budgets and schedules for identifying project resource plans, project managers shall identify project resource plans from review of budgets and schedules, project managers shall document project resource plans identified from review of budgets and schedules, relevant stakeholders shall evaluate project resource plans, senior management, program management, and functional area managers shall review and approve project resource plans, and project managers shall baseline project resource plans.

13.2   REVISION HISTORY

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13.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

13.4   POLICY

The policy of this organization is to ensure that:

13.4.1   Project managers receive budgets and schedules for planning for project resources.

13.4.2   Project managers review and analyze budgets and schedules for identifying project resource plans.

13.4.3   Project managers identify project resource plans from review of budgets and schedules.

13.4.4   Project managers document project resource plans identified from review of budgets and schedules.

13.4.5   Relevant stakeholders evaluate project resource plans.

13.4.6   Senior management, program management, and functional area managers review and approve project resource plans.

13.4.7   Project managers baseline project resource plans.

13.5   DEFINITIONS

13.5.1   Project Resource Plans: strategic plans with allocated resources (e.g., labor, machinery/equipment, materials, and methods) and quantities needed to perform project activities, that builds on the initial estimates and provides additional information that can be applied to expand the work breakdown structure used to manage the project.

13.6   RESPONSIBILITIES

13.6.1   Project managers are responsible for receiving budgets and schedules for planning for project resources, reviewing and analyzing budgets and schedules for identifying project resource plans, identifying project resource plans from review of budgets and schedules, documenting project resource plans identified from review of budgets and schedules, and baselining project resource plans.

13.6.2   Relevant stakeholders are responsible for evaluating project resource plans.

13.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving project resource plans.

13.7   PROCESS

13.7.1   Receive Budgets and Schedules for Planning for Project Resources

Project managers shall receive budgets and schedules from configuration management for planning for project resources.

13.7.2   Review Budgets and Schedules for Identifying Project Resource Plans

Project managers shall review and analyze budgets and schedules for identifying project resource plans, which are strategic plans with allocated resources (e.g., labor, machinery/equipment, materials, and methods) and quantities needed to perform project activities, that builds on the initial estimates and provides additional information that can be applied to expand the work breakdown structure used to manage the project.

13.7.3   Identify Project Resource Plans from Review of Budgets and

Schedules

Project managers shall identify project resource plans from review of budgets and schedules, which includes determining process requirements; determining staffing requirements; and determining facilities, equipment, and component requirements.

13.7.4 Document Project Resource Plans Identified from Review of Budgets and Schedules

Project managers shall document project resource plans identified from review of budgets and schedules, for planning for needed knowledge and skills, planning stakeholder involvement, establishing the project plan, reviewing plans that affect the project, reconciling work and resource levels, and obtaining commitment.

13.7.5 Evaluate Project Resource Plans

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate project resource plans, and make necessary additions, deletions, enhancements, and corrections.

13.7.6 Review and Approve Project Resource Plans

Senior management, program management, and functional area managers shall review and approve project resource plans as well as any additions, deletions, enhancements, and corrections to project resource plans by relevant stakeholders.

13.7.7 Baseline Project Resource Plans

Project managers shall submit resource plans to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	PROJECT PLANNING
Practice	14.0 PLAN FOR NEEDED KNOWLEDGE AND SKILLS

14.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project resources plans for planning for needed knowledge and skills, project managers shall review and analyze project resource plans for identifying knowledge and skill plans, project managers shall identify knowledge and skill plans from review of project resource plans, project managers shall document knowledge and skill plans identified from review of project resource plans, relevant stakeholders shall evaluate knowledge and skill plans, senior management, program management, and functional area managers shall review and approve knowledge and skill plans, and project managers shall baseline knowledge and skill plans.

14.2   REVISION HISTORY

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14.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

14.4   POLICY

The policy of this organization is to ensure that:

14.4.1   Project managers receive project resources plans for planning for needed knowledge and skills.

14.4.2   Project managers review and analyze project resource plans for identifying knowledge and skill plans.

14.4.3   Project managers identify knowledge and skill plans from review of project resource plans

14.4.4   Project managers document knowledge and skill plans identified from review of project resource plans.

14.4.5   Relevant stakeholders evaluate knowledge and skill plans.

14.4.6   Senior management, program management, and functional area managers review and approve knowledge and skill plans.

14.4.7   Project managers baseline knowledge and skill plans.

14.5   DEFINITIONS

14.5.1   <u>Knowledge and Skill Plan</u>: strategic plans and procedures for knowledge delivery to projects by both training of project personnel and acquisition of knowledge from outside sources.

14.6   RESPONSIBILITIES

14.6.1   Project managers are responsible for receiving project resources plans for planning for needed knowledge and skills, reviewing and analyzing project resource plans for identifying knowledge and skill plans, identifying knowledge and skill plans from review of project resource plans, documenting knowledge and skill plans identified from review of project resource plans, and baselining knowledge and skill plans.

14.6.2   Relevant stakeholders are responsible for evaluating knowledge and skill plans.

14.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving knowledge and skill plans.

14.7   PROCESS

14.7.1   Receive Project Resource Plans for Planning for Needed Knowledge and Skills

Project managers shall receive project resources plans from configuration management for planning for needed knowledge and skills.

14.7.2   Review Project Resource Plans for Identifying Knowledge and Skill Plans

Project managers shall review and analyze project resource plans for identifying knowledge and skill plans, which are strategic plans and procedures for knowledge delivery to projects by both training of project personnel and acquisition of knowledge from outside sources.

14.7.3   Identify Knowledge and Skill Plans from Review of Project Resource Plans

Project managers shall identify knowledge and skill plans from review of project resource plans, which includes identifying the knowledge and skills needed to perform the

project; assessing the knowledge and skills available; selecting mechanisms for providing needed knowledge and skills; and incorporating selected mechanisms in the project plan.

14.7.4   Document Knowledge and Skill Plans Identified from Review of Project Resource Plans

Project managers shall document knowledge and skill plans identified from review of project resource plans, for planning stakeholder involvement, establishing the project plan, reviewing plans that affect the project, reconciling work and resource levels, and obtaining commitment.

14.7.5   Evaluate Knowledge and Skill Plans

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate knowledge and skill plans, and make necessary additions, deletions, enhancements, and corrections.

14.7.6   Review and Approve Knowledge and Skill Plans

Senior management, program management, and functional area managers shall review and approve knowledge and skill plans as well as any additions, deletions, enhancements, and corrections to knowledge and skill plans by relevant stakeholders.

14.7.7   Baseline Knowledge and Skill Plans

Project managers shall submit skill plans to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	PROJECT PLANNING		
Practice	15.0 PLAN STAKEHOLDER INVOLVEMENT		

15.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive knowledge and skill plans for planning stakeholder involvement, project managers shall review and analyze knowledge and skill plans for identifying stakeholder involvement plans, project managers shall identify stakeholder involvement plans from review of knowledge and skill plans, project managers shall document stakeholder involvement plans identified from review of knowledge and skill plans, relevant stakeholders shall evaluate stakeholder involvement plans, senior management, program management, and functional area managers shall review and approve stakeholder involvement plans, and project managers shall baseline stakeholder involvement plans.

15.2   REVISION HISTORY

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15.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

15.4   POLICY

The policy of this organization is to ensure that:

15.4.1   Project managers receive knowledge and skill plans for planning stakeholder involvement

15.4.2   Project managers review and analyze knowledge and skill plans for identifying stakeholder involvement plans

15.4.3   Project managers identify stakeholder involvement plans from review of knowledge and skill plans

15.4.4   Project managers document stakeholder involvement plans identified from review of knowledge and skill plans

15.4.5　Relevant stakeholders evaluate stakeholder involvement plans

15.4.6　Senior management, program management, and functional area managers review and approve stakeholder involvement plans

15.4.7　Project managers baseline stakeholder involvement plans

15.5　DEFINITIONS

15.5.1　<u>Stakeholder Involvement Plans</u>: strategic plans for identifying stakeholders from all phases of the project life cycle by identifying the type of people and functions needing representation in the project and describing their relevance and the degree of interaction for specific project activities.

15.6　RESPONSIBILITIES

15.6.1　Project managers are responsible for receiving knowledge and skill plans for planning stakeholder involvement, reviewing and analyzing knowledge and skill plans for identifying stakeholder involvement plans, identifying stakeholder involvement plans from review of knowledge and skill plans, documenting stakeholder involvement plans identified from review of knowledge and skill plans, and baselining stakeholder involvement plans.

15.6.2　Relevant stakeholders are responsible for evaluating stakeholder involvement plans.

15.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving stakeholder involvement plans.

15.7　PROCESS

15.7.1　Receive Knowledge and Skill Plans for Planning Stakeholder Involvement

Project managers shall receive knowledge and skill plans from configuration management for planning stakeholder involvement.

15.7.2　Review Knowledge and Skill Plans for Identifying Stakeholder Involvement Plans

Project managers shall review and analyze knowledge and skill plans for identifying stakeholder involvement plans, which are strategic plans for identifying stakeholders from all phases of the project life cycle by identifying the type of people and functions needing representation in the project and describing their relevance and the degree of interaction for specific project activities.

15.7.3　Identify Stakeholder Involvement Plans from Review of

Knowledge and Skill Plans

Project managers shall identify stakeholder involvement
plans from review of knowledge and skill plans, which
includes listing of all relevant stakeholders; developing
rationale for stakeholder involvement; defining roles and
responsibilities of the relevant stakeholders; defining
relationships between stakeholders; determining relative
importance of the stakeholder to success of the project, by
project life-cycle phase; ensuring resources needed to
ensure stakeholder interaction; and scheduling for phasing
of stakeholder interaction.

15.7.4 Document Stakeholder Involvement Plans Identified from Review of Knowledge and Skill Plans

Project managers shall document stakeholder involvement
plans identified from review of knowledge and skill plans,
for establishing the project plan, reviewing plans that
affect the project, reconciling work and resource levels,
and obtaining commitment.

15.7.5 Evaluate Stakeholder Involvement Plans

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate stakeholder involvement plans, and make necessary
additions, deletions, enhancements, and corrections.

15.7.6 Review and Approve Stakeholder Involvement Plans

Senior management, program management, and functional area
managers shall review and approve stakeholder involvement
plans as well as any additions, deletions, enhancements, and
corrections to stakeholder involvement plans by relevant
stakeholders.

15.7.7 Baseline Stakeholder Involvement Plans

Project managers shall submit stakeholder plans to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	PROJECT PLANNING
Practice	16.0 ESTABLISH THE PROJECT PLAN

16.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project planning data for establishing project plans, project managers shall review and analyze project planning data for identifying project plans, project managers shall identify project plans from review of project planning data, project managers shall document project plans from review of project planning data, relevant stakeholders shall evaluate project plans, senior management, program management, and functional area managers shall review and approve project plans, and project managers shall baseline project plans.

16.2   REVISION HISTORY

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16.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

16.4   POLICY

The policy of this organization is to ensure that:

16.4.1   Project managers receive project planning data for establishing project plans.

16.4.2   Project managers review and analyze project planning data for identifying project plans.

16.4.3   Project managers identify project plans from review of project planning data.

16.4.4   Project managers document project plans from review of project planning data.

16.4.5   Relevant stakeholders evaluate project plans.

16.4.6 Senior management, program management, and functional area managers review and approve project plans.

16.4.7 Project managers baseline project plans.

16.5 DEFINITIONS

16.5.1 <u>Project Plan</u>: documented plans that address all relevant planning items necessary to achieve the mutual understanding, commitment, and performance of individuals, groups, and organizations that must execute or support the plans.

16.6 RESPONSIBILITIES

16.6.1 Project managers are responsible for receiving project planning data for establishing project plans, reviewing and analyzing project planning data for identifying project plans, identifying project plans from review of project planning data, documenting project plans from review of project planning data, and baselining project plans.

16.6.2 Relevant stakeholders are responsible for evaluating project plans.

16.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving project plans.

16.7 PROCESS

16.7.1 Receive Project Planning Data for Establishing Project Plans

Project managers shall receive project planning data from configuration management for establishing project plans.

16.7.2 Review Project Planning Data for Identifying Project Plans

Project managers shall review and analyze project planning data for identifying project plans, which are documented plans that address all relevant planning items necessary to achieve the mutual understanding, commitment, and performance of individuals, groups, and organizations that must execute or support the plans.

16.7.3 Identify Project Plans from Review of Project Planning Data

Project managers shall identify project plans from review of project planning data, which includes identifying project life-cycle considerations; defining technical and management tasks; establishing budgets and schedules; designating milestones; specifying data management, risk identification, resource and skill requirements; defining stakeholder identification and interaction; and developing infrastructure descriptions include responsibility and authority relationships for project staff, management, and

support organizations.

16.7.4   Document Project Plans Identified from Review of Project
          Planning Data

Project managers shall document project plans from review of
project planning data, for reviewing plans that affect the
project, reconciling work and resource levels, and obtaining
commitment.

16.7.5   Evaluate Project Plans

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate project plans, and make necessary additions,
deletions, enhancements, and corrections.

16.7.6   Review and Approve Project Plans

Senior management, program management, and functional area
managers shall review and approve project plans as well as
any additions, deletions, enhancements, and corrections to
project plans by relevant stakeholders.

16.7.7   Baseline Project Plans

Project managers shall submit project plans to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	PROJECT PLANNING		
Practice	17.0 REVIEW PLANS THAT AFFECT THE PROJECT		

17.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project plans for reviewing plans that affect the project, project managers shall review and analyze project plans for validation of project plans, project managers shall identify validate project plans from review of project plans, project managers shall document results of reviewing project plans validated from review of project plans, relevant stakeholders shall evaluate results of reviewing project plans, senior management, program management, and functional area managers shall review and approve results of reviewing project plans, and project managers shall baseline results of reviewing project plans.

17.2   REVISION HISTORY

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17.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

17.4   POLICY

The policy of this organization is to ensure that:

17.4.1   Project managers receive project plans for reviewing plans that affect the project.

17.4.2   Project managers review and analyze project plans for validation of project plans.

17.4.3   Project managers validate project plans from review of project plans.

17.4.4   Project managers document results of reviewing project plans validated from review of project plans.

17.4.5 Relevant stakeholders evaluate results of reviewing project plans.

17.4.6 Senior management, program management, and functional area managers review and approve results of reviewing project plans.

17.4.7 Project managers baseline results of reviewing project plans.

17.5 DEFINITIONS

17.5.1 <u>Validation</u>: a process of evaluating a system or component during or at the end of the development process to determine whether it satisfies the specified requirements.

17.6 RESPONSIBILITIES

17.6.1 Project managers are responsible for receiving project plans for reviewing plans that affect the project, reviewing and analyzing project plans for validation of project plans, validating project plans from review of project plans, documenting results of reviewing project plans validated from review of project plans, and baselining results of reviewing project plans.

17.6.2 Relevant stakeholders are responsible for evaluating results of reviewing project plans.

17.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving results of reviewing project plans.

17.7 PROCESS

17.7.1 Receive Project Plans for Reviewing Plans that Affect the Project

Project managers shall receive project plans from configuration management for reviewing plans that affect the project.

17.7.2 Review Project Plans for Validation of Project Plans

Project managers shall review and analyze project plans for validation of project plans, which is a process of evaluating a system or component during or at the end of the development process to determine whether it satisfies the specified requirements.

17.7.3 Validate Project Plans from Review of Project Plans

Project managers shall validate project plans from review of project plans, which includes reviewing, analyzing, and validating scope of project plans; reviewing, analyzing, and validating objectives of project plans; reviewing, analyzing, and validating roles within project plans; and

reviewing, analyzing, and validating relationships within project plans.

17.7.4 Document Results of Reviewing Project Plans Validated from Review of Project Plans

Project managers shall document results of reviewing project plans validated from review of project plans, for reconciling work and resource levels and obtaining commitment.

17.7.5 Evaluate Results of Reviewing Project Plans

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate results of reviewing project plans, and make necessary additions, deletions, enhancements, and corrections.

17.7.6 Review and Approve Results of Reviewing Project Plans

Senior management, program management, and functional area managers shall review and approve results of reviewing project plans as well as any additions, deletions, enhancements, and corrections to results of reviewing project plans by relevant stakeholders.

17.7.7 Baseline Results of Reviewing Project Plans

Project managers shall submit results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	PROJECT PLANNING
Practice	18.0 RECONCILE WORK AND RESOURCE LEVELS

18.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project plans for reconciling work and resource levels, project managers shall review and analyze project plans for reconciling work and resource levels, project managers shall identify revisions to work and resource levels from review of project plans, project managers shall document revised project plans identified from review of project plans, relevant stakeholders shall evaluate revised project plans, senior management, program management, and functional area managers shall review and approve revised project plans, and project managers shall baseline revised project plans.

18.2   REVISION HISTORY

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18.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

18.4   POLICY

The policy of this organization is to ensure that:

18.4.1   Project managers receive project plans for reconciling work and resource levels.

18.4.2   Project managers review and analyze project plans for reconciling work and resource levels.

18.4.3   Project managers identify revisions to work and resource levels from review of project plans.

18.4.4   Project managers document revised project plans identified from review of project plans.

18.4.5   Relevant stakeholders evaluate revised project plans.

18.4.6   Senior management, program management, and functional area managers review and approve revised project plans.

18.4.7   Project managers baseline revised project plans.

18.5   DEFINITIONS

18.5.1   <u>Work and Resource Levels</u>: the quantities of estimated versus available resources that should be reconciled in order to obtain commitment from relevant stakeholders.

18.6   RESPONSIBILITIES

18.6.1   Project managers are responsible for receiving project plans for reconciling work and resource levels, reviewing and analyzing project plans for reconciling work and resource levels, identifying revisions to work and resource levels from review of project plans, revising project plans identified from review of project plans, and baselining revised project plans.

18.6.2   Relevant stakeholders are responsible for evaluate revised project plans.

18.6.3   Senior management, program management, and functional area managers are responsible for review and approve revised project plans.

18.7   PROCESS

18.7.1   Receive Project Plans for Reconciling Work and Resource Levels

Project managers shall receive project plans from configuration management for reconciling work and resource levels.

18.7.2   Review Project Plans for Reconciling Work and Resource Levels

Project managers shall review and analyze project plans for reconciling work and resource levels, which are the quantities of estimated versus available resources that should be reconciled in order to obtain commitment from relevant stakeholders.

18.7.3   Identify Revisions to Work and Resource Levels from Review of Project Plans

Project managers shall identify revisions to work and resource levels from review of project plans, which includes lowering or deferring technical performance requirements; negotiating more resources; finding ways to increase productivity; outsourcing; adjusting the staff skill mix; or revising all plans that affect the project or schedules.

18.7.4 Document Revised Project Plans Identified from Review of Project Plans

```
Project managers shall document revised project plans
identified from review of project plans, for obtaining
commitment.
```

18.7.5 Evaluate Revised Project Plans

```
Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate revised project plans, and make necessary
additions, deletions, enhancements, and corrections.
```

18.7.6 Review and Approve Revised Project Plans

```
Senior management, program management, and functional area
managers shall review and approve revised project plans as
well as any additions, deletions, enhancements, and
corrections to revised project plans by relevant
stakeholders.
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18.7.7 Baseline Revised Project Plans

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Project managers shall submit project plans to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.
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		Number	
		Revision	
Model	**CMMI V1.1**	Approved by	
		Date	

Level	LEVEL 2 – MANAGED

Process	PROJECT PLANNING

Practice	19.0 OBTAIN PLAN COMMITMENT

19.1   PURPOSE

This procedures establishes the guidelines by which project managers
shall receive project plans for obtaining plan commitment, project
managers shall review and analyze project plans for negotiating
commitment to project plans, project managers shall negotiate
commitment to project plans from review of project plans, project
managers shall document commitments to project plans from review of
project plans, relevant stakeholders shall evaluate commitments to
project plans, senior management, program management, and functional
area managers shall review and approve commitments to project plans,
and project managers shall baseline commitment to project plans.

19.2   REVISION HISTORY

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19.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

19.4   POLICY

The policy of this organization is to ensure that:

19.4.1   Project managers receive project plans for obtaining plan
          commitment.

19.4.2   Project managers review and analyze project plans for
          negotiating commitment to project plans.

19.4.3   Project managers negotiate commitment to project plans from
          review of project plans.

19.4.4   Project managers document commitments to project plans from
          review of project plans.

19.4.5   Relevant stakeholders evaluate commitments to project plans.

19.4.6   Senior management, program management, and functional area managers review and approve commitments to project plans.

19.4.7   Project managers baseline commitment to project plans.

19.5   DEFINITIONS

19.5.1   <u>Commitment</u>: pacts that are freely assumed, visible, and expected to be kept by all parties.

19.6   RESPONSIBILITIES

19.6.1   Project managers are responsible for receiving project plans for obtaining plan commitment, reviewing and analyzing project plans for negotiating commitment to project plans, negotiating commitment to project plans from review of project plans, documenting commitments to project plans from review of project plans, and baselining commitment to project plans.

19.6.2   Relevant stakeholders are responsible for evaluating commitments to project plans.

19.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving commitments to project plans.

19.7   PROCESS

19.7.1   Receive Project Plans for Obtaining Plan Commitment

Project managers shall receive project plans from configuration management for obtaining plan commitment.

19.7.2   Review Project Plans for Negotiating Commitment to Project Plans

Project managers shall review and analyze project plans for negotiating commitment to project plans, which are pacts that are freely assumed, visible, and expected to be kept by all parties.

19.7.3   Negotiate Commitment to Project Plans from Review of Project Plans

Project managers shall negotiate commitment to project plans from review of project plans, which includes identifying needed support and negotiate commitments with relevant stakeholders; documenting all organizational commitments, both full and provisional, ensuring appropriate level of signatories; reviewing internal commitments with senior management as appropriate; reviewing external commitments with senior management as appropriate; and identifying commitments on interfaces between elements in the project, and with other projects and organizational units, so they

can be monitored.

19.7.4   Document Commitments to Project Plans from Review of Project Plans

Project managers shall document commitments to project plans from review of project plans, for project monitoring and control, supplier agreement management, measurement and analysis, process and product quality assurance, and configuration management.

19.7.5   Evaluate Commitments to Project Plans

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate commitments to project plans, and make necessary additions, deletions, enhancements, and corrections.

19.7.6   Review and Approve Commitments to Project Plans

Senior management, program management, and functional area managers shall review and approve commitments to project plans as well as any additions, deletions, enhancements, and corrections to commitments to project plans by relevant stakeholders.

19.7.7   Baseline Commitments to Project Plans

Project managers shall submit commitments to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
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Level	LEVEL 2 – MANAGED		
Process	PROJECT MONITORING AND CONTROL		
Practice	20.0 MONITOR PROJECT PLANNING PARAMETERS		

20.1   PURPOSE

This procedure establishes the guidelines by which project managers
shall receive project plans for review and analysis of project
planning parameters, project managers shall review and analyze
project plans for project planning parameters, project managers
shall identify planned and actual project planning parameters from
project plans, project managers shall document deviations between
planned and actual project planning parameters from project plans,
relevant stakeholders shall evaluate deviations, senior management,
program management, and functional area managers shall review and
approve deviations, and project managers shall baseline deviations
from project planning parameters.

20.2   REVISION HISTORY

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20.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

20.4   POLICY

The policy of this organization is to ensure that:

20.4.1   Project managers receive project plans for review and
         analysis of project planning parameters.

20.4.2   Project managers review and analyze project plans for
         project planning parameters.

20.4.3   Project managers identify planned and actual project
         planning parameters from project plans.

20.4.4   Project managers document deviations between planned and
         actual project planning parameters from project plans.

20.4.5   Relevant stakeholders evaluate deviations.

20.4.6   Senior management, program management, and functional area managers review and approve deviations.

20.4.7   Project managers baseline deviations from project planning parameters.

20.5   DEFINITIONS

20.5.1   Project Planning Parameters: projected estimates of resources based on historical data, statistical models, or experience.

20.6   RESPONSIBILITIES

20.6.1   Project managers are responsible for receiving project plans for review and analysis of project planning parameters, reviewing and analyzing project plans for project planning parameters, identifying planned and actual project planning parameters from project plans, documenting deviations between planned and actual project planning parameters from project plans, and baselining deviations from project planning parameters.

20.6.2   Relevant stakeholders are responsible for evaluating deviations.

20.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving deviations.

20.7   PROCESS

20.7.1   Receive Project Plan for Monitoring of Project Planning Parameters

Project managers shall receive project plans from configuration management for review and analysis of project planning parameters.

20.7.2   Review Project Plan for Indicators of Project Progress and Performance

Project managers shall review and analyze project plans for project planning parameters, which are projected estimates of resources based on historical data, statistical models, or experience.

20.7.3   Identify Planned and Actual Project Planning Parameters from Project Plans

Project managers shall identify planned and actual project planning parameters from project plans, such as schedule, effort, cost, size, complexity, resources, knowledge, and

skills.

20.7.4 Document Deviations Between Planned and Actual Project Planning Parameters

Project managers shall document deviations between planned and actual project planning parameters from project plans, for further analysis, evaluation, corrective action, and replanning.

20.7.5 Evaluate Deviations from Project Planning Parameters

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate deviations, and make necessary additions, deletions, enhancements, and corrections.

20.7.6 Review and Approve Deviations from Project Planning Parameters

Senior management, program management, and functional area managers shall review and approve deviations as well as any additions, deletions, enhancements, and corrections to deviations by relevant stakeholders.

20.7.7 Baseline Deviations from Project Planning Parameters

Project managers shall submit deviations to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	PROJECT MONITORING AND CONTROL		
Practice	21.0 MONITOR COMMITMENTS		

21.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project plans for review and analysis of commitments, project managers shall review and analyze project plans for internal and external commitments, project managers shall identify planned and actual internal and external commitments from project plans, project managers shall document deviations from planned and actual internal and external commitments from project plans, relevant stakeholders shall evaluate deviations, senior management, program management, and functional area managers shall review and approve deviations, and project managers shall baseline deviations from internal and external commitments.

21.2   REVISION HISTORY

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21.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

21.4   POLICY

The policy of this organization is to ensure that:

21.4.1   Project managers receive project plans for review and analysis of commitments.

21.4.2   Project managers review and analyze project plans for internal and external commitments.

21.4.3   Project managers identify planned and actual internal and external commitments from project plans.

21.4.4   Project managers document deviations from planned and actual internal and external commitments from project plans.

21.4.5   Relevant stakeholders evaluate deviations.

21.4.6   Senior management, program management, and functional area managers review and approve deviations.

21.4.7   Project managers baseline deviations from internal and external commitments.

21.5   DEFINITIONS

21.5.1   Commitments: pacts that are freely assumed, visible, and expected to be kept by all parties.

21.6   RESPONSIBILITIES

21.6.1   Project managers are responsible for receiving project plans for review and analysis of commitments, reviewing and analyzing project plans for internal and external commitments, identifying planned and actual internal and external commitments from project plans, documenting deviations from planned and actual internal and external commitments from project plans, and baselining deviations from internal and external commitments.

21.6.2   Relevant stakeholders are responsible for evaluating deviations.

21.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving deviations.

21.7   PROCESS

21.7.1   Receive Project Plan for Monitoring of Commitments

Project managers shall receive project plans from configuration management for review and analysis of commitments.

21.7.2   Review Project Plan for Internal and External Commitments

Project managers shall review and analyze project plans for internal and external commitments, which are pacts that are freely assumed, visible, and expected to be kept by all parties.

21.7.3   Identify Planned and Actual Internal and External Commitments

Project managers shall identify planned and actual internal and external commitments from project plans, such as effort, cost, schedule, quality, staff, deliverables, non-deliverables, prototypes, simulations, data, training, analyses, studies, and other administrative products and services.

21.7.4   Document Deviations from Planned and Actual Internal and

External Commitments

Project managers shall document deviations from planned and actual internal and external commitments from project plans, for further analysis, evaluation, corrective action, and replanning.

21.7.5   Evaluate Deviations from Internal and External Commitments

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate deviations, and make necessary additions, deletions, enhancements, and corrections.

21.7.6   Review and Approve Deviations from Internal and External Commitments

Senior management, program management, and functional area managers shall review and approve deviations as well as any additions, deletions, enhancements, and corrections to deviations by relevant stakeholders.

21.7.7   Baseline Deviations from Internal and External Commitments

Project managers shall submit deviations to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
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		Approved by	
		Date	

Level	LEVEL 2 – MANAGED

Process	PROJECT MONITORING AND CONTROL

Practice	22.0 MONITOR PROJECT RISKS

22.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project plans for review and analysis of project risks, project managers shall review and analyze project plans for project risks, project managers shall identify deviations from planned and actual project risks from project plans, project managers shall document deviations from planned and actual project risks from project plans, relevant stakeholders shall evaluate deviations, senior management, program management, and functional area managers shall review and approve deviations, and project managers shall baseline deviations from project risks.

22.2   REVISION HISTORY

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22.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

22.4   POLICY

The policy of this organization is to ensure that:

22.4.1   Project managers receive project plans for review and analysis of project risks.

22.4.2   Project managers review and analyze project plans for project risks.

22.4.3   Project managers identify deviations from planned and actual project risks from project plans.

22.4.4   Project managers document deviations from planned and actual project risks from project plans.

22.4.5   Relevant stakeholders evaluate deviations.

22.4.6 Senior management, program management, and functional area managers review and approve deviations.

22.4.7 Project managers baseline deviations from project risks.

22.5 DEFINITIONS

22.5.1 Deviation: noticeable or marked departures from the appropriate norm, plan, standard, procedure, or variable being reviewed.

22.6 RESPONSIBILITIES

22.6.1 Project managers are responsible for receiving project plans for review and analysis of project risks, reviewing and analyzing project plans for project risks, identifying deviations from planned and actual project risks from project plans, documenting deviations from planned and actual project risks from project plans, and baselining deviations from project risks.

22.6.2 Relevant stakeholders are responsible for evaluating deviations.

22.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving deviations.

22.7 PROCESS

22.7.1 Receive Project Plan for Monitoring of Project Risks

Project managers shall receive project plans from configuration management for review and analysis of project risks.

22.7.2 Review Project Plan for Occurrences of Project Risks

Project managers shall review and analyze project plans for project risks, which are potential changes or deviations from project planning parameters due to incomplete planning, unexpected changes in resources, or drastic circumstances.

22.7.3 Identify Deviations from Planned and Actual Project Risks

Project managers shall identify deviations from planned and actual project risks from project plans, which are noticeable or marked departures from the appropriate norm, plan, standard, procedure, or variable being reviewed.

22.7.4 Document Deviations from Planned and Actual Project Risks

Project managers shall document deviations from planned and actual project risks from project plans, for further analysis, evaluation, corrective action, and replanning.

22.7.5 Evaluate Deviations from Project Risks

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate deviations, and make necessary additions, deletions, enhancements, and corrections.

22.7.6 Review and Approve Deviations from Project Risks

Senior management, program management, and functional area managers shall review and approve deviations as well as any additions, deletions, enhancements, and corrections to deviations by relevant stakeholders.

22.7.7 Baseline Deviations from Project Risks

Project managers shall submit deviations to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
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		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	PROJECT MONITORING AND CONTROL
Practice	23.0 MONITOR DATA MANAGEMENT

23.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project plans for review and analysis of data management plans, project managers shall review and analyze project plans for changes to data management plans, project managers shall identify deviations from planned and actual data management plans from project plans, project managers shall document deviations from planned and actual data management plans from project plans, relevant stakeholders shall evaluate deviations, senior management, program management, and functional area managers shall review and approve deviations, and project managers shall baseline deviations from data management plans.

23.2   REVISION HISTORY

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23.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

23.4   POLICY

The policy of this organization is to ensure that:

23.4.1   Project managers receive project plans for review and analysis of data management plans.

23.4.2   Project managers review and analyze project plans for changes to data management plans.

23.4.3   Project managers identify deviations from planned and actual data management plans from project plans.

23.4.4   Project managers document deviations from planned and actual data management plans from project plans.

23.4.5   Relevant stakeholders evaluate deviations.

23.4.6   Senior management, program management, and functional area managers review and approve deviations.

23.4.7   Project managers baseline deviations from data management plans.

23.5   DEFINITIONS

23.5.1   Data Management Plan: resource plans to specify various forms of documentation required to support a program in all of its areas (e.g., administration, engineering, configuration management, financial, logistics, quality, safety, manufacturing, and procurement).

23.6   RESPONSIBILITIES

23.6.1   Project managers are responsible for receiving project plans for review and analysis of data management plans, reviewing and analyzing project plans for changes to data management plans, identifying deviations from planned and actual data management plans from project plans, documenting deviations from planned and actual data management plans from project plans, and baselining deviations from data management plans.

23.6.2   Relevant stakeholders are responsible for evaluate deviations.

23.6.3   Senior management, program management, and functional area managers are responsible for review and approve deviations.

23.7   PROCESS

23.7.1   Receive Project Plan for Monitoring of Data Management

Project managers shall receive project plans from configuration management for review and analysis of data management plans.

23.7.2   Review Project Plan for Changes to Data Management Plans

Project managers shall review and analyze project plans for changes to data management plans, which are resource plans to specify various forms of documentation required to support a program in all of its areas (e.g., administration, engineering, configuration management, financial, logistics, quality, safety, manufacturing, and procurement).

23.7.3   Identify Deviations from Planned and Actual Data Management Plans

Project managers shall identify deviations from planned and actual data management plans from project plans, such as changes to the master list of managed data, data content and format descriptions, data requirements lists for acquirers

and for suppliers, privacy requirements, security
requirements, security procedures, mechanisms for data
retrieval, reproduction, and distribution, schedule for
collection of project data, listing of project data to be
collected, and the project data itself.

23.7.4   Document Deviations from Planned and Actual Data Management
Plans

Project managers shall document deviations from planned and
actual data management plans from project plans, for further
analysis, evaluation, corrective action, and replanning.

23.7.5   Evaluate Deviations from Data Management Plans

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate deviations, and make necessary additions,
deletions, enhancements, and corrections.

23.7.6   Review and Approve Deviations from Data Management Plans

Senior management, program management, and functional area
managers shall review and approve deviations as well as any
additions, deletions, enhancements, and corrections to
deviations by relevant stakeholders.

23.7.7   Baseline Deviations from Data Management Plans

Project managers shall submit deviations to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED
Process	PROJECT MONITORING AND CONTROL
Practice	24.0 MONITOR STAKEHOLDER INVOLVEMENT

24.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project plans for review and analysis of stakeholder involvement plans, project managers shall review and analyze project plans for changes to stakeholder involvement plans, project managers shall identify deviations from planned and actual stakeholder involvement plans from project plans, project managers shall document deviations from planned and actual stakeholder involvement plans from project plans, relevant stakeholders shall evaluate deviations, senior management, program management, and functional area managers shall review and approve deviations, and project managers shall baseline changed stakeholder involvement plans.

24.2   REVISION HISTORY

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24.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

24.4   POLICY

The policy of this organization is to ensure that:

24.4.1   Project managers receive project plans for review and analysis of stakeholder involvement plans.

24.4.2   Project managers review and analyze project plans for changes to stakeholder involvement plans.

24.4.3   Project managers identify deviations from planned and actual stakeholder involvement plans from project plans.

24.4.4   Project managers document deviations from planned and actual stakeholder involvement plans from project plans.

24.4.5   Relevant stakeholders evaluate deviations.

24.4.6   Senior management, program management, and functional area managers review and approve deviations.

24.4.7   Project managers baseline changed stakeholder involvement plans.

24.5   DEFINITIONS

24.5.1   Stakeholder Involvement Plans: strategic plans for identifying stakeholders from all phases of the project life cycle by identifying the type of people and functions needing representation in the project and describing their relevance and the degree of interaction for specific project activities.

24.6   RESPONSIBILITIES

24.6.1   Project managers are responsible for receive project plans for reviewing and analyzing stakeholder involvement plans, reviewing and analyzing project plans for changes to stakeholder involvement plans, identifying deviations from planned and actual stakeholder involvement plans from project plans, documenting deviations from planned and victual stakeholder involvement plans from project plans, and baselining changed stakeholder involvement plans.

24.6.2   Relevant stakeholders are responsible for evaluating deviations.

24.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving deviations.

24.7   PROCESS

24.7.1   Receive Project Plan for Monitoring of Stakeholder Involvement

Project managers shall receive project plans from configuration management for review and analysis of stakeholder involvement plans.

24.7.2   Review Project Plan for Changes to Stakeholder Involvement Plans

Project managers shall review and analyze project plans for changes to stakeholder involvement plans, which are strategic plans for identifying stakeholders from all phases of the project life cycle by identifying the type of people and functions needing representation in the project and

describing their relevance and the degree of interaction for specific project activities.

24.7.3   Identify Deviations from Planned and Actual Stakeholder

Involvement Plans

Project managers shall identify deviations from planned and actual stakeholder involvement plans from project plans, such as changes to the list of all relevant stakeholders, rationale for stakeholder involvement, roles and responsibilities of the relevant stakeholders with respect to the project by project life cycle phase, relationships between stakeholders, relative importance of the stakeholder to success of the project by project life cycle phase, resources needed to ensure stakeholder interaction, and schedule for phasing of stakeholder interaction.

24.7.4   Document Deviations from Stakeholder Involvement Plans

Project managers shall document deviations from planned and actual stakeholder involvement plans from project plans, for further analysis, evaluation, corrective action, and replanning.

24.7.5   Evaluate Deviations from Stakeholder Involvement Plans

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate deviations, and make necessary additions, deletions, enhancements, and corrections.

24.7.6   Review and Approve Deviations from Stakeholder Involvement Plans

Senior management, program management, and functional area managers shall review and approve deviations as well as any additions, deletions, enhancements, and corrections to deviations by relevant stakeholders.

24.7.7   Baseline Changed Stakeholder Involvement Plans

Project managers shall submit deviations to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
		Revision	
Model	**CMMI V1.1**	Approved by	
		Date	
Level	LEVEL 2 – MANAGED
Process	PROJECT MONITORING AND CONTROL
Practice	25.0 CONDUCT PROGRESS REVIEW

25.1   PURPOSE

This procedure establishes the guidelines by which relevant stakeholders shall receive project plans for review and analysis of project planning parameters, relevant stakeholders shall review and analyze project plans for project planning parameters, relevant stakeholders shall identify planned and actual project planning parameters from project plans, relevant stakeholders shall document deviations between planned and actual project planning parameters from project plans, relevant stakeholders shall evaluate deviations, senior management, program management, and functional area managers shall review and approve deviations, and project managers shall baseline deviations from project planning parameters.

25.2   REVISION HISTORY

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25.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

25.4   POLICY

The policy of this organization is to ensure that:

25.4.1   Relevant stakeholders receive project plans for review and analysis of project planning parameters.

25.4.2   Relevant stakeholders review and analyze project plans for project planning parameters.

25.4.3   Relevant stakeholders identify planned and actual project planning parameters from project plans.

25.4.4   Relevant stakeholders document deviations between planned and actual project planning parameters from project plans.

25.4.5   Relevant stakeholders evaluate deviations.

25.4.6   Senior management, program management, and functional area managers review and approve deviations.

25.4.7   Project managers baseline deviations from project planning parameters.

25.5   DEFINITIONS

25.5.1   <u>Project Planning Parameters</u>: projected estimates of resources based on historical data, statistical models, or experience.

25.6   RESPONSIBILITIES

25.6.1   Relevant stakeholders are responsible for receiving project plans for review and analysis of project planning parameters, reviewing and analyzing project plans for project planning parameters, identifying planned and actual project planning parameters from project plans, documenting deviations between planned and actual project planning parameters from project plans, and evaluating deviations.

25.6.2   Senior management, program management, and functional area managers are responsible for reviewing and approving deviations.

25.6.3   Project managers are responsible for baselining deviations from project planning parameters.

25.7   PROCESS

25.7.1   Receive Project Plan for Conducting Progress Reviews

Relevant stakeholders shall receive project plans from configuration management for review and analysis of project planning parameters.

25.7.2   Review Project Plan for Indicators of Project Progress, Performance, and Issues

Relevant stakeholders shall review and analyze project plans for project planning parameters, which are projected estimates of resources based on historical data, statistical models, or experience.

25.7.3   Identify Planned and Actual Project Planning Parameters from Project Plans

Relevant stakeholders shall identify planned and actual project planning parameters from project plans, such as schedule, effort, cost, size, complexity, resources, knowledge, and skills.

25.7.4 Document Deviations Between Planned and Actual Project Planning Parameters

Relevant stakeholders shall document deviations between planned and actual project planning parameters from project plans, for further analysis, evaluation, corrective action, and replanning.

25.7.5 Evaluate Deviations from Project Planning Parameters

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate deviations, and make necessary additions, deletions, enhancements, and corrections.

25.7.6 Review and Approve Deviations from Project Planning Parameters

Senior management, program management, and functional area managers shall review and approve deviations as well as any additions, deletions, enhancements, and corrections to deviations by relevant stakeholders.

25.7.7 Baseline Deviations from Project Planning Parameters

Project managers shall submit deviations to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
		Revision	
Model	**CMMI V1.1**	Approved by	
		Date	

Level	LEVEL 2 – MANAGED

Process	PROJECT MONITORING AND CONTROL

Practice	26.0 CONDUCT MILESTONE REVIEW

26.1   PURPOSE

This procedure establishes the guidelines by which relevant stakeholders shall receive project plans for review and analysis of project planning parameters, relevant stakeholders shall review and analyze project plans for project planning parameters, relevant stakeholders shall identify planned and actual project planning parameters from project plans, relevant stakeholders shall document deviations between planned and actual project planning parameters from project plans, relevant stakeholders shall evaluate deviations, senior management, program management, and functional area managers shall review and approve deviations, and project managers shall baseline deviations from project planning parameters.

26.2   REVISION HISTORY

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26.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

26.4   POLICY

The policy of this organization is to ensure that:

26.4.1   Relevant stakeholders receive project plans for review and analysis of project planning parameters.

26.4.2   Relevant stakeholders review and analyze project plans for project planning parameters.

26.4.3   Relevant stakeholders identify planned and actual project planning parameters from project plans.

26.4.4   Relevant stakeholders document deviations between planned and actual project planning parameters from project plans.

26.4.5   Relevant stakeholders evaluate deviations.

26.4.6   Senior management, program management, and functional area managers review and approve deviations.

26.4.7   Project managers baseline deviations from project planning parameters.

26.5   DEFINITIONS

26.5.1   Project Planning Parameters: projected estimates of resources based on historical data, statistical models, or experience.

26.6   RESPONSIBILITIES

26.6.1   Relevant stakeholders are responsible for receiving project plans for review and analysis of project planning parameters, reviewing and analyzing project plans for project planning parameters, identifying planned and actual project planning parameters from project plans, documenting deviations between planned and actual project planning parameters from project plans, and evaluating deviations.

26.6.2   Senior management, program management, and functional area managers are responsible for reviewing and approving deviations.

26.6.3   Project managers are responsible for baselining deviations from project planning parameters.

26.7   PROCESS

26.7.1   Receive Project Plan for Conducting Progress Reviews

Relevant stakeholders shall receive project plans from configuration management for review and analysis of project planning parameters.

26.7.2   Review Project Plan for Indicators of Project Progress, Performance, and Issues

Relevant stakeholders shall review and analyze project plans for project planning parameters, which are projected estimates of resources based on historical data, statistical models, or experience.

26.7.3   Identify Planned and Actual Project Planning Parameters from Project Plans

Relevant stakeholders shall identify planned and actual project planning parameters from project plans, such as schedule, effort, cost, size, complexity, resources, knowledge, and skills.

26.7.4   Document Deviations Between Planned and Actual Project
         Planning Parameters

Relevant stakeholders shall document deviations between
planned and actual project planning parameters from project
plans, for further analysis, evaluation, corrective action,
and replanning.

26.7.5   Evaluate Deviations from Project Planning Parameters

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate deviations, and make necessary additions,
deletions, enhancements, and corrections.

26.7.6   Review and Approve Deviations from Project Planning Parameters

Senior management, program management, and functional area
managers shall review and approve deviations as well as any
additions, deletions, enhancements, and corrections to
deviations by relevant stakeholders.

26.7.7   Baseline Deviations from Project Planning Parameters

Project managers shall submit deviations to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	PROJECT MONITORING AND CONTROL
Practice	27.0 ANALYZE ISSUES

27.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive deviations for analyzing issues, project managers shall review and analyze deviations for issues which may need corrective action, project managers shall identify issues for corrective action from deviations, project managers shall document issues for corrective action from deviation, relevant stakeholders shall evaluate issues, senior management, program management, and functional area managers shall review and approve issues, and project managers shall baseline issues for corrective action.

27.2   REVISION HISTORY

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27.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

27.4   POLICY

The policy of this organization is to ensure that:

27.4.1   Project managers receive deviations for analyzing issues.

27.4.2   Project managers review and analyze deviations for issues which may need corrective action.

27.4.3   Project managers identify issues for corrective action from deviations.

27.4.4   Project managers document issues for corrective action from deviation.

27.4.5   Relevant stakeholders evaluate issues.

27.4.6   Senior management, program management, and functional area

managers review and approve issues.

    27.4.7   Project managers baseline issues for corrective action.

27.5   DEFINITIONS

    27.5.1   <u>Corrective Action</u>: acts or deeds used to remedy a situation, remove an error, or adjust a condition.

27.6   RESPONSIBILITIES

    27.6.1   Project managers are responsible for receiving deviations for analyzing issues, reviewing and analyzing deviations for issues which may need corrective action, identifying issues for corrective action from deviations, documenting issues for corrective action from deviation, and baselining issues for corrective action.

    27.6.2   Relevant stakeholders responsible for evaluating issues.

    27.6.3   Senior management, program management, and functional area managers responsible for reviewing and approving issues.

27.7   PROCESS

    27.7.1   Receive Deviations for Analyzing Issues

        Project managers shall receive deviations from configuration management for analyzing issues.

    27.7.2   Review Deviations for Issues Which May Need Corrective Actions

        Project managers shall review and analyze deviations for issues which may need corrective action, which are acts or deeds used to remedy a situation, remove an error, or adjust a condition.

    27.7.3   Identify Issues for Corrective Action from Deviations

        Project managers shall identify issues for corrective action from deviations, such as issues discovered through performing verification and validation activities, significant deviations in the project planning parameters from the estimates in the project plan, commitments (either internal or external) that have not been satisfied, significant changes in risk status, data access, collection, privacy, or security issues, and stakeholder representation or involvement issues.

    27.7.4   Document Issues for Corrective Action from Deviations

        Project managers shall document issues for corrective action from deviation, for development of corrective actions, corrective action plans, and ultimately corrective action.

    27.7.5   Evaluate Issues for Corrective Action

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate issues, and make necessary additions, deletions, enhancements, and corrections.

27.7.6   Review and Approve Issues for Corrective Action

Senior management, program management, and functional area managers shall review and approve issues as well as any additions, deletions, enhancements, and corrections to issues by relevant stakeholders.

27.7.7   Baseline Issues for Corrective Action

Project managers shall submit issues to configuration management fur configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
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		Approved by	
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Level	LEVEL 2 – MANAGED		
Process	PROJECT MONITORING AND CONTROL		
Practice	28.0 TAKE CORRECTIVE ACTION		

28.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive issues for taking corrective action, project managers shall review and analyze issues for identifying corrective actions, project managers shall identify corrective actions for implementation, project managers shall document corrective action plans, relevant stakeholders shall evaluate corrective action plans, senior management, program management, and functional area managers shall review and approve corrective action plans, and project managers shall baseline corrective action plans.

28.2   REVISION HISTORY

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28.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

28.4   POLICY

The policy of this organization is to ensure that:

28.4.1   Project managers receive issues for taking corrective action.

28.4.2   Project managers review and analyze issues for identifying corrective actions.

28.4.3   Project managers identify corrective actions for implementation.

28.4.4   Project managers document corrective action plans.

28.4.5   Relevant stakeholders evaluate corrective action plans.

28.4.6   Senior management, program management, and functional area

managers review and approve corrective action plans.

28.4.7 Project managers baseline corrective action plans.

28.5 DEFINITIONS

28.5.1 <u>Corrective Actions</u>: acts or deeds used to remedy a situation, remove an error, or adjust a condition.

28.6 RESPONSIBILITIES

28.6.1 Project managers are responsible for receiving issues for taking corrective action, reviewing and analyzing issues for identifying corrective actions, identifying corrective actions for implementation, documenting corrective action plans, and baselining corrective action plans.

28.6.2 Relevant stakeholders are responsible for evaluating corrective action plans.

28.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving corrective action plans.

28.7 PROCESS

28.7.1 Receive Issues for Taking Corrective Action

Project managers shall receive issues from configuration management for taking corrective action.

28.7.2 Review Issues for Identifying Corrective Actions

Project managers shall review and analyze issues for identifying corrective actions, which are acts or deeds used to remedy a situation, remove an error, or adjust a condition.

28.7.3 Identify Corrective Actions for Implementation

Project managers shall identify corrective actions for implementation, such as modifying the statement of work, modifying requirements, revising estimates and plans, renegotiating commitments, adding resources, changing processes, and revising project risks.

28.7.4 Document Corrective Action Plans

Project managers shall document corrective action plans, which include planning, execution, verification, and closure of the corrective actions.

28.7.5 Evaluate Corrective Action Plans

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management,

systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate corrective action plans, and make necessary
additions, deletions, enhancements, and corrections.

28.7.6   Review and Approve Corrective Action Plans

Senior management, program management, and functional area
managers shall review and approve corrective action plans as
well as any additions, deletions, enhancements, and
corrections to corrective action plans by relevant
stakeholders.

28.7.7   Baseline Corrective Action Plans

Project managers shall submit corrective action plans to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

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Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	PROJECT MONITORING AND CONTROL
Practice	29.0 MANAGE CORRECTIVE ACTION

29.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive issues for managing corrective action, project managers shall monitor and analyze results of corrective actions, project managers shall identify planned and actual results from corrective action plans, project managers shall document corrective action results, relevant stakeholders shall evaluate corrective action results, senior management, program management, and functional area managers shall review and approve corrective action results, and project managers shall baseline corrective action results.

29.2   REVISION HISTORY

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29.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

29.4   POLICY

The policy of this organization is to ensure that:

29.4.1   Project managers shall receive issues for managing corrective action.

29.4.2   Project managers shall monitor and analyze results of corrective actions.

29.4.3   Project managers shall identify planned and actual results from corrective action plans.

29.4.4   Project managers shall document corrective action results.

29.4.5   Relevant stakeholders shall evaluate corrective action results.

29.4.6　Senior management, program management, and functional area managers shall review and approve corrective action results.

29.4.7　Project managers shall baseline corrective action results.

29.5　DEFINITIONS

29.5.1　<u>Corrective Actions</u>: which are acts or deeds used to remedy a situation, remove an error, or adjust a condition.

29.6　RESPONSIBILITIES

29.6.1　Project managers are responsible for receiving issues for managing corrective action, monitoring and analyzing results of corrective actions, identifying planned and actual results from corrective action plans, documenting corrective action results, and baselining corrective action results.

29.6.2　Relevant stakeholders are responsible for evaluating corrective action results.

29.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving corrective action results.

29.7　PROCESS

29.7.1　Receive Corrective Action Plans for Managing Corrective Action

Project managers shall receive issues from configuration management for managing corrective action.

29.7.2　Monitor and Analyze Results of Corrective Actions

Project managers shall monitor and analyze results of corrective actions, which are acts or deeds used to remedy a situation, remove an error, or adjust a condition.

29.7.3　Identify Planned and Actual Results from Corrective Action Plans

Project managers shall identify planned and actual results from corrective action plans, such as modifications to the statement of work, modifications to requirements, revisions to estimates and plans, renegotiation of commitments, addition of resources, change of processes, and revision of project risks.

29.7.4　Document Corrective Action Results

Project managers shall document corrective action results, for further analysis, evaluation, corrective action, and replanning.

29.7.5　Evaluate Corrective Action Results

Relevant stakeholders such as senior management,

configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate corrective action results, and make necessary additions, deletions, enhancements, and corrections.

29.7.6 Review and Approve Corrective Action Results

Senior management, program management, and functional area managers shall review and approve corrective action results as well as any additions, deletions, enhancements, and corrections to corrective action results by relevant stakeholders.

29.7.7 Baseline Corrective Action Results

Project managers shall submit corrective action results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	SUPPLIER AGREEMENT MANAGEMENT
Practice	30.0 DETERMINE ACQUISITION TYPE

30.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project plans for determining acquisition types, project managers shall review and analyze project plans for products or product-components to be acquired, project managers shall identify the acquisition type for each product or product-component to be acquired, project managers shall document acquisition type for products or product-components to be acquired, relevant stakeholders shall evaluate acquisition types, senior management, program management, and functional area managers shall review and approve acquisition types, and project managers shall baseline acquisition types.

30.2   REVISION HISTORY

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30.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

30.4   POLICY

The policy of this organization is to ensure that:

30.4.1   Project managers receive project plans for determining acquisition types.

30.4.2   Project managers review and analyze project plans for products or product-components to be acquired.

30.4.3   Project managers identify the acquisition type for each product or product-component to be acquired.

30.4.4   Project managers document acquisition type for products or product-components to be acquired.

       30.4.5   Relevant stakeholders evaluate acquisition types.

       30.4.6   Senior management, program management, and functional area managers review and approve acquisition types.

       30.4.7   Project managers baseline acquisition types.

30.5 DEFINITIONS

       30.5.1   <u>Products or Product-Components</u>: any tangible outputs or services that are a result of a process and that are intended for delivery to a customer or end user (and also include lower level components of the product or product components that are integrated to "build" the product).

30.6 RESPONSIBILITIES

       30.6.1   Project managers are responsible for receiving project plans for determining acquisition types, reviewing and analyzing project plans for products or product-components to be acquired, identifying the acquisition type for each product or product-component to be acquired, documenting acquisition type for products or product-components to be acquired, and baselining acquisition types.

       30.6.2   Relevant stakeholders are responsible for evaluating acquisition types.

       30.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving acquisition types.

30.7 PROCESS

30.7.1 Receive Project Plans for Determining Acquisition Types

Project managers shall receive project plans from configuration management for determining acquisition types.

30.7.2 Review Project Plans for Products or Product-Components to be Acquired

Project managers shall review and analyze project plans for products or product-components to be acquired, which are any tangible outputs or services that are a result of a process and that are intended for delivery to a customer or end user (and also include lower level components of the product or product components that are integrated to "build" the product).

30.7.3 Identify Acquisition Type for Each Product or Product-Component to be Acquired

Project managers shall identify the acquisition type for each product or product-component to be acquired, such as purchasing commercial off-the-shelf (COTS) products,

obtaining products through a contractual agreement,
obtaining products from an in-house vendor, obtaining
products from the customer, and combining some of the above
(e.g., contracting for a modification to a COTS product or
having another part of the business enterprise co-develop
products with an external supplier).

30.7.4 Document Acquisition Type for Products or Product-Components to be Acquired

Project managers shall document acquisition types, for
selecting suppliers, establishing supplier agreements,
reviewing COTS products, executing supplier agreements,
accepting acquired products, and transitioning products.

30.7.5 Evaluate Acquisition Types

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate acquisition types, and make necessary additions,
deletions, enhancements, and corrections.

30.7.6 Review and Approve Acquisition Types

Senior management, program management, and functional area
managers shall review and approve acquisition types as well
as any additions, deletions, enhancements, and corrections
to acquisition types by relevant stakeholders.

30.7.7 Baseline Acquisition Types

Project managers shall submit acquisition types to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

		Number	
		Revision	
Model	**CMMI V1.1**	Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	SUPPLIER AGREEMENT MANAGEMENT		
Practice	31.0 SELECT SUPPLIERS		

31.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive acquisition types for selecting suppliers, project managers shall review and analyze acquisition types for selecting suppliers to satisfy product or product-component requirements, project managers shall identify suppliers that satisfy product and product-component requirements, project managers shall document suppliers on supplier lists that satisfy product or product-component requirements, relevant stakeholders shall evaluate supplier lists, senior management, program management, and functional area managers shall review and approve supplier lists, and project managers shall baseline supplier list.

31.2   REVISION HISTORY

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31.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

31.4   POLICY

The policy of this organization is to ensure that:

31.4.1   Project managers receive acquisition types for selecting suppliers.

31.4.2   Project managers review and analyze acquisition types for selecting suppliers to satisfy product or product-component requirements.

31.4.3   Project managers identify suppliers that satisfy product and product-component requirements.

31.4.4   Project managers document suppliers on supplier lists that satisfy product or product-component requirements.

31.4.5   Relevant stakeholders evaluate supplier lists.

31.4.6   Senior management, program management, and functional area managers review and approve supplier lists.

31.4.7   Project managers baseline supplier list.

31.5   DEFINITIONS

31.5.1   Suppliers: entities delivering products or performing services being acquired, or individuals, partnerships, companies, corporations, associations, or other services having an agreement (contract) with an acquirer for the design, development, manufacture, maintenance, modification, or supply of items under the terms of an agreement (contract).

31.6   RESPONSIBILITIES

31.6.1   Project managers are responsible for receiving acquisition types for selecting suppliers, reviewing and analyzing acquisition types for selecting suppliers to satisfy product or product-component requirements, identifying suppliers that satisfy product and product-component requirements, documenting suppliers on supplier lists that satisfy product or product-component requirements, and baseline supplier lists.

31.6.2   Relevant stakeholders are responsible for evaluating supplier lists.

31.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving supplier lists.

31.7   PROCESS

31.7.1   Receive Acquisition Types for Selecting Suppliers

Project managers shall receive acquisition types from configuration management for selecting suppliers.

31.7.2   Review Acquisition Types for Selecting Suppliers to Satisfy Product Requirements

Project managers shall review and analyze acquisition types for selecting suppliers to satisfy product or product-component requirements, which are entities delivering products or performing services being acquired, or individuals, partnerships, companies, corporations, associations, or other services having an agreement (contract) with an acquirer for the design, development, manufacture, maintenance, modification, or supply of items under the terms of an agreement (contract).

31.7.3   Identify Suppliers that Satisfy Product and Product-Component

Requirements

Project managers shall identify suppliers that satisfy
product and product-component requirements, using criteria
such as geographical location of the supplier, supplier's
performance records on similar work, engineering
capabilities, staff and facilities available to perform the
work, and prior experience in similar applications.

31.7.4 Document Suppliers on Supplier Lists that Satisfy Product Requirements

Project managers shall document suppliers on supplier lists
that satisfy product or product-component requirements, for
establishing supplier agreements, reviewing COTS products,
executing supplier agreements, accepting acquired products,
and transitioning products.

31.7.5 Evaluate Supplier List

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate supplier lists, and make necessary additions,
deletions, enhancements, and corrections.

31.7.6 Review and Approve Supplier List

Senior management, program management, and functional area
managers shall review and approve supplier lists as well as
any additions, deletions, enhancements, and corrections to
supplier lists by relevant stakeholders.

31.7.7 Baseline Supplier List

Project managers shall submit supplier lists to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	SUPPLIER AGREEMENT MANAGEMENT		
Practice	32.0 ESTABLISH SUPPLIER AGREEMENTS		

32.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive supplier lists for establishing supplier agreements, project managers shall review and analyze supplier lists for identifying types of supplier agreements that are required to satisfy product and product-component requirements, project managers shall identify supplier agreements for each supplier on supplier lists, project managers shall document supplier agreements for each supplier on supplier lists, relevant stakeholders shall evaluate supplier agreements, senior management, program management, and functional area managers shall review and approve supplier agreements, and project managers shall baseline supplier agreements.

32.2   REVISION HISTORY

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32.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

32.4   POLICY

The policy of this organization is to ensure that:

32.4.1   Project managers receive supplier lists for establishing supplier agreements.

32.4.2   Project managers review and analyze supplier lists for identifying types of supplier agreements that are required to satisfy product and product-component requirements.

32.4.3   Project managers identify supplier agreements for each supplier on supplier lists.

32.4.4   Project managers document supplier agreements for each supplier on supplier lists.

32.4.5   Relevant stakeholders evaluate supplier agreements.

32.4.6   Senior management, program management, and functional area managers review and approve supplier agreements.

32.4.7   Project managers baseline supplier agreements.

32.5   DEFINITIONS

32.5.1   <u>Supplier Agreement</u>: all technical and nontechnical requirements related to an acquisition such as statements of work, contracts, memoranda of agreements, or licensing agreements.

32.6   RESPONSIBILITIES

32.6.1   Project managers are responsible for receiving supplier lists for establishing supplier agreements, reviewing and analyzing supplier lists for identifying types of supplier agreements that are required to satisfy product and product-component requirements, identifying supplier agreements for each supplier on supplier lists, documenting supplier agreements for each supplier on supplier lists, and baselining supplier agreements.

32.6.2   Relevant stakeholders are responsible for evaluating supplier agreements.

32.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving supplier agreements.

32.7   PROCESS

32.7.1   Receive Suppliers Lists for Establishing Supplier Agreements

Project managers shall receive supplier lists from configuration management for establishing supplier agreements.

32.7.2   Review Supplier Lists for Identifying Types of Supplier Agreements that are Required

Project managers shall review and analyze supplier lists for identifying types of supplier agreements that are required to satisfy product and product-component requirements, which are all technical and nontechnical requirements related to an acquisition such as statements of work, contracts, memoranda of agreements, or licensing agreements.

32.7.3   Identify Types of Supplier Agreements for Each Supplier on Supplier Lists

Project managers shall identify supplier agreements, which includes establishing the statement of work; identifying who is authorized to make changes to the supplier agreement;

identifying how changes to the supplier agreement are determined; identifying standards and procedures that will be followed; identifying critical dependencies; identifying the type and depth of project oversight of the supplier; identifying the types of reviews that will be conducted; identifying maintenance and support responsibilities; and identifying warranty, ownership, and usage rights.

32.7.4 Document Supplier Agreements for Each Supplier on Supplier Lists

Project managers shall document supplier agreements for each supplier on supplier lists, for reviewing COTS products, executing supplier agreements, accepting acquired products, and transitioning products.

32.7.5 Evaluate Supplier Agreements

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate supplier agreements, and make necessary additions, deletions, enhancements, and corrections.

32.7.6 Review and Approve Supplier Agreements

Senior management, program management, and functional area managers shall review and approve supplier agreements as well as any additions, deletions, enhancements, and corrections to supplier agreements by relevant stakeholders.

32.7.7 Baseline Supplier Agreements

Project managers shall submit supplier agreements to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

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		Revision	
Model	**CMMI V1.1**	Approved by	
		Date	

Level	LEVEL 2 – MANAGED

Process	SUPPLIER AGREEMENT MANAGEMENT

Practice	33.0 REVIEW COTS PRODUCTS

33.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive supplier agreements for reviewing COTS products, project managers shall review and analyze supplier agreements and identify requirements for COTS products, project managers shall evaluate COTS products to validate requirements in supplier agreements, project managers shall document COTS evaluations against requirements in supplier agreements, relevant stakeholders shall evaluate COTS evaluations, senior management, program management, and functional area managers shall review and approve COTS evaluations, and project managers shall baseline COTS evaluations.

33.2   REVISION HISTORY

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33.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

33.4   POLICY

The policy of this organization is to ensure that:

33.4.1   Project managers receive supplier agreements for reviewing COTS products.

33.4.2   Project managers review and analyze supplier agreements and identify requirements for COTS products.

33.4.3   Project managers evaluate COTS products to validate requirements in supplier agreements.

33.4.4   Project managers document COTS evaluations against requirements in supplier agreements.

33.4.5   Relevant stakeholders evaluate COTS evaluations.

33.4.6   Senior management, program management, and functional area managers review and approve COTS evaluations.

33.4.7   Project managers baseline COTS evaluations.

33.5   DEFINITIONS

33.5.1   <u>COTS Products</u>: items that can be purchased from a commercial vendor (COTS stands for "commercial off the shelf").

33.6   RESPONSIBILITIES

33.6.1   Project managers are responsible for receiving supplier agreements for reviewing COTS products, reviewing and analyzing supplier agreements and identify requirements for COTS products, evaluating COTS products to validate requirements in supplier agreements, documenting COTS evaluations against requirements in supplier agreements, and baselining COTS evaluations.

33.6.2   Relevant stakeholders are responsible for evaluating COTS evaluations.

33.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving COTS evaluations.

33.7   PROCESS

33.7.1   Receive Supplier Agreements for Reviewing COTS Products

Project managers shall receive supplier agreements from configuration management for reviewing COTS products.

33.7.2   Review Supplier Agreements and Identify Requirements for COTS Products

Project managers shall review and analyze supplier agreements and identify requirements for COTS products, which are items that can be purchased from a commercial vendor (COTS stands for "commercial off the shelf").

33.7.3   Evaluate COTS Products to Validate Requirements in Supplier Agreements

Project managers shall evaluate COTS products to validate requirements in supplier agreements, such as functionality, performance, quality, and reliability; terms and conditions of warranties for the products; risk; suppliers' responsibilities for ongoing maintenance and support; cost of the COTS products; cost and effort to incorporate the COTS products into the project; security requirements; benefits and impacts that may result from future product releases; discounts for large quantity purchases; coverage of relevant stakeholders; plans for future enhancements; on-

site support; additional capabilities that are not in the product; and maintenance support, including support after the product is withdrawn from general availability.

33.7.4 Document COTS Evaluations Against Requirements in Supplier Agreements

Project managers shall document COTS evaluations against requirements in supplier agreements, for executing supplier agreements, accepting.

33.7.5 Evaluate COTS Evaluations

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate COTS evaluations, and make necessary additions, deletions, enhancements, and corrections.

33.7.6 Review and Approve COTS Evaluations

Senior management, program management, and functional area managers shall review and approve COTS evaluations as well as any additions, deletions, enhancements, and corrections to COTS evaluations by relevant stakeholders.

33.7.7 Baseline COTS Evaluations

Project managers shall submit COTS evaluations to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED

Process	SUPPLIER AGREEMENT MANAGEMENT

Practice	34.0 EXECUTE THE SUPPLIER AGREEMENT

34.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive supplier agreements for executing the supplier agreements, project managers shall review and analyze supplier agreements to identify reviews to conduct with suppliers as stated in supplier agreements, project managers shall conduct reviews with suppliers as stated in supplier agreements, project managers shall document supplier status from reviews with suppliers, relevant stakeholders shall evaluate supplier status, senior management, program management, and functional area managers shall review and approve supplier status, and project managers shall baseline supplier status.

34.2   REVISION HISTORY

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34.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

34.4   POLICY

The policy of this organization is to ensure that:

34.4.1   Project managers receive supplier agreements for executing the supplier agreements.

34.4.2   Project managers review and analyze supplier agreements to identify reviews to conduct with suppliers as stated in supplier agreements.

34.4.3   Project managers conduct reviews with suppliers as stated in supplier agreements.

34.4.4   Project managers document supplier status from reviews with suppliers.

34.4.5   Relevant stakeholders evaluate supplier status.

34.4.6   Senior management, program management, and functional area managers review and approve supplier status.

34.4.7   Project managers baseline supplier status.

34.5   DEFINITIONS

34.5.1   <u>Technical and Management Reviews</u>: processes or meetings during which work products, or sets of work products, are presented to project personnel, managers, users, customers, or other interested parties.

34.6   RESPONSIBILITIES

34.6.1   Project managers are responsible for receiving supplier agreements for executing the supplier agreements, reviewing and analyzing supplier agreements to identify reviews to conduct with suppliers as stated in supplier agreements, conducting reviews with suppliers as stated in supplier agreements, documenting supplier status from reviews with suppliers, and baselining supplier status.

34.6.2   Relevant stakeholders are responsible for evaluating supplier status.

34.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving supplier status.

34.7   PROCESS

34.7.1   Receive Supplier Agreements for Executing the Supplier Agreement

Project managers shall receive supplier agreements from configuration management for executing the supplier agreements.

34.7.2   Review Supplier Agreements to Identify Reviews to Conduct with Suppliers

Project managers shall review and analyze supplier agreements to identify reviews to conduct with suppliers as stated in supplier agreements, such as technical reviews and management reviews, which are processes or meetings during which work products, or sets of work products, are presented to project personnel, managers, users, customers, or other interested parties.

34.7.3   Conduct Reviews with Suppliers as Stated in Supplier Agreements

Project managers shall conduct reviews with suppliers as

stated in supplier agreements, which includes preparing for reviews; ensuring stakeholders participate; conducting reviews; tracking action items; preparing review reports; providing visibility of customer and end user needs; reviewing the supplier's technical activities and verifying supplier's implementation of requirements; ensuring technical commitments are being met and issues are resolved; obtaining technical information about the supplier's products; providing technical information and support to the supplier; reviewing dependencies; reviewing risks; and reviewing schedule and budget.

34.7.4 Document Supplier Status from Reviews with Suppliers

Project managers shall document supplier status from reviews with suppliers, for accepting acquired products and transitioning products or product-components.

34.7.5 Evaluate Supplier Status from Reviews with Suppliers

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate supplier status, and make necessary additions, deletions, enhancements, and corrections.

34.7.6 Review and Approve Supplier Status

Senior management, program management, and functional area managers shall review and approve supplier status as well as any additions, deletions, enhancements, and corrections to supplier status by relevant stakeholders.

34.7.7 Baseline Supplier Status

Project managers shall submit supplier status to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
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Level	LEVEL 2 – MANAGED		
Process	SUPPLIER AGREEMENT MANAGEMENT		
Practice	35.0 ACCEPT THE ACQUIRED PRODUCT		

35.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive supplier products for acceptance of the acquired products, project managers shall review and analyze supplier products and identify acceptance test procedures, project managers shall conduct acceptance testing on supplier products using acceptance test procedures, project managers shall document acceptance test results from acceptance testing of supplier products, relevant stakeholders shall evaluate acceptance test results, senior management, program management, and functional area managers shall review and approve acceptance test results, and project managers shall baseline acceptance test results.

35.2   REVISION HISTORY

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35.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

35.4   POLICY

The policy of this organization is to ensure that:

35.4.1   Project managers receive supplier products for acceptance of the acquired products

35.4.2   Project managers review and analyze supplier products and identify acceptance test procedures.

35.4.3   Project managers conduct acceptance testing on supplier products using acceptance test procedures.

35.4.4   Project managers document acceptance test results from acceptance testing of supplier products.

35.4.5　Relevant stakeholders evaluate acceptance test results.

35.4.6　Senior management, program management, and functional area managers review and approve acceptance test results.

35.4.7　Project managers baseline acceptance test results.

35.5　DEFINITIONS

35.5.1　<u>Acceptance Test Procedures</u>: detailed instructions for the setup, execution, and evaluation of results for a given test.

35.6　RESPONSIBILITIES

35.6.1　Project managers are responsible for receiving supplier products for acceptance of the acquired products, reviewing and analyzing supplier products and identify acceptance test procedures, conducting acceptance testing on supplier products using acceptance test procedures, documenting acceptance test results from acceptance testing of supplier products, and baselining acceptance test results.

35.6.2　Relevant stakeholders are responsible for evaluating acceptance test results.

35.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving acceptance test results.

35.7　PROCESS

35.7.1　Receive Supplier Products for Acceptance of the Acquired Product

Project managers shall receive supplier products from configuration management for acceptance of the acquired products.

35.7.2　Review Supplier Products and Identify Acceptance Test Procedures

Project managers shall review and analyze supplier products and identify acceptance test procedures, which are detailed instructions for the setup, execution, and evaluation of results for a given test.

35.7.3　Conduct Acceptance Testing on Supplier Products Using Acceptance Test Procedures

Project managers shall conduct acceptance testing on supplier products using acceptance test procedures, which includes formal testing conducted to enable a user, customer, or other authorized entity to determine whether to accept a product or product component.

35.7.4 Document Acceptance Test Results from Acceptance Testing of Supplier Products

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Project managers shall document acceptance test results from
acceptance testing of supplier products, for transitioning
products or product-components to customers and end-users.
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35.7.5 Evaluate Acceptance Test Results

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Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate acceptance test results, and make necessary
additions, deletions, enhancements, and corrections.
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35.7.6 Review and Approve Acceptance Test Results

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Senior management, program management, and functional area
managers shall review and approve acceptance test results as
well as any additions, deletions, enhancements, and
corrections to acceptance test results by relevant
stakeholders.
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35.7.7 Baseline Acceptance Test Results

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Project managers shall submit acceptance test results to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.
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Model	**CMMI V1.1**	Number	
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Level	LEVEL 2 – MANAGED
Process	SUPPLIER AGREEMENT MANAGEMENT
Practice	36.0 TRANSITION PRODUCTS

36.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive supplier agreements for transitioning products or product-components to projects, project managers shall review and analyze supplier agreements for developing transition plans for acquired products, project managers shall develop transition plans for transitioning acquired products to projects, project managers shall document transition plans for transitioning acquired products to projects for product integration, relevant stakeholders shall evaluate transition plans, senior management, program management, and functional area managers shall review and approve transition plans, and project managers shall baseline transition plans.

36.2   REVISION HISTORY

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36.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

36.4   POLICY

The policy of this organization is to ensure that:

36.4.1   Project managers receive supplier agreements for transitioning products or product-components to projects.

36.4.2   Project managers review and analyze supplier agreements for developing transition plans for acquired products.

36.4.3   Project managers develop transition plans for transitioning acquired products to projects.

36.4.4   Project managers document transition plans for transitioning acquired products to projects for product integration.

36.4.5   Relevant stakeholders evaluate transition plans.

36.4.6   Senior management, program management, and functional area managers review and approve transition plans.

36.4.7   Project managers baseline transition plans.

36.5   DEFINITIONS

36.5.1   <u>Transition Plans</u>: strategic plans consisting of requirements for facilities, hardware, software, other documentation, personnel, other resources, interrelationship of components, recommended procedures, training, anticipated areas of change, and transition planning.

36.6   RESPONSIBILITIES

36.6.1   Project managers are responsible for receiving supplier agreements for transitioning products or product-components to projects, reviewing and analyzing supplier agreements for developing transition plans for acquired products, developing transition plans for transitioning acquired products to projects, documenting transition plans for transitioning acquired products to projects for product integration, and baselining transition plans.

36.6.2   Relevant stakeholders are responsible for evaluating transition plans.

36.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving transition plans.

36.7   PROCESS

36.7.1   Receive Supplier Agreements for Transitioning Products

Project managers shall receive supplier agreements from configuration management for transitioning products or product-components to projects.

36.7.2   Review Supplier Agreements for Developing Transition Plans for Acquired Products

Project managers shall review and analyze supplier agreements for developing transition plans for acquired products, which are strategic plans

consisting of requirements for facilities, hardware, software, other documentation, personnel, other resources, interrelationship of components, recommended procedures, training, anticipated areas of change, and transition planning.

36.7.3   Develop Transition Plans for Transitioning Acquired Products to Projects

Project managers shall develop transition plans for transitioning acquired products to projects, which includes ensuring that there are appropriate facilities to receive, store, use, and maintain the acquired products; ensuring that appropriate training is provided for those involved in receiving, storing, using, and maintaining the acquired products; and ensuring that storing, distributing, and using the acquired products are performed according to the terms and conditions specified in the supplier agreement or license.

36.7.4 Document Transition Plans for Transitioning Acquired Products to Projects

Project managers shall document transition plans for transitioning acquired products to projects for product integration, which is the process of combining software components, hardware components, or both into an overall system.

36.7.5 Evaluate Transition Plans

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate transition plans, and make necessary additions, deletions, enhancements, and corrections.

36.7.6 Review and Approve Transition Plans

Senior management, program management, and functional area managers shall review and approve transition plans as well as any additions, deletions, enhancements, and corrections to transition plans by relevant stakeholders.

36.7.7 Baseline Transition Plans

Project managers shall submit transition plans to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
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		Date	
Level	LEVEL 2 – MANAGED		
Process	MEASUREMENT AND ANALYSIS		
Practice	37.0 ESTABLISH MEASUREMENT OBJECTIVES		

37.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project plans for establishing measurement objectives, project managers shall review and analyze project plans to identify measurement objectives from information needs and objectives, project managers shall identify measurement objectives from information needs and objectives, project managers shall document measurement objectives to satisfy information needs and objectives, relevant stakeholders shall evaluate measurement objectives, senior management, program management, and functional area managers shall review and approve measurement objectives, and project managers shall baseline measurement objectives.

37.2   REVISION HISTORY

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37.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

37.4   POLICY

The policy of this organization is to ensure that:

37.4.1   Project managers receive project plans for establishing measurement objectives.

37.4.2   Project managers review and analyze project plans to identify measurement objectives from information needs and objectives.

37.4.3   Project managers identify measurement objectives from information needs and objectives.

37.4.4   Project managers document measurement objectives to satisfy information needs and objectives.

37.4.5   Relevant stakeholders evaluate measurement objectives.

37.4.6   Senior management, program management, and functional area managers review and approve measurement objectives.

37.4.7   Project managers baseline measurement objectives.

37.5   DEFINITIONS

37.5.1   <u>Measurement Objectives</u>: quantitative numerical aims, goals, targets, or strategic positions to be obtained, achieved, or accomplished by project (e.g., cost, schedule, or productivity) or quality (e.g., quality, reliability, or customer satisfaction) management.

37.6   RESPONSIBILITIES

37.6.1   Project managers are responsible for receiving project plans for establishing measurement objectives, reviewing and analyzing project plans to identify measurement objectives from information needs and objectives, identifying measurement objectives from information needs and objectives, documenting measurement objectives to satisfy information needs and objectives, and baselining measurement objectives.

37.6.2   Relevant stakeholders are responsible for evaluating measurement objectives.

37.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving measurement objectives.

37.7   PROCESS

37.7.1   Receive Project Plans for Establishing Measurement Objectives

Project managers shall receive project plans from configuration management for establishing measurement objectives.

37.7.2   Review Project Plans to Identify Measurement Objectives from Information Needs

Project managers shall review and analyze project plans to identify measurement objectives from information needs and objectives, which are quantitative numerical aims, goals, targets, or strategic positions to be obtained, achieved, or accomplished by project (e.g., cost, schedule, or productivity) or quality (e.g., quality, reliability, or customer satisfaction) management.

37.7.3   Identify Measurement Objectives from Information Needs and Objectives

Project managers shall identify measurement objectives from

information needs and objectives, such as project plans, monitoring of project performance, managers, management objectives, strategic plans, business plans, formal requirements, contracts, technical problems, experiences of other projects or organizations, industry benchmarks, and process-improvement plans.

37.7.4   Document Measurement Objectives to Satisfy Information Needs and Objectives

Project managers shall document measurement objectives to satisfy information needs and objectives, for establishing measurement objectives, specifying measures, specifying data collection and storage procedures, specifying analysis procedures, collecting measurement data, analyzing measurement data, storing data and results, and communicating results.

37.7.5   Evaluate Measurement Objectives

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate measurement objectives, and make necessary additions, deletions, enhancements, and corrections.

37.7.6   Review and Approve Measurement Objectives

Senior management, program management, and functional area managers shall review and approve xyz as well as any additions, deletions, enhancements, and corrections to measurement objectives by relevant stakeholders.

37.7.7   Baseline Measurement Objectives

Project managers shall submit measurement objectives to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
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		Approved by	
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Level	LEVEL 2 – MANAGED
Process	MEASUREMENT AND ANALYSIS
Practice	38.0 SPECIFY MEASURES

38.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive measurement objectives for specifying measures, project managers shall review and analyze measurement objectives to identify appropriate measures, project managers shall identify measures to address measurement objectives, project managers shall document measures to satisfy measurement objectives, relevant stakeholders shall evaluate measures, senior management, program management, and functional area managers shall review and approve measures, and project managers shall baseline measures.

38.2   REVISION HISTORY

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38.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

38.4   POLICY

The policy of this organization is to ensure that:

38.4.1   Project managers receive measurement objectives for specifying measures.

38.4.2   Project managers review and analyze measurement objectives to identify appropriate measures.

38.4.3   Project managers identify measures to address measurement objectives.

38.4.4   Project managers document measures to satisfy measurement objectives.

38.4.5   Relevant stakeholders evaluate measures.

38.4.6   Senior management, program management, and functional area managers review and approve measures.

38.4.7   Project managers baseline measures.

38.5   DEFINITIONS

38.5.1   <u>Measures</u>: quantitative amounts, volumes, or quantities of the degree to which systems, components, or processes possess a given attribute (e.g., simple numerical counts, equations, or statistical models).

38.6   RESPONSIBILITIES

38.6.1   Project managers are responsible for receiving measurement objectives for specifying measures, reviewing and analyzing measurement objectives to identify appropriate measures, identifying measures to address measurement objectives, documenting measures to satisfy measurement objectives, and baselining measures.

38.6.2   Relevant stakeholders are responsible for evaluating measures.

38.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving measures.

38.7   PROCESS

38.7.1   Receive Measurement Objectives for

Project managers shall receive measurement objectives from configuration management for specifying measures.

38.7.2   Review Measurement Objectives to Identify Appropriate Measures

Project managers shall review and analyze measurement objectives to identify appropriate measures, which are quantitative amounts, volumes, or quantities of the degree to which systems, components, or processes possess a given attribute (e.g., simple numerical counts, equations, or statistical models).

38.7.3   Identify Measures to Address Measurement Objectives

Project managers shall identify measures to address measurement objectives, such as estimates and actual measures of work product size (e.g., number of pages), estimates and actual measures of effort and cost (e.g., number of person hours), quality measures (e.g., number of defects, number of defects by severity), earned value, schedule performance index, defect density, peer review coverage, test or verification coverage, reliability measures (e.g., mean time to failure), and quality measures (e.g., number of defects by severity/total number of

defects).

38.7.4 Document Measures to Satisfy Measurement Objectives

Project managers shall document measures to satisfy
measurement objectives, for specifying data collection and
storage procedures, specifying analysis procedures,
collecting measurement data, analyzing measurement data,
storing data and results, and communicating results.

38.7.5 Evaluate Measures

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate measures, and make necessary additions, deletions,
enhancements, and corrections.

38.7.6 Review and Approve Measures

Senior management, program management, and functional area
managers shall review and approve measures as well as any
additions, deletions, enhancements, and corrections to
measures by relevant stakeholders.

38.7.7 Baseline Measures

Project managers shall submit measures to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED

Process	MEASUREMENT AND ANALYSIS

Practice	39.0 SPECIFY DATA COLLECTION AND STORAGE PROCEDURES

39.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive measures for specifying data collection and storage procedures, project managers shall review and analyze measures for identifying appropriate data collection and storage procedures, project managers shall identify data collection and storage procedures to support measures, project managers shall document data collection and storage procedures to support measures, relevant stakeholders shall evaluate data collection and storage procedures, senior management, program management, and functional area managers shall review and approve data collection and storage procedures, and project managers shall baseline data collection and storage procedures.

39.2   REVISION HISTORY

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39.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

39.4   POLICY

The policy of this organization is to ensure that:

39.4.1   Project managers receive measures for specifying data collection and storage procedures.

39.4.2   Project managers review and analyze measures for identifying appropriate data collection and storage procedures.

39.4.3   Project managers identify data collection and storage procedures to support measures.

39.4.4   Project managers document data collection and storage procedures to support measures.

39.4.5 Relevant stakeholders evaluate data collection and storage procedures.

39.4.6 Senior management, program management, and functional area managers review and approve data collection and storage procedures.

39.4.7 Project managers baseline data collection and storage procedures.

39.5 DEFINITIONS

39.5.1 Procedures: courses of action to be taken to perform a given task, written descriptions of courses of action, or step-by-step protocols to implement policies and guidelines.

39.6 RESPONSIBILITIES

39.6.1 Project managers are responsible for receiving measures for specifying data collection and storage procedures, reviewing and analyzing measures for identifying appropriate data collection and storage procedures, identifying data collection and storage procedures to support measures, documenting data collection and storage procedures to support measures, and baselining data collection and storage procedures.

39.6.2 Relevant stakeholders are responsible for evaluating data collection and storage procedures.

39.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving data collection and storage procedures.

39.7 PROCESS

39.7.1 Receive Measures for Specifying Data Collection and Storage Procedures

Project managers shall receive measures from configuration management for specifying data collection and storage procedures.

39.7.2 Review Measures for Identifying Appropriate Data Collection and Storage Procedures

Project managers shall review and analyze measures for identifying appropriate data collection and storage procedures, which are courses of action to be taken to perform a given task, written descriptions of courses of action, or step-by-step protocols to implement policies and guidelines.

39.7.3 Identify Data Collection and Storage Procedures to Support Measures

Project managers shall identify data collection and storage procedures to support measures, which include frequency of data collection, points in process to measure, timelines for using repositories, databases, or communicating to end-users, responsibilities for obtaining data, use of measurement support tools, manual or automated forms and templates, guidance for collecting measurement data, and training on measurement data collection.

39.7.4 Document Data Collection and Storage Procedures to Support Measures

Project managers shall document data collection and storage procedures to support measures, for specifying analysis procedures, collecting measurement data, analyzing measurement data, storing data and results, and communicating results.

39.7.5 Evaluate Data Collection and Storage Procedures

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate data collection and storage procedures, and make necessary additions, deletions, enhancements, and corrections.

39.7.6 Review and Approve Data Collection and Storage Procedures

Senior management, program management, and functional area managers shall review and approve data collection and storage procedures as well as any additions, deletions, enhancements, and corrections to data collection and storage procedures by relevant stakeholders.

39.7.7 Baseline Data Collection and Storage Procedures

Project managers shall submit data collection and storage procedures to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	MEASUREMENT AND ANALYSIS
Practice	40.0 SPECIFY ANALYSIS PROCEDURES

40.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive measures from configuration management for specifying analysis procedures, project managers shall review and analyze measures to identify procedures for analyzing and reporting measurements, project managers shall identify analysis procedures for analyzing and reporting measurement data, project managers shall document analysis procedures for analyzing and reporting measurement data, relevant stakeholders shall evaluate analysis procedures, senior management, program management, and functional area managers shall review and approve analysis procedures, and project managers shall baseline analysis procedures.

40.2   REVISION HISTORY

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40.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

40.4   POLICY

The policy of this organization is to ensure that:

40.4.1   Project managers receive measures from configuration management for specifying analysis procedures.

40.4.2   Project managers review and analyze measures to identify procedures for analyzing and reporting measurements.

40.4.3   Project managers identify analysis procedures for analyzing and reporting measurement data.

40.4.4   Project managers document analysis procedures for analyzing and reporting measurement data.

40.4.5   Relevant stakeholders evaluate analysis procedures.

40.4.6   Senior management, program management, and functional area managers review and approve analysis procedures.

40.4.7   Project managers baseline analysis procedures.

40.5   DEFINITIONS

40.5.1   <u>Procedures</u>: courses of action to be taken to perform a given task, written descriptions of courses of action, or step-by-step protocols to implement policies and guidelines.

40.6   RESPONSIBILITIES

40.6.1   Project managers are responsible for receiving measures from configuration management for specifying analysis procedures, reviewing and analyzing measures to identify procedures for analyzing and reporting measurements, identifying analysis procedures for analyzing and reporting measurement data, documenting analysis procedures for analyzing and reporting measurement data, and baselining analysis procedures.

40.6.2   Relevant stakeholders are responsible for evaluating analysis procedures.

40.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving analysis procedures.

40.7   PROCESS

40.7.1   Receive Measures for Specifying Analysis Procedures

Project managers shall receive measures from configuration management for specifying analysis procedures.

40.7.2   Review Measures to Identify Procedures for Analyzing and Reporting Measurements

Project managers shall review and analyze measures to identify procedures for analyzing and reporting measurements, which are courses of action to be taken to perform a given task, written descriptions of courses of action, or step-by-step protocols to implement policies and guidelines.

40.7.3   Identify Analysis Procedures for Analyzing and Reporting Measurement Data

Project managers shall identify analysis procedures for analyzing and reporting measurement data, which include choice of visual display and other presentation techniques (e.g., pie charts, bar charts, histograms, radar charts, line graphs, scatter plots, or tables), choice of descriptive statistics (e.g., arithmetic mean, median, or

mode), decisions about statistical sampling criteria, decisions about how to handle analysis in the presence of missing data elements, and selection of appropriate analysis tools.

40.7.4 Document Analysis Procedures for Analyzing and Reporting Measurement Data

Project managers shall document analysis procedures for analyzing and reporting measurement data, for collecting measurement data, analyzing measurement data, storing data and results, and communicating results.

40.7.5 Evaluate Analysis Procedures

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate analysis procedures, and make necessary additions, deletions, enhancements, and corrections.

40.7.6 Review and Approve Analysis Procedures

Senior management, program management, and functional area managers shall review and approve analysis procedures as well as any additions, deletions, enhancements, and corrections to analysis procedures by relevant stakeholders.

40.7.7 Baseline Analysis Procedures

Project managers shall submit analysis procedures to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	MEASUREMENT AND ANALYSIS		
Practice	41.0 COLLECT MEASUREMENT DATA		

41.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive data collection and storage procedures for collecting measurement data, project managers shall review and analyze data collection and storage procedures for collecting measurement data, project managers shall collect measurement data for analysis and reporting, project managers shall store measurement data for analysis and reporting, relevant stakeholders shall evaluate measurement data, senior management, program management, and functional area managers shall review and approve measurement data, and project managers shall baseline measurement data.

41.2   REVISION HISTORY

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41.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

41.4   POLICY

The policy of this organization is to ensure that:

41.4.1   Project managers receive data collection and storage procedures for collecting measurement data.

41.4.2   Project managers review and analyze data collection and storage procedures for collecting measurement data.

41.4.3   Project managers collect measurement data for analysis and reporting.

41.4.4   Project managers store measurement data for analysis and reporting.

41.4.5   Relevant stakeholders evaluate measurement data.

41.4.6　Senior management, program management, and functional area managers review and approve measurement data.

41.4.7　Project managers baseline measurement data.

41.5　DEFINITIONS

41.5.1　<u>Procedures</u>: courses of action to be taken to perform a given task, written descriptions of courses of action, or step-by-step protocols to implement policies and guidelines.

41.6　RESPONSIBILITIES

41.6.1　Project managers are responsible for receiving data collection and storage procedures for collecting measurement data, reviewing and analyzing data collection and storage procedures for collecting measurement data, collecting measurement data for analysis and reporting, storing measurement data for analysis and reporting, and baselining measurement data.

41.6.2　Relevant stakeholders are responsible for evaluating measurement data.

41.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving measurement data.

41.7　PROCESS

41.7.1　Receive Data Collection and Storage Procedures for Collecting Measurement Data

Project managers shall receive data collection and storage procedures from configuration management for collecting measurement data.

41.7.2　Review Data Collection and Storage Procedures for Collecting Measurement Data

Project managers shall review and analyze data collection and storage procedures for collecting measurement data, which are courses of action to be taken to perform a given task, written descriptions of courses of action, or step-by-step protocols to implement policies and guidelines.

41.7.3　Collect Measurement Data for Analysis and Reporting

Project managers shall collect measurement data for analysis and reporting, which includes obtaining data for base measures, generating the data for derived measures, and performing data integrity checks as close to the source of the data as possible.

41.7.4　Store Measurement Data for Analysis and Reporting

Project managers shall store measurement data for analysis and reporting, which includes analyzing measurement data, storing data and results, and communicating results.

41.7.5 Evaluate Measurement Data

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate measurement data, and make necessary additions, deletions, enhancements, and corrections.

41.7.6 Review and Approve Measurement Data

Senior management, program management, and functional area managers shall review and approve measurement data as well as any additions, deletions, enhancements, and corrections to measurement data by relevant stakeholders.

41.7.7 Baseline Measurement Data

Project managers shall submit measurement data to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
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Level	LEVEL 2 – MANAGED

Process	MEASUREMENT AND ANALYSIS

Practice	42.0 ANALYZE MEASUREMENT DATA

42.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive measurement data for analyzing measurement data, project managers shall review and analyze measurement data for analysis and interpretation, project managers shall analyze and interpret measurement data, project managers shall document measurement analysis for analysis and interpretation, relevant stakeholders shall evaluate measurement analysis, senior management, program management, and functional area managers shall review and approve measurement analysis, and project managers shall baseline measurement analysis.

42.2   REVISION HISTORY

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42.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

42.4   POLICY

The policy of this organization is to ensure that:

42.4.1   Project managers receive measurement data for analyzing measurement data.

42.4.2   Project managers review and analyze measurement data for analysis and interpretation.

42.4.3   Project managers analyze and interpret measurement data.

42.4.4   Project managers document measurement analysis for analysis and interpretation.

42.4.5   Relevant stakeholders evaluate measurement analysis.

42.4.6 Senior management, program management, and functional area managers review and approve measurement analysis.

42.4.7 Project managers baseline measurement analysis.

42.5 DEFINITIONS

42.5.1 <u>Measurement Data</u>: estimates and actual measures of work product size, estimates and actual measures of effort and cost, quality measures, earned value, schedule performance index, defect density, peer review coverage, test or verification coverage, reliability measures, and quality measures.

42.6 RESPONSIBILITIES

42.6.1 Project managers are responsible for receiving measurement data for analyzing measurement data, reviewing and analyzing measurement data for analysis and interpretation, analyzing and interpreting measurement data, documenting measurement analysis for analysis and interpretation, and baselining measurement analysis.

42.6.2 Relevant stakeholders are responsible for evaluate measurement analysis.

42.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving measurement analysis.

42.7 PROCESS

42.7.1 Receive Measurement Data for Analyzing Measurement Data

Project managers shall receive measurement data from configuration management for analyzing measurement data.

42.7.2 Review Measurement Data for Analysis and Interpretation

Project managers shall review and analyze measurement data for analysis and interpretation, which are estimates and actual measures of work product size, estimates and actual measures of effort and cost, quality measures, earned value, schedule performance index, defect density, peer review coverage, test or verification coverage, reliability measures, and quality measures.

42.7.3 Analyze and Interpret Measurement Data

Project managers shall analyze and interpret measurement data, which includes conducting initial analyses, interpreting the results, and drawing preliminary conclusions; conducting additional measurement and analysis as necessary, and preparation of results for presentation; reviewing the initial results with relevant stakeholders; and refining criteria for future analyses.

42.7.4   Document Measurement Analysis for Analysis and Interpretation

Project managers shall document measurement analysis for analysis and interpretation, for storing data and results and communicating results.

42.7.5   Evaluate Measurement Analysis

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate measurement analysis, and make necessary additions, deletions, enhancements, and corrections.

42.7.6   Review and Approve Measurement Analysis

Senior management, program management, and functional area managers shall review and approve measurement analysis as well as any additions, deletions, enhancements, and corrections to measurement analysis by relevant stakeholders.

42.7.7   Baseline Measurement Analysis

Project managers shall submit measurement analysis to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	MEASUREMENT AND ANALYSIS		
Practice	43.0 STORE DATA AND RESULTS		

43.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive measurement data and measurement results for storing data and results, project managers shall review and analyze measurement data for collecting and storing measurement data and results, project managers shall collect data and results for managing and storing measurement data and results, project managers shall document store data and results for managing and storing measurement data, relevant stakeholders shall evaluate data and results, senior management, program management, and functional area managers shall review and approve data and results, and project managers shall baseline data and results.

43.2   REVISION HISTORY

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43.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

43.4   POLICY

The policy of this organization is to ensure that:

43.4.1   Project managers receive measurement data and measurement results for storing data and results.

43.4.2   Project managers review and analyze measurement data for collecting and storing measurement data and results.

43.4.3   Project managers collect data and results for managing and storing measurement data and results.

43.4.4   Project managers document store data and results for managing and storing measurement data.

43.4.5　Relevant stakeholders evaluate data and results.

43.4.6　Senior management, program management, and functional area managers review and approve data and results.

43.4.7　Project managers baseline data and results.

43.5　DEFINITIONS

43.5.1　<u>Measurement Data</u>: measurement plans, specifications of measures, sets of data that have been collected, and analysis reports and presentations.

43.6　RESPONSIBILITIES

43.6.1　Project managers are responsible for receiving measurement data and measurement results for storing data and results, reviewing and analyzing measurement data for collecting and storing measurement data and results, collecting data and results for managing and storing measurement data and results, documenting store data and results for managing and storing measurement data, and baselining data and results.

43.6.2　Relevant stakeholders are responsible for evaluating data and results.

43.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving data and results.

43.7　PROCESS

43.7.1　Receive Measurement Data and Measurement Results for Storing Data and Results

Project managers shall receive measurement data and measurement results from configuration management for storing data and results.

43.7.2　Review Measurement Data for Collecting and Storing Measurement Data and Results

Project managers shall review and analyze measurement data for collecting and storing measurement data and results, which are measurement plans, specifications of measures, sets of data that have been collected, and analysis reports and presentations.

43.7.3　Collect Data and Results for Managing and Storing Measurement Data and Results

Project managers shall collect data and results for managing and storing measurement data and results, which includes reviewing the data to ensure their completeness, integrity, accuracy, and currency; making the stored contents available

for use only by appropriate groups and personnel; and preventing the stored information from being used inappropriately.

43.7.4 Store Data and Results for Managing and Storing Measurement Data and Results

Project managers shall document store data and results for managing and storing measurement data, measurement specifications, and analysis results, for communicating results (e.g., reporting results of measurement and analysis activities to all relevant stakeholders).

43.7.5 Evaluate Data and Results

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate data and results, and make necessary additions, deletions, enhancements, and corrections.

43.7.6 Review and Approve Data and Results

Senior management, program management, and functional area managers shall review and approve data and results as well as any additions, deletions, enhancements, and corrections to data and results by relevant stakeholders.

43.7.7 Baseline Data and Results

Project managers shall submit data and results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED

Process	MEASUREMENT AND ANALYSIS

Practice	44.0 COMMUNICATE RESULTS

44.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive data and results for communicating results, project managers shall review and analyze data and results for preparing measurement reports, project managers shall prepare measurement reports for communication to relevant stakeholders, project managers shall document measurement reports for communication to relevant stakeholders, relevant stakeholders shall evaluate measurement reports, senior management, program management, and functional area managers shall review and approve measurement reports, and project managers shall baseline measurement reports.

44.2   REVISION HISTORY

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44.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

44.4   POLICY

The policy of this organization is to ensure that:

44.4.1   Project managers receive data and results for communicating results.

44.4.2   Project managers review and analyze data and results for preparing measurement reports.

44.4.3   Project managers prepare measurement reports for communication to relevant stakeholders.

44.4.4   Project managers document measurement reports for communication to relevant stakeholders.

44.4.5   Relevant stakeholders evaluate measurement reports.

44.4.6   Senior management, program management, and functional area managers review and approve measurement reports.

44.4.7   Project managers baseline measurement reports.

44.5   DEFINITIONS

44.5.1   <u>Measurement Reports</u>: formal and official statements or accounts of quantitative measures of the degree to which systems, components, or processes possess a given attribute.

44.6   RESPONSIBILITIES

44.6.1   Project managers are responsible for receiving data and results for communicating results, reviewing and analyzing data and results for preparing measurement reports, preparing measurement reports for communication to relevant stakeholders, documenting measurement reports for communication to relevant stakeholders, and baselining measurement reports.

44.6.2   Relevant stakeholders are responsible for evaluating measurement reports.

44.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving measurement reports.

44.7   PROCESS

44.7.1   Receive Data and Results for Communicating Results

Project managers shall receive data and results from configuration management for communicating results.

44.7.2   Review Data and Results for Preparing Measurement Reports

Project managers shall review and analyze data and results for preparing measurement reports, which are formal and official statements or accounts of quantitative measures of the degree to which systems, components, or processes possess a given attribute.

44.7.3   Prepare Measurement Reports for Communication to Relevant Stakeholders

Project managers shall prepare measurement reports for communication to relevant stakeholders, which includes keeping relevant stakeholders apprised of measurement results; assisting relevant stakeholders in understanding the results; explaining how and why the base and derived measures were specified; explaining how the data were obtained; explaining how to interpret the results; and explaining how the results address their information needs.

44.7.4   Document Measurement Reports for Communication to Relevant

Stakeholders

Project managers shall document measurement reports for communication to relevant stakeholders, which includes discussing the results with the relevant stakeholders; providing a transmittal memo that provides background and explanation; briefing users on the results; and providing training on the appropriate use and understanding of measurement results.

44.7.5   Evaluate Measurement Reports

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate measurement reports, and make necessary additions, deletions, enhancements, and corrections.

44.7.6   Review and Approve Measurement Reports

Senior management, program management, and functional area managers shall review and approve measurement reports as well as any additions, deletions, enhancements, and corrections to measurement reports by relevant stakeholders

44.7.7   Baseline Measurement Reports

Project managers shall submit measurement reports to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
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Model	**CMMI V1.1**	Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	PROCESS AND PRODUCT QUALITY ASSURANCE		
Practice	45.0 OBJECTIVELY EVALUATE PROCESSES		

45.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive process and product evaluation plans for objectively evaluating processes, project managers shall review and analyze process and product evaluation plans for identifying activities to evaluate, project managers shall identify activities for evaluation against process descriptions, standards, or procedures, project managers shall objectively evaluate activities against processes, standards, and procedures, relevant stakeholders shall evaluate process evaluations, senior management, program management, and functional area managers shall review and approve process evaluations, and project managers shall baseline process evaluations.

45.2   REVISION HISTORY

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45.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

45.4   POLICY

The policy of this organization is to ensure that:

45.4.1   Project managers receive process and product evaluation plans for objectively evaluating processes.

45.4.2   Project managers review and analyze process and product evaluation plans for identifying activities to evaluate.

45.4.3   Project managers identify activities for evaluation against process descriptions, standards, or procedures.

45.4.4   Project managers objectively evaluate activities against processes, standards, and procedures.

45.4.5   Relevant stakeholders evaluate process evaluations.

45.4.6   Senior management, program management, and functional area managers review and approve process evaluations.

45.4.7   Project managers baseline process evaluations.

45.5   DEFINITIONS

45.5.1   <u>Plans</u>: sequences of steps performed for a given purpose (e.g., project planning, requirements analysis, design, implementation, testing, or maintenance).

45.6   RESPONSIBILITIES

45.6.1   Project managers are responsible for receiving process and product evaluation plans for objectively evaluating processes, reviewing and analyzing process and product evaluation plans for identifying activities to evaluate, identifying activities for evaluation against process descriptions, standards, or procedures, objectively evaluating activities against processes, standards, and procedures, and project baselining process evaluations.

45.6.2   Relevant stakeholders are responsible for evaluating process evaluations.

45.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving process evaluations.

45.7   PROCESS

45.7.1   Receive Process and Product Evaluation Plans for Objectively Evaluating Processes

Project managers shall receive process and product evaluation plans from configuration management for objectively evaluating processes.

45.7.2   Review Process and Product Evaluation Plans for Identifying Activities to Evaluate

Project managers shall review and analyze process and product evaluation plans for identifying activities to evaluate, which are sequences of steps

performed for a given purpose (e.g., project planning, requirements analysis, design, implementation, testing, or maintenance).

45.7.3   Identify Activities for Evaluation Against Processes, Standards, or Procedures

Project managers shall identify activities for evaluation

against process descriptions, standards, or procedures, which includes promoting an environment that encourages employee participation in identifying and reporting quality issues; establishing and maintaining clearly stated criteria for evaluations; using stated criteria to evaluate processes for adherence to process descriptions, standards, and procedures; identifying each noncompliance found during evaluations; and identifying lessons learned that could improve processes for future products and services.

45.7.4 Objectively Evaluate Activities Against Processes, Standards, and Procedures

Project managers shall objectively evaluate activities against processes, standards, and procedures, for communicating quality issues and ensure resolution of noncompliance issues with the staff; and establishing and maintaining records of the quality assurance activities.

45.7.5 Evaluate Process Evaluations

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate process evaluations, and make necessary additions, deletions, enhancements, and corrections.

45.7.6 Review and Approve Process Evaluations

Senior management, program management, and functional area managers shall review and approve process evaluations as well as any additions, deletions, enhancements, and corrections to process evaluations by relevant stakeholders.

45.7.7 Baseline Process Evaluations

Project managers shall submit process evaluations to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	PROCESS AND PRODUCT QUALITY ASSURANCE		
Practice	46.0 OBJECTIVELY EVALUATE WORK PRODUCTS AND SERVICES		

46.1   PURPOSE

This procedure establishes the guidelines by which project managers
shall receive process and product evaluation plans for objectively
evaluating products, project managers shall review and analyze
process and product evaluation plans for identifying products to
evaluate, project managers shall identify products for evaluation
against process descriptions, standards, or procedures, project
managers shall objectively evaluate products against processes,
standards, and procedures, relevant stakeholders shall evaluate
product evaluations, senior management, program management, and
functional area managers shall review and approve product
evaluations, and project managers shall baseline product
evaluations.

46.2   REVISION HISTORY

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46.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

46.4   POLICY

The policy of this organization is to ensure that:

46.4.1   Project managers receive process and product evaluation
         plans for objectively evaluating products.

46.4.2   Project managers review and analyze process and product
         evaluation plans for identifying products to evaluate.

46.4.3   Project managers identify products for evaluation against
         process descriptions, standards, or procedures.

46.4.4   Project managers objectively evaluate products against
         processes, standards, and procedures.

46.4.5　Relevant stakeholders evaluate product evaluations.

46.4.6　Senior management, program management, and functional area managers review and approve product evaluations.

46.4.7　Project managers baseline product evaluations.

46.5　DEFINITIONS

46.5.1　<u>Products</u>: any tangible outputs or services that are a result of a process and that are intended for delivery to customers or end-users.

46.6　RESPONSIBILITIES

46.6.1　Project managers are responsible for receiving process and product evaluation plans for objectively evaluating products, reviewing and analyzing process and product evaluation plans for identifying products to evaluate, identifying products for evaluation against process descriptions, standards, or procedures, objectively evaluating products against processes, standards, and procedures, and baselining product evaluations.

46.6.2　Relevant stakeholders are responsible for evaluating product evaluations.

46.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving product evaluations.

46.7　PROCESS

46.7.1　Receive Process and Product Evaluation Plans for Objectively Evaluating Products

Project managers shall receive process and product evaluation plans from configuration management for objectively evaluating products.

46.7.2　Review Process and Product Evaluation Plans for Identifying Products to Evaluate

Project managers shall review and analyze process and product evaluation plans for identifying products to evaluate, which are any tangible outputs or services that are a result of a process and that are intended for delivery to customers or end-users.

46.7.3　Identify Products for Evaluation Against Processes, Standards, or Procedures

Project managers shall identify products for evaluation against process descriptions, standards, or procedures, which includes selecting work products; establishing and

maintaining clearly stated criteria for evaluations; evaluating work products before they are delivered; evaluating work products at selected milestones; performing in-progress or incremental evaluations of work products, standards, and procedures; identifying non-compliances found during the evaluations; identifying lessons learned that could improve processes for future products and services.

46.7.4   Objectively Evaluate Products Against Processes, Standards, and Procedures

Project managers shall objectively evaluate products against processes, standards, and procedures, for communicating quality issues and ensure resolution of noncompliance issues with the staff; and establishing and maintaining records of the quality assurance activities.

46.7.5   Evaluate Product Evaluations

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate product evaluations, and make necessary additions, deletions, enhancements, and corrections.

46.7.6   Review and Approve Product Evaluations

Senior management, program management, and functional area managers shall review and approve product evaluations as well as any additions, deletions, enhancements, and corrections to product evaluations by relevant stakeholders.

46.7.7   Baseline Product Evaluations

Project managers shall submit product evaluations to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	PROCESS AND PRODUCT QUALITY ASSURANCE
Practice	47.0 COMMUNICATE AND ENSURE RESOLUTION OF NONCOMPLIANCE ISSUES

47.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive process and product evaluations for communicating and ensuring resolution of noncompliance issues, project managers shall review and analyze process and product evaluations for identifying non-compliance issues, project managers shall identify and resolve non-compliance issues from process and product evaluations, project managers shall document quality assurance reports for communication to relevant stakeholders, relevant stakeholders shall evaluate quality assurance reports, senior management, program management, and functional area managers shall review and approve quality assurance reports, and project managers shall baseline quality assurance reports.

47.2   REVISION HISTORY

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47.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

47.4   POLICY

The policy of this organization is to ensure that:

47.4.1   Project managers receive process and product evaluations for communicating and ensuring resolution of noncompliance issues.

47.4.2   Project managers review and analyze process and product evaluations for identifying non-compliance issues.

47.4.3   Project managers identify and resolve non-compliance issues from process and product evaluations.

47.4.4   Project managers document quality assurance reports for

communication to relevant stakeholders.

       47.4.5   Relevant stakeholders evaluate quality assurance reports.

       47.4.6   Senior management, program management, and functional area managers review and approve quality assurance reports.

       47.4.7   Project managers baseline quality assurance reports.

47.5   DEFINITIONS

       47.5.1   <u>Non-Compliance Issues</u>: problems identified in evaluations that reflect a lack of adherence to applicable standards, process descriptions, or procedures.

47.6   RESPONSIBILITIES

       47.6.1   Project managers are responsible for receiving process and product evaluations for communicating and ensuring resolution of noncompliance issues, reviewing and analyzing process and product evaluations for identifying non-compliance issues, identifying and resolving non-compliance issues from process and product evaluations, documenting quality assurance reports for communication to relevant stakeholders, and baselining quality assurance reports.

       47.6.2   Relevant stakeholders are responsible for evaluating quality assurance reports.

       47.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving quality assurance reports.

47.7   PROCESS

47.7.1   Receive Evaluations for Communication and Resolution of Noncompliance Issues

Project managers shall receive process and product evaluations from configuration management for communicating and ensuring resolution of noncompliance issues.

47.7.2   Review Evaluations for Identifying and Resolving Non-Compliance Issues

Project managers shall review and analyze process and product evaluations for identifying non-compliance issues, which are problems identified in evaluations that reflect a lack of adherence to applicable standards, process descriptions, or procedures.

47.7.3   Identify and Resolve Non-Compliance Issues from Process and Product Evaluations

Project managers shall identify and resolve non-compliance issues from process and product evaluations, which includes

resolving each noncompliance with staff members; documenting and escalating noncompliance issues that cannot be resolved; analyzing the noncompliance issues for quality trends; ensuring relevant stakeholders are aware of evaluation results; periodically reviewing noncompliance issues and trends; and tracking noncompliance issues.

47.7.4   Document Quality Assurance Reports for Communication to Relevant Stakeholders

Project managers shall document quality assurance reports for communication to relevant stakeholders, which includes discussing the results with the relevant stakeholders; providing a transmittal memo that provides background and explanation; briefing users on the results; and providing training on the appropriate use and understanding of quality assurance results.

47.7.5   Evaluate Quality Assurance Reports

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate quality assurance reports, and make necessary additions, deletions, enhancements, and corrections.

47.7.6   Review and Approve Quality Assurance Reports

Senior management, program management, and functional area managers shall review and approve quality assurance reports as well as any additions, deletions, enhancements, and corrections to quality assurance reports by relevant stakeholders.

47.7.7   Baseline Quality Assurance Reports

Project managers shall submit quality assurance reports to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	PROCESS AND PRODUCT QUALITY ASSURANCE
Practice	48.0 ESTABLISH RECORDS

48.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive process evaluations, product evaluations, and quality assurance reports for establishing records, project managers shall review and analyze process evaluations, product evaluations, and quality assurance records for establishing and maintaining records of quality assurance activities, project managers shall collect process evaluations, product evaluations, and quality assurance reports for establishing and maintaining records of quality assurance, project managers shall establish and maintain records of quality assurance activities, relevant stakeholders shall evaluate quality assurance records, senior management, program management, and functional area managers shall review and approve quality assurance records, and project managers shall baseline quality assurance records.

48.2   REVISION HISTORY

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48.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

48.4   POLICY

The policy of this organization is to ensure that:

48.4.1   Project managers receive process evaluations, product evaluations, and quality assurance reports for establishing records.

48.4.2   Project managers review and analyze process evaluations, product evaluations, and quality assurance records for establishing and maintaining records of quality assurance activities.

48.4.3   Project managers collect process evaluations, product evaluations, and quality assurance reports for establishing and maintaining records of quality assurance.

48.4.4   Project managers establish and maintain records of quality assurance activities.

48.4.5   Relevant stakeholders evaluate quality assurance records.

48.4.6   Senior management, program management, and functional area managers review and approve quality assurance records.

48.4.7   Project managers baseline quality assurance records.

48.5   DEFINITIONS

48.5.1   <u>Quality Assurance Records</u>: statements of what was evaluated, when or how often it was evaluated, how the evaluation was conducted, who was involved, the evaluation criteria, the degree of compliance, a list of non-compliances, a list of corrective actions, a list of implemented corrective actions, rationale for unimplemented corrective actions, and status of pending corrective actions.

48.6   RESPONSIBILITIES

48.6.1   Project managers are responsible for receiving process evaluations, product evaluations, and quality assurance reports for establishing records, reviewing and analyzing process evaluations, product evaluations, and quality assurance records for establishing and maintaining records of quality assurance activities, collecting process evaluations, product evaluations, and quality assurance reports for establishing and maintaining records of quality assurance, establishing and maintaining records of quality assurance activities, and baselining quality assurance records.

48.6.2   Relevant stakeholders are responsible for evaluating quality assurance records.

48.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving quality assurance records.

48.7   PROCESS

48.7.1   Receive Evaluations and Reports for Establishing Records

Project managers shall receive process evaluations, product evaluations, and quality assurance reports from configuration management for establishing records.

48.7.2   Review Evaluations and Reports for Establishing Records of Quality Assurance

Project managers shall review and analyze process evaluations, product evaluations, and quality assurance records for establishing and maintaining records of quality assurance activities, which are statements of what was evaluated, when or how often it was evaluated, how the evaluation was conducted, who was involved, the evaluation criteria, the degree of compliance, a list of non-compliances, a list of corrective actions, a list of implemented corrective actions, rationale for unimplemented corrective actions, and status of pending corrective actions.

48.7.3   Collect Evaluations and Reports for Establishing Records of Quality Assurance

Project managers shall collect process evaluations, product evaluations, and quality assurance reports for establishing and maintaining records of quality assurance, which includes evaluation logs, quality assurance reports, status reports of corrective actions, and reports of quality trends.

48.7.4   Establish and Maintain Records of Quality Assurance Activities

Project managers shall establish and maintain records of quality assurance activities, which includes recording process and product quality assurance activities in sufficient detail such that status and results are known and revising the status and history of the quality assurance activities.

48.7.5   Evaluate Quality Assurance Records

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality as and configuration management) shall evaluate quality assurance records, and make necessary additions, deletions, enhancements, and corrections.

48.7.6   Review and Approve Quality Assurance Records

Senior management, program management, and functional area managers shall review and approve quality assurance records as well as any additions, deletions, enhancements, and corrections to quality assurance records by relevant stakeholders.

48.7.7   Baseline Quality Assurance Records

Project managers shall submit quality assurance records to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
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		Date	

Level	LEVEL 2 – MANAGED

Process	CONFIGURATION MANAGEMENT

Practice	49.0 IDENTIFY CONFIGURATION ITEMS

49.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project plans for identifying configuration items, project managers shall review and analyze project plans for identification of configuration items, project managers shall identify configuration items for configuration management, project managers shall document configuration items for configuration management, relevant stakeholders shall evaluate configuration items, senior management, program management, and functional area managers shall review and approve configuration items, and project managers shall baseline configuration items.

49.2   REVISION HISTORY

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49.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

49.4   POLICY

The policy of this organization is to ensure that:

49.4.1   Project managers receive project plans for identifying configuration items.

49.4.2   Project managers review and analyze project plans for identification of configuration items.

49.4.3   Project managers identify configuration items for configuration management.

49.4.4   Project managers document configuration items for configuration management.

49.4.5   Relevant stakeholders evaluate configuration items.

49.4.6   Senior management, program management, and functional area managers review and approve configuration items.

49.4.7   Project managers baseline configuration items.

49.5   DEFINITIONS

49.5.1   <u>Configuration Items</u>: aggregations of work products that are designated for configuration management and treated as a single entity in the configuration management process.

49.6   RESPONSIBILITIES

49.6.1   Project managers are responsible for receiving project plans for identifying configuration items, reviewing and analyzing project plans for identification of configuration items, identifying configuration items for configuration management, documenting configuration items for configuration management, and baselining configuration items.

49.6.2   Relevant stakeholders are responsible for evaluating configuration items.

49.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving configuration items.

49.7   PROCESS

49.7.1   Receive Project Plans for Identifying Configuration Items

Project managers shall receive project plans from configuration management for identifying configuration items.

49.7.2   Review Project Plans for Identification of Configuration Items

Project managers shall review and analyze project plans for identification of configuration items, which are aggregations of work products that are designated for configuration management and treated as a single entity in the configuration management process.

49.7.3   Identify Configuration Items for Configuration Management

Project managers shall identify configuration items for configuration management, which includes selecting configuration items and their work products using documented criteria, assigning unique identifiers to configuration items, specifying the important characteristics of each configuration item, specifying when each configuration item is placed under configuration management, and identifying the owner responsible for each configuration item.

49.7.4   Document Configuration Items for Configuration Management

Project managers shall document configuration items for configuration management, for establishing a configuration management system, creating or releasing baselines, tracking change requests, controlling configuration items, establishing configuration management records, and performing configuration audits.

49.7.5   Evaluate Configuration Items

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate configuration items, and make necessary additions, deletions, enhancements, and corrections.

49.7.6   Review and Approve Configuration Items

Senior management, program management, and functional area managers shall review and approve configuration items as well as any additions, deletions, enhancements, and corrections to configuration items by relevant stakeholders.

49.7.7   Baseline Configuration Items

Project managers shall submit configuration items to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

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Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED
Process	CONFIGURATION MANAGEMENT
Practice	50.0 ESTABLISH A CONFIGURATION MANAGEMENT SYSTEM

50.1   PURPOSE

This procedure establishes the guidelines by which project managers
shall receive configuration items for establishing a configuration
management system, project managers shall review and analyze
configuration items for identifying an appropriate configuration
management system, project managers shall identify configuration
management system, procedures, and database, project managers shall
develop a configuration management system, procedures, and database,
relevant stakeholders shall evaluate configuration management
system, senior management, program management, and functional area
managers shall review and approve configuration management system,
and project managers shall baseline configuration management system.

50.2   REVISION HISTORY

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50.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

50.4   POLICY

The policy of this organization is to ensure that:

50.4.1   Project managers receive configuration items for
          establishing a configuration management system.

50.4.2   Project managers review and analyze configuration items for
          identifying an appropriate configuration management system.

50.4.3   Project managers identify configuration management system,
          procedures, and database.

50.4.4   Project managers develop a configuration management system,
          procedures, and database.

50.4.5   Relevant stakeholders evaluate configuration management system.

50.4.6   Senior management, program management, and functional area managers review and approve configuration management system.

50.4.7   Project managers baseline configuration management system.

50.5   DEFINITIONS

50.5.1   <u>Configuration Management System</u>: storage media, the procedures, and the tools for accessing the configuration items.

50.6   RESPONSIBILITIES

50.6.1   Project managers are responsible for receiving configuration items for establishing a configuration management system, reviewing and analyzing configuration items for identifying an appropriate configuration management system, identifying configuration management system, procedures, and database, developing a configuration management system, procedures, and database, and baselining configuration management system.

50.6.2   Relevant stakeholders are responsible for evaluating configuration management system.

50.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving configuration management system.

50.7   PROCESS

50.7.1   Receive Configuration Items for Establishing a Configuration Management System

Project managers shall receive configuration items from configuration management for establishing a configuration management system.

50.7.2   Review Configuration Items for Identifying Configuration Management System

Project managers shall review and analyze configuration items for identifying an appropriate configuration management system, which includes the storage media, the procedures, and the tools for accessing the configuration items.

50.7.3   Identify Configuration Management System, Procedures, and Database Requirements

Project managers shall develop configuration management system, procedures, and database, which includes

establishing mechanisms to manage multiple control levels;
storing and retrieving configuration items; sharing and
transferring configuration items between control levels;
storing and recovering archived versions of configuration
items; storing, updating, and retrieving records; creating
configuration management reports; preserving the contents of
the configuration management system; and revising the
configuration management structure.

50.7.4   Develop a Configuration Management System, Procedures, and
Database

Project managers shall develop a configuration management
system, procedures, and database, for creating or releasing
baselines, tracking change requests, controlling
configuration items, establishing configuration management
records, and performing configuration audits.

50.7.5   Evaluate Configuration Management System

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate configuration management system, and make necessary
additions, deletions, enhancements, and corrections.

50.7.6   Review and Approve Configuration Management System

Senior management, program management, and functional area
managers shall review and approve configuration management
system as well as any additions, deletions, enhancements,
and corrections to configuration management system by
relevant stakeholders.

50.7.7   Baseline Configuration Management System

Project managers shall submit configuration management
system to configuration management for configuration
identification, configuration control, configuration status
accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED

Process	CONFIGURATION MANAGEMENT

Practice	51.0 CREATE OR RELEASE BASELINES

51.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive configuration items for creating or releasing baselines, project managers shall review and analyze configuration items for identifying baselines for creation or release, project managers shall identify baselines from configuration items for create or release, project managers shall create or release baselines for internal use or delivery to customers, relevant stakeholders shall evaluate baselines, senior management, program management, and functional area managers shall review and approve baselines, and project managers shall establish baselines.

51.2   REVISION HISTORY

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51.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

51.4   POLICY

The policy of this organization is to ensure that:

51.4.1   Project managers receive configuration items for creating or releasing baselines.

51.4.2   Project managers review and analyze configuration items for identifying baselines for creation or release.

51.4.3   Project managers identify baselines from configuration items for create or release.

51.4.4   Project managers create or release baselines for internal use or delivery to customers.

51.4.5   Relevant stakeholders evaluate baselines.

51.4.6   Senior management, program management, and functional area managers review and approve baselines.

51.4.7   Project managers establish baselines.

51.5   DEFINITIONS

51.5.1   <u>Baselines</u>: configuration items and information formally designated at a specific time during a product's or product component's life.

51.6   RESPONSIBILITIES

51.6.1   Project managers are responsible for receiving configuration items for creating or releasing baselines, reviewing and analyzing configuration items for identifying baselines for creation or release, identifying baselines from configuration items for creation or release, creating or releasing baselines for internal use or delivery to customers, and establishing baselines.

51.6.2   Relevant stakeholders are responsible for evaluating baselines.

51.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving baselines.

51.7   PROCESS

51.7.1   Receive Configuration Items for Creating or Releasing Baselines

Project managers shall receive configuration items from configuration management for creating or releasing baselines.

51.7.2   Review Configuration Items for Identifying Baselines for Creation or Release

Project managers shall review and analyze configuration items for identifying baselines for creation or release, which are configuration items and information formally designated at a specific time during a product's or product component's life.

51.7.3   Identify Baselines from Configuration Items for Creation or Release

Project managers shall identify baselines from configuration items for create or release, which includes obtaining authorization from the configuration control board (CCB) before creating or releasing baselines of configuration items; creating or release baselines only from configuration items in the configuration management system; documenting the set of configuration items that are contained in a

baseline; and making the current set of baselines readily available.

51.7.4 Create or Release Baselines for Internal Use or Delivery to Customers

Create or release baselines for internal use or delivery to customers, for tracking change requests, controlling configuration items, establishing configuration management records, and performing configuration audits.

51.7.5 Evaluate Baselines

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate baselines, and make necessary additions, deletions, enhancements, and corrections.

51.7.6 Review and Approve Baselines

Senior management, program management, and functional area managers shall review and approve baselines as well as any additions, deletions, enhancements, and corrections to baselines by relevant stakeholders.

51.7.7 Establish Baselines

Project managers shall submit baselines to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	CONFIGURATION MANAGEMENT		
Practice	52.0 TRACK CHANGE REQUESTS		

52.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive requested changes for tracking change requests, project managers shall review and analyze requested changes for identifying changes to internal or external baselines, project managers shall identify change requests to baselines for internal or external release, project managers shall document change requests to baselines for internal or external release, relevant stakeholders shall evaluate change requests, senior management, program management, and functional area managers shall review and approve change requests, and project managers shall baseline change requests.

52.2   REVISION HISTORY

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52.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

52.4   POLICY

The policy of this organization is to ensure that:

52.4.1   Project managers receive requested changes for tracking change requests.

52.4.2   Project managers review and analyze requested changes for identifying changes to internal or external baselines.

52.4.3   Project managers identify change requests to baselines for internal or external release.

52.4.4   Project managers document change requests to baselines for internal or external release.

52.4.5   Relevant stakeholders evaluate change requests.

52.4.6   Senior management, program management, and functional area
managers review and approve change requests.

52.4.7   Project managers baseline change requests.

52.5   DEFINITIONS

52.5.1   <u>Change Requests</u>: formal request mechanisms used for
establishing baselines, correcting defects, making
adaptations, making enhancements, and making wholesale
changes.

52.6   RESPONSIBILITIES

52.6.1   Project managers are responsible for receiving requested
changes for tracking change requests, reviewing and
analyzing requested changes for identifying changes to
internal or external baselines, identifying change requests
to baselines for internal or external release, documenting
change requests to baselines for internal or external
release, and baselining change requests.

52.6.2   Relevant stakeholders are responsible for evaluate change
requests.

52.6.3   Senior management, program management, and functional area
managers are responsible for review and approve change
requests.

52.7   PROCESS

52.7.1   Receive Requested Changes for Tracking Change Requests

Project managers shall receive requested changes from
configuration management for tracking change requests.

52.7.2   Review Requested Changes for Identifying Changes to Internal or
External Baselines

Project managers shall review and analyze requested changes
for identifying changes to internal or external baselines,
which are formal request mechanisms used for establishing
baselines, correcting defects, making adaptations, making
enhancements, and making wholesale changes.

52.7.3   Identify Change Requests to Baselines for Internal or External
Release

Project managers shall identify change requests to baselines
for internal or external release, which includes initiating
and recording change requests in the change request
database; analyzing the impact of changes and fixes proposed
in the change requests; reviewing change requests that will
be addressed in the next baseline with those who will be

affected by the changes and get their agreement; and tracking the status of change requests to closure.

52.7.4   Document Change Requests to Baselines for Internal or External Release

Project managers shall document change requests to baselines for internal or external release, for controlling configuration items, establishing configuration management records, and performing configuration audits.

52.7.5   Evaluate Change Requests

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate change requests, and make necessary additions, deletions, enhancements, and corrections.

52.7.6   Review and Approve Change Requests

Senior management, program management, and functional area managers shall review and approve change requests as well as any additions, deletions, enhancements, and corrections to change requests by relevant stakeholders.

52.7.7   Baseline Change Requests

Project managers shall submit change requests to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
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		Approved by	
		Date	
Level	LEVEL 2 – MANAGED		
Process	CONFIGURATION MANAGEMENT		
Practice	53.0 CONTROL CONFIGURATION ITEMS		

53.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive change requests for controlling configuration items, project managers shall review and analyze change requests for identifying revision history of configuration items, project managers shall identify revision history of configuration items based on change requests, project managers shall document revision history of configuration items based on change requests, relevant stakeholders shall evaluate revision history, senior management, program management, and functional area managers shall review and approve revision history, and project managers shall baseline revision history.

53.2   REVISION HISTORY

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53.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

53.4   POLICY

The policy of this organization is to ensure that:

53.4.1   Project managers receive change requests for controlling configuration items.

53.4.2   Project managers review and analyze change requests for identifying revision history of configuration items.

53.4.3   Project managers identify revision history of configuration items based on change requests.

53.4.4   Project managers document revision history of configuration items based on change requests.

53.4.5 Relevant stakeholders evaluate revision history.

53.4.6 Senior management, program management, and functional area managers review and approve revision history.

53.4.7 Project managers baseline revision history.

53.5 DEFINITIONS

53.5.1 <u>Revision History</u>: concise and formalized historical records of changes to configuration items and baselines.

53.6 RESPONSIBILITIES

53.6.1 Project managers are responsible for receiving change requests for controlling configuration items, reviewing and analyzing change requests for identifying revision history of configuration items, identifying revision history of configuration items based on change requests, documenting revision history of configuration items based on change requests, and baselining revision history.

53.6.2 Relevant stakeholders are responsible for evaluating revision history.

53.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving revision history.

53.7 PROCESS

53.7.1 Receive Change Requests for Controlling Configuration Items

Project managers shall receive change requests from configuration management for controlling configuration items.

53.7.2 Review Change Requests for Identifying Revision History of Configuration Items

Project managers shall review and analyze change requests for identifying revision history of configuration items, which are concise and formalized historical records of changes to configuration items and baselines.

53.7.3 Identify Revision History of Configuration Items Based on Change Requests

Project managers shall identify revision history of configuration items based on change requests, which includes controlling changes to configuration items; obtaining appropriate authorization; checking in and checking out configuration items from the configuration management system for incorporation of changes in a manner that maintains the correctness and integrity of the configuration items; performing reviews to ensure that changes have not caused

unintended effects on the baselines; and recording changes to configuration items and the reasons for the changes as appropriate.

53.7.4 Document Revision History of Configuration Items Based on Change Requests

Project managers shall document revision history of configuration items based on change requests, for establishing configuration management records and performing configuration audits.

53.7.5 Evaluate Revision History

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate revision history, and make necessary additions, deletions, enhancements, and corrections.

53.7.6 Review and Approve Revision History

Senior management, program management, and functional area managers shall review and approve revision history as well as any additions, deletions, enhancements, and corrections to revision history by relevant stakeholders.

53.7.7 Baseline Revision History

Project managers shall submit revision history to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED

Process	CONFIGURATION MANAGEMENT

Practice	54.0 ESTABLISH CONFIGURATION MANAGEMENT RECORDS

54.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive baselines for establishing configuration management records, project managers shall review and analyze baselines for developing configuration management records, project managers shall develop configuration management records describing configuration items, project managers shall document configuration management records describing configuration items, relevant stakeholders shall evaluate configuration management records, senior management, program management, and functional area managers shall review and approve configuration management records, and project managers shall baseline configuration management records.

54.2   REVISION HISTORY

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54.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

54.4   POLICY

The policy of this organization is to ensure that:

54.4.1   Project managers receive baselines for establishing configuration management records.

54.4.2   Project managers review and analyze baselines for developing configuration management records.

54.4.3   Project managers develop configuration management records describing configuration items.

54.4.4   Project managers document configuration management records describing configuration items.

54.4.5 Relevant stakeholders evaluate configuration management records.

54.4.6 Senior management, program management, and functional area managers review and approve configuration management records.

54.4.7 Project managers baseline configuration management records.

54.5 DEFINITIONS

54.5.1 Configuration Management Records: formalized, documented, and transcribed artifacts of evidence such as revision histories, change logs, change requests, configuration item status reports, and baseline analyses and comparisons.

54.6 RESPONSIBILITIES

54.6.1 Project managers are responsible for receiving baselines for establishing configuration management records, reviewing and analyzing baselines for developing configuration management records, developing configuration management records describing configuration items, documenting configuration management records describing configuration items, and baselining configuration management records.

54.6.2 Relevant stakeholders are responsible for evaluating configuration management records.

54.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving configuration management records.

54.7 PROCESS

54.7.1 Receive Baselines for Establishing Configuration Management Records

Project managers shall receive baselines from configuration management for establishing configuration management records.

54.7.2 Review Baselines for Developing Configuration Management Records

Project managers shall review and analyze baselines for developing configuration management records, which are formalized, documented, and transcribed artifacts of evidence such as revision histories, change logs, change requests, configuration item status reports, and baseline analyses and comparisons.

54.7.3 Develop Configuration Management Records Describing Configuration Items

Project managers shall develop configuration management records describing configuration items, which includes recording configuration management actions in sufficient detail so the content and status of each configuration item is known and previous versions can be recovered; ensuring that relevant stakeholders have access to and knowledge of the configuration status of the configuration items; specifying the latest version of the baselines; identifying the version of configuration items that constitute a particular baseline; describing the differences between successive baselines; and revising the status and history of each configuration item as necessary.

54.7.4 Document Configuration Management Records Describing Configuration Items

Project managers shall document configuration management records describing configuration items, for performing configuration audits.

54.7.5 Evaluate Configuration Management Records

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate configuration management records, and make necessary additions, deletions, enhancements, and corrections.

54.7.6 Review and Approve Configuration Management Records

Senior management, program management, and functional area managers shall review and approve configuration management records as well as any additions, deletions, enhancements, and corrections to configuration management records by relevant stakeholders.

54.7.7 Baseline Configuration Management Records

Project managers shall submit configuration management records to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 2 – MANAGED

Process	CONFIGURATION MANAGEMENT

Practice	55.0 PERFORM CONFIGURATION AUDITS

55.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive baselines for performing configuration audits, project managers shall review and analyze baselines to identify baselines for auditing, project managers shall audit baselines to maintain integrity of configuration baselines, project managers shall document audit results of baselines to maintain integrity of configuration baselines, relevant stakeholders shall evaluate audit results, senior management, program management, and functional area managers shall review and approve audit results, and project managers shall baseline audit results.

55.2   REVISION HISTORY

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55.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

55.4   POLICY

The policy of this organization is to ensure that:

55.4.1   Project managers receive baselines for performing configuration audits.

55.4.2   Project managers review and analyze baselines to identify baselines for auditing.

55.4.3   Project managers audit baselines to maintain integrity of configuration baselines.

55.4.4   Project managers document audit results of baselines to maintain integrity of configuration baselines.

55.4.5   Relevant stakeholders evaluate audit results.

55.4.6   Senior management, program management, and functional area
                  managers review and approve audit results.

         55.4.7   Project managers baseline audit results.

55.5   DEFINITIONS

         55.5.1   Baseline Audits: independent examinations of baselines to
                  determine whether requirements are being met.

55.6   RESPONSIBILITIES

         55.6.1   Project managers are responsible for receiving baselines for
                  performing configuration audits, reviewing and analyzing
                  baselines to identify baselines for auditing, auditing
                  baselines to maintain integrity of configuration baselines,
                  documenting audit results of baselines to maintain integrity
                  of configuration baselines, and baselining audit results.

         55.6.2   Relevant stakeholders are responsible for evaluating audit
                  results.

         55.6.3   Senior management, program management, and functional area
                  managers are responsible for reviewing and approving audit
                  results.

55.7   PROCESS

         55.7.1   Receive Baselines for Performing Configuration Audits

                  Project managers shall receive baselines from configuration
                  management for performing configuration audits.

         55.7.2   Review Baselines to Identify Baselines for Auditing

                  Project managers shall review and analyze baselines to
                  identify baselines for auditing, which are independent
                  examinations of baselines to determine whether requirements
                  are being met.

         55.7.3   Audit Baselines to Maintain Integrity of Configuration Baselines

                  Project managers shall audit baselines to maintain integrity
                  of configuration baselines, which includes assessing the
                  integrity of the baselines; confirming that the
                  configuration records correctly identify the configuration
                  of the configuration items; reviewing the structure and
                  integrity of the items in the configuration management
                  system; confirming the completeness and correctness of the
                  items in the configuration management system; confirming
                  compliance with applicable configuration management
                  standards and procedures; and tracking action items from the
                  audit to closure.

         55.7.4   Document Audit Results of Baselines to Maintain Integrity of
                  Configuration Baselines

Project managers shall document audit results of baselines to maintain integrity of configuration baselines, to confirm that the resulting baselines and documentation are accurate, and record the audit results as appropriate.

55.7.5   Evaluate Audit Results

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate audit results, and make necessary additions, deletions, enhancements, and corrections.

55.7.6   Review and Approve Audit Results

Senior management, program management, and functional area managers shall review and approve audit results as well as any additions, deletions, enhancements, and corrections to audit results by relevant stakeholders.

55.7.7   Baseline Audit Results

Project managers shall submit audit results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	# CMMI V1.1	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	REQUIREMENTS DEVELOPMENT		
Practice	56.0 COLLECT STAKEHOLDER NEEDS		

56.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive existing stakeholder needs for collecting stakeholder needs, project managers shall review and analyze existing stakeholder needs for expectations, constraints, and interfaces, project managers shall identify stakeholder needs, expectations, constraints, and interfaces, project managers shall document stakeholder needs for all phases of the product life cycle, relevant stakeholders shall evaluate stakeholder needs, senior management, program management, and functional area managers shall review and approve stakeholder needs, and project managers shall baseline stakeholder needs.

56.2   REVISION HISTORY

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56.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

56.4   POLICY

The policy of this organization is to ensure that:

56.4.1   Project managers receive existing stakeholder needs for collecting stakeholder needs.

56.4.2   Project managers review and analyze existing stakeholder needs for expectations, constraints, and interfaces.

56.4.3   Project managers identify stakeholder needs, expectations, constraints, and interfaces.

56.4.4   Project managers document stakeholder needs for all phases of the product life cycle.

56.4.5 Relevant stakeholders evaluate stakeholder needs.

56.4.6 Senior management, program management, and functional area managers review and approve stakeholder needs.

56.4.7 Project managers baseline stakeholder needs.

56.5 DEFINITIONS

56.5.1 Stakeholder Needs: requirements that a customer provides to define what is needed or desired.

56.6 RESPONSIBILITIES

56.6.1 Project managers are responsible for receiving existing stakeholder needs for collecting stakeholder needs, reviewing and analyzing existing stakeholder needs for expectations, constraints, and interfaces, identifying stakeholder needs, expectations, constraints, and interfaces, documenting stakeholder needs for all phases of the product life cycle, and baselining stakeholder needs.

56.6.2 Relevant stakeholders are responsible for evaluating stakeholder needs.

56.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving stakeholder needs.

56.7 PROCESS

56.7.1 Receive Existing Stakeholder Needs for Collecting Stakeholder Needs

Project managers shall receive existing stakeholder needs from configuration management for collecting stakeholder needs.

56.7.2 Review Existing Stakeholder Needs for Expectations, Constraints, and Interfaces

Project managers shall review and analyze existing stakeholder needs for expectations, constraints, and interfaces, which are requirements that a customer provides to define what is needed or desired.

56.7.3 Identify Stakeholder Needs, Expectations, Constraints, and Interfaces

Project managers shall identify stakeholder needs, expectations, constraints, and interfaces, which includes obtaining requirements with contracts; reviewing requirements submitted during projects; accepting requirements at formal milestones; or receiving requirements from requirements activities such as end-user conferences,

requirements analysis, or joint analysis.

56.7.4 Document Stakeholder Needs for All Phases of the Product Life Cycle

Project managers shall document stakeholder needs for all phases of the product life cycle, for eliciting needs, developing the customer requirements, establishing product and product-component requirements, allocating product-component requirements, identifying interface requirements, establishing operational concepts and scenarios, establishing a definition of required functionality, analyzing requirements, analyzing requirements to achieve balance, and validating requirements with comprehensive methods.

56.7.5 Evaluate Stakeholder Needs

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate stakeholder needs, and make necessary additions, deletions, enhancements, and corrections.

56.7.6 Review and Approve Stakeholder Needs

Senior management, program management, and functional area managers shall review and approve stakeholder needs as well as any additions, deletions, enhancements, and corrections to stakeholder needs by relevant stakeholders.

56.7.7 Baseline Stakeholder Needs

Project managers shall submit stakeholder needs to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	REQUIREMENTS DEVELOPMENT
Practice	57.0 ELICIT NEEDS

57.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project plans for eliciting needs, project managers shall review project plans for identifying activities to elicit stakeholder needs, project managers shall conduct activities identified from review of project plans to elicit stakeholder needs, project managers shall document stakeholder needs for all phases of the product life cycle, relevant stakeholders shall evaluate stakeholder needs, senior management, program management, and functional area managers shall review and approve stakeholder needs, and project managers shall baseline stakeholder needs.

57.2   REVISION HISTORY

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57.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

57.4   POLICY

The policy of this organization is to ensure that:

57.4.1   Project managers receive project plans for eliciting needs.

57.4.2   Project managers review project plans for identifying activities to elicit stakeholder needs.

57.4.3   Project managers conduct activities identified from review of project plans to elicit stakeholder needs.

57.4.4   Project managers document stakeholder needs for all phases of the product life cycle.

57.4.5   Relevant stakeholders evaluate stakeholder needs.

57.4.6   Senior management, program management, and functional area managers review and approve stakeholder needs.

57.4.7   Project managers shall baseline stakeholder needs.

57.5   DEFINITIONS

57.5.1   <u>Stakeholder Needs</u>: requirements that a customer provides to defined what is needed or desired.

57.6   RESPONSIBILITIES

57.6.1   Project managers are responsible for receiving project plans for eliciting needs, reviewing project plans for identifying activities to elicit stakeholder needs, conducting activities identified from review of project plans to elicit stakeholder needs, documenting stakeholder needs for all phases of the product life cycle, and baselining stakeholder needs.

57.6.2   Relevant stakeholders are responsible for evaluating stakeholder needs.

57.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving stakeholder needs.

57.7   PROCESS

57.7.1   Receive Project Plans for Eliciting Needs

Project managers shall receive project plans from configuration management for eliciting needs.

57.7.2   Review Project Plans for Identifying Activities to Elicit Stakeholder Needs

Project managers shall review project plans for identifying activities to elicit stakeholder needs, which are requirements that a customer provides to defined what is needed or desired.

57.7.3   Conduct Activities Identified from Review of Project Plans to Elicit Stakeholder Needs

Project managers shall conduct activities identified from review of project plans to elicit stakeholder needs, which includes technology demonstrations; interface control working groups; technical control working groups; interim project reviews; questionnaires, interviews, and

operational scenarios; operational walkthroughs and end-user task analysis; prototypes and models; brainstorming; quality function deployment; market surveys; beta testing; extraction from sources such as documents, standards, or specifications; observation of existing products,

environments, and workflow patterns; use case analysis; business case analysis; and reverse engineering.

57.7.4 Document Stakeholder Needs for All Phases of the Product Life Cycle

Project managers shall document stakeholder needs for all phases of the product life cycle, for developing the customer requirements, establishing product and product-component requirements, allocating product-component requirements, identifying interface requirements, establishing operational concepts and scenarios, establishing a definition of required functionality, analyzing requirements, analyzing requirements to achieve balance, and validating requirements with comprehensive methods.

57.7.5 Evaluate Stakeholder Needs

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate stakeholder needs, and make necessary additions, deletions, enhancements, and corrections.

57.7.6 Review and Approve Stakeholder Needs

Senior management, program management, and functional area managers shall review and approve stakeholder needs as well as any additions, deletions, enhancements, and corrections to stakeholder needs by relevant stakeholders.

57.7.7 Baseline Stakeholder Needs

Project managers shall submit stakeholder needs to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	REQUIREMENTS DEVELOPMENT		
Practice	58.0 DEVELOP THE CUSTOMER REQUIREMENTS		

58.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive stakeholder needs for developing the customer requirements, project managers shall review and analyze stakeholder needs for identifying customer requirements, project managers shall identify customer requirements from stakeholder needs, project managers shall document customer requirements from stakeholder needs, relevant stakeholders shall evaluate customer requirements, senior management, program management, and functional area managers shall review and approve customer requirements, and project managers shall baseline customer requirements.

58.2   REVISION HISTORY

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58.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

58.4   POLICY

The policy of this organization is to ensure that:

58.4.1   Project managers shall receive stakeholder needs for developing the customer requirements.

58.4.2   Project managers shall review and analyze stakeholder needs for identifying customer requirements.

58.4.3   Project managers shall identify customer requirements from stakeholder needs.

58.4.4   Project managers shall document customer requirements from stakeholder needs.

58.4.5   Relevant stakeholders shall evaluate customer requirements,

senior management, program management, and functional area managers shall review and approve customer requirements.

58.4.6   Senior management, program management, and functional area managers shall review and approve customer requirement.

58.4.7   Project managers shall baseline customer requirements.

58.5   DEFINITIONS

58.5.1   <u>Customer Requirements</u>: the result of analyzing, harmonizing, refining, elaborating, and translating stakeholder needs, expectations, constraints, interfaces, operational concepts, and product concepts.

58.6   RESPONSIBILITIES

58.6.1   Project managers are responsible for receiving stakeholder needs for developing the customer requirements, reviewing and analyzing stakeholder needs for identifying customer requirements, identifying customer requirements from stakeholder needs, documenting customer requirements from stakeholder needs, and baselining customer requirements.

58.6.2   Relevant stakeholders are responsible for evaluate customer requirements.

58.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving customer requirements.

58.7   PROCESS

58.7.1   Receive Stakeholder Needs for Developing the Customer Requirements

Project managers shall receive stakeholder needs from configuration management for developing the customer requirements.

58.7.2   Review Stakeholder Needs for Identifying Customer Requirements

Project managers shall review and analyze stakeholder needs for identifying customer requirements, which are the result of analyzing, harmonizing, refining, elaborating, and translating stakeholder needs, expectations, constraints, interfaces, operational concepts, and product concepts.

58.7.3   Identify Customer Requirements from Stakeholder Needs

Project managers shall identify customer requirements from stakeholder needs, which includes translating the stakeholder needs, expectations, constraints, and interfaces into documented customer requirements, and defining constraints for verification and validation.

58.7.4   Document Customer Requirements from Stakeholder Needs

Project managers shall document customer requirements from stakeholder needs, for establishing product and product-component requirements, allocating product-component requirements, identifying interface requirements, establishing operational concepts and scenarios, establishing a definition of required functionality, analyzing requirements, analyzing requirements to achieve balance, and validating requirements with comprehensive methods.

58.7.5   Evaluate Customer Requirements

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate customer requirements, and make necessary additions, deletions, enhancements, and corrections.

58.7.6   Review and Approve Customer Requirements

Senior management, program management, and functional area managers shall review and approve customer requirements as well as any additions, deletions, enhancements, and corrections to customer requirements by relevant stakeholders.

58.7.7   Baseline Customer Requirements

Project managers shall submit customer requirements to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	REQUIREMENTS DEVELOPMENT		
Practice	59.0 ESTABLISH PRODUCT AND PRODUCT-COMPONENT REQUIREMENTS		

59.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive customer requirements for establishing product and product-component requirements, project managers shall review and analyze customer requirements to identify product and product-component requirements, project managers shall identify product and product component requirements, project managers shall document product requirements and product component requirements, relevant stakeholders shall evaluate product and product-component requirements, senior management, program management, and functional area managers shall review and approve product and product-component requirements, and project managers shall baseline product and product-component requirements.

59.2 REVISION HISTORY

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59.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

59.4 POLICY

The policy of this organization is to ensure that:

59.4.1   Project managers receive customer requirements for establishing product and product-component requirements.

59.4.2   Project managers review and analyze customer requirements to identify product and product-component requirements.

59.4.3   Project managers identify product and product component requirements.

59.4.4   Project managers document product requirements and product component requirements.

59.4.5 Relevant stakeholders evaluate product and product-component requirements.

59.4.6 Senior management, program management, and functional area managers review and approve product and product-component requirements.

59.4.7 Project managers baseline product and product-component requirements.

59.5 DEFINITIONS

59.5.1 Product and Product-Component Requirements: refinements of the customer requirements into the developers' language, making implicit requirements into explicit derived requirements, and provide a complete specification of a product component, including fit, form, function, performance, and any other requirement.

59.6 RESPONSIBILITIES

59.6.1 Project managers are responsible for receiving customer requirements for establishing product and product-component requirements, reviewing and analyzing customer requirements to identify product and product-component requirements, identifying product and product component requirements, documenting product requirements and product component requirements, and baselining product and product-component requirements.

59.6.2 Relevant stakeholders are responsible for evaluating product and product-component requirements.

59.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving product and product-component requirements.

59.7 PROCESS

59.7.1 Receive Customer Requirements for Establishing Product Requirements

Project managers shall receive customer requirements from configuration management for establishing product and product-component requirements.

59.7.2 Review Customer Requirements to Identify Product and Component Requirements

Project managers shall review and analyze customer requirements to identify product and product-component requirements, which are refinements of the customer requirements into the developers' language, making implicit requirements into explicit derived requirements, and provide a complete specification of a product component, including fit, form, function, performance, and any other requirement.

59.7.3   Identify Product and Product-Component Requirements

Project managers shall identify product and product
component requirements, which includes developing
requirements in technical terms necessary for product and
product-component design, deriving requirements that result
from design decisions, and establishing and maintaining
relationships between requirements during change management
and requirements allocation.

59.7.4   Document Product and Product-Component Requirements

Project managers shall document product requirements and
product-component requirements, for allocating product-
component requirements, identifying interface requirements,
establishing operational concepts and scenarios,
establishing a definition of required functionality,
analyzing requirements, analyzing requirements to achieve
balance, and validating requirements with comprehensive
methods.

59.7.5   Evaluate Product and Product-Component Requirements

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate product and product-component requirements, and
make necessary additions, deletions, enhancements, and
corrections.

59.7.6   Review and Approve Product and Product-Component Requirements

Senior management, program management, and functional area
managers shall review and approve product and product-
component requirements as well as any additions, deletions,
enhancements, and corrections to the requirements by
relevant stakeholders.

59.7.7   Baseline Product and Product-Component Requirements

Project managers shall submit requirements to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	REQUIREMENTS DEVELOPMENT
Practice	60.0 ALLOCATE PRODUCT-COMPONENT REQUIREMENTS

60.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive product and product-component requirements for allocating product-component requirements, project managers shall review and analyze product requirements to identify common requirements for allocation, project managers shall identify common product requirements to allocate to product requirements, project managers shall document allocated requirements from product and product-component requirements, relevant stakeholders shall evaluate allocated requirements, senior management, program management, and functional area managers shall review and approve allocated requirements, and project managers shall baseline allocated requirements.

60.2   REVISION HISTORY

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60.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

60.4   POLICY

The policy of this organization is to ensure that:

60.4.1   Project managers receive product and product-component requirements for allocating product-component requirements.

60.4.2   Project managers review and analyze product requirements to identify common requirements for allocation.

60.4.3   Project managers identify common product requirements to allocate to product requirements.

60.4.4   Project managers document allocated requirements from product and product-component requirements.

60.4.5   Relevant stakeholders evaluate allocated requirements.

60.4.6   Senior management, program management, and functional area managers review and approve allocated requirements.

60.4.7   Project managers baseline allocated requirements.

60.5   DEFINITIONS

60.5.1   Allocated Requirements: requirements that levy on all or part of the performance and functionality of a higher-level requirement on a lower level architectural element or design component.

60.6   RESPONSIBILITIES

60.6.1   Project managers are responsible for receiving product and product-component requirements for allocating product-component requirements, reviewing and analyzing product requirements to identify common requirements for allocation, identifying common product requirements to allocate to product requirements, documenting allocated requirements from product and product-component requirements, and baselining allocated requirements.

60.6.2   Relevant stakeholders are responsible for evaluating allocated requirements.

60.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving allocated requirements.

60.7   PROCESS

60.7.1   Receive Product Requirements for Allocating Product-Component Requirements

Project managers shall receive product and product-component requirements from configuration management for allocating product-component requirements.

60.7.2   Review Product Requirements to Identify Common Requirements for Allocation

Project managers shall review and analyze product requirements to identify common requirements for allocation, which are requirements that levy on all or part of the performance and functionality of a higher-level requirement on a lower level architectural element or design component.

60.7.3   Identify Common Product Requirements to Allocate to Product Components

Project managers shall identify common product requirements to allocate to product requirements, which includes

allocating requirements to functions, allocating requirements to product components, allocating design constraints to product components, and documenting relationships among allocated requirements.

60.7.4   Document Allocated Requirements from Product and Component Requirements

Project managers shall document allocated requirements from product and product-component requirements, for identifying interface requirements, establishing operational concepts and scenarios, establishing a definition of required functionality, analyzing requirements, analyzing requirements to achieve balance, and validating requirements with comprehensive methods.

60.7.5   Evaluate Allocated Requirements

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate allocated requirements, and make necessary additions, deletions, enhancements, and corrections.

60.7.6   Review and Approve Allocated Requirements

Senior management, program management, and functional area managers shall review and approve allocated requirements as well as any additions, deletions, enhancements, and corrections to allocated requirements by relevant stakeholders.

60.7.7   Baseline Allocated Requirements

Project managers shall submit allocated requirements to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
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		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	REQUIREMENTS DEVELOPMENT		
Practice	61.0 IDENTIFY INTERFACE REQUIREMENTS		

61.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive product and product-component requirements for identifying interface requirements, project managers shall review and analyze product and product-component requirements, project managers shall identify interface requirements from product and product component requirements, project managers shall document interface requirements from product and product-component requirements, relevant stakeholders shall evaluate interface requirements, senior management, program management, and functional area managers shall review and approve interface requirements, and project managers shall baseline interface requirements.

61.2   REVISION HISTORY

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61.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

61.4   POLICY

The policy of this organization is to ensure that:

61.4.1   Project managers shall receive product and product-component requirements for identifying interface requirements

61.4.2   Project managers shall review and analyze product and product-component requirements

61.4.3   Project managers shall identify interface requirements from product and product component requirements

61.4.4   Project managers shall document interface requirements from product and product-component requirements

61.4.5   Relevant stakeholders shall evaluate interface requirements

61.4.6   Senior management, program management, and functional area managers shall review and approve interface requirements

61.4.7   Project managers shall baseline interface requirements

61.5   DEFINITIONS

61.5.1   <u>Interface Requirements</u>: product or product-component requirements for shared boundaries across which information is passed, a hardware or software component that connects two or more other components for the purpose of passing information from one to the other, the process of connecting two or more component for the purpose of passing information from one to the other, or the process of serving as a connecting or connected component.

61.6   RESPONSIBILITIES

61.6.1   Project managers are responsible for receiving product and product-component requirements for identifying interface requirements, reviewing and analyzing product and product-component requirements, identifying interface requirements from product and product component requirements, documenting interface requirements from product and product-component requirements, and project baselining interface requirements.

61.6.2   Relevant stakeholders are responsible for evaluate interface requirements.

61.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving interface requirements.

61.7   PROCESS

61.7.1   Receive Product Requirements for Identifying Interface Requirements

Project managers shall receive product and product-component requirements from configuration management for identifying interface requirements.

61.7.2   Review Product Requirements for Identifying Interface Requirements

Project managers shall review and analyze product and product-component requirements, which are product or product-component requirements for shared boundaries across which information is passed, a hardware or software component that connects two or more other components for the purpose of passing information from one to the other, the process of connecting two or more component for the purpose of passing information from one to the other, or the process of serving as a connecting or connected component.

61.7.3 Identify Interface Requirements from Product and Product-Component Requirements

Project managers shall identify interface requirements from product and product component requirements, such as identifying interfaces both external to the product and internal to the product (i.e., between functional partitions or objects); and developing the requirements for the identified interfaces.

61.7.4 Document Interface Requirements from Product and Component Requirements

Project managers shall document interface requirements from product and product-component requirements, for establishing operational concepts and scenarios, establishing a definition of required functionality, analyzing requirements, analyzing requirements to achieve balance, and validating requirements with comprehensive methods.

61.7.5 Evaluate Interface Requirements

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate interface requirements, and make necessary additions, deletions, enhancements, and corrections.

61.7.6 Review and Approve Interface Requirements

Senior management, program management, and functional area managers shall review and approve interface requirements as well as any additions, deletions, enhancements, and corrections to interface requirements by relevant stakeholders.

61.7.7 Baseline Interface Requirements

Project managers shall submit interface requirements to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	REQUIREMENTS DEVELOPMENT		
Practice	62.0 ESTABLISH OPERATIONAL CONCEPTS AND SCENARIOS		

62.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive customer requirements for establishing operational concepts and scenarios, project managers shall review and analyze customer requirements for identifying operational concepts and scenarios, project managers shall identify operational concepts and scenarios from customer requirements, project managers shall document operational concepts and scenarios from customer requirements, relevant stakeholders shall evaluate operational concepts and scenarios, senior management, program management, and functional area managers shall review and approve operational concepts and scenarios, and project managers shall baseline operational concepts and scenarios.

62.2   REVISION HISTORY

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62.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

62.4   POLICY

The policy of this organization is to ensure that:

62.4.1   Project managers receive customer requirements for establishing operational concepts and scenarios.

62.4.2   Project managers review and analyze customer requirements for identifying operational concepts and scenarios.

62.4.3   Project managers identify operational concepts and scenarios from customer requirements.

62.4.4   Project managers document operational concepts and scenarios from customer requirements.

62.4.5　Relevant stakeholders evaluate operational concepts and scenarios.

62.4.6　Senior management, program management, and functional area managers review and approve operational concepts and scenarios.

62.4.7　Project managers baseline operational concepts and scenarios.

62.5　DEFINITIONS

62.5.1　<u>Operational Concepts and Scenarios</u>: descriptions of the way in which an entity is used or operates, and descriptions of imagined sequences of events about products, environments, and users.

62.6　RESPONSIBILITIES

62.6.1　Project managers are responsible for receiving customer requirements for establishing operational concepts and scenarios, reviewing and analyzing customer requirements for identifying operational concepts and scenarios, identifying operational concepts and scenarios from customer requirements, documenting operational concepts and scenarios from customer requirements, and baselining operational concepts and scenarios.

62.6.2　Relevant stakeholders are responsible for evaluating operational concepts and scenarios.

62.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving operational concepts and scenarios.

62.7　PROCESS

62.7.1　Receive Customer Requirements for Establishing Operational Concepts and Scenarios

Project managers shall receive customer requirements from configuration management for establishing operational concepts and scenarios.

62.7.2　Review Customer Requirements for Identifying Operational Concepts and Scenarios

Project managers shall review and analyze customer requirements for identifying operational concepts and scenarios, which are descriptions of the way in which an entity is used or operates, and descriptions of imagined sequences of events about products, environments, and users.

62.7.3　Identify Operational Concepts and Scenarios from Customer Requirements

Project managers shall identify operational concepts and scenarios from customer requirements, which includes developing operational concepts and scenarios that include functionality, performance, maintenance, support, and disposal; defining the environment; reviewing operational concepts and scenarios; and developing a detailed operational concept.

62.7.4 Document Operational Concepts and Scenarios from Customer Requirements

Project managers shall document operational concepts and scenarios from customer requirements, for establishing product and product-component requirements, allocating product-component requirements, identifying interface requirements, establishing a definition of required functionality, analyzing requirements, analyzing requirements to achieve balance, and validating requirements with comprehensive methods.

62.7.5 Evaluate Operational Concepts and Scenarios

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate operational concepts and scenarios, and make necessary additions, deletions, enhancements, and corrections.

62.7.6 Review and Approve Operational Concepts and Scenarios

Senior management, program management, and functional area managers shall review and approve operational concepts and scenarios as well as any additions, deletions, enhancements, and corrections to operational concepts and scenarios by relevant stakeholders.

62.7.7 Baseline Operational Concepts and Scenarios

Project managers shall submit operational concepts and scenarios to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
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		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	REQUIREMENTS DEVELOPMENT
Practice	63.0 ESTABLISH A DEFINITION OF REQUIRED FUNCTIONALITY

63.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive product and product-component requirements for establishing a definition of required functionality, project managers shall review and analyze product and product-component requirements for identifying functional requirements, project managers shall identify functional requirements from product and product component requirements, project managers shall document functional requirements identified from product and product-component requirements, relevant stakeholders shall evaluate functional requirements, senior management, program management, and functional area managers shall review and approve functional requirements, and project managers shall baseline functional requirements.

63.2   REVISION HISTORY

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63.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

63.4   POLICY

The policy of this organization is to ensure that:

63.4.1   Project managers receive product and product-component requirements for establishing a definition of required functionality.

63.4.2   Project managers review and analyze product and product-component requirements for identifying functional requirements.

63.4.3   Project managers identify functional requirements from product and product component requirements.

63.4.4 Project managers document functional requirements identified from product and product-component requirements.

63.4.5 Relevant stakeholders evaluate functional requirements.

63.4.6 Senior management, program management, and functional area managers review and approve functional requirements.

63.4.7 Project managers baseline functional requirements.

63.5 DEFINITIONS

63.5.1 Functional Requirements: a hierarchical arrangement of functions, their internal and external functional interfaces and external physical interfaces, their respective functional and performance requirements, and their design constraints.

63.6 RESPONSIBILITIES

63.6.1 Project managers are responsible for receiving product and product-component requirements for establishing a definition of required functionality, reviewing and analyzing product and product-component requirements for identifying functional requirements, identifying functional requirements from product and product component requirements, documenting functional requirements identified from product and product-component requirements, and baselining functional requirements.

63.6.2 Relevant stakeholders are responsible for evaluating functional requirements.

63.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving functional requirements.

63.7 PROCESS

63.7.1 Receive Product Requirements for Establishing a Definition of Required Functionality

Project managers shall receive product and product-component requirements from configuration management for establishing a definition of required functionality.

63.7.2 Review Product Requirements for Identifying Functional Requirements

Project managers shall review and analyze product and product-component requirements for identifying functional requirements, which are a hierarchical arrangement of functions, their internal and external functional interfaces and external physical interfaces, their respective functional and performance requirements, and their design constraints.

63.7.3 Identify Functional Requirements from Product and Component Requirements

Project managers shall identify functional requirements from product and product component requirements, which includes analyzing and quantifying functionality required by end users; analyzing requirements to identify logical or functional partitions; partitioning requirements into groups; considering the sequencing of time-critical functions; allocating customer requirements to functional partitions, objects, people, or support elements; and allocating functional and performance requirements to functions and subfunctions.

63.7.4 Document Functional Requirements Identified from Product Requirements

Project managers shall document functional requirements identified from product and product-component requirements, for analyzing requirements, analyzing requirements to achieve balance and validating requirements with comprehensive methods.

63.7.5 Evaluate Functional Requirements

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate functional requirements, and make necessary additions, deletions, enhancements, and corrections.

63.7.6 Review and Approve Functional Requirements

Senior management, program management, and functional area managers shall review and approve functional requirements as well as any additions, deletions, enhancements, and corrections to functional requirements by relevant stakeholders.

63.7.7 Baseline Functional Requirements

Project managers shall submit requirements to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	REQUIREMENTS DEVELOPMENT
Practice	64.0 ANALYZE REQUIREMENTS

64.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive customer, product, component, allocated, interface, and functional requirements from configuration management for analyzing requirements, project managers shall review and analyze requirements for identifying improvements to requirements, project managers shall identify requirements improvements from requirements, project managers shall document requirements improvements identified from customer, relevant stakeholders shall evaluate requirements improvements, senior management, program management, and functional area managers shall review and approve requirements improvements, and project managers shall baseline requirements improvements.

64.2   REVISION HISTORY

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64.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

64.4   POLICY

The policy of this organization is to ensure that:

64.4.1   Project managers receive customer, product, component, allocated, interface, and functional requirements for analyzing requirements.

64.4.2   Project managers review and analyze requirements for identifying improvements to requirements.

64.4.3   Project managers identify requirements improvements from requirements.

64.4.4   Project managers document requirements improvements identified from customer.

64.4.5   Relevant stakeholders evaluate requirements improvements.

64.4.6   Senior management, program management, and functional area managers review and approve requirements improvements.

64.4.7   Project managers baseline requirements improvements.

64.5   DEFINITIONS

64.5.1   Requirements Improvements: analyses of requirements at a given level to determine whether they are necessary and sufficient to meet the objectives of higher levels of the product hierarchy.

64.6   RESPONSIBILITIES

64.6.1   Project managers are responsible for receiving customer, product, component, allocated, interface, and functional requirements for analyzing requirements, reviewing and analyzing requirements for identifying improvements to requirements, identifying requirements improvements from requirements, documenting requirements improvements identified from customer, and baselining requirements improvements.

64.6.2   Relevant stakeholders are responsible for evaluating requirements improvements.

64.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving requirements improvements.

64.7   PROCESS

64.7.1   Receive Requirements for Analyzing Requirements

Project managers shall receive customer, product, component, allocated, interface, and functional requirements from configuration management for analyzing requirements.

64.7.2   Review Requirements for Identifying Improvements to Requirements

Project managers shall review and analyze requirements for identifying improvements to requirements, which are analyses of requirements at a given level to determine whether they are necessary and sufficient to meet the objectives of higher levels of the product hierarchy.

64.7.3   Identify Requirements Improvements from Requirements

Project managers shall identify requirements improvements from requirements, which includes analyzing stakeholder needs, expectations, constraints, and external interfaces; analyzing requirements to determine whether they satisfy the objectives of higher level requirements; analyzing

requirements to ensure that they are complete, feasible, realizable, and verifiable; identifying key requirements; identifying technical performance measures; and analyzing operational concepts and scenarios to refine the customer needs, constraints, and interfaces.

64.7.4 Document Requirements Improvements Identified from Requirements

Project managers shall document requirements improvements identified from customer, product and product-component, allocated, interface, operational concept and scenario, and functional requirements, for analyzing requirements to achieve balance and validating requirements with comprehensive methods.

64.7.5 Evaluate Requirements Improvements

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate requirements improvements, and make necessary additions, deletions, enhancements, and corrections.

64.7.6 Review and Approve Requirements Improvements

Senior management, program management, and functional area managers shall review and approve requirements improvements as well as any additions, deletions, enhancements, and corrections to requirements improvements by relevant stakeholders.

64.7.7 Baseline Requirements Improvements

Project managers shall submit improvements to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

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Model	# CMMI V1.1	Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	REQUIREMENTS DEVELOPMENT
Practice	65.0 ANALYZE REQUIREMENTS TO ACHIEVE BALANCE

65.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive customer, product, component, allocated, interface, and functional requirements for analyzing requirements to achieve balance, project managers shall review and analyze requirements for identifying risks to requirements, project managers shall identify requirements risks from requirements, project managers shall document requirements risks identified from customer, product and product-component, allocated, interface, operational concept and scenario, and functional requirements, relevant stakeholders shall evaluate requirements risks, senior management, program management, and functional area managers shall review and approve requirements risks, and project managers shall baseline requirements risks.

65.2   REVISION HISTORY

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65.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

65.4   POLICY

The policy of this organization is to ensure that:

65.4.1   Project managers receive customer, product, component, allocated, interface, and functional requirements for analyzing requirements to achieve balance.

65.4.2   Project managers review and analyze requirements for identifying risks to requirements.

65.4.3   Project managers identify requirements risks from requirements.

65.4.4   Project managers document requirements risks identified from

customer, product and product-component, allocated, interface, operational concept and scenario, and functional requirements

    65.4.5   Relevant stakeholders evaluate requirements risks.

    65.4.6   Senior management, program management, and functional area managers review and approve requirements risks.

    65.4.7   Project managers baseline requirements risks.

65.5   DEFINITIONS

    65.5.1   <u>Requirements Risks</u>: discrete occurrences that may affect the requirements for better or worse with respect to stakeholder needs and constraints on cost, schedule, performance, functionality, reusability, or maintainability risks.

65.6   RESPONSIBILITIES

    65.6.1   Project managers are responsible for receiving customer, product, component, allocated, interface, and functional requirements for analyzing requirements to achieve balance, reviewing and analyzing requirements for identifying risks to requirements, identifying requirements risks from requirements, documenting requirements risks identified from customer, product and product-component, allocated, interface, operational concept and scenario, and functional requirements, and baselining requirements risks.

    65.6.2   Relevant stakeholders are responsible for evaluating requirements risks.

    65.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving requirements risks.

65.7   PROCESS

65.7.1   Receive Requirements for Analyzing Requirements to Achieve Balance

Project managers shall receive customer, product, component, allocated, interface, and functional requirements from configuration management for analyzing requirements to achieve balance.

65.7.2   Review Requirements for Identifying Risks to Requirements

Project managers shall review and analyze requirements for identifying risks to requirements, which are discrete occurrences that may affect the requirements for better or worse with respect to stakeholder needs and constraints on cost, schedule, performance, functionality, reusability, or maintainability risks.

65.7.3   Identify Requirements Improvements from Requirements

Project managers shall identify requirements risks from requirements, which includes using proven models, simulations, and prototyping to analyze the balance of stakeholder needs and constraints; performing a risk assessment on the requirements and functional architecture; and examining product life-cycle concepts for impacts of requirements on risks.

65.7.4 Document Requirements Risks Identified from Requirements

Project managers shall document requirements risks identified from customer, product and product-component, allocated, interface, operational concept and scenario, and functional requirements, for validating requirements with comprehensive methods.

65.7.5 Evaluate Requirements Risks

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate requirements risks, and make necessary additions, deletions, enhancements, and corrections.

65.7.6 Review and Approve Requirements Risks

Senior management, program management, and functional area managers shall review and approve requirements risks as well as any additions, deletions, enhancements, and corrections to requirements risks by relevant stakeholders.

65.7.7 Baseline Requirements Risks

Project managers shall submit requirements risks to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
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		Date	
Level	LEVEL 3 – DEFINED		
Process	REQUIREMENTS DEVELOPMENT		
Practice	66.0 VALIDATE REQUIREMENTS WITH COMPREHENSIVE METHODS		

66.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive customer, product, component, allocated, interface, and functional requirements for validating requirements with comprehensive methods, project managers shall review and analyze requirements for identifying requirements for validation, project managers shall identify requirements to validate they perform as intended in user's environment, project managers shall evaluate requirements to validate intended performance in user's environment, relevant stakeholders shall evaluate validation results, senior management, program management, and functional area managers shall review and approve validation results, and project managers shall baseline validation results.

66.2   REVISION HISTORY

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66.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

66.4   POLICY

The policy of this organization is to ensure that:

66.4.1   Project managers receive customer, product, component, allocated, interface, and functional requirements for validating requirements with comprehensive methods.

66.4.2   Project managers review and analyze requirements for identifying requirements for validation.

66.4.3   Project managers identify requirements to validate they perform as intended in user's environment.

66.4.4   Project managers evaluate requirements to validate intended

performance in user's environment.

66.4.5   Relevant stakeholders evaluate validation results.

66.4.6   Senior management, program management, and functional area managers review and approve validation results.

66.4.7   Project managers baseline validation results.

66.5   DEFINITIONS

66.5.1   Requirements: conditions or capabilities needed by a user to solve a problem or achieve an objective, conditions or capabilities that must be met or possessed by a system or system component to satisfy a contract, standard, specification, or other formally imposed documents, or documented representations of a condition or capability.

66.6   RESPONSIBILITIES

66.6.1   Project managers are responsible for receiving customer, product, component, allocated, interface, and functional requirements for validating requirements with comprehensive methods, reviewing and analyzing requirements for identifying requirements for validation, identifying requirements to validate they perform as intended in user's environment, evaluating requirements to validate intended performance in user's environment, and baselining validation results.

66.6.2   Relevant stakeholders are responsible for evaluating validation results.

66.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving validation results.

66.7   PROCESS

66.7.1   Receive Requirements for Validating Requirements with Comprehensive Methods

Project managers shall receive customer, product, component, allocated, interface, and functional requirements from configuration management for validating requirements with comprehensive methods.

66.7.2   Review Requirements for Identifying Requirements for Validation

Project managers shall review and analyze requirements for identifying requirements for validation, which are conditions or capabilities needed by a user to solve a problem or achieve an objective, conditions or capabilities that must be met or possessed by a system or system component to satisfy a contract, standard, specification, or other formally imposed documents, or documented representations of a condition or capability.

66.7.3   Identify Requirements to Validate Intended Performance in User's Environment

Project managers shall identify requirements to validate they perform as intended in user's environment, which includes analyzing the requirements to determine the risk that the resulting product will not perform appropriately in its intended-use environment; exploring the adequacy and completeness of requirements by developing product representations; and assessing the design as it matures in the context of the requirements validation environment to identify validation issues and expose unstated needs and customer requirements.

66.7.4   Evaluate Requirements to Validate Intended Performance in User's Environment

Project managers shall evaluate requirements to validate intended performance in user's environment, to support development of a technical solution, product integration, and product verification and validation.

66.7.5   Evaluate Validation Results

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate validation results, and make necessary additions, deletions, enhancements, and corrections.

66.7.6   Review and Approve Validation Results

Senior management, program management, and functional area managers shall review and approve validation results as well as any additions, deletions, enhancements, and corrections to validation results by relevant stakeholders.

66.7.7   Baseline Validation Results

Project managers shall submit validation results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	TECHNICAL SOLUTION		
Practice	67.0 DEVELOP ALTERNATIVE SOLUTIONS AND SELECTION CRITERIA		

67.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive requirements for developing detailed alternative solutions and selection criteria, project managers shall review and analyze requirements for identifying screening criteria and alternative solutions, project managers shall identify alternative solutions from requirements and screening criteria, project managers shall document alternative solutions from requirements and screening criteria, relevant stakeholders shall evaluate alternative solutions, senior management, program management, and functional area managers shall review and approve alternative solutions, and project managers shall baseline alternate solutions.

67.2   REVISION HISTORY

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67.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

67.4   POLICY

The policy of this organization is to ensure that:

67.4.1   Project managers receive requirements for developing detailed alternative solutions and selection criteria.

67.4.2   Project managers review and analyze requirements for identifying screening criteria and alternative solutions.

67.4.3   Project managers identify alternative solutions from requirements and screening criteria.

67.4.4   Project managers document alternative solutions from requirements and screening criteria.

67.4.5　Relevant stakeholders evaluate alternative solutions.

67.4.6　Senior management, program management, and functional area managers review and approve alternative solutions.

67.4.7　Project managers baseline alternate solutions.

67.5　DEFINITIONS

67.5.1　<u>Alternative Solutions</u>: characterizations of performance based on design content enabling effective assessment and understanding of environment and operating concept impacts.

67.6　RESPONSIBILITIES

67.6.1　Project managers are responsible for receiving requirements for developing detailed alternative solutions and selection criteria, reviewing and analyzing requirements for identifying screening criteria and alternative solutions, identifying alternative solutions from requirements and screening criteria, documenting alternative solutions from requirements and screening criteria, and baselining alternate solutions.

67.6.2　Relevant stakeholders are responsible for evaluating alternative solutions.

67.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving alternative solutions.

67.7　PROCESS

67.7.1　Receive Requirements for Developing Detailed Alternative Solutions and Selection Criteria

Project managers shall receive requirements from configuration management for developing detailed alternative solutions and selection criteria.

67.7.2　Review Requirements for Identifying Screening Criteria and Alternative Solutions

Project managers shall review and analyze requirements for identifying screening criteria and alternative solutions, which are characterizations of performance based on design content enabling effective assessment and understanding of environment and operating concept impacts.

67.7.3　Identify Alternative Solutions from Requirements and Screening Criteria

Project managers shall identify alternative solutions from requirements and screening criteria, which includes identifying screening criteria to select a set of

alternative solutions; identifying technologies currently in use and new product technologies; generating alternative solutions; obtaining complete requirements; developing the criteria for selecting the best alternative; and developing timeline scenarios for product operation and user interaction for each alternative.

67.7.4 Document Alternative Solutions from Requirements and Screening Criteria

Project managers shall document alternative solutions from requirements and screening criteria, for evolving operational concepts and scenarios, selecting product-component solutions, designing the product or product component, establishing a technical data package, designing interfaces using criteria, performing make, buy, or reuse analyses, implementing the design, and developing product support documentation.

67.7.5 Evaluate Alternative Solutions

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate alternative solutions, and make necessary additions, deletions, enhancements, and corrections.

67.7.6 Review and Approve Alternative Solutions

Senior management, program management, and functional area managers shall review and approve alternative solutions as well as any additions, deletions, enhancements, and corrections to alternative solutions by relevant stakeholders.

67.7.7 Baseline Alternative Solutions

Project managers shall submit alternatives to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
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		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	TECHNICAL SOLUTION
Practice	68.0 EVOLVE OPERATIONAL CONCEPTS AND SCENARIOS

68.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive customer, product, component, allocated, interface, and functional requirements for evolving operational concepts and scenarios, project managers shall review and analyze requirements for identifying operational concepts and scenarios, project managers shall identify operational concepts and scenarios from requirements, project managers shall document operational concepts and scenarios identified from requirements, relevant stakeholders shall evaluate operational concepts and scenarios, senior management, program management, and functional area managers shall review and approve operational concepts and scenarios, and project managers shall baseline operational concepts and scenarios.

68.2   REVISION HISTORY

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68.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

68.4   POLICY

The policy of this organization is to ensure that:

68.4.1   Project managers receive customer, product, component, allocated, interface, and functional requirements for evolving operational concepts and scenarios.

68.4.2   Project managers review and analyze requirements for identifying operational concepts and scenarios.

68.4.3   Project managers identify operational concepts and scenarios from requirements.

68.4.4   Project managers document operational concepts and scenarios

identified from requirements.

68.4.5 Relevant stakeholders evaluate operational concepts and scenarios.

68.4.6 Senior management, program management, and functional area managers review and approve operational concepts and scenarios.

68.4.7 Project managers baseline operational concepts and scenarios.

68.5 DEFINITIONS

68.5.1 Operational Concepts and Scenarios: descriptions of the way in which an entity is used or operates, and descriptions of imagined sequences of events about products, environments, and users.

68.6 RESPONSIBILITIES

68.6.1 Project managers are responsible for receiving customer, product, component, allocated, interface, and functional requirements for evolving operational concepts and scenarios, reviewing and analyzing requirements for identifying operational concepts and scenarios, identifying operational concepts and scenarios from requirements, documenting operational concepts and scenarios identified from requirements, and baselining operational concepts and scenarios.

68.6.2 Relevant stakeholders are responsible for evaluating operational concepts and scenarios.

68.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving operational concepts and scenarios.

68.7 PROCESS

68.7.1 Receive Requirements for Evolving Operational Concepts and Scenarios

Project managers shall receive customer, product, component, allocated, interface, and functional requirements from configuration management for evolving operational concepts and scenarios.

68.7.2 Review Requirements for Identifying Operational Concepts and Scenarios

Project managers shall review and analyze requirements for identifying operational concepts and scenarios, which are descriptions of the way in which an entity is used or operates, and descriptions of imagined sequences of events about products, environments, and users.

68.7.3 Identify Operational Concepts and Scenarios from Requirements

Project managers shall identify operational concepts and scenarios from requirements, which includes evolving the operational concepts and scenarios to a degree of detail appropriate for the product component; and evolving the operational environments for the product components.

68.7.4 Document Operational Concepts and Scenarios Identified from Requirements

Project managers shall document operational concepts and scenarios identified from requirements, for selecting product-component solutions, designing the product or product component, establishing a technical data package, designing interfaces using criteria, performing make, buy, or reuse analyses, implementing the design, and developing product support documentation.

68.7.5 Evaluate Operational Concepts and Scenarios

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate operational concepts and scenarios, and make necessary additions, deletions, enhancements, and corrections.

68.7.6 Review and Approve Operational Concepts and Scenarios

Senior management, program management, and functional area managers shall review and approve operational concepts and scenarios as well as any additions, deletions, enhancements, and corrections to operational concepts and scenarios by relevant stakeholders.

68.7.7 Baseline Operational Concepts and Scenarios

Project managers shall submit operational concepts and scenarios to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	TECHNICAL SOLUTION		
Practice	69.0 SELECT PRODUCT-COMPONENT SOLUTIONS		

69.1   PURPOSE

This procedure establishes the guidelines by which project managers
shall receive alternative solutions for selecting product-component
solutions, project managers shall review and analyze alternative
solutions for identifying product-component solutions, project
managers shall identify product-component solutions from alternative
solutions, project managers shall document product-component
solutions identified from alternative solutions, relevant
stakeholders shall evaluate product-component solutions, senior
management, program management, and functional area managers shall
review and approve product-component solutions, and project managers
shall baseline product-component solutions.

69.2   REVISION HISTORY

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69.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

69.4   POLICY

The policy of this organization is to ensure that:

69.4.1   Project managers receive alternative solutions for selecting
         product-component solutions.

69.4.2   Project managers review and analyze alternative solutions
         for identifying product-component solutions

69.4.3   Project managers identify product-component solutions from
         alternative solutions.

69.4.4   Project managers document product-component solutions
         identified from alternative solutions.

69.4.5   Relevant stakeholders evaluate product-component solutions.

69.4.6   Senior management, program management, and functional area managers review and approve product-component solutions.

69.4.7   Project managers baseline product-component solutions.

69.5   DEFINITIONS

69.5.1   <u>Product-Component Solutions</u>: parts of the product delivered to the customer and may serve in the manufacture or use of the product.

69.6   RESPONSIBILITIES

69.6.1   Project managers are responsible for receiving alternative solutions for selecting product-component solutions, reviewing and analyzing alternative solutions for identifying product-component solutions, identifying product-component solutions from alternative solutions, documenting product-component solutions identified from alternative solutions, and baselining product-component solutions.

69.6.2   Relevant stakeholders are responsible for evaluating product-component solutions.

69.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving product-component solutions.

69.7   PROCESS

69.7.1   Receive Alternative Solutions for Selecting Product-Component Solutions

Project managers shall receive alternative solutions from configuration management for selecting product-component solutions.

69.7.2   Review Alternative Solutions for Identifying Product-Component Solutions

Project managers shall review and analyze alternative solutions for identifying product-component solutions, which are parts of the product delivered to the customer and may serve in the manufacture or use of the product.

69.7.3   Identify Product-Component Solutions from Alternative Solutions

Project managers shall identify product-component solutions from alternative solutions, which includes evaluating each alternative solution/set of solutions; assessing the adequacy of the selection criteria; identifying and resolving issues with the alternative solutions; selecting the best set of alternative solutions that satisfy the

established selection criteria; establishing the
requirements associated with the selected set of
alternatives; identifying the product-component solutions
that will be reused or acquired; and establishing and
maintaining the documentation.

69.7.4   Document Product-Component Solutions Identified from
Alternative Solutions

Project managers shall document product-component solutions
identified from alternative solutions, for designing the
product or product component, establishing a technical data
package, designing interfaces using criteria, performing
make, buy, or reuse analyses, implementing the design, and
developing product support documentation.

69.7.5   Evaluate Product-Component Solutions

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate product-component solutions, and make necessary
additions, deletions, enhancements, and corrections.

69.7.6   Review and Approve Product-Component Solutions

Senior management, program management, and functional area
managers shall review and approve product-component
solutions as well as any additions, deletions, enhancements,
and corrections to product-component solutions by relevant
stakeholders.

69.7.7   Baseline Product-Component Solutions

Project managers shall submit product solutions to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	TECHNICAL SOLUTION
Practice	70.0 DESIGN THE PRODUCT OR PRODUCT-COMPONENT

70.1   PURPOSE

This procedure establishes the guidelines by which project managers
shall receive product-component solutions for designing the product
or product-component, project managers shall review and analyze
product-component solutions for identifying product-component
designs, project managers shall identify product-component designs
from product-component solutions, project managers shall document
product-component designs identified from product-component
solutions, relevant stakeholders shall evaluate product-component
designs, senior management, program management, and functional area
managers shall review and approve product-component designs, and
project managers shall baseline product-component designs.

70.2   REVISION HISTORY

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70.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

70.4   POLICY

The policy of this organization is to ensure that:

70.4.1   Project managers receive product-component solutions for
         designing the product or product-component.

70.4.2   Project managers review and analyze product-component
         solutions for identifying product-component designs.

70.4.3   Project managers identify product-component designs from
         product-component solutions.

70.4.4   Project managers document product-component designs
         identified from product-component solutions.

70.4.5   Relevant stakeholders evaluate product-component designs.

70.4.6   Senior management, program management, and functional area managers review and approve product-component designs.

70.4.7   Project managers baseline product-component designs.

70.5   DEFINITIONS

70.5.1   Product or Product-Component Designs: establishment of product capabilities and the product architecture, including product partitions, product-component identifications, system states and modes, major inter-component interfaces, and external product interfaces.

70.6   RESPONSIBILITIES

70.6.1   Project managers are responsible for receiving product-component solutions for designing the product or product-component, reviewing and analyzing product-component solutions for identifying product-component designs, identifying product-component designs from product-component solutions, documenting product-component designs identified from product-component solutions, and baselining product-component designs.

70.6.2   Relevant stakeholders are responsible for evaluating product-component designs.

70.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving product-component designs.

70.7   PROCESS

70.7.1   Receive Product-Component Solutions for Designing the Product or Product-Component

Project managers shall receive product-component solutions from configuration management for designing the product or product-component.

70.7.2   Review Product-Component Solutions for Identifying Product-Component Designs

Project managers shall review and analyze product-component solutions for identifying product-component designs, which are an establishment of product capabilities and the product architecture, including product partitions, product-component identifications, system states and modes, major inter-component interfaces, and external product interfaces.

70.7.3   Identify Product-Component Designs from Product-Component Solutions

Project managers shall identify product-component designs from product-component solutions, which includes establishing and maintaining criteria against which the design can be evaluated; identifying, developing, or acquiring the design methods appropriate for the product; ensuring that the design adheres to applicable design standards and criteria; ensuring that the design adheres to allocated requirements; and documenting the design.

70.7.4   Document Product-Component Designs Identified from Product-Component Solutions

Project managers shall document product-component designs identified from product-component solutions, for establishing a technical data package, designing interfaces using criteria, performing make, buy, or reuse analyses, implementing the design, and developing product support documentation.

70.7.5   Evaluate Product-Component Designs

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate product-component designs, and make necessary additions, deletions, enhancements, and corrections.

70.7.6   Review and Approve Product-Component Designs

Senior management, program management, and functional area managers shall review and approve product-component designs as well as any additions, deletions, enhancements, and corrections to product-component designs by relevant stakeholders.

70.7.7   Baseline Product-Component Designs

Project managers shall submit designs to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	TECHNICAL SOLUTION		
Practice	71.0 ESTABLISH A TECHNICAL DATA PACKAGE		

71.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive requirements and designs for establishing a technical data package, project managers shall review and analyze requirements and designs for identifying technical data package, project managers shall identify technical data packages from requirements and designs, project managers shall document technical data packages identified from requirements and designs, relevant stakeholders shall evaluate technical data package, senior management, program management, and functional area managers shall review and approve technical data package, and project managers shall baseline technical data package.

71.2   REVISION HISTORY

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71.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

71.4   POLICY

The policy of this organization is to ensure that:

71.4.1   Project managers receive requirements and designs for establishing a technical data package.

71.4.2   Project managers review and analyze requirements and designs for identifying technical data package.

71.4.3   Project managers identify technical data packages from requirements and designs.

71.4.4   Project managers document technical data packages identified from requirements and designs.

71.4.5   Relevant stakeholders evaluate technical data package.

71.4.6   Senior management, program management, and functional area managers review and approve technical data package.

71.4.7   Project managers shall baseline technical data package.

71.5   DEFINITIONS

71.5.1   <u>Technical Data Package</u>: descriptions of a product or product component (including product-related life-cycle processes if not handled as separate product components) that supports an acquisition strategy, or the implementation, production, engineering, and logistics support phases of the product life cycle.

71.6   RESPONSIBILITIES

71.6.1   Project managers are responsible for receiving requirements and designs for establishing a technical data package, reviewing and analyzing requirements and designs for identifying technical data package, identifying technical data packages from requirements and designs, documenting technical data packages identified from requirements and designs, and baselining technical data package.

71.6.2   Relevant stakeholders are responsible for evaluating technical data package.

71.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving technical data package.

71.7   PROCESS

71.7.1   Receive Requirements and Designs for Establishing a Technical Data Package

Project managers shall receive requirements and designs from configuration management for establishing a technical data package.

71.7.2   Review Requirements and Designs for Identifying Technical Data Packages

Project managers shall review and analyze requirements and designs for identifying technical data package, which are descriptions of a product or product component (including product-related life-cycle processes if not handled as separate product components) that supports an acquisition strategy, or the implementation, production, engineering, and logistics support phases of the product life cycle.

71.7.3   Identify Technical Data Packages from Requirements and Designs

Project managers shall identify technical data packages from

requirements and designs, which includes determining the
number of levels of design and the appropriate level of
documentation; basing detailed design descriptions on the
allocated product-component requirements, architecture, and
higher level designs; documenting the design; documenting
the rationale for key decisions made or defined; and
revising the technical data package as necessary.

71.7.4 Document Technical Data Packages Identified from Requirements and Designs

Project managers shall document technical data packages
identified from requirements and designs, for designing
interfaces using criteria, performing make, buy, or reuse
analyses, implementing the design, and developing product
support documentation.

71.7.5 Evaluate Technical Data Package

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate technical data package, and make necessary
additions, deletions, enhancements, and corrections.

71.7.6 Review and Approve Technical Data Package

Senior management, program management, and functional area
managers shall review and approve technical data package as
well as any additions, deletions, enhancements, and
corrections to technical data package by relevant
stakeholders.

71.7.7 Baseline Technical Data Package

Project managers shall submit data packages to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	TECHNICAL SOLUTION		
Practice	72.0 DESIGN INTERFACES USING CRITERIA		

72.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive requirements and designs for designing interfaces using criteria, project managers shall review and analyze requirements and designs for identifying interface designs, project managers shall identify interface designs from requirements and designs, project managers shall document interface designs identified from requirements and designs, relevant stakeholders shall evaluate interface designs, senior management, program management, and functional area managers shall review and approve interface designs, and project managers shall baseline interface designs.

72.2   REVISION HISTORY

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72.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

72.4   POLICY

The policy of this organization is to ensure that:

72.4.1   Project managers receive requirements and designs for designing interfaces using criteria.

72.4.2   Project managers review and analyze requirements and designs for identifying interface designs.

72.4.3   Project managers identify interface designs from requirements and designs.

72.4.4   Project managers document interface designs identified from requirements and designs.

72.4.5   Relevant stakeholders evaluate interface designs.

72.4.6   Senior management, program management, and functional area managers review and approve interface designs.

72.4.7   Project managers baseline interface designs.

72.5   DEFINITIONS

72.5.1   Interface Designs: designs that consist of the architecture, components, and characteristics of shared boundaries across which information is passed, a hardware or software component that connects two or more other components for the purpose of passing information from one to the other, or a element that serves the purposes of connecting or as a connecting component.

72.6   RESPONSIBILITIES

72.6.1   Project managers are responsible for receiving requirements and designs for designing interfaces using criteria, reviewing and analyzing requirements and designs for identifying interface designs, identifying interface designs from requirements and designs, documenting interface designs identified from requirements and designs, and baselining interface designs.

72.6.2   Relevant stakeholders are responsible for evaluating interface designs.

72.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving interface designs.

72.7   PROCESS

72.7.1   Receive Requirements and Designs for Designing Interfaces Using Criteria

Project managers shall receive requirements and designs from configuration management for designing interfaces using criteria.

72.7.2   Review Requirements and Designs for Identifying Interface Designs

Project managers shall review and analyze requirements and designs for identifying interface designs, which are designs that consist of the architecture, components, and characteristics of shared boundaries across which information is passed, a hardware or software component that connects two or more other components for the purpose of passing information from one to the other, or a element that serves the purposes of connecting or as a connecting component.

72.7.3 Identify Interface Designs from Requirements and Designs

Project managers shall identify interface designs from requirements and designs, which includes defining interface criteria; applying the criteria to the interface design alternatives; and documenting the selected interface designs and the rationale for the selection.

72.7.4 Document Interface Designs Identified from Requirements and Designs

Project managers shall document interface designs identified from requirements and designs, for performing make, buy, or reuse analyses, implementing the design, and developing product support documentation.

72.7.5 Evaluate Interface Designs

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate interface designs, and make necessary additions, deletions, enhancements, and corrections.

72.7.6 Review and Approve Interface Designs

Senior management, program management, and functional area managers shall review and approve interface designs as well as any additions, deletions, enhancements, and corrections to interface designs by relevant stakeholders.

72.7.7 Baseline Interface Designs

Project managers shall submit interface designs to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED

Process	TECHNICAL SOLUTION

Practice	73.0 PERFORM MAKE, BUY, OR REUSE ANALYSIS

73.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive requirements and designs for performing make, buy, or reuse analysis, project managers shall review and analyze requirements and designs for identifying make-buy analysis, project managers shall identify make-by analysis from requirements and designs, project managers shall document make-by analysis identified from requirements and designs, relevant stakeholders shall evaluate make-buy analysis, senior management, program management, and functional area managers shall review and approve make-buy analysis, and project managers shall baseline make-buy analysis.

73.2   REVISION HISTORY

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73.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

73.4   POLICY

The policy of this organization is to ensure that:

73.4.1   Project managers receive requirements and designs for performing make, buy, or reuse analysis.

73.4.2   Project managers review and analyze requirements and designs for identifying make-buy analysis.

73.4.3   Project managers identify make-by analysis from requirements and designs.

73.4.4   Project managers document make-by analysis identified from requirements and designs.

73.4.5   Relevant stakeholders evaluate make-buy analysis.

73.4.6   Senior management, program management, and functional area managers review and approve make-buy analysis.

73.4.7   Project managers baseline make-buy analysis.

73.5   DEFINITIONS

73.5.1   Make-Buy Analysis: consists of the determination of what products or product components will be acquired based on an analysis of the needs of the project, which begins early in the project during the first iteration of design, continues during the design process, and is completed with the decision to develop, acquire, or reuse the product.

73.6   RESPONSIBILITIES

73.6.1   Project managers are responsible for receiving requirements and designs for performing make, buy, or reuse analysis, reviewing and analyzing requirements and designs for identifying make-buy analysis, identifying make-by analysis from requirements and designs, documenting make-by analysis identified from requirements and designs, and baselining make-buy analysis.

73.6.2   Relevant stakeholders are responsible for evaluating make-buy analysis.

73.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving make-buy analysis.

73.7   PROCESS

73.7.1   Receive Requirements and Designs for Performing Make, Buy, or Reuse Analysis

Project managers shall receive requirements and designs from configuration management for performing make, buy, or reuse analysis.

73.7.2   Review Requirements and Design for Identifying Make-Buy Analysis

Project managers shall review and analyze requirements and designs for identifying make-buy analysis, which consists of the determination of what products or product components will be acquired based on an analysis of the needs of the project, which begins early in the project during the first iteration of design, continues during the design process, and is completed with the decision to develop, acquire, or reuse the product.

73.7.3   Identify Make-Buy Analysis from Requirements and Designs

Project managers shall identify make-by analysis from

requirements and designs, which includes developing criteria for the reuse of product-component designs; analyzing designs to determine if product components should be developed, reused, or purchased; and planning for their maintenance when purchased or non-developmental (COTS, government off the shelf, and reuse) items are selected.

73.7.4   Document Make-Buy Analysis Identified from Requirements and Designs

Project managers shall document make-by analysis identified from requirements and designs, for implementing the design and developing product support documentation.

73.7.5   Evaluate Make-Buy Analysis

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate make-buy analysis, and make necessary additions, deletions, enhancements, and corrections.

73.7.6   Review and Approve Make-Buy Analysis

Senior management, program management, and functional area managers shall review and approve make-buy analysis as well as any additions, deletions, enhancements, and corrections to make-buy analysis by relevant stakeholders.

73.7.7   Baseline Make-Buy Analysis

Project managers shall submit make-buy analysis to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
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		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	TECHNICAL SOLUTION		
Practice	74.0 IMPLEMENT THE DESIGN		

74.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive technical data packages for implementing the product design, project managers shall review and analyze technical data packages for identifying product components, project managers shall identify product components from technical data packages, project managers shall implement product components identified from technical data packages, relevant stakeholders shall evaluate product components, senior management, program management, and functional area managers shall review and approve product components, and project managers shall baseline product components.

74.2   REVISION HISTORY

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74.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

74.4   POLICY

The policy of this organization is to ensure that:

74.4.1   Project managers receive technical data packages for implementing the product design.

74.4.2   Project managers review and analyze technical data packages for identifying product components.

74.4.3   Project managers identify product components from technical data packages.

74.4.4   Project managers implement product components identified from technical data packages.

74.4.5   Relevant stakeholders evaluate product components.

74.4.6   Senior management, program management, and functional area managers review and approve product components.

74.4.7   Project managers baseline product components.

74.5   DEFINITIONS

74.5.1   Product Components: lower level components of the product that are integrated to build the product and are parts of the product delivered to the customer and may serve in the manufacture or use of a product.

74.6   RESPONSIBILITIES

74.6.1   Project managers are responsible for receiving technical data packages for implementing the product design, reviewing and analyzing technical data packages for identifying product components, identifying product components from technical data packages, implementing product components identified from technical data packages, and baselining product components.

74.6.2   Relevant stakeholders are responsible for evaluating product components.

74.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving product components.

74.7   PROCESS

74.7.1   Receive Technical Data Packages for Implementing the Product Design

Project managers shall receive technical data packages from configuration management for implementing the product design.

74.7.2   Review Technical Data Packages for Identifying Product Components

Project managers shall review and analyze technical data packages for identifying product components, which are lower level components of the product that are integrated to build the product and are parts of the product delivered to the customer and may serve in the manufacture or use of a product.

74.7.3   Identify Product Components from Technical Data Packages

Project managers shall identify product components from technical data packages, which includes using effective methods to implement the product components; adhering to applicable standards and criteria; conducting peer reviews of the selected product components; performing unit testing

of the product component as appropriate; and revising the product component as necessary.

74.7.4 Implement Product Components Identified from Technical Data Packages

```
Project managers shall implement product components
identified from technical data packages, for developing
product support documentation.
```

74.7.5 Evaluate Product Components

```
Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate product components, and make necessary additions,
deletions, enhancements, and corrections.
```

74.7.6 Review and Approve Product Components

```
Senior management, program management, and functional area
managers shall review and approve product components as well
as any additions, deletions, enhancements, and corrections
to product components by relevant stakeholders.
```

74.7.7 Baseline Product Components

```
Project managers shall submit product components to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.
```

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	TECHNICAL SOLUTION
Practice	75.0 DEVELOP PRODUCT SUPPORT DOCUMENTATION

75.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive technical data packages for developing product support documentation, project managers shall review and analyze technical data packages for identifying product support documentation, project managers shall identify product support documentation from technical data packages, project managers shall develop product support documentation identified from technical data packages, relevant stakeholders shall evaluate product support documentation, senior management, program management, and functional area managers shall review and approve product support documentation, and project managers shall baseline product support documentation.

75.2   REVISION HISTORY

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75.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

75.4   POLICY

The policy of this organization is to ensure that:

75.4.1   Project managers receive technical data packages for developing product support documentation.

75.4.2   Project managers review and analyze technical data packages for identifying product support documentation.

75.4.3   Project managers identify product support documentation from technical data packages.

75.4.4   Project managers develop product support documentation identified from technical data packages.

75.4.5 Relevant stakeholders evaluate product support documentation.

75.4.6 Senior management, program management, and functional area managers review and approve product support documentation.

75.4.7 Project managers baseline product support documentation.

75.5 DEFINITIONS

75.5.1 <u>Product Support Documentation</u>: a collection of documents on a given subject; any written or pictorial information describing, defining, specifying, reporting, or certifying activities, requirements, procedures, or results; the process of generating or revising a document, or the management of documents.

75.6 RESPONSIBILITIES

75.6.1 Project managers are responsible for receiving technical data packages for developing product support documentation, reviewing and analyzing technical data packages for identifying product support documentation, identifying product support documentation from technical data packages, developing product support documentation identified from technical data packages, and baselining product support documentation.

75.6.2 Relevant stakeholders are responsible for evaluating product support documentation.

75.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving product support documentation.

75.7 PROCESS

75.7.1 Receive Technical Data Packages for Developing Product Support Documentation

Project managers shall receive technical data packages from configuration management for developing product support documentation.

75.7.2 Review Technical Data Packages for Identifying Product Support Documentation

Project managers shall review and analyze technical data packages for identifying product support documentation, which are a collection of documents on a given subject; any written or pictorial information describing, defining, specifying, reporting, or certifying activities, requirements, procedures, or results; the process of generating or revising a document, or the management of documents.

75.7.3 Identify Product Support Documentation from Technical Data Packages

```
Project managers shall identify product support
documentation from technical data packages, which includes
reviewing the requirements, design, product, and- test
results to ensure that issues affecting the installation,
operation, and maintenance documentation are identified and
resolved; using effective methods to develop the
installation, operation, and maintenance documentation;
adhering to the applicable documentation standards;
developing preliminary versions of the installation,
operation, and maintenance documentation; and conducting
peer reviews.
```

75.7.4 Develop Product Support Documentation Identified from Technical Data Packages

```
Project managers shall develop product support documentation
identified from technical data packages, for product
integration, verification, and validation support.
```

75.7.5 Evaluate Product Support Documentation

```
Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate product support documentation, and make necessary
additi6ns, deletions, enhancements, and corrections.
```

75.7.6 Review and Approve Product Support Documentation

```
Senior management, program management, and functional area
managers shall review and approve product support
documentation as well as any additions, deletions,
enhancements, and corrections to product support
documentation by relevant stakeholders.
```

75.7.7 Baseline Product Support Documentation

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Project managers shall submit documentation to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.
```

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	PRODUCT INTEGRATION
Practice	76.0 DETERMINE INTEGRATION SEQUENCE

76.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive product components for determining integration sequence, project managers shall review and analyze product components for identifying integration sequences, project managers shall identify integration sequences from product components, project managers shall document integration sequences identified from product components, relevant stakeholders shall evaluate integration sequences, senior management, program management, and functional area managers shall review and approve integration sequences, and project managers shall baseline integration sequences.

76.2   REVISION HISTORY

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!  Date   !            Description            ! Author Initials !
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76.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

76.4   POLICY

The policy of this organization is to ensure that:

76.4.1   Project managers receive product components for determining integration sequence.

76.4.2   Project managers review and analyze product components for identifying integration sequences.

76.4.3   Project managers identify integration sequences from product components.

76.4.4   Project managers document integration sequences identified from product components.

76.4.5   Relevant stakeholders evaluate integration sequences.

76.4.6   Senior management, program management, and functional area managers review and approve integration sequences.

76.4.7   Project managers baseline integration sequences.

76.5   DEFINITIONS

76.5.1   <u>Integration Sequence</u>: processes that provide for incremental assembly and evaluation or product components that provide a problem-free foundation for incorporation of other products components.

76.6   RESPONSIBILITIES

76.6.1   Project managers are responsible for receiving product components for determining integration sequence, reviewing and analyzing product components for identifying integration sequences, identifying integration sequences from product components, documenting integration sequences identified from product components, and baselining integration sequences.

76.6.2   Relevant stakeholders are responsible for evaluating integration sequences.

76.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving integration sequences.

76.7   PROCESS

76.7.1   Receive Product Components for Determining Integration Sequence

Project managers shall receive product components from configuration management for determining integration sequence.

76.7.2   Review Product Components for Identifying Integration Sequences

Project managers shall review and analyze product components for identifying integration sequences, which are processes that provide for incremental assembly and evaluation or product components that provide a problem-free foundation for incorporation of other products components.

76.7.3   Identify Integration Sequences from Product Components

Project managers shall identify integration sequences from product components, which includes identifying product components to be integrated; identifying product integration verifications to be performed using the definition of the interfaces; identifying alternative product-component

integration sequences; selecting the best integration sequence; periodically reviewing the product integration sequence; and recording the rationale for decisions made and deferred.

76.7.4   Document Integration Sequences Identified from Product Components

Project managers shall document integration sequences identified from product components, for establishing the product integration environment, establishing product integration procedures and criteria, reviewing interface descriptions for completeness, managing interfaces, confirming readiness of product components for integration, assembling product components, evaluating assembled product components, and packaging and delivering the product or product component.

76.7.5   Evaluate Integration Sequences

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate integration sequences, and make necessary additions, deletions, enhancements, and corrections.

76.7.6   Review and Approve Integration Sequences

Senior management, program management, and functional area managers shall review and approve integration sequences as well as any additions, deletions, enhancements, and corrections to integration sequences by relevant stakeholders.

76.7.7   Baseline Integration Sequences

Project managers shall submit sequences to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	PRODUCT INTEGRATION		
Practice	77.0 ESTABLISH THE PRODUCT INTEGRATION ENVIRONMENT		

77.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integration sequences for establishing the product integration environment, project managers shall review and analyze integration sequences for identifying the product integration environment, project managers shall review and analyze integration sequences for identifying the product integration environment, project managers shall document the product integration environment identified from integration sequences, relevant stakeholders shall evaluate product integration environment, senior management, program management, and functional area managers shall review and approve product integration environment, and project managers shall baseline product integration environment.

77.2   REVISION HISTORY

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!  Date   !              Description           ! Author Initials !
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77.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

77.4   POLICY

The policy of this organization is to ensure that:

77.4.1   Project managers receive integration sequences for establishing the product integration environment.

77.4.2   Project managers review and analyze integration sequences for identifying the product integration environment.

77.4.3   Project managers review and analyze integration sequences for identifying the product integration environment.

77.4.4   Project managers document the product integration environment identified from integration sequences.

77.4.5　Relevant stakeholders evaluate product integration
　　　　　　　　environment.

　　　　77.4.6　Senior management, program management, and functional area
　　　　　　　　managers review and approve product integration environment.

　　　　77.4.7　Project managers baseline product integration environment.

77.5　DEFINITIONS

　　　　77.5.1　Product Integration Environment: information resources that
　　　　　　　　consist of equipment, software, or other computer-related
　　　　　　　　resources for assembling product components (e.g., test
　　　　　　　　equipment, simulators, field equipment, and recording
　　　　　　　　devices).

77.6　RESPONSIBILITIES

　　　　77.6.1　Project managers are responsible for receiving integration
　　　　　　　　sequences for establishing the product integration
　　　　　　　　environment, reviewing and analyzing integration sequences
　　　　　　　　for identifying the product integration environment,
　　　　　　　　reviewing and analyzing integration sequences for
　　　　　　　　identifying the product integration environment, documenting
　　　　　　　　the product integration environment identified from
　　　　　　　　integration sequences, and baselining product integration
　　　　　　　　environment.

　　　　77.6.2　Relevant stakeholders are responsible for evaluating product
　　　　　　　　integration environment.

　　　　77.6.3　Senior management, program management, and functional area
　　　　　　　　managers are responsible for reviewing and approving product
　　　　　　　　integration environment.

77.7　PROCESS

　　　　77.7.1　Receive Integration Sequences for Establishing the Product
　　　　　　　　Integration Environment

　　　　　　　　Project managers shall receive integration sequences from
　　　　　　　　configuration management for establishing the product
　　　　　　　　integration environment.

　　　　77.7.2　Review Integration Sequences for Identifying the Product
　　　　　　　　Integration Environment

　　　　　　　　Project managers shall review and analyze integration
　　　　　　　　sequences for identifying the product integration
　　　　　　　　environment, which are information resources that consist of
　　　　　　　　equipment, software, or other computer-related resources for
　　　　　　　　assembling product components (e.g., test equipment,
　　　　　　　　simulators, field equipment, and recording devices).

　　　　77.7.3　Identify the Product Integration Environment from Integration

Sequences

Project managers shall identify the product integration environment from integration sequences, which includes identifying the requirements for the product integration environment; identifying verification criteria and procedures; deciding whether to make or buy the needed product integration environment; developing an integration environment if necessary; maintaining the product integration environment; and disposing the environment components that aren't useful.

77.7.4 Document the Product Integration Environment Identified from Product Components

Project managers shall document the product integration environment identified from integration sequences, for establishing product integration procedures and criteria, reviewing interface descriptions for completeness, managing interfaces, confirming readiness of product components for integration, assembling product components, evaluating assembled product components, and packaging and delivering the product or product component.

77.7.5 Evaluate Product Integration Environment

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate product integration environment, and make necessary additions, deletions, enhancements, and corrections.

77.7.6 Review and Approve Product Integration Environment

Senior management, program management, and functional area managers shall review and approve product integration environment as well as any additions, deletions, enhancements, and corrections to product integration environment by relevant stakeholders.

77.7.7 Baseline Product Integration Environment

Project managers shall submit environments to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	PRODUCT INTEGRATION		
Practice	78.0 ESTABLISH PRODUCT INTEGRATION PROCEDURES AND CRITERIA		

78.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive product integration environment for establishing product integration procedures and criteria, project managers shall review and analyze the product integration environment for identifying product integration procedures and criteria, project managers shall identify product integration procedures and criteria from the product integration environment, project managers shall document the product integration procedures and criteria identified from the product integration environment, relevant stakeholders shall evaluate product integration procedures and criteria, senior management, program management, and functional area managers shall review and approve product integration procedures and criteria, and project managers shall baseline product integration procedures and criteria.

78.2   REVISION HISTORY

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!  Date   !            Description            ! Author Initials !
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78.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

78.4   POLICY

The policy of this organization is to ensure that:

78.4.1   Project managers receive product integration environment for establishing product integration procedures and criteria.

78.4.2   Project managers review and analyze the product integration environment for identifying product integration procedures and criteria.

78.4.3   Project managers identify product integration procedures and criteria from the product integration environment.

78.4.4   Project managers document the product integration procedures and criteria identified from the product integration environment.

78.4.5   Relevant stakeholders evaluate product integration procedures and criteria.

78.4.6   Senior management, program management, and functional area managers review and approve product integration procedures and criteria.

78.4.7   Project managers baseline product integration procedures and criteria.

78.5   DEFINITIONS

78.5.1   <u>Product Integration Procedures</u>: procedures for the integration of the product components and can include such things as the number of incremental iterations to be performed and details of the expected tests and other evaluations to be carried out at each stage.

78.6   RESPONSIBILITIES

78.6.1   Project managers are responsible for receiving product integration environment for establishing product integration procedures and criteria, reviewing and analyzing the product integration environment for identifying product integration procedures and criteria, identifying product integration procedures and criteria from the product integration environment, documenting the product integration procedures and criteria identified from the product integration environment, and project managers shall baseline product integration procedures and criteria.

78.6.2   Relevant stakeholders are responsible for evaluating product integration procedures and criteria.

78.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving product integration procedures and criteria.

78.7   PROCESS

78.7.1   Receive Environment for Establishing Product Integration Procedures and Criteria

Project managers shall receive product integration environment from configuration management for establishing product integration procedures and criteria.

78.7.2   Review Environment for Identifying Product Integration Procedures and Criteria

Project managers shall review and analyze the product integration environment for identifying product integration

procedures and criteria, which are procedures for the integration of the product components and can include such things as the number of incremental iterations to be performed and details of the expected tests and other evaluations to be carried out at each stage.

78.7.3 Identify Product Integration Procedures and Criteria from Environment

Project managers shall identify product integration procedures and criteria from the product integration environment, which includes establishing and maintaining product integration procedures; establishing and maintaining criteria for product-component integration; and establishing and maintaining criteria for validation and delivery of the integrated product.

78.7.4 Document the Product Integration Procedures and Criteria Identified from Environment

Project managers shall document the product integration procedures and criteria identified from the product integration environment, for reviewing interface descriptions for completeness, managing interfaces, confirming readiness of product components for integration, assembling product components, evaluating assembled product components, and packaging and delivering the product or product component.

78.7.5 Evaluate Product Integration Procedures and Criteria

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate product integration procedures and criteria, and make necessary additions, deletions, enhancements, and corrections.

78.7.6 Review and Approve Product Integration Procedures and Criteria

Senior management, program management, and functional area managers shall review and approve product integration procedures and criteria as well as any additions, deletions, enhancements, and corrections to them by relevant stakeholders.

78.7.7 Baseline Product Integration Procedures and Criteria

Project managers shall submit the procedures to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	PRODUCT INTEGRATION		
Practice	79.0 REVIEW INTERFACE DESCRIPTIONS FOR COMPLETENESS		

79.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive interface descriptions for reviewing interface descriptions for completeness, project managers shall review and analyze interface descriptions for identifying improvements to interface descriptions, project managers shall identify improvements from reviewing interface descriptions for completeness, project managers shall document results of reviewing interface descriptions for completeness, relevant stakeholders shall evaluate results of review, senior management, program management, and functional area managers shall review and approve results of review, and project managers shall baseline results of review.

79.2   REVISION HISTORY

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!  Date   !             Description            ! Author Initials !
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79.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

79.4   POLICY

The policy of this organization is to ensure that:

79.4.1   Project managers receive interface descriptions for reviewing interface descriptions for completeness.

79.4.2   Project managers review and analyze interface descriptions for identifying improvements to interface descriptions.

79.4.3   Project managers identify improvements from reviewing interface descriptions for completeness.

79.4.4   Project managers document results of reviewing interface descriptions for completeness.

79.4.5   Relevant stakeholders evaluate results of review.

79.4.6   Senior management, program management, and functional area managers review and approve results of review.

79.4.7   Project managers baseline results of review.

79.5   DEFINITIONS

79.5.1   Interface Description Improvements: modifications, additions, or deletions to the architecture, components, and characteristics of shared boundaries across which information is passed, a hardware or software component that connects two or more other components for the purpose of passing information from one to the other, or a element that serves the purposes of connecting or as a connecting component.

79.6   RESPONSIBILITIES

79.6.1   Project managers are responsible for receiving interface descriptions for reviewing interface descriptions for completeness, reviewing and analyzing interface descriptions for identifying improvements to interface descriptions, identifying improvements from reviewing interface descriptions for completeness, documenting results of reviewing interface descriptions for completeness, and baselining results of review.

79.6.2   Relevant stakeholders are responsible for evaluating results of review.

79.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving results of review.

79.7   PROCESS

79.7.1   Receive Interface Descriptions for Reviewing Interface Descriptions for Completeness

Project managers shall receive interface descriptions from configuration management for reviewing interface descriptions for completeness.

79.7.2   Review Interface Descriptions for Identifying Improvements to Interface Descriptions

Project managers shall review and analyze interface descriptions for identifying improvements to interface descriptions, which are modifications, additions, or deletions to the architecture, components, and characteristics of shared boundaries across which information is passed, a hardware or software component that connects two or more other components for the purpose of passing information from one to the other, or a element that

serves the purposes of connecting or as a connecting component

79.7.3 Identify Improvements from Reviewing Interface Descriptions for Completeness

Project managers shall identify improvements from reviewing interface descriptions for completeness, which includes reviewing interface data for completeness and ensuring complete coverage of all interfaces; ensuring that product components and interfaces are marked to ensure easy and correct connection to the joining product component; and periodically reviewing the adequacy of interface descriptions.

79.7.4 Document Results of Reviewing Interface Descriptions for Completeness

Project managers shall document results of reviewing interface descriptions for completeness, for managing interfaces, confirming readiness of product components for integration, assembling product components, evaluating assembled product components, and packaging and delivering the product or product component.

79.7.5 Evaluate Results of Review

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate results of review, and make necessary additions, deletions, enhancements, and corrections.

79.7.6 Review and Approve Results of Review

Senior management, program management, and functional area managers shall review and approve results of review as well as any additions, deletions, enhancements, and corrections to results of review by relevant stakeholders.

79.7.7 Baseline Results of Review

Project managers shall submit results of review to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	PRODUCT INTEGRATION
Practice	80.0 MANAGE INTERFACES

80.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive interface descriptions for managing interfaces, project managers shall review and analyze interface descriptions for identifying changes to interfaces, project managers shall identify changes to interfaces from interface descriptions, project managers shall document changes to interfaces identified from interface descriptions, relevant stakeholders shall evaluate changes to interfaces, senior management, program management, and functional area managers shall review and approve changes to interfaces, and project managers shall baseline changes to interfaces.

80.2   REVISION HISTORY

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80.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

80.4   POLICY

The policy of this organization is to ensure that:

80.4.1   Project managers receive interface descriptions for managing interfaces.

80.4.2   Project managers review and analyze interface descriptions for identifying changes to interfaces.

80.4.3   Project managers identify changes to interfaces from interface descriptions.

80.4.4   Project managers document changes to interfaces identified from interface descriptions.

80.4.5   Relevant stakeholders evaluate changes to interfaces.

80.4.6   Senior management, program management, and functional area managers review and approve changes to interfaces.

80.4.7   Project managers baseline changes to interfaces.

80.5   DEFINITIONS

80.5.1   Interface Changes: modifications, additions, or deletions to the architecture, components, and characteristics of shared boundaries across which information is passed, a hardware or software component that connects two or more other components for the purpose of passing information from one to the other, or a element that serves the purposes of connecting or as a connecting component.

80.6   RESPONSIBILITIES

80.6.1   Project managers are responsible for receiving interface descriptions for managing interfaces, reviewing and analyzing interface descriptions for identifying changes to interfaces, identifying changes to interfaces from interface descriptions, documenting changes to interfaces identified from interface descriptions, and baselining changes to interfaces.

80.6.2   Relevant stakeholders are responsible for evaluating changes to interfaces.

80.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving changes to interfaces.

80.7   PROCESS

80.7.1   Receive Interface Descriptions for Managing Interfaces

Project managers shall receive interface descriptions from configuration management for managing interfaces.

80.7.2   Review Interface Descriptions for Identifying Changes to Interfaces

Project managers shall review and analyze interface descriptions for identifying changes to interfaces, which are modifications, additions, or deletions to the architecture, components, and characteristics of shared boundaries across which information is passed, a hardware or software component that connects two or more other components for the purpose of passing information from one to the other, or a element that serves the purposes of connecting or as a connecting component.

80.7.3   Identify Changes to Interfaces from Interface Descriptions

Project managers shall identify changes to interfaces from interface descriptions, which includes ensuring the

compatibility of the interfaces throughout the life of the product; resolving conflict, noncompliance, and change issues; and maintaining a repository for interface data accessible to project participants.

80.7.4 Document Changes to Interfaces Identified from Interface Descriptions

Project managers shall document changes to interfaces identified from interface descriptions, for confirming readiness of product components for integration, assembling product components, evaluating assembled product components, and packaging and delivering the product or product component.

80.7.5 Evaluate Changes to Interfaces

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate changes to interfaces, and make necessary additions, deletions, enhancements, and corrections.

80.7.6 Review and Approve Changes to Interfaces

Senior management, program management, and functional area managers shall review and approve changes to interfaces as well as any additions, deletions, enhancements, and corrections to changes to interfaces by relevant stakeholders.

80.7.7 Baseline Changes to Interfaces

Project managers shall submit interface changes to configuration management for configuration identification, configuration control, configuration status a6counting, and configuration auditing.

		Number	
Model	# CMMI V1.1	Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	PRODUCT INTEGRATION
Practice	81.0 CONFIRM READINESS OF PRODUCT COMPONENTS FOR INTEGRATION

81.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive product component status for confirming readiness of product components for integration, project managers shall review and analyze product component status for identifying product component readiness, project managers shall identify product component readiness from product component status, project managers shall document readiness review results identified from product component status, relevant stakeholders shall evaluate readiness review results, senior management, program management, and functional area managers shall review and approve readiness review results, and project managers shall baseline readiness review results.

81.2   REVISION HISTORY

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!  Date   !            Description            ! Author Initials !
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81.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

81.4   POLICY

The policy of this organization is to ensure that:

81.4.1   Project managers receive product component status for confirming readiness of product components for integration.

81.4.2   Project managers review and analyze product component status for identifying product component readiness.

81.4.3   Project managers identify product component readiness from product component status.

81.4.4   Project managers document readiness review results identified from product component status.

81.4.5 Relevant stakeholders evaluate readiness review results.

81.4.6 Senior management, program management, and functional area managers review and approve readiness review results.

81.4.7 Project managers baseline readiness review results.

81.5 DEFINITIONS

81.5.1 Readiness Review Results: results of ensuring that the properly identified product component meets its description and can actually be assembled according to the product integration sequence and available procedures.

81.6 RESPONSIBILITIES

81.6.1 Project managers are responsible for receiving product component status for confirming readiness of product components for integration, reviewing and analyzing product component status for identifying product component readiness, identifying product component readiness from product component status, documenting readiness review results identified from product component status, and baselining readiness review results.

81.6.2 Relevant stakeholders responsible for evaluating readiness review results.

81.6.3 Senior management, program management, and functional area managers responsible for reviewing and approving readiness review results.

81.7 PROCESS

81.7.1 Receive Component Status for Confirming Readiness of Product Components for Integration

Project managers shall receive product component status from configuration management for confirming readiness of product components for integration.

81.7.2 Review Product Component Status for Identifying Product Component Readiness

Project managers shall review and analyze product component status for identifying product component readiness, which are results of ensuring that the properly identified product component meets its description and can actually be assembled according to the product integration sequence and available procedures.

81.7.3 Identify Product Component Readiness from Product Component Status

Project managers shall identify product component readiness

from product component status, which includes tracking the status of all product components; ensuring that product components are delivered in accordance with the product integration sequence and available procedures; confirming the receipt of each properly identified product component; ensuring that each received product component meets its description; checking the configuration status; and performing pre-check of all the physical interfaces before connecting product components.

81.7.4 Document Readiness Review Results Identified from Product Component Status

Project managers shall document readiness review results identified from product component status, for assembling product components, evaluating assembled product components, and packaging and delivering the product or product component.

81.7.5 Evaluate Readiness Review Results

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate readiness review results, and make necessary additions, deletions, enhancements, and corrections.

81.7.6 Review and Approve Readiness Review Results

Senior management, program management, and functional area managers shall review and approve readiness review results as well as any additions, deletions, enhancements, and corrections to readiness review results by relevant stakeholders.

81.7.7 Baseline Readiness Review Results

Project managers shall submit review results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	PRODUCT INTEGRATION		
Practice	82.0 ASSEMBLE PRODUCT COMPONENTS		

82.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive readiness review results for assembling product components, project managers shall review and analyze readiness review results for assembling product components, project managers shall assemble product components based on readiness review results of product components, project managers shall document assembly results from assembling product components, relevant stakeholders shall evaluate assembly results, senior management, program management, and functional area managers shall review and approve assembly results, and project managers shall baseline assembly results.

82.2   REVISION HISTORY

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!  Date    !              Description           ! Author Initials !
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82.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

82.4   POLICY

The policy of this organization is to ensure that:

82.4.1   Project managers receive readiness review results for assembling product components.

82.4.2   Project managers review and analyze readiness review results for assembling product components.

82.4.3   Project managers assemble product components based on readiness review results of product components.

82.4.4   Project managers document assembly results from assembling product components.

82.4.5   Relevant stakeholders evaluate assembly results.

82.4.6   Senior management, program management, and functional area managers review and approve assembly results.

82.4.7   Project managers baseline assembly results.

82.5   DEFINITIONS

82.5.1   <u>Assembly Results</u>: results of ensuring that the properly identified product component meets its description and can actually be assembled according to the product integration sequence and available procedures.

82.6   RESPONSIBILITIES

82.6.1   Project managers are responsible for receiving readiness review results for assembling product components, reviewing and analyzing readiness review results for assembling product components, assembling product components based on readiness review results of product components, documenting assembly results from assembling product components, and baselining assembly results.

82.6.2   Relevant stakeholders are responsible for evaluating assembly results.

82.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving assembly results.

82.7   PROCESS

82.7.1   Receive Readiness Review Results for Assembling Product Components

Project managers shall receive readiness review results from configuration management for assembling product components.

82.7.2   Review Readiness Review Results for Assembling Product Components

Project managers shall review and analyze readiness review results for assembling product components, which are the results of ensuring that the properly identified product component meets its description and can actually be assembled according to the product integration sequence and available procedures.

82.7.3   Assemble Product Components Based on Readiness Review Results of Product Components

Project managers shall assemble product components based on readiness review results of product components, which includes ensuring the readiness of the product integration

environment; ensuring that the assembly sequence is properly performed; and revising the product integration sequence and available procedures as appropriate.

82.7.4 Document Assembly Results from Assembling Product Components

Project managers shall document assembly results from assembling product components, for evaluating assembled product components and packaging and delivering the product or product component.

82.7.5 Evaluate Assembly Results

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate assembly results, and make necessary additions, deletions, enhancements, and corrections.

82.7.6 Review and Approve Assembly Results

Senior management, program management, and functional area managers shall review and approve assembly results as well as any additions, deletions, enhancements, and corrections to assembly results by relevant stakeholders.

82.7.7 Baseline Assembly Results

Project managers shall submit assembly results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	PRODUCT INTEGRATION		
Practice	83.0 EVALUATE ASSEMBLED PRODUCT COMPONENTS		

83.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive assembly results for evaluating assembled product components, project managers shall review and analyze assembly results for analyzing assembled product components, project managers shall evaluate assembly results from analyzing assembled product components, project managers shall document results of evaluation from analyzing assembly results, relevant stakeholders shall evaluate results of evaluation, senior management, program management, and functional area managers shall review and approve results of evaluation, and project managers shall baseline results of evaluation.

83.2   REVISION HISTORY

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83.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

83.4   POLICY

The policy of this organization is to ensure that:

83.4.1   Project managers receive assembly results for evaluating assembled product components.

83.4.2   Project managers review and analyze assembly results for analyzing assembled product components.

83.4.3   Project managers evaluate assembly results from analyzing assembled product components

83.4.4   Project managers document results of evaluation from analyzing assembly results.

83.4.5 Relevant stakeholders evaluate results of evaluation.

83.4.6 Senior management, program management, and functional area managers review and approve results of evaluation.

83.4.7 Project managers baseline results of evaluation.

83.5 DEFINITIONS

83.5.1 <u>Evaluation Results</u>: a document that describes the conduct and results of the assembly carried out for product components.

83.6 RESPONSIBILITIES

83.6.1 Project managers are responsible for receiving assembly results for evaluating assembled product components, reviewing and analyzing assembly results for analyzing assembled product components, evaluating assembly results from analyzing assembled product components, documenting results of evaluation from analyzing assembly results, and baselining results of evaluation.

83.6.2 Relevant stakeholders are responsible for evaluating results of evaluation.

83.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving results of evaluation.

83.7 PROCESS

83.7.1 Receive Assembly Results for Evaluating Assembled Product Components

Project managers shall receive assembly results from configuration management for evaluating assembled product components.

83.7.2 Review Assembly Results for Analyzing Assembled Product Components

Project managers shall review and analyze assembly results for analyzing assembled product components, which is a document that describes the conduct and results of the assembly carried out for product components.

83.7.3 Evaluate Assembly Results from Analyzing Assembled Product Components

Project managers shall evaluate assembly results from analyzing assembled product components, which includes conducting the evaluation of assembled product components following the product integration sequence and available procedures; and recording the evaluation results.

83.7.4 Document Results of Evaluation from Analyzing Assembly Results

Project managers shall document results of evaluation from analyzing assembly results, for packaging and delivering the product or product component.

83.7.5 Evaluate Results of Evaluation

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate results of evaluation, and make necessary additions, deletions, enhancements, and corrections.

83.7.6 Review and Approve Results of Evaluation

Senior management, program management, and functional area managers shall review and approve results of evaluation as well as any additions, deletions, enhancements, and corrections to results of evaluation by relevant stakeholders.

83.7.7 Baseline Results of Evaluation

Project managers shall submit evaluation results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	PRODUCT INTEGRATION		
Practice	84.0 PACKAGE AND DELIVER THE PRODUCT OR PRODUCT COMPONENT		

84.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive results of evaluation for packaging and delivering the product or product component, project managers shall review and analyze results of evaluation for preparing products or product components, project managers shall prepare products or product components based on results of evaluation, project managers shall document product or product component from analyzing results of evaluation, relevant stakeholders shall evaluate product or product component, senior management, program management, and functional area managers shall review and approve product or product component, and project managers shall baseline product or product component.

84.2   REVISION HISTORY

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84.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

84.4   POLICY

The policy of this organization is to ensure that:

84.4.1   Project managers receive results of evaluation for packaging and delivering the product or product component.

84.4.2   Project managers review and analyze results of evaluation for preparing products or product components.

84.4.3   Project managers prepare products or product components based on results of evaluation.

84.4.4   Project managers document product or product component from analyzing results of evaluation.

84.4.5　　Relevant stakeholders evaluate product or product component.

84.4.6　　Senior management, program management, and functional area managers review and approve product or product component.

84.4.7　　Project managers baseline product or product component.

84.5　　DEFINITIONS

84.5.1　　<u>Product or Product Component</u>: any tangible outputs or services that are a result of a process and that are intended for delivery to a customer or end user.

84.6　　RESPONSIBILITIES

84.6.1　　Project managers are responsible for receiving results of evaluation for packaging and delivering the product or product component, reviewing and analyzing results of evaluation for preparing products or product components, preparing products or product components based on results of evaluation, documenting product or product component from analyzing results of evaluation, and baselining product or product component.

84.6.2　　Relevant stakeholders are responsible for evaluating pro4uct or product component.

84.6.3　　Senior management, program management, and functi1onal area managers are responsible for reviewing and approving product or product component.

84.7　　PROCESS

84.7.1　　Receive Results of Evaluation for Packaging and Delivering the Product or Product Component

Project managers shall receive results of evaluation from configuration management for packaging and delivering the product or product component.

84.7.2　　Review Results of Evaluation for Preparing Products or Product Components

Project managers shall review and analyze results of evaluation for prepar9ing products or product components, which are any tangible outputs or services that are a result of a process and that are intended for delivery to a customer or end-user.

84.7.3　　Prepare Products or Product Components Based on Results of Evaluation

Project managers shall prepare products or product components based on results of evaluation, which includes reviewing the requirements, design, product, verification

results, and documentation to ensure that issues affecting the packaging and delivery of the product are identified and resolved; using effective methods to package and deliver the assembled product; satisfying the applicable requirements and standards for packaging and delivering the product; preparing the operational site for installation of the product; delivering the product and related documentation and confirm receipt; and installing the product at the operational site and confirm correct operation.

84.7.4   Document Product or Product Component from Analyzing Results of Evaluation

Project managers shall document product or product component from analyzing results of evaluation, for verification and validation.

84.7.5   Evaluate Product or Product Component

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate product or product component, and make necessary additions, deletions, enhancements, and corrections.

84.7.6   Review and Approve Product or Product Component

Senior management, program management, and functional area managers shall review and approve product or product component as well as any additions, deletions, enhancements, and corrections to product or product component by relevant stakeholders

84.7.7   Baseline Product or Product Component

Project managers shall submit product to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	VERIFICATION		
Practice	85.0 SELECT WORK PRODUCTS FOR VERIFICATION		

85.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive lists of work products for selecting work products for verification, project managers shall review and analyze lists of work products for identifying work products for verification, project managers shall identify work products for verification from lists of work products, project managers shall document selected work products identified from lists of work products, relevant stakeholders shall evaluate selected work products, senior management, program management, and functional area managers shall review and approve selected work products, and project managers shall baseline selected work products.

85.2   REVISION HISTORY

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85.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

85.4   POLICY

The policy of this organization is to ensure that:

85.4.1   Project managers receive lists of work products for selecting work products for verification.

85.4.2   Project managers review and analyze lists of work products for identifying work products for verification.

85.4.3   Project managers identify work products for verification from lists of work products.

85.4.4   Project managers document selected work products identified from lists of work products.

85.4.5   Relevant stakeholders evaluate selected work products.

85.4.6   Senior management, program management, and functional area managers review and approve selected work products.

85.4.7   Project managers baseline selected work products.

85.5   DEFINITIONS

85.5.1   <u>Selected Work Products</u>: work products contributing to project objectives and requirements, and to addressing project risks.

85.6   RESPONSIBILITIES

85.6.1   Project managers are responsible for receiving lists of work products for selecting work products for verification, reviewing and analyzing lists of work products for identifying work products for verification, identifying work products for verification from lists of work products, documenting selected work products identified from lists of work products, and baselining selected work products.

85.6.2   Relevant stakeholders are responsible for evaluating selected work products.

85.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving selected work products.

85.7   PROCESS

85.7.1   Receive Lists of Work Products for Selecting Work Products for Verification

Project managers shall receive lists of work products from configuration management for selecting work products for verification.

85.7.2   Review Lists of Work Products for Identifying Work Products for Verification

Project managers shall review and analyze lists of work products for identifying work products for verification, which are work products contributing to project objectives and requirements, and to addressing project risks.

85.7.3   Identify Work Products for Verification from Lists of Work Products

Project managers shall identify work products for verification from lists of work products, which includes identifying work products for verification; identifying the requirements to be satisfied by each selected work product; identifying the verification methods that are available for

use; defining the verification methods to be used for each selected work product; and submitting for integration with the project plan the identification of work products to be verified, the requirements to be satisfied, and the methods to be used.

85.7.4   Document Selected Work Products Identified from Lists of Work Products

Project managers shall document selected work products identified from lists of work products, for establishing the verification environment, establishing verification procedures and criteria, preparing for peer reviews, conducting peer reviews, analyzing peer review data, performing verification, and analyzing verification results and identifying corrective action.

85.7.5   Evaluate Selected Work Products

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate selected work products, and make necessary additions, deletions, enhancements, and corrections.

85.7.6   Review and Approve Selected Work Products

Senior management, program management, and functional area managers shall review and approve selected work products as well as any additions, deletions, enhancements, and corrections to selected work products by relevant stakeholders.

85.7.7   Baseline Selected Work Products

Project managers shall submit selected products to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	VERIFICATION		
Practice	86.0 ESTABLISH THE VERIFICATION ENVIRONMENT		

86.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive selected work products for establishing the verification environment, project managers shall review and analyze selected work products for identifying the verification environment, project managers shall identify verification environment from review of selected work products, project managers shall document verification environment identified from review of selected work products, relevant stakeholders shall evaluate verification environment, senior management, program management, and functional area managers shall review and approve verification environment, and project managers shall baseline verification environment.

86.2   REVISION HISTORY

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86.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

86.4   POLICY

The policy of this organization is to ensure that:

86.4.1   Project managers receive selected work products for establishing the verification environment.

86.4.2   Project managers review and analyze selected work products for identifying the verification environment.

86.4.3   Project managers identify verification environment from review of selected work products.

86.4.4   Project managers document verification environment identified from review of selected work products.

86.4.5   Relevant stakeholders evaluate verification environment.

86.4.6   Senior management, program management, and functional area managers review and approve verification environment.

86.4.7   Project managers baseline verification environment.

86.5   DEFINITIONS

86.5.1   Verification Environment: information resources consisting of equipment, software, or resources for assembling product components (e.g., test equipment, simulators, field equipment, and recording devices).

86.6   RESPONSIBILITIES

86.6.1   Project managers are responsible for receiving selected work products for establishing the verification environment, reviewing and analyzing selected work products for identifying the verification environment, identifying verification environment from review of selected work products, documenting verification environment identified from review of selected work products, and baselining verification environment.

86.6.2   Relevant stakeholders are responsible for evaluating verification environment.

86.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving verification environment.

86.7   PROCESS

86.7.1   Receive Selected Work Products for Establishing the Verification Environment

Project managers shall receive selected work products from configuration management for establishing the verification environment.

86.7.2   Review Selected Work Products for Identifying the Verification Environment

Project managers shall review and analyze selected work products for identifying the verification environment, which are information resources consisting of equipment, software, or resources for assembling product components (e.g., test equipment, simulators, field equipment, and recording devices).

86.7.3   Identify Verification Environment from Review of Selected Work Products

Project managers shall identify verification environment

from review of selected work products, which includes generating the set of comprehensive, integrated verification procedures for work products and any commercial off-the-shelf products, as necessary; developing and refining the verification criteria when necessary; identifying the expected results, any tolerances allowed in observation, and other criteria for satisfying the requirements; and identifying any equipment and environmental components needed to support verification.

86.7.4   Document Verification Environment Identified from Review of Selected Work Products

Project managers shall document verification environment identified from review of selected work products, for establishing verification procedures and criteria, preparing for peer reviews, conducting peer reviews, analyzing peer review data, performing verification, and analyzing verification results and identifying corrective action.

86.7.5   Evaluate Verification Environment

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate verification environment, and make necessary additions, deletions, enhancements, and corrections.

86.7.6   Review and Approve Verification Environment

Senior management, program management, and functional area managers shall review and approve verification environment as well as any additions, deletions, enhancements, and corrections to verification environment by relevant stakeholders.

86.7.7   Baseline Verification Environment

Project managers shall submit environment to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	VERIFICATION

Practice	87.0 ESTABLISH VERIFICATION PROCEDURES AND CRITERIA

87.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive verification environment for establishing verification procedures and criteria, project managers shall review and analyze the verification environment for identifying verification procedures and criteria, project managers shall identify verification procedures and criteria identified from verification environment, project managers shall document verification procedures and criteria identified from verification environment, relevant stakeholders shall evaluate verification procedures and criteria, senior management, program management, and functional area managers shall review and approve verification procedures and criteria, and project managers shall baseline verification procedures and criteria.

87.2   REVISION HISTORY

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87.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

87.4   POLICY

The policy of this organization is to ensure that:

87.4.1   Project managers receive verification environment for establishing verification procedures and criteria.

87.4.2   Project managers review and analyze the verification environment for identifying verification procedures and criteria.

87.4.3   Project managers identify verification procedures and criteria identified from verification environment.

87.4.4   Project managers document verification procedures and

criteria identified from verification environment.

87.4.5   Relevant stakeholders evaluate verification procedures and criteria.

87.4.6   Senior management, program management, and functional area managers review and approve verification procedures and criteria.

87.4.7   Project managers baseline verification procedures and criteria.

87.5   DEFINITIONS

87.5.1   <u>Verification Procedures and Criteria</u>: procedures for the verification of the product components and can include such things as the number of incremental iterations to be performed and details of the expected tests and other evaluations to be carried out at each stage.

87.6   RESPONSIBILITIES

87.6.1   Project managers are responsible for receiving verification environment for establishing verification procedures and criteria, reviewing and analyzing the verification environment for identifying verification procedures and criteria, identifying verification procedures and criteria identified from verification environment, documenting verification procedures and criteria identified from verification environment, and baselining verification procedures and criteria.

87.6.2   Relevant stakeholders are responsible for evaluating verification procedures and criteria.

87.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving verification procedures and criteria.

87.7   PROCESS

87.7.1   Receive Verification Environment for Establishing Verification Procedures and Criteria

Project managers shall receive verification environment from configuration management for establishing verification procedures and criteria.

87.7.2   Review Verification Environment for Identifying Verification Procedures and Criteria

Project managers shall review and analyze the verification environment for identifying verification procedures and criteria, which are procedures for the verification of the product components and can include such things as the number of incremental iterations to be performed and details of the expected tests and other evaluations to be carried out at

each stage.

87.7.3 Identify Verification Procedures and Criteria by Analyzing Verification Environment

Project managers shall identify verification procedures and criteria identified from verification environment, which includes generating the set of comprehensive, integrated verification procedures for work products and any commercial off-the-shelf products, as necessary; developing and refining the verification criteria when necessary; identifying the expected results, any tolerances allowed in observation, and other criteria for satisfying the requirements; and identifying any equipment and environmental components needed to support verification.

87.7.4 Document Verification Procedures and Criteria Identified from Verification Environment

Project managers shall document verification procedures and criteria identified from verification environment, for preparing for peer reviews, conducting peer reviews, analyzing peer review data, performing verification, and analyzing verification results and identifying corrective action.

87.7.5 Evaluate Verification Procedures and Criteria

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate verification procedures and criteria, and make necessary additions, deletions, enhancements, and corrections.

87.7.6 Review and Approve Verification Procedures and Criteria

Senior management, program management, and functional area managers shall review and approve verification procedures and criteria as well as any additions, deletions, enhancements, and corrections to verification procedures and criteria by relevant stakeholders.

87.7.7 Baseline Verification Procedures and Criteria

Project managers shall submit procedures to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	VERIFICATION		
Practice	88.0 PREPARE FOR PEER REVIEWS		

88.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive verification procedures and criteria for preparing for peer reviews, project managers shall review and analyze verification procedures and criteria for identifying peer review preparations, project managers shall identify peer review preparations by analyzing verification procedures and criteria, project managers shall document peer review preparations from analysis of verification procedures and criteria, relevant stakeholders shall evaluate peer review preparations, senior management, program management, and functional area managers shall review and approve peer review preparations, and project managers shall baseline peer review preparations.

88.2   REVISION HISTORY

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88.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

88.4   POLICY

The policy of this organization is to ensure that:

88.4.1   Project managers receive verification procedures and criteria for preparing for peer reviews.

88.4.2   Project managers review and analyze verification procedures and criteria for identifying peer review preparations.

88.4.3   Project managers identify peer review preparations by analyzing verification procedures and criteria.

88.4.4   Project managers document peer review preparations from analysis of verification procedures and criteria.

88.4.5   Relevant stakeholders evaluate peer review preparations.

88.4.6   Senior management, program management, and functional area managers review and approve peer review preparations.

88.4.7   Project managers baseline peer review preparations.

88.5   DEFINITIONS

88.5.1   Peer Review Preparations: a process of identifying the staff who will be invited to participate, identifying the key reviewers, preparing and updating any materials, and scheduling them.

88.6   RESPONSIBILITIES

88.6.1   Project managers are responsible for receiving verification procedures and criteria for preparing for peer reviews, reviewing and analyzing verification procedures and criteria for identifying peer review preparations, identifying peer review preparations by analyzing verification procedures and criteria, documenting peer review preparations from analysis of verification procedures and criteria, and baselining peer review preparations.

88.6.2   Relevant stakeholders are responsible for evaluating peer review preparations.

88.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving peer review preparations.

88.7   PROCESS

88.7.1   Receive Verification Procedures and Criteria for Preparing for Peer Reviews

Project managers shall receive verification procedures and criteria from configuration management for preparing for peer reviews.

88.7.2   Review Verification Procedures and Criteria for Identifying Peer Review Preparations

Project managers shall review and analyze verification procedures and criteria for identifying peer review preparations, which is a process of identifying the staff who will be invited to participate, identifying the key reviewers, preparing and updating any materials, and scheduling them.

88.7.3   Identify Peer Review Preparations by Analyzing Verification Procedures and Criteria

Project managers shall identify peer review preparations by

analyzing verification procedures and criteria, which
includes determining the type of peer review; defining
requirements for collecting data; establishing and
maintaining entry and exit criteria; establishing and
maintaining criteria for requiring another peer review;
establishing and maintaining checklists; developing a
detailed peer review schedule; ensuring that the work
product satisfies the peer review entry criteria;
distributing the work product to be reviewed; assigning
roles for the peer review; and preparing for the peer review
by reviewing the work product prior to conducting the peer
review.

88.7.4   Document Peer Review Preparations from Analysis of Verification
Procedures and Criteria

Project managers shall document peer review preparations
from analysis of verification procedures and criteria, for
conducting peer reviews, analyzing peer review data,
performing verification, and analyzing verification results
and identifying corrective action.

88.7.5   Evaluate Peer Review Preparations

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate peer review preparations, and make necessary
additions, deletions, enhancements, and corrections.

88.7.6   Review and Approve Peer Review Preparations

Senior management, program management, and functional area
managers shall review and approve peer review preparations
as well as any additions, deletions, enhancements, and
corrections to peer review preparations by relevant
stakeholders.

88.7.7   Baseline Peer Review Preparations

Project managers shall submit preparations to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

		Number	
	CMMI V1.1	Revision	
Model		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	VERIFICATION		
Practice	89.0 CONDUCT PEER REVIEWS		

89.1   PURPOSE

This procedure establishes the guidelines by which project managers
shall receive peer review preparations for conducting peer reviews,
project managers shall review and analyze peer review preparations
to identify peer reviews to conduct, project managers shall conduct
peer reviews identified from analysis of peer review preparations,
project managers shall document results of peer reviews based on
peer review preparations, relevant stakeholders shall evaluate
results of peer reviews, senior management, program management, and
functional area managers shall review and approve results of peer
reviews, and project managers shall baseline results of peer
reviews.

89.2   REVISION HISTORY

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89.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

89.4   POLICY

The policy of this organization is to ensure that:

89.4.1   Project managers receive peer review preparations for
         conducting peer reviews.

89.4.2   Project managers review and analyze peer review preparations
         to identify peer reviews to conduct.

89.4.3   Project managers conduct peer reviews identified from
         analysis of peer review preparations.

89.4.4   Project managers document results of peer reviews based on
         peer review preparations.

89.4.5　Relevant stakeholders evaluate results of peer reviews.

89.4.6　Senior management, program management, and functional area managers review and approve results of peer reviews.

89.4.7　Project managers baseline results of peer reviews.

89.5　DEFINITIONS

89.5.1　<u>Peer Review Results</u>: the results of group examinations or meetings held by peers to analyze work products during development of the work products to identify defects for removal.

89.6　RESPONSIBILITIES

89.6.1　Project managers are responsible for receiving peer review preparations for conducting peer reviews, reviewing and analyzing peer review preparations to identify peer reviews to conduct, conducting peer reviews identified from analysis of peer review preparations, documenting results of peer reviews based on peer review preparations, and baselining results of peer reviews.

89.6.2　Relevant stakeholders are responsible for evaluating results of peer reviews.

89.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving results of peer reviews.

89.7　PROCESS

89.7.1　Receive Peer Review Preparations for Conducting Peer Reviews

Project managers shall receive peer review preparations from configuration management for conducting peer reviews.

89.7.2　Analyze Peer Review Preparations to Identify Peer Reviews to Conduct

Project managers shall review and analyze peer review preparations to identify peer reviews to conduct, which are the results of group examinations or meetings held by peers to analyze work products during development of the work products to identify defects for removal.

89.7.3　Conduct Peer Reviews Identified from Analysis of Peer Review Preparations

Project managers shall conduct peer reviews identified from analysis of peer review preparations, which includes performing the assigned roles in the peer review; identifying and document defects and other issues in the work product; recording the results of the peer review, including the action items; collecting peer review data;

identifying action items and communicate the issues to relevant stakeholders; conducting an additional peer review if the defined criteria indicate the need; and ensuring that the exit criteria for the peer review are satisfied.

89.7.4   Document Results of Peer Reviews Based on Peer Review Preparations

Project managers shall document results of peer reviews based on peer review preparations, for analyzing peer review data, performing verification, and analyzing verification results and identifying corrective action.

89.7.5   Evaluate Results of Peer Reviews

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate results of peer reviews, and make necessary additions, deletions, enhancements, and corrections.

89.7.6   Review and Approve Results of Peer Reviews

Senior management, program management, and functional area managers shall review and approve results of peer reviews as well as any additions, deletions, enhancements, and corrections to results of peer reviews by relevant stakeholders.

89.7.7   Baseline Results of Peer Reviews

Project managers shall submit results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	# CMMI V1.1	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	VERIFICATION		
Practice	90.0 ANALYZE PEER REVIEW DATA		

90.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive results of peer reviews for analyzing peer review data, project managers shall review and analyze results of peer reviews for analyzing peer review data, project managers shall review and analyze results of peer reviews for analyzing peer review data, project managers shall document analysis of peer review data identified from results of peer reviews, relevant stakeholders shall evaluate analysis of peer review data, senior management, program management, and functional area managers shall review and approve analysis of peer review data, and project managers shall baseline analysis of peer review data.

90.2   REVISION HISTORY

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90.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

90.4   POLICY

The policy of this organization is to ensure that:

90.4.1   Project managers receive results of peer reviews for analyzing peer review data.

90.4.2   Project managers review and analyze results of peer reviews for analyzing peer review data.

90.4.3   Project managers review and analyze results of peer reviews for analyzing peer review data.

90.4.4   Project managers document analysis of peer review data identified from results of peer reviews.

90.4.5　Relevant stakeholders evaluate analysis of peer review data.

90.4.6　Senior management, program management, and functional area managers review and approve analysis of peer review data.

90.4.7　Project managers baseline analysis of peer review data.

90.5　DEFINITIONS

90.5.1　<u>Peer Review Data</u>: data elements consisting of product name, product size, composition of the peer review team, type of peer review, preparation time per reviewer, length of the review meeting, number of defects found, type and origin of defect, development stage, operating modes examined, and requirements being evaluated.

90.6　RESPONSIBILITIES

90.6.1　Project managers are responsible for receiving results of peer reviews for analyzing peer review data, reviewing and analyzing results of peer reviews for analyzing peer review data, reviewing and analyzing results of peer reviews for analyzing peer review data, documenting analysis of peer review data identified from results of peer reviews, and baselining analysis of peer review data.

90.6.2　Relevant stakeholders are responsible for evaluating analysis of peer review data.

90.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving analysis of peer review • data

90.7　PROCESS

90.7.1　Receive Results of Peer Reviews for Analyzing Peer Review Data

Project managers shall receive results of peer reviews from configuration management for analyzing peer review data.

90.7.2　Review Results of Peer Reviews for Analyzing Peer Review Data

Project managers shall review and analyze results of peer reviews for analyzing peer review data, which are data elements consisting of product name, product size, composition of the peer review team, type of peer review, preparation time per reviewer, length of the review meeting, number of defects found, type and origin of defect, development stage, operating modes examined, and requirements being evaluated.

90.7.3　Analyze Peer Review Data from Review of Results of Peer Reviews

Project managers shall identify analyze peer review data from review of results of peer reviews, which includes

recording data related to the preparation, conduct, and results of the peer reviews; storing the data for future reference and analysis; protecting the data to ensure that peer review data are not used inappropriately; and analyzing the peer review data.

90.7.4   Document Analysis of Peer Review Data Identified from Results of Peer Reviews

Project managers shall document analysis of peer review data identified from results of peer reviews, for performing verification and analyzing verification results and identifying corrective action.

90.7.5   Evaluate Analysis of Peer Review Data

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate analysis of peer review data, and make necessary additions, deletions, enhancements, and corrections.

90.7.6   Review and Approve Analysis of Peer Review Data

Senior management, program management, and functional area managers shall review and approve analysis of peer review data as well as any additions, deletions, enhancements, and corrections to analysis of peer review data by relevant stakeholders.

90.7.7   Baseline Analysis of Peer Review Data

Project managers shall submit data analysis to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	# CMMI V1.1	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	VERIFICATION		
Practice	91.0 PERFORM VERIFICATION		

91.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive analysis of peer review data for performing verification, project managers shall review and analyze analysis of peer review data to identify verifications to perform, project managers shall perform verification based on review of analysis of peer review data, project managers shall document verification results based on performing verification, relevant stakeholders shall evaluate verification results, senior management, program management, and functional area managers shall review and approve verification results, and project managers shall baseline verification results.

91.2   REVISION HISTORY

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!  Date   !          Description          ! Author Initials !
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91.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

91.4   POLICY

The policy of this organization is to ensure that:

91.4.1   Project managers receive analysis of peer review data for performing verification.

91.4.2   Project managers review and analyze analysis of peer review data to identify verifications to perform.

91.4.3   Project managers perform verification based on review of analysis of peer review data.

91.4.4   Project managers document verification results based on performing verification.

91.4.5   Relevant stakeholders evaluate verification results.

91.4.6   Senior management, program management, and functional area managers review and approve verification results.

91.4.7   Project managers baseline verification results.

91.5   DEFINITIONS

91.5.1   <u>Verification Results</u>: the results of the process of evaluating a system or component to determine whether the products of a given development phase satisfy the conditions imposed at the start of that phase.

91.6   RESPONSIBILITIES

91.6.1   Project managers are responsible for receiving analysis of peer review data for performing verification, reviewing and analyzing analysis of peer review data to identify verifications to perform, performing verification based on review of analysis of peer review data, documenting verification results based on performing verification, and baselining verification results.

91.6.2   Relevant stakeholders are responsible for evaluating verification results.

91.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving verification results.

91.7   PROCESS

91.7.1   Receive Analysis of Peer Review Data for Performing Verification

Project managers shall receive analysis of peer review data from configuration management for performing verification.

91.7.2   Review Analysis of Peer Review Data to Identify Verifications to Perform

Project managers shall review and analyze analysis of peer review data to identify verifications to perform, which are the results of the process of evaluating a system or component to determine whether the products of a given development phase satisfy the conditions imposed at the start of that phase.

91.7.3   Perform Verification Based on Review of Analysis of Peer Review Data

Project managers shall perform verification based on review of analysis of peer review data, which includes performing verification of selected work products against their requirements; recording the results of verification activities; identifying action items resulting from

verification of work products; and documenting the "as-run" verification method and the deviations from the available methods and procedures discovered during its performance.

91.7.4 Document Verification Results Based on Performing Verification

Project managers shall document verification results based on performing verification, for identifying corrective action.

91.7.5 Evaluate Verification Results

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate verification results, and make necessary additions, deletions, enhancements, and corrections.

91.7.6 Review and Approve Verification Results

Senior management, program management, and functional area managers shall review and approve verification results as well as any additions, deletions, enhancements, and corrections to verification results by relevant stakeholders.

91.7.7 Baseline Verification Results

Project managers shall submit verification results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	VERIFICATION		
Practice	92.0 ANALYZE VERIFICATION RESULTS AND VERIFY CORRECTIVE ACTION		

92.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive verification results for analyzing verification results and verifying corrective action, project managers shall review and analyze verification results for identifying corrective actions to verify, project managers shall verify corrective actions by analyzing verification results, project managers shall document verified corrective actions identified from analyzing verification results, relevant stakeholders shall evaluate verified corrective actions, senior management, program management, and functional area managers shall review and approve verified corrective actions, and project managers shall baseline verified corrective actions.

92.2   REVISION HISTORY

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92.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

92.4   POLICY

The policy of this organization is to ensure that:

92.4.1   Project managers receive verification results for analyzing verification results and verifying corrective action.

92.4.2   Project managers review and analyze verification results for identifying corrective actions to verify.

92.4.3   Project managers verify corrective actions by analyzing verification results.

92.4.4   Project managers document verified corrective actions identified from analyzing verification results.

92.4.5   Relevant stakeholders evaluate verified corrective actions.

92.4.6   Senior management, program management, and functional area managers review and approve verified corrective actions.

92.4.7   Project managers baseline verified corrective actions.

92.5   DEFINITIONS

92.5.1   <u>Corrective Actions</u>: acts or deeds used to remedy a situation, remove an error, or adjust a condition.

92.6   RESPONSIBILITIES

92.6.1   Project managers are responsible for receiving verification results for analyzing verification results and verifying corrective action, reviewing and analyzing verification results for identifying corrective actions to verify, verifying corrective actions by analyzing verification results, documenting verified corrective actions identified from analyzing verification results, and baselining verified corrective actions.

92.6.2   Relevant stakeholders are responsible for evaluating verified corrective actions.

92.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving verified corrective actions.

92.7   PROCESS

92.7.1   Receive Verification Results for Analyzing Verification Results and Verifying Corrective Action

Project managers shall receive verification results from configuration management for analyzing verification results and verifying corrective action.

92.7.2   Review Verification Results for Corrective Actions to Verify

Project managers shall review and analyze verification results for identifying corrective actions to verify, which are acts or deeds used to remedy a situation, remove an error, or adjust a condition.

92.7.3   Verify Corrective Actions by Analyzing Verification Results

Project managers shall verify corrective actions by analyzing verification results, which includes comparing actual results to expected results; identifying products that have not met their requirements or identifying problems with the methods, procedures, criteria, and verification environment, based on the established verification criteria; analyzing the verification data on defects; recording all results of the analysis in a report; using verification

results to compare actual measurements and performance to technical performance parameters; and providing information on how defects may be resolved (including verification methods, criteria, and verification environment) and formalize it in a plan.

92.7.4   Document Verified Corrective Actions Identified from Analyzing Verification Results

Project managers shall document verified corrective actions identified from analyzing verification results, for validation of products or product components.

92.7.5   Evaluate Verified Corrective Actions

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate verified corrective actions, and make necessary additions, deletions, enhancements, and corrections.

92.7.6   Review and Approve Verified Corrective Actions

Senior management, program management, and functional area managers shall review and approve verified corrective actions as well as any additions, deletions, enhancements, and corrections to verified corrective actions by relevant stakeholders.

92.7.7   Baseline Verified Corrective Actions

Project managers shall submit corrective actions to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	VALIDATION
Practice	93.0 SELECT PRODUCTS FOR VALIDATION

93.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive lists of products or product components for selecting products for validation, project managers shall review and analyze lists of products for identifying products for validation, project managers shall identify products for validation from lists of products, project managers shall document selected products identified from lists of products, relevant stakeholders shall evaluate selected products, senior management, program management, and functional area managers shall review and approve selected products, and project managers shall baseline selected products.

93.2   REVISION HISTORY

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93.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

93.4   POLICY

The policy of this organization is to ensure that:

93.4.1   Project managers receive lists of products or product components for selecting products for validation.

93.4.2   Project managers review and analyze lists of products for identifying products for validation.

93.4.3   Project managers identify products for validation from lists of products.

93.4.4   Project managers document selected products identified from lists of products.

93.4.5   Relevant stakeholders evaluate selected products.

93.4.6   Senior management, program management, and functional area managers review and approve selected products.

93.4.7   Project managers shall baseline selected products.

93.5   DEFINITIONS

93.5.1   <u>Selected Products</u>: any tangible outputs or services that are a result of a process ant that are intended for delivery to a customer or end user.

93.6   RESPONSIBILITIES

93.6.1   Project managers are responsible for receiving lists of products or product components for selecting products for validation, reviewing and analyzing lists of products for identifying products for validation, identifying products for validation from lists of products, documenting selected products identified from lists of products, and baselining selected products.

93.6.2   Relevant stakeholders are responsible for evaluating selected products.

93.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving selected products.

93.7   PROCESS

93.7.1   Receive Lists of Products or Product Components for Selecting Products for Validation

Project managers shall receive lists of products or product components from configuration management for selecting products for validation.

93.7.2   Review Lists of Products for Identifying Products for Validation

Project managers shall review and analyze lists of products for identifying products for validation, which are any tangible outputs or services that are a result of a process ant that are intended for delivery to a customer or end user.

93.7.3   Identify Products for Validation from Lists of Products

Project managers shall identify products for validation from lists of products, which includes identifying the key principles, features, and phases for product or product-component validation throughout the life of the project; determining which categories of user needs (operational, maintenance, training, or support) are to be validated; selecting the product and product components to be validated; selecting the evaluation methods for product or product-component validation; and reviewing the validation

selection, constraints, and methods with relevant
stakeholders.

93.7.4   Document Selected Products Identified from Lists of Products

Project managers shall document selected products identified
from lists of products, for establishing the validation
environment, establishing validation procedures and
criteria, performing validation, and analyzing validation
results.

93.7.5   Evaluate Selected Products

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate selected products, and make necessary additions,
deletions, enhancements, and corrections.

93.7.6   Review and Approve Selected Products

Senior management, program management, and functional area
managers shall review and approve selected products as well
as any additions, deletions, enhancements, and corrections
to selected products by relevant stakeholders.

93.7.7   Baseline Selected Products

Project managers shall submit selected products to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	VALIDATION
Practice	94.0 ESTABLISH THE VALIDATION ENVIRONMENT

94.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive selected products for establishing the validation environment, project managers shall review and analyze selected products for identifying the validation environment, project managers shall identify validation environment from review of selected products, project managers shall document validation environment identified from review of selected products, relevant stakeholders shall evaluate validation environment, senior management, program management, and functional area managers shall review and approve validation environment, and project managers shall baseline validation environment.

94.2   REVISION HISTORY

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94.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

94.4   POLICY

The policy of this organization is to ensure that:

94.4.1   Project managers receive selected products for establishing the validation environment.

94.4.2   Project managers review and analyze selected products for identifying the validation environment.

94.4.3   Project managers identify validation environment from review of selected products.

94.4.4   Project managers document validation environment identified from review of selected products.

94.4.5 Relevant stakeholders evaluate validation environment.

94.4.6 Senior management, program management, and functional area managers review and approve validation environment.

94.4.7 Project managers baseline validation environment.

94.5 DEFINITIONS

94.5.1 <u>Validation Environment</u>: information resources consisting of equipment, software, or resources for assembling product components (e.g., test equipment, simulators, field equipment, and recording devices).

94.6 RESPONSIBILITIES

94.6.1 Project managers are responsible for receiving selected products for establishing the validation environment, reviewing and analyzing selected products for identifying the validation environment, identifying validation environment from review of selected products, documenting validation environment identified from review of selected products, and baselining validation environment.

94.6.2 Relevant stakeholders are responsible for evaluating validation environment.

94.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving validation environment.

94.7 PROCESS

94.7.1 Receive Selected Products for Establishing the Validation Environment

Project managers shall receive selected products from configuration management for establishing the validation environment.

94.7.2 Review Selected Products for Identifying the Validation Environment

Project managers shall review and analyze selected products for identifying the validation environment, which are information resources consisting of equipment, software, or resources for assembling product components (e.g., test equipment, simulators, field equipment, and recording devices).

94.7.3 Identify Validation Environment from Review of Selected Products

Project managers shall identify validation environment from review of selected products, which includes identifying validation environment requirements; identifying customer-supplied products; identifying reuse items; identifying test

equipment and tools; identifying validation resources that are available for reuse and modification; and planning the availability of resources in detail.

94.7.4 Document Validation Environment Identified from Review of Selected Products

Project managers shall document validation environment identified from review of selected products, for establishing validation procedures and criteria, performing validation, and analyzing validation results.

94.7.5 Evaluate Validation Environment

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate validation environment, and make necessary additions, deletions, enhancements, and corrections.

94.7.6 Review and Approve Validation Environment

Senior management, program management, and functional area managers shall review and approve validation environment as well as any additions, deletions, enhancements, and corrections to validation environment by relevant stakeholders.

94.7.7 Baseline Validation Environment

Project managers shall submit environment to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	VALIDATION
Practice	95.0 ESTABLISH VALIDATION PROCEDURES AND CRITERIA

95.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive validation environment for establishing validation procedures and criteria, project managers shall review and analyze the validation environment for identifying validation procedures and criteria, project managers shall identify validation procedures and criteria identified from validation environment, project managers shall document verification procedures and criteria identified from verification environment, relevant stakeholders shall evaluate validation procedures and criteria, senior management, program management, and functional area managers shall review and approve validation procedures and criteria, and project managers shall baseline validation procedures and criteria.

95.2   REVISION HISTORY

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95.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

95.4   POLICY

The policy of this organization is to ensure that:

95.4.1   Project managers receive validation environment for establishing validation procedures and criteria.

95.4.2   Project managers review and analyze the validation environment for identifying validation procedures and criteria.

95.4.3   Project managers identify validation procedures and criteria identified from validation environment.

95.4.4   Project managers document verification procedures and

criteria identified from verification environment.

      95.4.5   Relevant stakeholders evaluate validation procedures and criteria.

      95.4.6   Senior management, program management, and functional area managers review and approve validation procedures and criteria.

      95.4.7   Project managers baseline validation procedures and criteria.

95.5 DEFINITIONS

      95.5.1   <u>Validation Procedures and Criteria</u>: procedures for the validation of the product components and can include such things as the number of incremental iterations to be performed and details of the expected tests and other evaluations to be carried out at each stage.

95.6 RESPONSIBILITIES

      95.6.1   Project managers are responsible for receiving validation environment for establishing validation procedures and criteria, reviewing and analyzing the validation environment for identifying validation procedures and criteria, identifying validation procedures and criteria identified from validation environment, documenting verification procedures and criteria identified from verification environment, and baselining validation procedures and criteria.

      95.6.2   Relevant stakeholders are responsible for evaluating validation procedures and criteria.

      95.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving validation procedures and criteria.

95.7 PROCESS

      95.7.1   Receive Validation Environment for Establishing Validation Procedures and Criteria

              Project managers shall receive validation environment from configuration management for establishing validation procedures and criteria.

      95.7.2   Review Validation Environment for Identifying Validation Procedures and Criteria

              Project managers shall review and analyze the validation environment for identifying validation procedures and criteria, which are procedures for the validation of the product components and can include such things as the number of incremental iterations to be performed and details of the expected tests and other evaluations to be carried out at

each stage.

95.7.3 Identify Validation Procedures and Criteria by Analyzing Validation Environment

Project managers shall identify validation procedures and criteria identified from validation environment, which includes reviewing the product requirements to ensure that issues affecting validation of the product or product component are identified and resolved; documenting the environment, operational scenario, procedures, inputs, outputs, and criteria for the validation of the selected product or product component; and assessing the design as it matures in the context of the validation environment to identify validation issues.

95.7.4 Document Validation Procedures and Criteria Identified from Validation Environment

Project managers shall document verification procedures and criteria identified from verification environment, for performing validation and analyzing validation results.

95.7.5 Evaluate Validation Procedures and Criteria

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate validation procedures and criteria, and make necessary additions, deletions, enhancements, and corrections.

95.7.6 Review and Approve Validation Procedures and Criteria

Senior management, program management, and functional area managers shall review and approve validation procedures and criteria as well as any additions, deletions, enhancements, and corrections to validation procedures and criteria by relevant stakeholders.

95.7.7 Baseline Validation Procedures and Criteria

Project managers shall submit procedures to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	VALIDATION
Practice	96.0 PERFORM VALIDATION

96.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive analysis of verification results for performing validation, project managers shall review and analyze analysis of verification results to identify validations to perform, project managers shall perform validation based on review of analysis of verification results, project managers shall document validation results based on performing validation, relevant stakeholders shall evaluate validation results, senior management, program management, and functional area managers shall review and approve validation results, and project managers shall baseline validation results.

96.2   REVISION HISTORY

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96.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

96.4   POLICY

The policy of this organization is to ensure that:

96.4.1   Project managers receive analysis of verification results for performing validation.

96.4.2   Project managers review and analyze analysis of verification results to identify validations to perform.

96.4.3   Project managers perform validation based on review of analysis of verification results.

96.4.4   Project managers document validation results based on performing validation.

96.4.5   Relevant stakeholders evaluate validation results.

96.4.6   Senior management, program management, and functional area managers review and approve validation results.

96.4.7   Project managers baseline validation results.

96.5   DEFINITIONS

96.5.1   <u>Validation Results</u>: the results of the process of evaluating a system or component during or at the end of the development process to determine whether it satisfies specified requirements.

96.6   RESPONSIBILITIES

96.6.1   Project managers are responsible for receiving analysis of verification results for performing validation, reviewing and analyzing analysis of verification results to identify validations to perform, performing validation based on review of analysis of verification results, documenting validation results based on performing validation, and baselining validation results.

96.6.2   Relevant stakeholders are responsible for evaluating validation results.

96.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving validation results.

96.7   PROCESS

96.7.1   Receive Analysis of Verification Results for Performing Validation

Project managers shall receive analysis of verification results from configuration management for performing validation.

96.7.2   Review Analysis of Verification Results to Identify Validations to Perform

Project managers shall review and analyze analysis of verification results to identify validations to perform, which are the results of the process of evaluating a system or component during or at the end of the development process to determine whether it satisfies specified requirements.

96.7.3   Perform Validation Based on Review of Analysis of Verification Results

Project managers shall perform validation based on review of analysis of verification results, which includes performing validation of selected products against their requirements; recording the results of validation activities; identifying action items resulting from validation of products; and documenting the "as-run" validation method and the

deviations from the available methods and procedures discovered during its performance.

96.7.4   Document Validation Results Based on Performing Validation

Project managers shall document validation results based on performing validation, for analyzing validation results.

96.7.5   Evaluate Validation Results

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate validation results, and make necessary additions, deletions, enhancements, and corrections.

96.7.6   Review and Approve Validation Results

Senior management, program management, and functional area managers shall review and approve validation results as well as any additions, deletions, enhancements, and corrections to validation results by relevant stakeholders.

96.7.7   Baseline Validation Results

Project managers shall submit validation results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	VALIDATION		
Practice	97.0 ANALYZE VALIDATION RESULTS		

97.1   PURPOSE

This procedure establishes the guidelines by which project managers
shall receive validation results for analyzing validation results,
project managers shall review and analyze validation results for
producing an analysis of validation results, project managers shall
produce an analysis of validation results from a review of
validation results, project managers shall document analysis of
validation results based on a review of validation results, relevant
stakeholders shall evaluate analysis of validation results, senior
management, program management, and functional area managers shall
review and approve analysis of validation results, and project
managers shall baseline analysis of validation results.

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97.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

97.4   POLICY

The policy of this organization is to ensure that:

97.4.1   Project managers receive validation results for analyzing
         validation results.

97.4.2   Project managers review and analyze validation results for
         producing an analysis of validation results.

97.4.3   Project managers produce an analysis of validation results
         from a review of validation results.

97.4.4   Project managers document analysis of validation results
         based on a review of validation results.

97.4.5   Relevant stakeholders evaluate analysis of validation results.

97.4.6   Senior management, program management, and functional area managers review and approve analysis of validation results.

97.4.7   Project managers baseline analysis of validation results.

97.5   DEFINITIONS

97.5.1   <u>Validation Result Analysis</u>: reports consisting of an analysis and interpretation of validation results, passed versus failed test cases, and a prediction of reliability to support future decision-making.

97.6   RESPONSIBILITIES

97.6.1   Project managers are responsible for receiving validation results for analyzing validation results, reviewing and analyzing validation results for producing an analysis of validation results, producing an analysis of validation results from a review of validation results, documenting analysis of validation results based on a review of validation results, and baselining analysis of validation results.

97.6.2   Relevant stakeholders are responsible for evaluating analysis of validation results.

97.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving analysis of validation results.

97.7   PROCESS

97.7.1   Receive Validation Results for Analyzing Validation Results

Project managers shall receive validation results from configuration management for analyzing validation results.

97.7.2   Review Validation Results for Producing an Analysis of Validation Results

Project managers shall review and analyze validation results for producing an analysis of validation results, which are reports consisting of an analysis and interpretation of validation results, passed versus failed test cases, and a prediction of reliability to support future decision-making.

97.7.3   Produce an Analysis of Validation Results from a Review of Validation Results

Project managers shall produce an analysis of validation results from a review of validation results, which includes comparing actual results to expected results; identifying products that have not met their requirements or identifying

problems with the methods, procedures, criteria, and
validation environment, based on the established validation
criteria; analyzing the validation data on defects;
recording all results of the analysis in a report; using
validation results to compare actual measurements and
performance to technical performance parameters; and
providing information on how defects may be resolved and
formalize it in a plan.

97.7.4   Document Analysis of Validation Results Based on a Review of
Validation Results

Project managers shall document analysis of validation
results based on a review of validation results, for
delivery, installation, checkout, acceptance testing,
integration into a larger system, and validation of a larger
system.

97.7.5   Evaluate Analysis of Validation Results

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate analysis of validation results, and make necessary
additions, deletions, enhancements, and corrections.

97.7.6   Review and Approve Analysis of Validation Results

Senior management, program management, and functional area
managers shall review and approve analysis of validation
results as well as any additions, deletions, enhancements,
and corrections to analysis of validation results by
relevant stakeholders.

97.7.7   Baseline Analysis of Validation Results

Project managers shall submit analysis of results to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL PROCESS FOCUS		
Practice	98.0 ESTABLISH ORGANIZATIONAL PROCESS NEEDS		

98.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive policies, standards, and business objectives for establishing organizational process needs, project managers shall review and analyze policies, standards, and business objectives to identify organizational process needs, project managers shall identify organizational process needs by reviewing policies, standards, and business objectives, project managers shall document organizational process needs identified by reviewing policies, standards, and business objectives, relevant stakeholders shall evaluate organizational process needs, senior management, program management, and functional area managers shall review and approve organizational process needs, and project managers shall baseline organizational process needs.

98.2   REVISION HISTORY

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98.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

98.4   POLICY

The policy of this organization is to ensure that:

98.4.1   Project managers receive policies, standards, and business objectives for establishing organizational process needs.

98.4.2   Project managers review and analyze policies, standards, and business objectives to identify organizational process needs.

98.4.3   Project managers identify organizational process needs by reviewing policies, standards, and business objectives.

98.4.4 Project managers document organizational process needs identified by reviewing policies, standards, and business objectives.

98.4.5 Relevant stakeholders evaluate organizational process needs.

98.4.6 Senior management, program management, and functional area managers review and approve organizational process needs.

98.4.7 Project managers baseline organizational process needs.

98.5 DEFINITIONS

98.5.1 <u>Organizational Process Needs</u>: descriptions of characteristics, performance objectives, and effectiveness for financial, technological, quality, human resources, and marketing processes.

98.6 RESPONSIBILITIES

98.6.1 Project managers are responsible for receiving policies, standards, and business objectives for establishing organizational process needs, reviewing and analyzing policies, standards, and business objectives to identify organizational process needs, identifying organizational process needs by reviewing policies, standards, and business objectives, documenting organizational process needs identified by reviewing policies, standards, and business objectives, and baselining organizational process needs.

98.6.2 Relevant stakeholders are responsible for evaluating organizational process needs.

98.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving organizational process needs.

98.7 PROCESS

98.7.1 Receive Policies, Standards, and Business Objectives for Establishing Organizational Process Needs

Project managers shall receive policies, standards, and business objectives from configuration management for establishing organizational process needs.

98.7.2 Review Policies, Standards, and Business Objectives to Identify Organizational Process Needs

Project managers shall review and analyze policies, standards, and business objectives to identify organizational process needs, which are descriptions of characteristics, performance objectives, and effectiveness for financial, technological, quality, human resources, and marketing processes.

98.7.3 Identify Organizational Process Needs by Reviewing Policies, Standards, and Business Objectives

Project managers shall identify organizational process needs by reviewing policies, standards, and business objectives, which includes identifying the policies, standards, and business objectives; examining relevant process standards and models for best practices; determining the performance objectives; defining the characteristics of the processes; documenting the process needs and objectives; and revising the organization's process needs and objectives.

98.7.4 Document Process Needs Identified by Reviewing Policies, Standards, and Business Objectives

Project managers shall document organizational process needs identified by reviewing policies, standards, and business objectives, for appraising the organization's processes, identifying the organizations process improvements, establishing process action plans, implementing process action plans, deploying organizational process assets, and incorporating process-related experiences into the organizational process assets.

98.7.5 Evaluate Organizational Process Needs

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate organizational process needs, and make necessary additions, deletions, enhancements, and corrections.

98.7.6 Review and Approve Organizational Process Needs

Senior management, program management, and functional area managers shall review and approve organizational process needs as well as any additions, deletions, enhancements, and corrections to organizational process needs by relevant stakeholders.

98.7.7 Baseline Organizational Process Needs

Project managers shall submit process needs to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL PROCESS FOCUS		
Practice	99.0 APPRAISE THE ORGANIZATION'S PROCESS		

99.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive organizational process needs for appraising the organization's process, project managers shall review and analyze organizational process needs to prepare for appraisal of organization's processes, project managers shall conduct appraisal of organization's processes based on organizational process needs, project managers shall document appraisal results from appraisal of organization's processes, relevant stakeholders shall evaluate appraisal results, senior management, program management, and functional area managers shall review and approve appraisal results, and project managers shall baseline appraisal results.

99.2   REVISION HISTORY

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99.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

99.4   POLICY

The policy of this organization is to ensure that:

99.4.1   Project managers receive organizational process needs for appraising the organization's process.

99.4.2   Project managers review and analyze organizational process needs to prepare for appraisal of organization's processes.

99.4.3   Project managers conduct appraisal of organization's processes based on organizational process needs.

99.4.4   Project managers document appraisal results from appraisal of organization's processes.

99.4.5   Relevant stakeholders evaluate appraisal results.

99.4.6   Senior management, program management, and functional area managers review and approve appraisal results.

99.4.7   Project managers baseline appraisal results.

99.5   DEFINITIONS

99.5.1   Appraisal: examinations of one or more processes by a trained team of professionals using an appraisal reference model as the basis for determining strengths and weaknesses.

99.6   RESPONSIBILITIES

99.6.1   Project managers are responsible for receiving organizational process needs for appraising the organization's process, reviewing and analyzing organizational process needs to prepare for appraisal of organization's processes, conducting appraisal of organization's processes based on organizational process needs, documenting appraisal results from appraisal of organization's processes, and baselining appraisal results.

99.6.2   Relevant stakeholders are responsible for evaluating appraisal results.

99.6.3   Senior management, program management, and functional area managers are responsible for reviewing and approving appraisal results.

99.7   PROCESS

99.7.1   Receive Organizational Process Needs for Appraising the Organization's Process

Project managers shall receive organizational process needs from configuration management for appraising the organization's process.

99.7.2   Review Organizational Process Needs to Prepare for Appraisal of Organization's Processes

Project managers shall review and analyze organizational process needs to prepare for appraisal of organization's processes, which are examinations of one or more processes by a trained team of professionals using an appraisal reference model as the basis for determining strengths and weaknesses.

99.7.3   Conduct Appraisal of Organization's Processes Based on Organizational Process Needs

Project managers shall conduct appraisal of organization's processes based on organizational process needs, which

includes obtaining sponsorship of the process appraisal from senior management; defining the scope of the process appraisal; determining the method and criteria for process appraisal; planning, scheduling, and preparing for the process appraisal; conducting the process appraisal; and documenting and delivering the appraisal's activities and findings.

99.7.4 Document Appraisal Results from Appraisal of Organization's Processes

Project managers shall document appraisal results from appraisal of organization's processes, for identifying the organization's process improvements, establishing process action plans, implementing process action plans, deploying organizational process assets, and incorporating process-related experiences into the organizational process assets.

99.7.5 Evaluate Appraisal Results

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate appraisal results, and make necessary additions, deletions, enhancements, and corrections.

99.7.6 Review and Approve Appraisal Results

Senior management, program management, and functional area managers shall review and approve appraisal results as well as any additions, deletions, enhancements, and corrections to appraisal results by relevant stakeholders.

99.7.7 Baseline Appraisal Results

Project managers shall submit appraisal results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL PROCESS FOCUS		
Practice	100.0 IDENTIFY THE ORGANIZATION'S PROCESS IMPROVEMENTS		

100.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive appraisal results for identifying the organization's process improvements, project managers shall review and analyze appraisal results for identifying the organization's process improvements, project managers shall identify organization's process improvements from appraisal results, project managers shall document organization's process improvements identified from appraisal results, relevant stakeholders shall evaluate organization's process improvements, senior management, program management, and functional area managers shall review and approve organization's process improvements, and project managers shall baseline organization's process improvements.

100.2 REVISION HISTORY

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100.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

100.4 POLICY

The policy of this organization is to ensure that:

100.4.1 Project managers receive appraisal results for identifying the organization's process improvements.

100.4.2 Project managers review and analyze appraisal results for identifying the organization's process improvements.

100.4.3 Project managers identify organization's process improvements from appraisal results.

100.4.4 Project managers document organization's process improvements identified from appraisal results.

100.4.5 Relevant stakeholders evaluate organization's process improvements.

100.4.6 Senior management, program management, and functional area managers review and approve organization's process improvements.

100.4.7 Project managers baseline organization's process improvements.

100.5 DEFINITIONS

100.5.1 <u>Organization Process Improvements</u>: programs of activities designed to improve the performance and maturity of the organization's processes, and the results of such a program.

100.6 RESPONSIBILITIES

100.6.1 Project managers are responsible for receiving appraisal results for identifying the organization's process improvements, reviewing and analyzing appraisal results for identifying the organization's process improvements, identifying organization's process improvements from appraisal results, documenting organization's process improvements identified from appraisal results, and baselining organization's process improvements.

100.6.2 Relevant stakeholders are responsible for evaluating organization's process improvements.

100.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving organization's process improvements.

100.7 PROCESS

100.7.1 Receive Appraisal Results for Identifying the Organization's Process Improvements

Project managers shall receive appraisal results from configuration management for identifying the organization's process improvements.

100.7.2 Review Appraisal Results for Identifying the Organization's Process Improvements

Project managers shall review and analyze appraisal results for identifying the organization's process improvements, which are programs of activities designed to improve the performance and maturity of the organization's processes, and the results of such a program.

100.7.3 Identify Organization's Process Improvements from Appraisal Results

Project managers shall identify organization's process improvements from appraisal results, which includes determining candidate process improvements; prioritizing the candidate process improvements; identifying and documenting the process improvements that will be implemented; and revising the list of planned process improvements to keep it current.

100.7.4   Document Organization's Process Improvements Identified from Appraisal Results

Project managers shall document organization's process improvements identified from appraisal results, for establishing process action plans, implementing process action plans, deploying organizational process assets, and incorporating process-related experiences into the organizational process assets.

100.7.5   Evaluate Organization's Process Improvements

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate organization's process improvements, and make necessary additions, deletions, enhancements, and corrections.

100.7.6   Review and Approve Organization's Process Improvements

Senior management, program management, and functional area managers shall review and approve organization's process improvements as well as any additions, deletions, enhancements, and corrections to organization's process improvements by relevant stakeholders.

100.7.7   Baseline Organization's Process Improvements

Project managers shall submit improvements to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	ORGANIZATIONAL PROCESS FOCUS
Practice	101.0 ESTABLISH PROCESS ACTION PLANS

101.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive organization's process improvements for establishing organization's process improvements, project managers shall review and analyze organization's process improvements for establishing process action plans, project managers shall establish process action plans from review of organization's process improvements, project managers shall document process action plans from review of organization's process improvements, relevant stakeholders shall evaluate process action plans, senior management, program management, and functional area managers shall review and approve process action plans, and project managers shall baseline action plans.

101.2   REVISION HISTORY

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101.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

101.4   POLICY

The policy of this organization is to ensure that:

101.4.1 Project managers receive organization's process improvements for establishing organization's process improvements.

101.4.2 Project managers review and analyze organization's process improvements for establishing process action plans.

101.4.3 Project managers establish process action plans from review of organization's process improvements.

101.4.4 Project managers document process action plans from review of organization's process improvements.

101.4.5 Relevant stakeholders evaluate process action plans.

    101.4.6 Senior management, program management, and functional area
             managers review and approve process action plans.

    101.4.7 Project managers baseline action plans.

101.5 DEFINITIONS

    101.5.1 <u>Action Plans</u>: reports resulting from appraisals and document
             how specific improvements targeting the weaknesses uncovered
             by an appraisal will be implemented.

101.6 RESPONSIBILITIES

    101.6.1 Project managers are responsible for receiving
             organization's process improvements for establishing
             organization's process improvements, reviewing and analyzing
             organization's process improvements for establishing process
             action plans, establishing process action plans from review
             of organization's process improvements, documenting process
             action plans from review of organization's process
             improvements, and baselining action plans.

    101.6.2 Relevant stakeholders are responsible for evaluating process
             action plans.

    101.6.3 Senior management, program management, and functional area
             managers are responsible for reviewing and approving process
             action plans.

101.7 PROCESS

    101.7.1 Receive Organization's Process Improvements for Establishing
             Process Action Plans

             Project managers shall receive organization's process
             improvements from configuration management for establishing
             organization's process improvements.

    101.7.2 Review Organization's Process Improvements for Establishing
             Process Action Plans

             Project managers shall review and analyze organization's
             process improvements for establishing process action plans,
             which are reports resulting from appraisals and document how
             specific improvements targeting the weaknesses uncovered by
             an appraisal will be implemented.

    101.7.3 Establish Process Action Plans from Review of Organization's
             Process Improvements

             Project managers shall establish process action plans from
             review of organization's process improvements, which
             includes identifying strategies, approaches, and actions to

address the identified process improvements; establishing process action teams to implement the actions; documenting process action plans; reviewing and negotiate process action plans with relevant stakeholders; and reviewing process action plans as necessary.

101.7.4 Document Process Action Plans from Review of Organization's Process Improvements

Project managers shall document process action plans from review of organization's process improvements, for implementing process action plans, deploying organizational process assets, and incorporating process-related experiences into the organizational process assets.

101.7.5 Evaluate Process Action Plans

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate process action plans, and make necessary additions, deletions, enhancements, and corrections.

101.7.6 Review and Approve Process Action Plans

Senior management, program management, and functional area managers shall review and approve process action plans as well as any additions, deletions, enhancements, and corrections to process action plans by relevant stakeholders.

101.7.7 Baseline Process Action Plans

Project managers shall submit action plans to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
		Revision	
Model	**CMMI V1.1**	Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL PROCESS FOCUS		
Practice	102.0 IMPLEMENT PROCESS ACTION PLANS		

102.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive process action plans for implementing process action plans, project managers shall review and analyze process action plans for implementing process action plans, project managers shall implement process action plans from review of process action plans, project managers shall document implementation results identified from review of process action plans, relevant stakeholders shall evaluate implementation results, senior management, program management, and functional area managers shall review and approve implementation results, and project managers shall baseline implementation results.

102.2 REVISION HISTORY

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102.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

102.4 POLICY

The policy of this organization is to ensure that:

102.4.1 Project managers receive process action plans for implementing process action plans.

102.4.2 Project managers review and analyze process action plans for implementing process action plans.

102.4.3 Project managers implement process action plans from review of process action plans.

102.4.4 Project managers document implementation results identified from review of process action plans.

102.4.5 Relevant stakeholders evaluate implementation results.

102.4.6 Senior management, program management, and functional area managers review and approve implementation results.

102.4.7 Project managers baseline implementation results.

102.5 DEFINITIONS

102.5.1 <u>Action Plan Implementation</u>: the process making changes, building new solutions, or otherwise deploying process improvements in order to evaluate their impact on process and product quality.

102.6 RESPONSIBILITIES

102.6.1 Project managers are responsible for receiving process action plans for implementing process action plans, reviewing and analyzing process action plans for implementing process action plans, implementing process action plans from review of process action plans, documenting implementation results identified from review of process action plans, and baselining implementation results.

102.6.2 Relevant stakeholders are responsible for evaluating implementation results.

102.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving implementation results.

102.7 PROCESS

102.7.1 Receive Process Action Plans for Implementing Process Action Plans

Project managers shall receive process action plans from configuration management for implementing process action plans.

102.7.2 Review Process Action Plans for Implementing Process Action Plans

Project managers shall review and analyze process action plans for implementing process action plans, which is the process making changes, building new solutions, or otherwise deploying process improvements in order to evaluate their impact on process and product quality.

102.7.3 Implement Process Action Plans from Review of Process Action Plans

Project managers shall implement process action plans from review of process action plans, which includes making process action plans readily available; negotiating and

documenting commitments; revising process action plans; tracking progress and commitments; conducting joint reviews to monitor the progress and results of the process actions; planning pilots needed to test selected process improvements; reviewing the activities and work products; identifying, documenting, and tracking to closure issues in implementation; and ensuring that the results of implementing process action plans satisfy the organization's process-improvement objectives.

102.7.4   Document Implementation Results Identified from Review of Process Action Plans

Project managers shall document implementation results identified from review of process action plans, for deploying organizational process assets and incorporating process-related experiences into the organizational process assets.

102.7.5   Evaluate Implementation Results

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate implementation results, and make necessary additions, deletions, enhancements, and corrections.

102.7.6   Review and Approve Implementation Results

Senior management, program management, and functional area managers shall review and approve implementation results as well as any additions, deletions, enhancements, and corrections to implementation results by relevant stakeholders.

102.7.7   Baseline Implementation Results

Project managers shall submit results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
		Revision	
Model	**CMMI V1.1**	Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL PROCESS FOCUS		
Practice	103.0 DEPLOY ORGANIZATIONAL PROCESS ASSETS		

103.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive implementation results for deploying organizational process assets, project managers shall review and analyze implementation results for identifying deployment plans, project managers shall identify deployment plans from review of implementation results, project managers shall document deployment plans identified from review of implementation results, relevant stakeholders shall evaluate deployment plans, senior management, program management, and functional area managers shall review and approve deployment plans, and project managers shall baseline deployment plans.

103.2 REVISION HISTORY

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!  Date   !            Description            ! Author Initials !
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103.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

103.4 POLICY

The policy of this organization is to ensure that:

103.4.1 Project managers receive implementation results for deploying organizational process assets.

103.4.2 Project managers review and analyze implementation results for identifying deployment plans.

103.4.3 Project managers identify deployment plans from review of implementation results.

103.4.4 Project managers document deployment plans identified from review of implementation results.

103.4.5 Relevant stakeholders evaluate deployment plans.

103.4.6 Senior management, program management, and functional area managers review and approve deployment plans.

103.4.7 Project managers baseline deployment plans.

103.5 DEFINITIONS

103.5.1 <u>Deployment Plans</u>: plans for deploying the organizational process assets and changes to organizational process assets based on results of implementing process action plans.

103.6 RESPONSIBILITIES

103.6.1 Project managers are responsible for receiving implementation results for deploying organizational process assets, reviewing and analyzing implementation results for identifying deployment plans, identifying deployment plans from review of implementation results, documenting deployment plans identified from review of implementation results, and baselining deployment plans.

103.6.2 Relevant stakeholders are responsible for evaluating deployment plans.

103.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving deployment plans.

103.7 PROCESS

103.7.1 Receive Implementation Results for Deploying Organizational Process Assets

Project managers shall receive implementation results from configuration management for deploying organizational process assets.

103.7.2 Review Implementation Results for Identifying Deployment Plans

Project managers shall review and analyze implementation results for identifying deployment plans, which are plans for deploying the organizational process assets and changes to organizational process assets based on results of implementing process action plans.

103.7.3 Identify Deployment Plans from Review of Implementation Results

Project managers shall identify deployment plans from review of implementation results, which includes deploying organizational process assets and associated methods and tools; deploying the changes that were made to the organizational process assets; documenting the changes to the organizational process assets; and providing guidance and consultation on the use of the organizational process

assets.

103.7.4 Document Deployment Plans Identified from Review of Implementation Results

Project managers shall document deployment plans identified from review of implementation results, for incorporating process-related experiences into the organizational process assets.

103.7.5 Evaluate Deployment Plans

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate deployment plans, and make necessary additions, deletions, enhancements, and corrections.

103.7.6 Review and Approve Deployment Plans

Senior management, program management, and functional area managers shall review and approve deployment plans as well as any additions, deletions, enhancements, and corrections to deployment plans by relevant stakeholders.

103.7.7 Baseline Deployment Plans

Project managers shall submit deployment plans to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	ORGANIZATIONAL PROCESS FOCUS
Practice	104.0 INCORPORATE PROCESS-RELATED EXPERIENCES INTO THE ORGANIZATIONAL PROCESS ASSETS

104.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive deployment plans for incorporating process-related experiences into the organizational process assets, project managers shall review and analyze deployment plans for identifying process improvement proposals, project managers shall identify process improvement proposals from review of deployment plans, project managers shall document process improvement proposals identified from deployment plans, relevant stakeholders shall evaluate process improvement proposals, senior management, program management, and functional area managers shall review and approve process improvement proposals, and project managers shall baseline Improvement proposals.

104.2   REVISION HISTORY

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104.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

104.4   POLICY

The policy of this organization is to ensure that:

104.4.1   Project managers receive deployment plans for incorporating process-related experiences into the organizational process assets.

104.4.2   Project managers review and analyze deployment plans for identifying process improvement proposals.

104.4.3   Project managers identify process improvement proposals from review of deployment plans.

104.4.4   Project managers document process improvement proposals

identified from deployment plans.

104.4.5 Relevant stakeholders evaluate process improvement proposals.

104.4.6 Senior management, program management, and functional area managers review and approve process improvement proposals.

104.4.7 Project managers baseline improvement proposals.

104.5 DEFINITIONS

104.5.1 <u>Process Improvement Proposals</u>: forms or mechanisms that provide structured ways to record process problems, experiences, improvements, and suggestions.

104.6 RESPONSIBILITIES

104.6.1 Project managers are responsible for receiving deployment plans for incorporating process-related experiences into the organizational process assets, reviewing and analyzing deployment plans for identifying process improvement proposals, identifying process improvement proposals from review of deployment plans, documenting process improvement proposals identified from deployment plans, and baselining improvement proposals.

104.6.2 Relevant stakeholders are responsible for evaluating process improvement proposals.

104.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving process improvement proposals.

104.7 PROCESS

104.7.1 Receive Deployment Plans for Incorporating Process-Related Experiences

Project managers shall receive deployment plans from configuration management for incorporating process-related experiences into the organizational process assets.

104.7.2 Review Deployment Plans for Identifying Process Improvement Proposals

Project managers shall review and analyze deployment plans for identifying process improvement proposals, which are forms or mechanisms that provide structured ways to record process problems, experiences, improvements, and suggestions.

104.7.3 Identify Process Improvement Proposals from Review of Deployment Plans

Project managers shall identify process improvement

proposals from review of deployment plans, which includes conducting periodic reviews of the effectiveness and suitability of the organization's set of standard processes; obtaining feedback about the use of the organizational process assets; deriving lessons learned; making lessons learned available; analyzing the organizations common set of measures; appraising the processes, methods, and tools in use in the organization; making the best use of the organization's processes, methods, and tools; managing process-improvement proposals; and establishing and maintaining records.

104.7.4 Document Process Improvement Proposals Identified from Deployment Plans

Project managers shall document process improvement proposals identified from deployment plans, for organizational process definition, organizational training, and integrated project management for IPPD.

104.7.5 Evaluate Process Improvement Proposals

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate process improvement proposals, and make necessary additions, deletions, enhancements, and corrections.

104.7.6 Review and Approve Process Improvement Proposals

Senior management, program management, and functional area managers shall review and approve process improvement proposals as well as any additions, deletions, enhancements, and corrections to process improvement proposals by relevant stakeholders.

104.7.7 Baseline Process Improvement Proposals

Project managers shall submit proposals to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL PROCESS DEFINITION		
Practice	105.0 ESTABLISH STANDARD PROCESSES		

105.1   PURPOSE

This procedure establishes the guidelines by which project managers
shall receive process improvement proposals for establishing
standard processes, project managers shall review and analyze
process improvement proposals for identifying standard processes,
project managers shall identify standard processes from process
improvement proposals, project managers shall document standard
processes identified from process improvement proposals, relevant
stakeholders shall evaluate standard processes, senior management,
program management, and functional area managers shall review and
approve standard processes, and project managers shall baseline
standard processes.

105.2   REVISION HISTORY

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105.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

105.4   POLICY

The policy of this organization is to ensure that:

105.4.1   Project managers receive process improvement proposals for
          establishing standard processes.

105.4.2   Project managers review and analyze process improvement
          proposals for identifying standard processes.

105.4.3   Project managers identify standard processes from process
          improvement proposals.

105.4.4   Project managers document standard processes identified from
          process improvement proposals.

105.4.5 Relevant stakeholders evaluate standard processes.

105.4.6 Senior management, program management, and functional area managers review and approve standard processes.

105.4.7 Project managers baseline standard processes.

105.5 DEFINITIONS

105.5.1 <u>Standard Processes</u>: operational definitions of the basic processes that guide the establishment of a common process in an organization.

105.6 RESPONSIBILITIES

105.6.1 Project managers are responsible for receiving process improvement proposals for establishing standard processes, reviewing and analyzing process improvement proposals for identifying standard processes, identifying standard processes from process improvement proposals, documenting standard processes identified from process improvement proposals, and baselining standard processes.

105.6.2 Relevant stakeholders are responsible for evaluating standard processes.

105.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving standard processes.

105.7 PROCESS

105.7.1 Receive Process Improvement Proposals for Establishing Standard Processes

Project managers shall receive process improvement proposals from configuration management for establishing standard processes.

105.7.2 Review Process Improvement Proposals for Identifying Standard Processes

Project managers shall review and analyze process improvement proposals for identifying standard processes, which are operational definitions of the basic processes that guide the establishment of a common process in an organization.

105.7.3 Identify Standard Processes from Process Improvement Proposals

Project managers shall identify standard processes from process improvement proposals, which includes decomposing each standard process; specifying the critical attributes; specifying the relationships; ensuring the organization's set of standard processes adheres to policies, standards, and models; ensuring the organization's set of standard

processes satisfies the process needs and objectives; ensuring that there is integration among the processes; documenting the processes; conducting peer reviews; and revising the organization's set of standard processes.

105.7.4   Document Standard Processes Identified from Process Improvement Proposals

Project managers shall document standard processes identified from process improvement proposals, for establishing life-cycle model descriptions, establishing tailoring criteria and guidelines, establishing the organization's measurement repository, and establishing the organization's process asset library.

105.7.5   Evaluate Standard Processes

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate standard processes, and make necessary additions, deletions, enhancements, and corrections.

105.7.6   Review and Approve Standard Processes

Senior management, program management, and functional area managers shall review and approve standard processes as well as any additions, deletions, enhancements, and corrections to standard processes by relevant stakeholders.

105.7.7   Baseline Standard Processes

Project managers shall submit standard processes to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL PROCESS DEFINITION		
Practice	106.0 ESTABLISH LIFE-CYCLE MODEL DESCRIPTIONS		

106.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive standard processes for establishing life-cycle model descriptions, project managers shall review and analyze standard processes for identifying life cycles, project managers shall identify life cycles from review of standard processes, project managers shall document life cycles identified from standard processes, relevant stakeholders shall evaluate life cycles, senior management, program management, and functional area managers shall review and approve life cycles, and project managers shall baseline life cycles.

106.2 REVISION HISTORY

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106.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

106.4 POLICY

The policy of this organization is to ensure that:

106.4.1 Project managers receive standard processes for establishing life-cycle model descriptions.

106.4.2 Project managers review and analyze standard processes for identifying life cycles.

106.4.3 Project managers identify life cycles from review of standard processes.

106.4.4 Project managers document life cycles identified from standard processes.

106.4.5 Relevant stakeholders evaluate life cycles.

106.4.6 Senior management, program management, and functional area managers review and approve life cycles.

106.4.7 Project managers baseline life cycles.

106.5 DEFINITIONS

106.5.1 Life Cycles: a partitioning of the life of a product into phases that guide the project from identifying customer needs through product retirement.

106.6 RESPONSIBILITIES

106.6.1 Project managers are responsible for receiving standard processes for establishing life-cycle model descriptions, reviewing and analyzing standard processes for identifying life cycles, identifying life cycles from review of standard processes, documenting life cycles identified from standard processes, and baselining life cycles.

106.6.2 Relevant stakeholders are responsible for evaluating life cycles.

106.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving life cycles.

106.7 PROCESS

106.7.1 Receive Standard Processes for Establishing Life-Cycle Model Descriptions

Project managers shall receive standard processes from configuration management for establishing life-cycle model descriptions.

106.7.2 Review Standard Processes for Identifying Life Cycles

Project managers shall review and analyze standard processes for identifying life cycles, which are a partitioning of the life of a product into phases that guide the project from identifying customer needs through product retirement.

106.7.3 Identify Life Cycles from Review of Standard Processes

Project managers shall identify life cycles from review of standard processes, which includes select life-cycle models based on the needs of projects and the organization; document the descriptions of the life-cycle models; conduct peer reviews on the life-cycle models; and revise the descriptions of the life-cycle models as necessary.

106.7.4 Document Life Cycles Identified from Standard Processes

Project managers shall document life cycles identified from standard processes, for establishing tailoring criteria and

guidelines, establishing the organization's measurement repository, and establishing the organization's process asset library.

106.7.5 Evaluate Life Cycles

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate life cycles, and make necessary additions, deletions, enhancements, and corrections.

106.7.6 Review and Approve Life Cycles

Senior management, program management, and functional area managers shall review and approve life cycles as well as any additions, deletions, enhancements, and corrections to life cycles by relevant stakeholders.

106.7.7 Baseline Life Cycles

Project managers shall submit life cycles to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL PROCESS DEFINITION		
Practice	107.0 ESTABLISH TAILORING CRITERIA AND GUIDELINES		

107.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive life cycles for establishing tailoring criteria and guidelines, project managers shall review and analyze life cycles for identifying tailoring criteria and guidelines, project managers shall identify tailoring criteria and guidelines from review of life cycles, project managers shall document tailoring criteria and guidelines identified from review of life cycles, relevant stakeholders shall evaluate tailoring guidelines, senior management, program management, and functional area managers shall review and approve tailoring guidelines, and project managers shall baseline tailoring criteria and guidelines.

107.2 REVISION HISTORY

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107.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

107.4 POLICY

The policy of this organization is to ensure that:

107.4.1 Project managers receive life cycles for establishing tailoring criteria and guidelines.

107.4.2 Project managers review and analyze life cycles for identifying tailoring criteria and guidelines.

107.4.3 Project managers identify tailoring criteria and guidelines from review of life cycles.

107.4.4 Project managers document tailoring criteria and guidelines identified from review of life cycles.

107.4.5 Relevant stakeholders evaluate tailoring guidelines.

107.4.6 Senior management, program management, and functional area managers review and approve tailoring guidelines.

107.4.7 Project managers baseline tailoring criteria and guidelines.

107.5 DEFINITIONS

107.5.1 Tailoring Criteria and Guidelines: requirements for how the organization's set of standard processes and organizational process assets are used to create the defined processes.

107.6 RESPONSIBILITIES

107.6.1 Project managers are responsible for receiving life cycles for establishing tailoring criteria and guidelines, reviewing and analyzing life cycles for identifying tailoring criteria and guidelines, identifying tailoring criteria and guidelines from review of life cycles, documenting tailoring criteria and guidelines identified from review of life cycles, and base lining tailoring criteria and guidelines.

107.6.2 Relevant stakeholders are responsible for evaluating tailoring guidelines.

107.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving tailoring guidelines.

107.7 PROCESS

107.7.1 Receive Life Cycles for Establishing Tailoring Criteria and Guidelines

Project managers shall receive life cycles from configuration management for establishing tailoring criteria and guidelines.

107.7.2 Review Life Cycles for Identifying Tailoring Criteria and Guidelines

Project managers shall review and analyze life cycles for identifying tailoring criteria and guidelines, which are requirements for how the organization's set of standard processes and organizational process assets are used to create the defined processes.

107.7.3 Identify Tailoring Criteria and Guidelines from Review of Life Cycles

Project managers shall identify tailoring criteria and guidelines from review of life cycles, which includes specifying the selection criteria and procedures for

tailoring the organization's set of standard processes; specifying the standards for documenting the defined processes; specifying the procedures for submitting and obtaining approval of waivers from the requirements of the organization's set of standard processes; documenting the tailoring guidelines for the organization's set of standard processes; conducting peer reviews on the tailoring guidelines; and revising the tailoring guidelines as necessary.

107.7.4   Document Tailoring Criteria and Guidelines Identified from Review of Life Cycles

Project managers shall document tailoring criteria and guidelines identified from review of life cycles, for establishing the organization's measurement repository and establishing the organization's process asset library.

107.7.5   Evaluate Tailoring Criteria and Guidelines

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate tailoring guidelines, and make necessary additions, deletions, enhancements, and corrections.

107.7.6   Review and Approve Tailoring Criteria and Guidelines

Senior management, program management, and functional area managers shall review and approve tailoring guidelines as well as any additions, deletions, enhancements, and corrections to tailoring guidelines by relevant stakeholders.

107.7.7   Baseline Tailoring Criteria and Guidelines

Project managers shall submit guidelines to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL PROCESS DEFINITION		
Practice	108.0 ESTABLISH THE ORGANIZATION'S MEASUREMENT REPOSITORY		

108.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive standard processes for establishing the organization's measurement repository, project managers shall review and analyze standard processes for establishing the organization's measurement repository, project managers shall identify organization's measurement repository from review of standard processes, project managers shall develop organization's measurement repository identified from standard processes, relevant stakeholders shall evaluate measurement repository, senior management, program management, and functional area managers shall review and approve measurement repository, and project managers shall baseline measurement repository.

108.2   REVISION HISTORY

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108.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

108.4   POLICY

The policy of this organization is to ensure that:

108.4.1   Project managers receive standard processes for establishing the organization's measurement repository.

108.4.2   Project managers review and analyze standard processes for establishing the organization's measurement repository.

108.4.3   Project managers identify organization's measurement repository from review of standard processes.

108.4.4   Project managers develop organization's measurement repository identified from standard processes.

108.4.5 Relevant stakeholders evaluate measurement repository.

108.4.6 Senior management, program management, and functional area managers review and approve measurement repository.

108.4.7 Project managers baseline measurement repository.

108.5 DEFINITIONS

108.5.1 <u>Measurement Repository</u>: databases used to collect and make available measurement data on processes and work products, as they relate to the organization's set of standard processes.

108.6 RESPONSIBILITIES

108.6.1 Project managers are responsible for receiving standard processes for establishing the organization's measurement repository, reviewing and analyzing standard processes for establishing the organization's measurement repository, identifying organization's measurement repository from review of standard processes, developing organization's measurement repository identified from standard processes, and baselining measurement repository.

108.6.2 Relevant stakeholders are responsible for evaluating measurement repository.

108.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving measurement repository.

108.7 PROCESS

108.7.1 Receive Standard Processes for Establishing the Organization's Measurement Repository

Project managers shall receive standard processes from configuration management for establishing the organization's measurement repository.

108.7.2 Review Standard Processes for Establishing the Organization's Measurement Repository

Project managers shall review and analyze standard processes for establishing the organization's measurement repository, which are databases used to collect and make available measurement data on processes and work products, as they relate to the organization's set of standard processes.

108.7.3 Identify Organization's Measurement Repository from Review of Standard Processes

Project managers shall identify organization's measurement repository from review of standard processes, which includes

determining organization's needs for measurements; defining a common set of process and product measures; designing and implementing the measurement repository; specifying the procedures for storing, updating, and retrieving measures; conducting peer reviews on the definitions of the common set of measures and the procedures for storing and retrieving measures; entering the specified measures into the repository; making the contents of the measurement repository available; and revising the measurement repository, common set of measures, and procedures as the organization's needs change.

108.7.4   Develop Organization's Measurement Repository Identified from Standard Processes

Project managers shall develop organization's measurement repository identified from standard processes, for establishing the organization's process asset library.

108.7.5   Evaluate Measurement Repository

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate measurement repository, and make necessary additions, deletions, enhancements, and corrections.

108.7.6   Review and Approve Measurement Repository

Senior management, program management, and functional area managers shall review and approve measurement repository as well as any additions, deletions, enhancements, and corrections to measurement repository by relevant stakeholders.

108.7.7   Baseline Measurement Repository

Project managers shall submit repository to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL PROCESS DEFINITION		
Practice	109.0 ESTABLISH THE ORGANIZATION'S PROCESS ASSET LIBRARY		

109.1 PURPOSE

This procedure establishes the guidelines by which project managers
shall receive standard processes for establishing the organization's
process asset library, project managers shall review and analyze
standard processes for identifying process asset library, project
managers shall identify process asset library from review of
standard processes, project managers shall develop process asset
library identified from review of standard processes, relevant
stakeholders shall evaluate process asset library, senior
management, program management, and functional area managers shall
review and approve process asset library, and project managers shall
baseline process asset library.

109.2 REVISION HISTORY

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109.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

109.4 POLICY

The policy of this organization is to ensure that:

109.4.1 Project managers receive standard processes for establishing
the organization's process asset library.

109.4.2 Project managers review and analyze standard processes for
identifying process asset library.

109.4.3 Project managers identify process asset library from review
of standard processes.

109.4.4 Project managers develop process asset library identified
from review of standard processes.

109.4.5 Relevant stakeholders evaluate process asset library.

109.4.6 Senior management, program management, and functional area managers review and approve process asset library.

109.4.7 Project managers baseline process asset library.

109.5 DEFINITIONS

109.5.1 <u>Process Asset Library</u>: collections of process asset holdings that can be used by an organization or project.

109.6 RESPONSIBILITIES

109.6.1 Project managers are responsible for receiving standard processes for establishing the organization's process asset library, reviewing and analyzing standard processes for identifying process asset library, identifying process asset library from review of standard processes, developing process asset library identified from review of standard processes, and baselining process asset library.

109.6.2 Relevant stakeholders are responsible for evaluating process asset library.

109.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving process asset library.

109.7 PROCESS

109.7.1 Receive Standard Processes for Establishing the Organization's Process Asset Library

Project managers shall receive standard processes from configuration management for establishing the organization's process asset library.

109.7.2 Review Standard Processes for Identifying Process Asset Library

Project managers shall review and analyze standard processes for identifying process asset library, which are collections of process asset holdings that can be used by an organization or project.

109.7.3 Identify Process Asset Library from Review of Standard Processes

Project managers shall identify process asset library from review of standard processes, which includes designing and implementing the organization's process asset library, including the library structure and support environment; specifying the criteria for including items in the library; specifying the procedures for storing and retrieving items; entering the selected items into the library and cataloging them for easy reference and retrieval; make the items

available for use by the projects; periodically reviewing the use of each item and use the results to maintain the library contents; and revising the organization's process asset library as necessary.

109.7.4 Develop Process Asset Library Identified from Review of Standard Processes

Project managers shall develop process asset library identified from review of standard processes, for organizational training and integrated project management for IPPD.

109.7.5 Evaluate Process Asset Library

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate process asset library, and make necessary additions, deletions, enhancements, and corrections.

109.7.6 Review and Approve Process Asset Library

Senior management, program management, and functional area managers shall review and approve process asset library as well as any additions, deletions, enhancements, and corrections to process asset library by relevant stakeholders.

109.7.7 Baseline Process Asset Library

Project managers shall submit asset library to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL TRAINING		
Practice	110.0 ESTABLISH THE STRATEGIC TRAINING NEEDS		

110.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive standard processes for establishing the strategic training needs, project managers shall review and analyze standard processes for identifying strategic training needs, project managers shall identify strategic training needs from review of standard processes, project managers shall document strategic training needs identified from review of standard processes, relevant stakeholders shall evaluate training needs, senior management, program management, and functional area managers shall review and approve training needs, and project managers shall baseline training needs.

110.2 REVISION HISTORY

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110.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

110.4 POLICY

The policy of this organization is to ensure that:

110.4.1 Project managers receive standard processes for establishing the strategic training needs.

110.4.2 Project managers review and analyze standard processes for identifying strategic training needs.

110.4.3 Project managers identify strategic training needs from review of standard processes.

110.4.4 Project managers document strategic training needs identified from review of standard processes.

110.4.5 Relevant stakeholders evaluate training needs.

110.4.6 Senior management, program management, and functional area managers review and approve training needs.

110.4.7 Project managers baseline training needs.

110.5 DEFINITIONS

110.5.1 <u>Strategic Training Needs</u>: training requirements for process analysis and documentation, engineering, supplier management, and program management.

110.6 RESPONSIBILITIES

110.6.1 Project managers are responsible for receiving standard processes for establishing the strategic training needs, reviewing and analyzing standard processes for identifying strategic training needs, identifying strategic training needs from review of standard processes, documenting strategic training needs identified from review of standard processes, and baselining training needs.

110.6.2 Relevant stakeholders are responsible for evaluating training needs.

110.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving training needs.

110.7 PROCESS

110.7.1 Receive Standard Processes for Establishing the Strategic Training Needs

Project managers shall receive standard processes from configuration management for establishing the strategic training needs.

110.7.2 Review Standard Processes for Identifying Strategic Training Needs

Project managers shall review and analyze standard processes for identifying strategic training needs, which are training requirements for process analysis and documentation, engineering, supplier management, and program management.

110.7.3 Identify Strategic Training Needs from Review of Standard Processes

Project managers shall identify strategic training needs from review of standard processes, which includes analyzing the organization's strategic business objectives and process-improvement plan to identify potential future training needs; documenting the strategic training needs of the organization; determining the roles and skills needed to perform the organizations set of standard processes;

documenting the training needed to perform the roles in the organization's set of standard processes; and revising the organization's strategic needs and required training.

110.7.4 Document Strategic Training Needs Identified from Review of Standard Process

Project managers shall document strategic training needs identified from review of standard processes, for determining which training needs are the responsibility of the organization, establishing an organizational training tactical plan, establishing training capability, delivering training, establishing training records, and assessing training effectiveness.

110.7.5 Evaluate Training Needs

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate training needs, and make necessary additions, deletions, enhancements, and corrections.

110.7.6 Review and Approve Training Needs

Senior management, program management, and functional area managers shall review and approve training needs as well as any additions, deletions, enhancements, and corrections to xyz by relevant stakeholders.

110.7.7 Baseline Training Needs

Project managers shall submit training needs to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL TRAINING		
Practice	111.0 DETERMINE WHICH TRAINING NEEDS ARE THE RESPONSIBILITY OF THE ORGANIZATION		

111.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive training needs for determining which training needs are the responsibility of the organization, project managers shall review and analyze training needs for identifying organizational training needs, project managers shall identify organizational training needs from review of training needs, project managers shall document organizational training needs identified from review of training needs, relevant stakeholders shall evaluate organization training needs, senior management, program management, and functional area managers shall review and approve organization training needs, and project managers shall baseline organization training needs.

111.2 REVISION HISTORY

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111.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

111.4 POLICY

The policy of this organization is to ensure that:

111.4.1 Project managers receive training needs for determining which training needs are the responsibility of the organization.

111.4.2 Project managers review and analyze training needs for identifying organizational training needs.

111.4.3 Project managers identify organizational training needs from review of training needs.

111.4.4 Project managers document organizational training needs

identified from review of training needs.

111.4.5 Relevant stakeholders evaluate organization training needs.

111.4.6 Senior management, program management, and functional area managers review and approve organization training needs.

111.4.7 Project managers baseline organization training needs.

111.5 DEFINITIONS

111.5.1 <u>Training Needs</u>: specifications for training requirements for process analysis and documentation, engineering, supplier management, and program management at an organizational level.

111.6 RESPONSIBILITIES

111.6.1 Project managers are responsible for receiving training needs for determining which training needs are the responsibility of the organization, reviewing and analyzing training needs for identifying organizational training needs, identifying organizational training needs from review of training needs, documenting organizational training needs identified from review of training needs, and baselining organization training needs.

111.6.2 Relevant stakeholders are responsible for evaluating organization training needs.

111.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving organization training needs.

111.7 PROCESS

111.7.1 Receive Training Needs for Determining Organizational Training Needs

Project managers shall receive training needs from configuration management for determining which training needs are the responsibility of the organization.

111.7.2 Review Training Needs for Identifying Organizational Training Needs

Project managers shall review and analyze training needs for identifying organizational training needs, which are specifications for training requirements for process analysis and documentation, engineering, supplier management, and program management at an organizational level.

111.7.3 Identify Organizational Training Needs from Review of Training Needs

Project managers shall identify organizational training
needs from review of training needs, which includes
analyzing the training needs identified by the various
projects and support groups; negotiating with the various
projects and support groups on how their specific training
needs will be satisfied; and documenting the commitments for
providing training support to the projects and support
groups.

111.7.4 Document Organizational Training Needs Identified from Review of Training Needs

Project managers shall document organizational training
needs identified from review of training needs, for
establishing an organizational training tactical plan,
establishing training capability, delivering training,
establishing training records, and assessing training
effectiveness.

111.7.5 Evaluate Organization Training Needs

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate organization training needs, and make necessary
additions, deletions, enhancements, and corrections.

111.7.6 Review and Approve Organization Training Needs

Senior management, program management, and functional area
managers shall review and approve organization training
needs as well as any additions, deletions, enhancements, and
corrections to organization training needs by relevant
stakeholders.

111.7.7 Baseline Organization Training Needs

Project managers shall submit training needs to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL TRAINING		
Practice	112.0 ESTABLISH AN ORGANIZATIONAL TRAINING TACTICAL PLAN		

112.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive organization training needs for establishing an organizational training tactical plan, project managers shall review and analyze organization training needs for identifying training plan, project managers shall identify training plan from review of organization training needs, project managers shall document training plan identified from review of organization training needs, relevant stakeholders shall evaluate& training plan, senior management, program management, and functional area managers shall review and approve training plan, and project managers shall baseline training plan.

112.2 REVISION HISTORY

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112.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

112.4 POLICY

The policy of this organization is to ensure that:

112.4.1 Project managers receive organization training needs for establishing an organizational training tactical plan.

112.4.2 Project managers review and analyze organization training needs for identifying training plan.

112.4.3 Project managers identify training plan from review of organization training needs.

112.4.4 Project managers document training plan identified from review of organization training needs.

112.4.5 Relevant stakeholders evaluate training plan.

112.4.6 Senior management, program management, and functional area managers review and approve training plan.

112.4.7 Project managers baseline training plan.

112.5 DEFINITIONS

112.5.1 <u>Training Plans</u>: documented resource specifications that include training needs, training topics, schedules based on training activities and dependencies, methods used for training, requirements and quality standards for training materials, training tasks, roles, and responsibilities, and required resources for tools, facilities, environments, staffing, skills, and knowledge.

112.6 RESPONSIBILITIES

112.6.1 Project managers are responsible for receiving organization training needs for establishing an organizational training tactical plan, reviewing and analyzing organization training needs for identifying training plan, identifying training plan from review of organization training needs, documenting training plan identified from review of organization training needs, and baselining training plan.

112.6.2 Relevant stakeholders are responsible for evaluating training plan.

112.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving training plan.

112.7 PROCESS

112.7.1 Receive Organization Training Needs for Establishing a Training Plan

Project managers shall receive organization training needs from configuration management for establishing an organizational training tactical plan.

112.7.2 Review Organization Training Needs for Identifying Training Plan

Project managers shall review and analyze organization training needs for identifying training plan, which are documented resource specifications that include training needs, training topics, schedules based on training activities and dependencies, methods used for training, requirements and quality standards for training materials, training tasks, roles, and responsibilities, and required resources for tools, facilities, environments, staffing, skills, and knowledge.

112.7.3 Identify Training Plan from Review of Organization Training Needs

Project managers shall identify training plan from review of organization training needs, which includes establishing plan content; establishing commitments to the plan; and revising plan and commitments as necessary.

112.7.4 Document Training Plan Identified from Review of Organization Training Needs

Project managers shall document training plan identified from review of organization training needs, for establishing training capability, delivering training, establishing training records, and assessing training effectiveness.

112.7.5 Evaluate Training Plan

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate training plan, and make necessary additions, deletions, enhancements, and corrections.

112.7.6 Review and Approve Training Plan

Senior management, program management, and functional area managers shall review and approve training plan as well as any additions, deletions, enhancements, and corrections to training plan by relevant stakeholders.

112.7.7 Baseline Training Plan

Project managers shall submit training plan to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED
Process	ORGANIZATIONAL TRAINING
Practice	113.0 ESTABLISH TRAINING CAPABILITY

113.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive training plans for establishing training capability, project managers shall review and analyze training plans for identifying training material, project managers shall identify training material from review of training plans, project managers shall document training plans identified from review of training plans, relevant stakeholders shall evaluate training material, senior management, program management, and functional area managers shall review and approve training material, and project managers shall baseline training material.

113.2 REVISION HISTORY

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113.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

113.4 POLICY

The policy of this organization is to ensure that:

113.4.1 Project managers receive training plans for establishing training capability.

113.4.2 Project managers review and analyze training plans for identifying training material.

113.4.3   Project managers identify training material from review of training plans.

113.4.4   Project managers document training plans identified from review of training plans.

113.4.5 Relevant stakeholders evaluate training material.

113.4.6 Senior management, program management, and functional area managers review and approve training material.

113.4.7 Project managers baseline training material.

113.5 DEFINITIONS

113.5.1 <u>Training Material</u>: instructional materials consisting of classroom training, computer-aided instruction, guided self study, formal apprenticeship and mentoring programs, facilitated videos, chalk talks, brown-bag lunch seminars, and structured on-the-job training.

113.6 RESPONSIBILITIES

113.6.1 Project managers are responsible for receiving training plans for establishing training capability, reviewing and analyzing training plans for identifying training material, identifying training material from review of training plans, documenting training plans identified from review of training plans, and baselining training material.

113.6.2 Relevant stakeholders are responsible for evaluating training material.

113.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving training material.

113.7 PROCESS

113.7.1 Receive Training Plans for Establishing Training Capability

Project managers shall receive training plans from configuration management for establishing training capability.

113.7.2 Review Training Plans for Identifying Training Material

Project managers shall review and analyze training plans for identifying training material, which are instructional materials consisting of classroom training, computer-aided instruction, guided self study, formal apprenticeship and mentoring programs, facilitated videos, chalk talks, brown-bag lunch seminars, and structured on-the-job training.

113.7.3 Identify Training Material from Review of Training Plans

Project managers shall identify training material from review of training plans, which includes selecting the appropriate approaches to satisfy specific organizational training needs; determining whether to develop training materials internally or acquire them externally; developing or obtain training materials; developing or obtain qualified instructors; describing the training in the organization's training curriculum; and revising the training materials and

supporting artifacts as necessary.

113.7.4   Document Training Plans Identified from Review of Training Plans

Project managers shall document training plans identified from review of training plans, for delivering training, establishing training records, and assessing training effectiveness.

113.7.5   Evaluate Training Material

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate training material, and make necessary additions, deletions, enhancements, and corrections.

113.7.6   Review and Approve Training Material

Senior management, program management, and functional area managers shall review and approve training material as well as any additions, deletions, enhancements, and corrections to training material by relevant stakeholders.

113.7.7   Baseline Training Material

Project managers shall submit training material to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL TRAINING		
Practice	114.0 DELIVER TRAINING		

114.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive training materials for delivering training, project managers shall review and analyze training materials for identifying training to deliver, project managers shall deliver training materials from review of training materials, project managers shall document training results from delivery of training materials, relevant stakeholders shall evaluate training results, senior management, program management, and functional area managers shall review and approve training results, and project managers shall baseline training results.

114.2   REVISION HISTORY

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114.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

114.4   POLICY

The policy of this organization is to ensure that:

114.4.1   Project managers receive training materials for delivering training.

114.4.2   Project managers review and analyze training materials for identifying training to deliver.

114.4.3   Project managers deliver training materials from review of training materials.

114.4.4   Project managers document training results from delivery of training materials.

114.4.5   Relevant stakeholders evaluate training results.

114.4.6 Senior management, program management, and functional area managers review and approve training results.

114.4.7 Project managers baseline training results.

114.5 DEFINITIONS

114.5.1 <u>Delivered Training</u>: customer-provided training, commercially available training courses, academic programs, professional conferences, seminars, courses, computer-aided instruction, and videos.

114.6 RESPONSIBILITIES

114.6.1 Project managers are responsible for receiving training materials for delivering training, reviewing and analyzing training materials for identifying training to deliver, delivering training materials from review of training materials, documenting training results from delivery of training materials, and baselining training results.

114.6.2 Relevant stakeholders are responsible for evaluating training results.

114.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving training results.

114.7 PROCESS

114.7.1 Receive Training Materials for Delivering Training

Project managers shall receive training materials from configuration management for delivering training.

114.7.2 Review Training Materials for Identifying Training to Deliver

Project managers shall review and analyze training materials for identifying training to deliver, which are customer-provided training, commercially available training courses, academic programs, professional conferences, seminars, courses, computer-aided instruction, and videos.

114.7.3 Deliver Training Materials from Review of Training Materials

Project managers shall deliver training materials from review of training materials, which includes selecting the people who will receive the training; scheduling the training, including any resources, as necessary (e.g., facilities and instructors); conducting the training; and tracking the delivery of training against the plan.

114.7.4 Document Training Results from Delivery of Training Materials

Project managers shall document training results from delivery of training materials, for establishing training

records and assessing training effectiveness.

114.7.5 Evaluate Training Results

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate training results, and make necessary additions, deletions, enhancements, and corrections.

114.7.6 Review and Approve Training Results

Senior management, program management, and functional area managers shall review and approve training results as well as any additions, deletions, enhancements, and corrections to training results by relevant stakeholders.

114.7.7 Baseline Training Results

Project managers shall submit training results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	ORGANIZATIONAL TRAINING
Practice	115.0 ESTABLISH TRAINING RECORDS

115.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive training results for establish training records, project managers shall review and analyze training results for identifying training records, project managers shall identify training records from review of training results, project managers shall document training records identified from review of training results, relevant stakeholders shall evaluate training records, senior management, program management, and functional area managers shall review and approve training records, and project managers shall baseline training records.

115.2   REVISION HISTORY

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115.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

115.4   POLICY

The policy of this organization is to ensure that:

115.4.1 Project managers receive training results for establish training records.

115.4.2 Project managers review and analyze training results for identifying training records.

115.4.3 Project managers identify training records from review of training results.

115.4.4 Project managers document training records identified from review of training results.

115.4.5 Relevant stakeholders evaluate training records.

115.4.6 Senior management, program management, and functional area managers review and approve training records.

115.4.7 Project managers baseline training records.

115.5 DEFINITIONS

115.5.1 <u>Training Records</u>: documents that include topics covered in the training, intended audience, prerequisites and preparation for participating, training objectives, length of the training, lesson plans, completion criteria for the course, criteria for granting training waivers, completed course evaluation forms, and statistical analysis of training results.

115.6 RESPONSIBILITIES

115.6.1 Project managers are responsible for receiving training results for establish training records, reviewing and analyzing training results for identifying training records, identifying training records from review of training results, documenting training records identified from review of training results, and baselining training records.

115.6.2 Relevant stakeholders are responsible for evaluating training records.

115.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving training records.

115.7 PROCESS

115.7.1 Receive Training Results for Establishing Training Records

Project managers shall receive training results from configuration management for establish training records.

115.7.2 Review Training Results for Identifying Training Records

Project managers shall review and analyze training results for identifying training records, which are documents that include topics covered in the training, intended audience, prerequisites and preparation for participating, training objectives, length of the training, lesson plans, completion criteria for the course, criteria for granting training waivers, completed course evaluation forms, and statistical analysis of training results.

115.7.3 Identify Training Records from Review of Training Results

Project managers shall identify training records from review of training results, which includes keeping records of all students who successfully complete each training course or other approved training activity as well as those who are unsuccessful; keeping records of all staff who have been

waived from specific training; keeping records of all
students who successfully complete their designated required
training; and making training records available to the
appropriate people for consideration in assignments.

115.7.4   Document Training Records Identified from Review of Training
Results

Project managers shall document training records identified
from review of training results, for assessing training
effectiveness.

115.7.5   Evaluate Training Records

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate training records, and make necessary additions,
deletions, enhancements, and corrections.

115.7.6   Review and Approve Training Records

Senior management, program management, and functional area
managers shall review and approve training records as well
as any additions, deletions, enhancements, and corrections
to training records by relevant stakeholders.

115.7.7   Baseline Training Records

Project managers shall submit training records to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	ORGANIZATIONAL TRAINING
Practice	116.0 ASSESS TRAINING EFFECTIVENESS

116.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive training records for assessing training effectiveness, project managers shall review and analyze training records for assessing training effectiveness, project managers shall assess training effectiveness from review of training records, project managers shall document training assessment identified from assessment of training effectiveness, relevant stakeholders shall evaluate training assessment, senior management, program management, and functional area managers shall review and approve training assessment, and project managers shall baseline training assessment.

116.2 REVISION HISTORY

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116.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

116.4 POLICY

The policy of this organization is to ensure that:

116.4.1 Project managers receive training records for assessing training effectiveness.

116.4.2 Project managers review and analyze training records for assessing training effectiveness.

116.4.3 Project managers assess training effectiveness from review of training records.

116.4.4 Project managers document training assessment identified from assessment of training effectiveness.

116.4.5 Relevant stakeholders evaluate training assessment.

116.4.6 Senior management, program management, and functional area managers review and approve training assessment.

116.4.7 Project managers baseline training assessment.

116.5 DEFINITIONS

116.5.1 <u>Training Assessment</u>: documentation of testing in the training context, post-training surveys of training participants, surveys of managers satisfaction with post-training effects, and assessment mechanisms embedded in courseware.

116.6 RESPONSIBILITIES

116.6.1 Project managers are responsible for receiving training records for assessing training effectiveness, reviewing and analyzing training records for assessing training effectiveness, assessing training effectiveness from review of training records, documenting training assessment identified from assessment of training effectiveness, and baselining training assessment.

116.6.2 Relevant stakeholders are responsible for evaluating training assessment.

116.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving training assessment.

116.7 PROCESS

116.7.1 Receive Training Records for Assessing Training Effectiveness

Project managers shall receive training records from configuration management for assessing training effectiveness.

116.7.2 Review Training Records for Assessing Training Effectiveness

Project managers shall review and analyze training records for assessing training effectiveness, which are documentation of testing in the training context, post-training surveys of training participants, surveys of managers' satisfaction with post-training effects, and assessment mechanisms embedded in courseware.

116.7.3 Assess Training Effectiveness from Review of Training Records

Project managers shall assess training effectiveness from review of training records, which includes assessing in-progress or completed projects to determine whether staff knowledge is adequate for performing project tasks; providing a mechanism for assessing the effectiveness of each training course with respect to established organizational, project, or individual learning (or

performance) objectives; and obtaining student evaluations of how well training activities met their needs.

116.7.4 Document Training Assessment Identified from Assessment of Training Effectiveness

Project managers shall document training assessment identified from assessment of training effectiveness, for integrated project management for IPPD, risk management, and integrated teaming.

116.7.5 Evaluate Training Assessment

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate training assessment, and make necessary additions, deletions, enhancements, and corrections.

116.7.6 Review and Approve Training Assessment

Senior management, program management, and functional area managers shall review and approve training assessment as well as any additions, deletions, enhancements, and corrections to training assessment by relevant stakeholders.

116.7.7 Baseline Training Assessment

Project managers shall submit assessment to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
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Level	LEVEL 3 – DEFINED		
Process	INTEGRATED PROJECT MANAGEMENT FOR IPPD		
Practice	117.0 ESTABLISH THE PROJECT'S DEFINED PROCESS		

117.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive tailoring criteria and guidelines for establishing the project's defined process, project managers shall review and analyze tailoring criteria and guidelines for identifying the project's defined process, project managers shall identify project's defined process from review of tailoring criteria and guidelines, project managers shall document project's defined process identified from review of tailoring criteria and guidelines, relevant stakeholders shall evaluate project's defined process, senior management, program management, and functional area managers shall review and approve project's defined process, and project managers shall baseline project's defined process.

117.2   REVISION HISTORY

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117.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

117.4   POLICY

The policy of this organization is to ensure that:

117.4.1   Project managers receive tailoring criteria and guidelines for establishing the project's defined process.

117.4.2   Project managers review and analyze tailoring criteria and guidelines for identifying the project's defined process.

117.4.3   Project managers identify project's defined process from review of tailoring criteria and guidelines.

117.4.4   Project managers document project's defined process identified from review of tailoring criteria and guidelines.

117.4.5 Relevant stakeholders evaluate project's defined process.

117.4.6 Senior management, program management, and functional area managers review and approve project's defined process.

117.4.7 Project managers baseline project's defined process.

117.5 DEFINITIONS

117.5.1 <u>Project Defined Process</u>: integrated and defined processes that have been tailored from the organization's standard process using tailoring guidelines and criteria.

117.6 RESPONSIBILITIES

117.6.1 Project managers are responsible for receiving tailoring criteria and guidelines for establishing the project's defined process, reviewing and analyzing tailoring criteria and guidelines for identifying the project's defined process, identifying project's defined process from review of tailoring criteria and guidelines, documenting project's defined process identified from review of tailoring criteria and guidelines, and baselining project's defined process.

117.6.2 Relevant stakeholders are responsible for evaluating project's defined process.

117.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving project's defined process.

117.7 PROCESS

117.7.1 Receive Tailoring Criteria and Guidelines for Establishing the Project's Defined Process

Project managers shall receive tailoring criteria and guidelines from configuration management for establishing the project's defined process.

117.7.2 Review Tailoring Criteria and Guidelines for Identifying the Project's Defined Process

Project managers shall review and analyze tailoring criteria and guidelines for identifying the project's defined process, which are integrated and defined processes that have been tailored from the organization's standard process using tailoring guidelines and criteria.

117.7.3 Identify Project's Defined Process from Review of Tailoring Criteria and Guidelines

Project managers shall identify project's defined process from review of tailoring criteria and guidelines, which includes selecting a life-cycle; selecting standard

processes; tailoring the organization's standard processes; using artifacts from the organization's process; documenting the project's defined process; conducting peer reviews; and revising the project's defined process.

117.7.4 Document Project's Defined Process Identified from Review of Tailoring Guidelines

Project managers shall document project's defined process identified from review of tailoring criteria and guidelines, for using organizational process assets for planning project activities, integrating plans, managing the project using the integrated plans, contributing to the organizational process assets, managing stakeholder involvement, managing dependencies, resolving coordination issues, defining project's shared-vision context, establishing the project's shared vision, determining integrated team structure for the project, developing a preliminary distribution of requirements to integrated teams, and establishing integrated teams.

117.7.5 Evaluate Project's Defined Process

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate project's defined process, and make necessary additions, deletions, enhancements, and corrections.

117.7.6 Review and Approve Project's Defined Process

Senior management, program management, and functional area managers shall review and approve project's defined process as well as any additions, deletions, enhancements, and corrections to project's defined process by relevant stakeholders.

117.7.7 Baseline Project's Defined Process

Project managers shall submit defined process to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	# CMMI V1.1	Revision	
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Level	LEVEL 3 – DEFINED		
Process	INTEGRATED PROJECT MANAGEMENT FOR IPPD		
Practice	118.0 USE ORGANIZATIONAL PROCESS ASSETS FOR PLANNING PROJECT ACTIVITIES		

118.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive historical estimates for using organizational process assets for planning project activities, project managers shall review and analyze historical estimates for identifying project planning data, project managers shall identify project planning data from historical estimates, project managers shall document project planning data identified from historical estimates, relevant stakeholders shall evaluate project plans, senior management, program management, and functional area managers shall review and approve project plans, and project managers shall baseline project plans.

118.2   REVISION HISTORY

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118.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

118.4   POLICY

The policy of this organization is to ensure that:

118.4.1   Project managers receive historical estimates for using organizational process assets for planning project activities.

118.4.2   Project managers review and analyze historical estimates for identifying project planning data

118.4.3   Project managers identify project planning data from historical estimates.

118.4.4   Project managers document project planning data identified from historical estimates.

118.4.5 Relevant stakeholders evaluate project plans.

118.4.6 Senior management, program management, and functional area managers review and approve project plans.

118.4.7 Project managers baseline project plan.

118.5 DEFINITIONS

118.5.1 <u>Project Planning Data</u>: documentation that comprise project plans or formal, approved documents used to manage and control the execution of the project (and, considers all phases of the project life cycle).

118.6 RESPONSIBILITIES

118.6.1 Project managers are responsible for receiving historical estimates for using organizational process assets for planning project activities, reviewing and analyzing historical estimates for identifying project planning data, identifying project planning data from historical estimates, documenting project planning data identified from historical estimates, and baselining project plans.

118.6.2 Relevant stakeholders are responsible for evaluating project plans.

118.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving project plans.

118.7 PROCESS

118.7.1 Receive Historical Estimates for Using Organizational Process Assets for Planning Project Activities

Project managers shall receive historical estimates from configuration management for using organizational process assets for planning project activities.

118.7.2 Review Historical Estimates for Identifying Project Planning Data

Project managers shall review and analyze historical estimates for identifying project planning data, which are documentation that comprise project plans or formal, approved documents used to manage and control the execution of the project (and, considers all phases of the project life cycle).

118.7.3 Identify Project Planning Data from Historical Estimates

Project managers shall identify project planning data from historical estimates, which includes basing the activities for estimating and planning on the tasks and work products of the project's defined process; and using the organization's measurement repository in estimating the

project's planning parameters.

118.7.4 Document Project Planning Data Identified from Historical Estimates

Project managers shall document project planning data identified from historical estimates, for integrating plans, managing the project using the integrated plans, contributing to the organizational process assets, managing stakeholder involvement, managing dependencies, resolving coordination issues, defining project's shared-vision context, establishing the project's shared vision, determining integrated team structure for the project, developing a preliminary distribution of requirements to integrated teams, and establishing integrated teams.

118.7.5 Evaluate Project Plans

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate project plans, and make necessary additions, deletions, enhancements, and corrections.

118.7.6 Review and Approve Project Plans

Senior management, program management, and functional area managers shall review and approve project plans as well as any additions, deletions, enhancements, and corrections to project plans by relevant stakeholders.

118.7.7 Baseline Project Plans

Project managers shall submit project plans to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Level	LEVEL 3 – DEFINED
Process	INTEGRATED PROJECT MANAGEMENT FOR IPPD
Practice	119.0 INTEGRATE PLANS

119.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project plans for integrating plans, project managers shall review and analyze project plans for developing integrated plans, project managers shall develop integrated plans from review of project plans, project managers shall document integrated plans developed from review of project plans, relevant stakeholders shall evaluate integrated plans, senior management, program management, and functional area managers shall review and approve integrated plans, and project managers shall baseline integrated plans.

119.2   REVISION HISTORY

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119.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

119.4   POLICY

The policy of this organization is to ensure that:

119.4.1 Project managers receive project plans for integrating plans.

119.4.2 Project managers review and analyze project plans for developing integrated plans.

119.4.3 Project managers develop integrated plans from review of project plans.

119.4.4 Project managers document integrated plans developed from review of project plans.

119.4.5 Relevant stakeholders evaluate integrated plans.

119.4.6 Senior management, program management, and functional area managers review and approve integrated plans.

119.4.7 Project managers baseline integrated plans.

119.5 DEFINITIONS

119.5.1 <u>Integrated Plans</u>: documentation consisting of quality, configuration, risk, and documentation management plans and measures.

119.6 RESPONSIBILITIES

119.6.1 Project managers are responsible for receiving project plans for integrating plans, reviewing and analyzing project plans for developing integrated plans, developing integrated plans from review of project plans, documenting integrated plans developed from review of project plans, and baselining integrated plans.

119.6.2 Relevant stakeholders are responsible for evaluating integrated plans.

119.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving integrated plans.

119.7 PROCESS

119.7.1 Receive Project Plans for Integrating Plans

Project managers shall receive project plans from configuration management for integrating plans.

119.7.2 Review Project Plans for Developing Integrated Plans

Project managers shall review and analyze project plans for developing integrated plans, which are documentation consisting of quality, configuration, risk, and documentation management plans and measures.

119.7.3 Develop Integrated Plans from Review of Project Plans

Project managers shall develop integrated plans from review of project plans, which includes integrating plans that affect the project; incorporating definitions of measurements; identifying and analyzing risks; scheduling tasks; incorporating peer reviews; incorporating training; establishing entry and exit criteria; ensuring compatibility with the plans of relevant stakeholders; and identifying how conflicts will be resolved among relevant stakeholders.

119.7.4 Document Integrated Plans Developed from Review of Project Plans

Project managers shall document integrated plans developed

from review of project plans, for managing the project using the integrated plans, contributing to the organizational process assets, managing stakeholder involvement, managing dependencies, resolving coordination issues, defining project's shared-vision context, establishing the project's shared vision, determining integrated team structure for the project, developing a preliminary distribution of requirements to integrated teams, and establishing integrated teams.

119.7.5 Evaluate Integrated Plans

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate integrated plans, and make necessary additions, deletions, enhancements, and corrections.

119.7.6 Review and Approve Integrated Plans

Senior management, program management, and functional area managers shall review and approve integrated plans as well as any additions, • deletions, enhancements, and corrections to integrated plans by relevant stakeholders.

119.7.7 Baseline Integrated Plans

Project managers shall submit integrated plans to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	INTEGRATED PROJECT MANAGEMENT FOR IPPD		
Practice	120.0 MANAGE THE PROJECT USING THE INTEGRATED PLANS		

120.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated plans for managing the project using the integrated plans, project managers shall review and analyze integrated plans for identifying project measures to track, project managers shall identify project measures to track from review of integrated plans, project managers shall collect project measurements identified from review of integrated plans, relevant stakeholders shall evaluate project measurements, senior management, program management, and functional area managers shall review and approve project measurements, and project managers shall baseline project measurements.

120.2   REVISION HISTORY

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120.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

120.4   POLICY

The policy of this organization is to ensure that:

120.4.1 Project managers receive integrated plans for managing the project using the integrated plans.

120.4.2 Project managers review and analyze integrated plans for identifying project measures to track.

120.4.3 Project managers identify project measures to track from review of integrated plans.

120.4.4 Project managers collect project measurements identified from review of integrated plans.

120.4.5 Relevant stakeholders evaluate project measurements.

120.4.6 Senior management, program management, and functional area managers review and approve project measurements.

120.4.7 Project managers baseline project measurements.

120.5 DEFINITIONS

120.5.1 <u>Project Measures</u>: numerical quantities of size, effort, cost, peer review data, and the number of defects.

120.6 RESPONSIBILITIES

120.6.1 Project managers are responsible for receiving integrated plans for managing the project using the integrated plans, reviewing and analyzing integrated plans for identifying project measures to track, identifying project measures to track from review of integrated plans, collecting project measurements identified from review of integrated plans, and baselining project measurements.

120.6.2 Relevant stakeholders are responsible for evaluating project measurements.

120.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving project measurements.

120.7 PROCESS

120.7.1 Receive Integrated Plans for Managing the Project Using the Integrated Plans

Project managers shall receive integrated plans from configuration management for managing the project using the integrated plans.

120.7.2 Review Integrated Plans for Identifying Project Measures to Track

Project managers shall review and analyze integrated plans for identifying project measures to track, which are numerical quantities of size, effort, cost, peer review data, and the number of defects.

120.7.3 Identify Project Measures to Track from Review of Integrated Plans

Project managers shall identify project measures to track from review of integrated plans, which includes implementing the project's defined process using process asset library; monitoring and controlling the project's activities and work products; obtaining and analyzing the selected measures; periodically reviewing the adequacy of the environment; and periodically reviewing and aligning the project's performance, objectives, and requirements of the

organization.

120.7.4 Collect Project Measurements Identified from Review of Integrated Plans

Project managers shall collect project measurements identified from review of integrated plans, for contributing to the organizational process assets, managing stakeholder involvement, managing dependencies, resolving coordination issues, defining project's shared-vision context, establishing the project's shared vision, determining integrated team structure for the project, developing a preliminary distribution of requirements to integrated teams, and establishing integrated teams.

120.7.5 Evaluate Project Measurements

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate project measurements, and make necessary additions, deletions, enhancements, and corrections.

120.7.6 Review and Approve Project Measurements

Senior management, program management, and functional area managers shall review and approve project measurements as well as any additions, deletions, enhancements, and corrections to project measurements by relevant stakeholders.

120.7.7 Baseline Project Measurements

Project managers shall submit project measures to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
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		Date	

Level	LEVEL 3 – DEFINED
Process	INTEGRATED PROJECT MANAGEMENT FOR IPPD
Practice	121.0 CONTRIBUTE TO THE ORGANIZATIONAL PROCESS ASSETS

121.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project measurements for contributing to the organizational process assets, project managers shall review and analyze project measurements for identifying organizational measurements, project managers shall identify organizational measurements from review of project measurements, project managers shall document organizational measurements identified from project measurements, relevant stakeholders shall evaluate organizational measurements, senior management, program management, and functional area managers shall review and approve organizational measurements, and project managers shall baseline organizational measurements.

121.2   REVISION HISTORY

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121.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

121.4   POLICY

The policy of this organization is to ensure that:

121.4.1   Project managers receive project measurements for
          contributing to the organizational process assets.

121.4.2   Project managers review and analyze project measurements for
          identifying organizational measurements.

121.4.3   Project managers identify organizational measurements from
          review of project measurements.

121.4.4   Project managers document organizational measurements
          identified from project measurements.

121.4.5 Relevant stakeholders evaluate organizational measurements.

121.4.6 Senior management, program management, and functional area managers review and approve organizational measurements.

121.4.7 Project managers baseline organizational measurements.

121.5 DEFINITIONS

121.5.1 <u>Project Measures</u>: numerical quantities of size, effort, cost, peer review data, and the number of defects.

121.6 RESPONSIBILITIES

121.6.1 Project managers are responsible for receiving project measurements for contributing to the organizational process assets, reviewing and analyzing project measurements for identifying organizational measurements, identifying organizational measurements from review of project measurements, documenting organizational measurements identified from project measurements, and baselining organizational measurements.

121.6.2 Relevant stakeholders are responsible for evaluating organizational measurements

121.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving organizational measurements.

121.7 PROCESS

121.7.1 Receive Project Measurements for Contributing to the Organizational Process Assets

Project managers shall receive project measurements from configuration management for contributing to the organizational process assets.

121.7.2 Review Project Measurements for Identifying Organizational Measurements

Project managers shall review and analyze project measurements for identifying organizational measurements, which are numerical quantities of size, effort, cost, peer review data, and the number of defects.

121.7.3 Identify Organizational Measurements from Review of Project Measurements

Project managers shall identify organizational measurements from review of project measurements, which includes proposing improvements to the organizational process assets; storing process and product measures in the organization's measurement repository; submitting documentation for

possible inclusion in the organization's process asset
library; and documenting lessons learned from the project
for inclusion in the organization's process asset library.

121.7.4 Document Organizational Measurements Identified from Project
Measurements

Project managers shall document organizational measurements
identified from project measurements, for managing
stakeholder involvement, managing dependencies, resolving
coordination issues, defining project's shared-vision
context, establishing the project's shared vision,
determining integrated team structure for the project,
developing a preliminary distribution of requirements to
integrated teams, and establishing integrated teams.

121.7.5 Evaluate Organizational Measurements

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate organizational measurements, and make necessary
additions, deletions, enhancements, and corrections.

121.7.6 Review and Approve Organizational Measurements

Senior management, program management, and functional area
managers shall review and approve organizational
measurements as well as any additions, deletions,
enhancements, and corrections to organizational measurements
by relevant stakeholders.

121.7.7 Baseline Organizational Measurements

Project managers shall submit measurements to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	INTEGRATED PROJECT MANAGEMENT FOR IPPD		
Practice	122.0 MANAGE STAKEHOLDER INVOLVEMENT		

122.1   PURPOSE

This pr6cedure establishes the guidelines by which project managers shall receive integrated plans for managing stakeholder involvement, project managers shall review and analyze integrated plans for identifying stakeholder issues, project managers shall identify stakeholder issues from review of integrated plans, project managers shall document stakeholder issues identified from review of integrated plans, relevant stakeholders shall evaluate stakeholder issues, senior management, program management, and functional area managers shall review and approve stakeholder issues, and project managers shall baseline stakeholder issues.

122.2   REVISION HISTORY

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122.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

122.4   POLICY

The policy of this organization is to ensure that:

122.4.1   Project managers receive integrated plans for managing stakeholder involvement.

122.4.2   Project managers review and analyze integrated plans for identifying stakeholder issues.

122.4.3   Project managers identify stakeholder issues from review of integrated plans.

122.4.4   Project managers document stakeholder issues identified from review of integrated plans.

122.4.5   Relevant stakeholders evaluate stakeholder issues.

122.4.6 Senior management, program management, and functional area managers review and approve stakeholder issues.

122.4.7 Project managers baseline stakeholder issues.

122.5 DEFINITIONS

122.5.1 <u>Stakeholder Issues</u>: misunderstandings and problems with product and product-component requirements, product and product-component architecture, and product and product-component design.

122.6 RESPONSIBILITIES

122.6.1 Project managers are responsible for receiving integrated plans for managing stakeholder involvement, reviewing and analyzing integrated plans for identifying stakeholder issues, identifying stakeholder issues from review of integrated plans, documenting stakeholder issues identified from review of integrated plans, and baselining stakeholder issues.

122.6.2 Relevant stakeholders are responsible for evaluating stakeholder issues.

122.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving stakeholder issues.

122.7 PROCESS

122.7.1 Receive Integrated Plans for Managing Stakeholder Involvement

Project managers shall receive integrated plans from configuration management for managing stakeholder involvement.

122.7.2 Review Integrated Plans for Identifying Stakeholder Issues

Project managers shall review and analyze integrated plans for identifying stakeholder issues, which are misunderstandings and problems with product and product-component requirements, product and product-component architecture, and product and product-component design.

122.7.3 Identify Stakeholder Issues from Review of Integrated Plans

Project managers shall identify stakeholder issues from review of integrated plans, which includes coordinating with the relevant stakeholders who should participate; ensuring work products satisfy commitments; and developing recommendations and coordinate the actions to resolve

misunderstandings and problems with product and product-component requirements, product and product-component architecture, and product and product-component design.

122.7.4 Document Stakeholder Issues Identified from Review of Integrated Plans

```
Project managers shall document stakeholder issues
identified from review of integrated plans, for managing
dependencies, resolving coordination issues, defining
project's shared-vision context, establishing the project's
shared vision, determining integrated team structure for the
project, developing a preliminary distribution of
requirements to integrated teams, and establishing
integrated teams.
```

122.7.5 Evaluate Stakeholder Issues

```
Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate stakeholder issues, and make necessary additions,
deletions, enhancements, and corrections.
```

122.7.6 Review and Approve Stakeholder Issues

```
Senior management, program management, and functional area
managers shall review and approve stakeholder issues as well
as any additions, deletions, enhancements, and corrections
to stakeholder issues by relevant stakeholders.
```

122.7.7 Baseline Stakeholder Issues

```
Project managers shall submit stakeholder issues to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.
```

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	INTEGRATED PROJECT MANAGEMENT FOR IPPD		
Practice	123.0 MANAGE DEPENDENCIES		

123.1 PURPOSE

This procedure establishes the guidelines by which project managers
shall receive integrated plans for managing dependencies, project
managers shall review and analyze integrated plans for identifying
critical dependencies, project managers shall identify critical
dependencies from review of integrated plans, project managers shall
document critical dependencies identified from review of integrated
plans, relevant stakeholders shall evaluate critical dependencies,
senior management, program management, and functional area managers
shall review and approve critical dependencies, and project managers
shall baseline critical dependencies.

123.2 REVISION HISTORY

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123.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

123.4 POLICY

The policy of this organization is to ensure that:

123.4.1 Project managers receive integrated plans for managing
         dependencies.

123.4.2 Project managers review and analyze integrated plans for
         identifying critical dependencies.

123.4.3 Project managers identify critical dependencies from review
         of integrated plans.

123.4.4 Project managers document critical dependencies identified
         from review of integrated plans.

123.4.5 Relevant stakeholders evaluate critical dependencies.

123.4.6 Senior management, program management, and functional area managers review and approve critical dependencies.

123.4.7 Project managers baseline critical dependencies.

123.5 DEFINITIONS

123.5.1 <u>Critical Dependencies</u>: processes for evaluating the effects of late and early completion for impacts on future activities and milestones, resolving actual and potential problems with the responsible people, and escalating to the appropriate managers the actual and potential problems that are irresolvable.

123.6 RESPONSIBILITIES

123.6.1 Project managers are responsible for receiving integrated plans for managing dependencies, reviewing and analyzing integrated plans for identifying critical dependencies, identifying critical dependencies from review of integrated plans, documenting critical dependencies identified from review of integrated plans, and baselining critical dependencies.

123.6.2 Relevant stakeholders are responsible for evaluating critical dependencies.

123.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving critical dependencies.

123.7 PROCESS

123.7.1 Receive Integrated Plans for Managing Dependencies

Project managers shall receive integrated plans from configuration management for managing dependencies.

123.7.2 Review Integrated Plans for Identifying Critical Dependencies

Project managers shall review and analyze integrated plans for identifying critical dependencies, which are processes for evaluating the effects of late and early completion for impacts on future activities and milestones, resolving actual and potential problems with the responsible people, and escalating to the appropriate managers the actual and potential problems that are irresolvable.

123.7.3 Identify Critical Dependencies from Review of Integrated Plans

Project managers shall identify critical dependencies from review of integrated plans, which includes conducting reviews with relevant stakeholders; • identifying each critical dependency; establishing need dates and plan dates for each critical dependency; reviewing and getting agreement on the commitments to address each critical

dependency; documenting the critical dependencies and commitments; and tracking the critical dependencies and commitments.

123.7.4 Document Critical Dependencies Identified from Review of Integrated Plans

Project managers shall document critical dependencies identified from review of integrated Plans, for resolving coordination issues, defining project's shared-vision context, establishing the project's shared vision, determining integrated team structure for the project, developing a preliminary distribution of requirements to integrated teams, and establishing integrated teams.

123.7.5 Evaluate Critical Dependencies

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate critical dependencies, and make necessary additions, deletions, enhancements, and corrections.

123.7.6 Review and Approve Critical Dependencies

Senior management, program management, and functional area managers shall review and approve critical dependencies as well as any additions, deletions, enhancements, and corrections to critical dependencies by relevant stakeholders

123.7.7 Baseline Critical Dependencies

Project managers shall submit dependencies to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED

Process	INTEGRATED PROJECT MANAGEMENT FOR IPPD

Practice	124.0 RESOLVE COORDINATION ISSUES

124.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive critical dependencies for resolving coordination issues, project managers shall review and analyze critical dependencies for identifying coordination issues, project managers shall identify coordination issues from review of critical dependencies, project managers shall document coordination issue status identified from review of coordination issues, relevant stakeholders shall evaluate coordination issue status, senior management, program management, and functional area managers shall review and approve coordination issue status, and project managers shall baseline coordination issues status.

124.2   REVISION HISTORY

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124.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

124.4   POLICY

The policy of this organization is to ensure that:

124.4.1 Project managers receive critical dependencies for resolving coordination issues.

124.4.2 Project managers review and analyze critical dependencies for identifying coordination issues.

124.4.3 Project managers identify coordination issues from review of critical dependencies.

124.4.4 Project managers document coordination issue status identified from review of coordination issues.

124.4.5 Relevant stakeholders evaluate coordination issue status.

124.4.6 Senior management, program management, and functional area managers review and approve coordination issue status.

124.4.7 Project managers baseline coordination issues status.

124.5 DEFINITIONS

124.5.1 <u>Coordination Issues</u>: late critical dependencies and commitments, product and product-component requirements and design defects, product-level problems, and unavailability of critical resources or personnel.

124.6 RESPONSIBILITIES

124.6.1 Project managers are responsible for receiving critical dependencies for resolving coordination issues, reviewing and analyzing critical dependencies for identifying coordination issues, identifying coordination issues from review of critical dependencies, documenting coordination issue status identified from review of coordination issues, and baselining coordination issues status.

124.6.2 Relevant stakeholders are responsible for evaluating coordination issue status.

124.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving coordination issue status.

124.7 PROCESS

124.7.1 Receive Critical Dependencies for Resolving Coordination Issues

Project managers shall receive critical dependencies from configuration management for resolving coordination issues.

124.7.2 Review Critical Dependencies for Identifying Coordination Issues

Project managers shall review and analyze critical dependencies for identifying coordination issues, which are late critical dependencies and commitments, product and product-component requirements and design defects, product-level problems, and unavailability of critical resources or personnel.

124.7.3 Identify Coordination Issues from Review of Critical Dependencies

Project managers shall identify coordination issues from review of critical dependencies, which includes identifying and document issues; communicating issues to the relevant stakeholders; resolving 'issues with the relevant stakeholders; escalating to the appropriate managers those issues not resolvable with the relevant stakeholders;

tracking the issues to closure; and communicating with the
relevant stakeholders on the status and resolution of the
issues.

124.7.4 Document Coordination Issue Status Identified from Review of Coordination Issues

Project managers shall document coordination issue status
identified from review of coordination issues, for defining
project's shared-vision context, establishing the project's
shared vision, determining integrated team structure for the
project, developing a preliminary distribution of
requirements to integrated teams, and establishing
integrated teams.

124.7.5 Evaluate Coordination Issue Status

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate coordination issue status, and make necessary
additions, deletions, enhancements, and corrections.

124.7.6 Review and Approve Coordination Issue Status

Senior management, program management, and functional area
managers shall review and approve coordination issue status
as well as any additions, deletions, enhancements, and
corrections to coordination issue status by relevant
stakeholders.

124.7.7 Baseline Coordination Issue Status

Project managers shall submit issue status to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

		Number	
		Revision	
Model	**CMMI V1.1**	Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	INTEGRATED PROJECT MANAGEMENT FOR IPPD
Practice	125.0 DEFINE PROJECT'S SHARED-VISION CONTEXT

125.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated plans for defining project's shared-vision context, project managers shall review and analyze integrated plans for identifying project's shared vision context, project managers shall identify project's shared vision context from integrated plans, project managers shall document project's shared vision context identified from integrated plans, relevant stakeholders shall evaluate project's shared vision context, senior management, program management, and functional area managers shall review and approve project's shared vision context, and project managers shall baseline project's shared vision context.

125.2   REVISION HISTORY

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125.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

125.4   POLICY

The policy of this organization is to ensure that:

125.4.1   Project managers receive integrated plans for defining project's shared-vision context.

125.4.2   Project managers review and analyze integrated plans for identifying project's shared vision context.

125.4.3   Project managers identify project's shared vision context from integrated plans.

125.4.4   Project managers document project's shared vision context identified from integrated plans.

125.4.5 Relevant stakeholders evaluate project's shared vision context.

125.4.6 Senior management, program management, and functional area managers review and approve project's shared vision context.

125.4.7 Project managers baseline project's shared vision context.

125.5 DEFINITIONS

125.5.1 <u>Shared Vision Context</u>: expectations, constraints, interfaces, and operational conditions applicable to the project's shared vision.

125.6 RESPONSIBILITIES

125.6.1 Project managers are responsible for receiving integrated plans for defining project's shared-vision context, reviewing and analyzing integrated plans for identifying project's shared vision context, identifying project's shared vision context from integrated plans, documenting project's shared vision context identified from integrated plans, and baselining project's shared vision context.

125.6.2 Relevant stakeholders are responsible for evaluating project's shared vision context.

125.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving project's shared vision context.

125.7 PROCESS

125.7.1 Receive Integrated Plans for Defining Project's Shared Vision Context

Project managers shall receive integrated plans from configuration management for defining project's shared-vision context.

125.7.2 Review Integrated Plans for Identifying Project's Shared Vision Context

Project managers shall review and analyze integrated plans for identifying project's shared vision context, which are expectations, constraints, interfaces, and operational conditions applicable to the project's shared vision.

125.7.3 Identify Project's Shared Vision Context from Integrated Plans

Project managers shall identify project's shared vision context from integrated plans, which includes identifying expectations, constraints, interfaces, and operational conditions about the organization and project that affect the project's shared vision; eliciting project members' perspectives and aspirations for the project; and creating a

description of the project's shared-vision context.

125.7.4 Document Project's Shared Vision Context Identified from Integrated Plans

Project managers shall document project's shared vision context identified from integrated plans, for establishing the project's shared vision, determining integrated team structure for the project, developing a preliminary distribution of requirements to integrated teams, and establishing integrated teams.

125.7.5 Evaluate Project's Shared Vision Context

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate project's shared vision context, and make necessary additions, deletions, enhancements, and corrections.

125.7.6 Review and Approve Project's Shared Vision Context

Senior management, program management, and functional area managers shall review and approve project's shared vision context as well as any additions, deletions, enhancements, and corrections to project's shared vision context by relevant stakeholders

125.7.7 Baseline Project's Shared Vision Context

Project managers shall submit vision context to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	INTEGRATED PROJECT MANAGEMENT FOR IPPD		
Practice	126.0 ESTABLISH THE PROJECT'S SHARED VISION		

126.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project's shared vision context for establishing the project's shared vision, project managers shall review and analyze project's shared vision context for identifying the project's shared vision, project managers shall identify project's shared vision from review of project's shared vision context, project managers shall document project's shared vision identified from project's shared vision context, relevant stakeholders shall evaluate project's shared vision, senior management, program management, and functional area managers shall review and approve project's shared vision, and project managers shall baseline project's shared vision.

126.2   REVISION HISTORY

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126.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

126.4   POLICY

The policy of this organization is to ensure that:

126.4.1   Project managers receive project's shared vision context for establishing the project's shared vision.

126.4.2   Project managers review and analyze project's shared vision context for identifying the project's shared vision.

126.4.3   Project managers identify project's shared vision from review of project's shared vision context.

126.4.4   Project managers document project's shared vision identified from project's shared vision context.

126.4.5 Relevant stakeholders evaluate project's shared vision.

126.4.6 Senior management, program management, and functional area managers review and approve project's shared vision.

126.4.7 Project managers baseline project's shared vision.

126.5 DEFINITIONS

126.5.1 <u>Project Shared Vision</u>: specifications consisting of external stakeholder expectations and requirements; the aspirations and expectations of the leader and project members; the project's objectives; the conditions and outcomes the project will create; interfaces the project needs to maintain; the visions created by the organization and interfacing groups; the constraints imposed by outside authorities; and project operation while working to achieve its objectives.

126.6 RESPONSIBILITIES

126.6.1 Project managers are responsible for receiving project's shared vision context for establishing the project's shared vision, reviewing and analyzing project's shared vision context for identifying the project's shared vision, identifying project's shared vision from review of project's shared vision context, documenting project's shared vision identified from project's shared vision context, and baselining project's shared vision.

126.6.2 Relevant stakeholders are responsible for evaluating project's shared vision.

126.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving project's shared vision.

126.7 PROCESS

126.7.1 Receive Project's Shared Vision Context for Establishing the Project's Shared Vision

Project managers shall receive project's shared vision context from configuration management for establishing the project's shared vision.

126.7.2 Review Project's Shared Vision Context for Identifying the Project's Shared Vision

Project managers shall review and analyze project's shared vision context for identifying the project's shared vision, which are specifications consisting of external stakeholder expectations and requirements; the aspirations and expectations of the leader and project members; the project's objectives; the conditions and outcomes the project will create; interfaces the project needs to

maintain; the visions created by the organization and interfacing groups; the constraints imposed by outside authorities; and project operation while working to achieve its objectives.

126.7.3 Identify Project's Shared Vision from Review of Project's Shared Vision Context

Project managers shall identify project's shared vision from review of project's shared vision context, which includes holding meetings or workshops; articulating the project's shared vision; reaching consensus; establishing a strategy to communicate; making presentations suitable for the various audiences; and checking that project and individual activities and tasks are aligned.

126.7.4 Document Project's Shared Vision Identified from Project's Shared Vision Context

Project managers shall document project's shared vision identified from project's shared vision context, for determining integrated team structure for the project, developing a preliminary distribution of requirements to integrated teams, and establishing integrated teams.

126.7.5 Evaluate Project's Shared Vision

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate project's shared vision, and make necessary additions, deletions, enhancements, and corrections.

126.7.6 Review and Approve Project's Shared Vision

Senior management, program management, and functional area managers shall review and approve project's shared vision as well as any additions, deletions, enhancements, and corrections to project's shared vision by relevant stakeholders.

126.7.7 Baseline Project's Shared Vision

Project managers shall submit shared vision to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
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Level	LEVEL 3 – DEFINED		
Process	INTEGRATED PROJECT MANAGEMENT FOR IPPD		
Practice	127.0 DETERMINE INTEGRATED TEAM STRUCTURE FOR THE PROJECT		

127.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive project's shared vision for determining integrated team structure for the project, project managers shall review and analyze project's shared vision for identifying integrated team structure, project managers shall identify integrated team structure from review of project's shared vision, project managers shall document integrated team structure identified from review of project's shared vision, relevant stakeholders shall evaluate integrated team structure, senior management, program management, and functional area managers shall review and approve integrated team structure, and project managers shall baseline integrated team structure.

127.2 REVISION HISTORY

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127.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

127.4 POLICY

The policy of this organization is to ensure that:

127.4.1 Project managers receive project's shared vision for determining integrated team structure for the project.

127.4.2 Project managers review and analyze project's shared vision for identifying integrated team structure.

127.4.3 Project managers identify integrated team structure from review of project's shared vision.

127.4.4 Project managers document integrated team structure identified from review of project's shared vision.

127.4.5 Relevant stakeholders evaluate integrated team structure.

127.4.6 Senior management, program management, and functional area managers review and approve integrated team structure.

127.4.7 Project managers baseline integrated team structure.

127.5 DEFINITIONS

127.5.1 <u>Integrated Team Structure</u>: team formation and structures, team authority guidelines, implementation techniques for IPPD, guidelines for managing risks in IPPD, guidelines for establishing lines of communication and authority, team leader selection criteria, and team responsibility guidelines.

127.6 RESPONSIBILITIES

127.6.1 Project managers are responsible for receiving project's shared vision for determining integrated team structure for the project, reviewing and analyzing project's shared vision for identifying integrated team structure, identifying integrated team structure from review of project's shared vision, documenting integrated team structure identified from review of project's shared vision, and baselining integrated team structure.

127.6.2 Relevant stakeholders are responsible for evaluating integrated team structure.

127.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving integrated team structure.

127.7 PROCESS

127.7.1 Receive Project's Shared Vision for Determining Integrated Team Structure for the Project

Project managers shall receive project's shared vision from configuration management for determining integrated team structure for the project.

127.7.2 Review Project's Shared Vision for Identifying Integrated Team Structure

Project managers shall review and analyze project's shared vision for identifying integrated team structure, which are team formation and structures, team authority guidelines, implementation techniques for IPPD, guidelines for managing risks in IPPD, guidelines for establishing lines of communication and authority, team leader selection criteria, and team responsibility guidelines.

127.7.3 Identify Integrated Team Structure from Review of Project's

Shared Vision

Project managers shall identify integrated team structure from review of project's shared vision, which includes determining the risks in the products and product suite; determining likely resource requirements and availability; establishing work-product-based responsibilities; considering organizational process assets; developing an understanding of the organization's shared vision; identifying alternative integrated team structures; and evaluating alternatives and select an integrated team structure.

127.7.4   Document Integrated Team Structure Identified from Review of Project's Shared Vision

Project managers shall document integrated team structure identified from review of project's shared vision, for developing a preliminary distribution of requirements to integrated teams and establishing integrated teams.

127.7.5   Evaluate Integrated Team Structure

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate integrated team structure, and make necessary additions, deletions, enhancements, and corrections.

127.7.6   Review and Approve Integrated Team Structure

Senior management, program management, and functional area managers shall review and approve integrated team structure as well as any additions, deletions, enhancements, and corrections to integrated team structure by relevant stakeholders.

127.7.7   Baseline Integrated Team Structure

Project managers shall submit team structure to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	INTEGRATED PROJECT MANAGEMENT FOR IPPD		
Practice	128.0 DEVELOP A PRELIMINARY DISTRIBUTION OF REQUIREMENTS TO INTEGRATED TEAMS		

128.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated team structures for developing a preliminary distribution of requirements to integrated teams, project managers shall review and analyze integrated team structures for identifying integrated team requirements, project managers shall identify integrated team requirements from review of integrated team structures, project managers shall document integrated team requirements identified from review of integrated team structures, relevant stakeholders shall evaluate integrated team requirements, senior management, program management, and functional area managers shall review and approve integrated team requirements, and project managers shall baseline integrated team requirements.

128.2   REVISION HISTORY

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128.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

128.4   POLICY

The policy of this organization is to ensure that:

128.4.1   Project managers receive integrated team structures for developing a preliminary distribution of requirements to integrated teams.

128.4.2   Project managers review and analyze integrated team structures for identifying integrated team requirements.

128.4.3   Project managers identify integrated team requirements from review of integrated team structures.

128.4.4   Project managers document integrated team requirements

identified from review of integrated team structures.

128.4.5 Relevant stakeholders evaluate integrated team requirements.

128.4.6 Senior management, program management, and functional area managers review and approve integrated team requirements.

128.4.7 Project managers baseline integrated team requirements.

128.5 DEFINITIONS

128.5.1 <u>Integrated Team Requirements</u>: specifications of authority of teams to pick their own leader, authority of teams to implement subteams (e.g., a product team forming an integration subteam), reporting chains, reporting requirements (cost, schedule, and performance status), and progress reporting measures and methods.

128.6 RESPONSIBILITIES

128.6.1 Project managers are responsible for receiving integrated team structures for developing a preliminary distribution of requirements to integrated teams, reviewing and analyzing integrated team structures for identifying integrated team requirements, identifying integrated team requirements from review of integrated team structures, documenting integrated team requirements identified from review of integrated team structures, and baselining integrated team requirements.

128.6.2 Relevant stakeholders are responsible for evaluating integrated team requirements.

128.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving integrated team requirements.

128.7 PROCESS

128.7.1 Receive Integrated Team Structures for Distributing Requirements to Integrated Teams

Project managers shall receive integrated team structures from configuration management for developing a preliminary distribution of requirements to integrated teams.

128.7.2 Review Integrated Team Structures for Identifying Integrated Team Requirements

Project managers shall review and analyze integrated team structures for identifying integrated team requirements, which are specifications of authority of teams to pick their own leader, authority of teams to implement subteams (e.g., a product team forming an integration subteam), reporting chains, reporting requirements (cost, schedule, and performance status), and progress reporting measures and methods.

128.7.3 Identify Integrated Team Requirements from Review of Integrated Team Structures

```
Project managers shall identify integrated team requirements
from review of integrated team structures, which includes
assembling requirements and interfaces for integrated teams;
checking that the preliminary distribution of requirements
and interfaces covers all specified product requirements and
other requirements; defining responsibilities and
authorities for integrated teams; and designating the
sponsor for each integrated team.
```

128.7.4 Document Integrated Team Requirements Identified from Integrated Team Structures

```
Project managers shall document integrated team requirements
identified from review of integrated team structures, for
establishing integrated teams.
```

128.7.5 Evaluate Integrated Team Requirements

```
Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate integrated team requirements, and make necessary
additions, deletions, enhancements, and corrections.
```

128.7.6 Review and Approve Integrated Team Requirements

```
Senior management, program management, and functional area
managers shall review and approve integrated team
requirements as well as any additions, deletions,
enhancements, and corrections to integrated team
requirements by relevant stakeholders.
```

128.7.7 Baseline Integrated Team Requirements

```
Project managers shall submit team requirements to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.
```

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	INTEGRATED PROJECT MANAGEMENT FOR IPPD		
Practice	129.0 ESTABLISH INTEGRATED TEAMS		

129.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated team requirements for establishing integrated teams, project managers shall review and analyze integrated team requirements for identifying integrated team charters, project managers shall identify integrated team charters from review of integrated team requirements, project managers shall document integrated team charters identified from integrated team requirements, relevant stakeholders shall evaluate integrated team charters, senior management, program management, and functional area managers shall review and approve integrated team charters, and project managers shall baseline integrated team charters.

129.2   REVISION HISTORY

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129.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

129.4   POLICY

The policy of this organization is to ensure that:

129.4.1 Project managers receive integrated team requirements for establishing integrated teams.

129.4.2 Project managers review and analyze integrated team requirements for identifying integrated team charters.

129.4.3 Project managers identify integrated team charters from review of integrated team requirements.

129.4.4 Project managers document integrated team charters identified from integrated team requirements.

129.4.5 Relevant stakeholders evaluate integrated team charters.

129.4.6 Senior management, program management, and functional area managers review and approve integrated team charters.

129.4.7 Project managers baseline integrated team charters.

129.5 DEFINITIONS

129.5.1 <u>Integrated Team Charters</u>: specifications for dynamic entities that must be able to adjust to changes in people, requirements, and the nature of tasks, and to tackle many difficulties.

129.6 RESPONSIBILITIES

129.6.1 Project managers are responsible for receiving integrated team requirements for establishing integrated teams, reviewing and analyzing integrated team requirements for identifying integrated team charters, identifying integrated team charters from review of integrated team requirements, documenting integrated team charters identified from integrated team requirements, and baselining integrated team charters.

129.6.2 Relevant stakeholders are responsible for evaluating integrated team charters.

129.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving integrated team charters.

129.7 PROCESS

129.7.1 Receive Integrated Team Requirements for Establishing Integrated Teams

Project managers shall receive integrated team requirements from configuration management for establishing integrated teams.

129.7.2 Review Integrated Team Requirements for Identifying Integrated Team Charters

Project managers shall review and analyze integrated team requirements for identifying integrated team charters, which are specifications for dynamic entities that must be able to adjust to changes in people, requirements, and the nature of tasks, and to tackle many difficulties.

129.7.3 Identify Integrated Team Charters from Review of Integrated Team Requirements

Project managers shall identify integrated team charters from review of integrated team requirements, which includes

choosing integrated team leaders; allocating
responsibilities and requirements to each integrated team;
allocating resources to each integrated team; creating each
integrated team; integrating team composition and structures
are periodically evaluated and modified to best reflect
project needs; reviewing the integrated team composition and
its place in the integrated team structure when a change of
team leader or a significant change of membership of the
team occurs when a change in team responsibility occurs,
reviewing the team composition and its tasking; and manage
the overall performance of the teams.

129.7.4 Document Integrated Team Charters Identified from Integrated Team Requirements

Project managers shall document integrated team charters
identified from integrated team requirements, for performing
risk management and integrated teaming.

129.7.5 Evaluate Integrated Team Charters

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate integrated team charters, and make necessary
additions, deletions, enhancements, and corrections.

129.7.6 Review and Approve Integrated Team Charters

Senior management, program management, and functional area
managers shall review and approve integrated team charters
as well as any additions, deletions, enhancements, and
corrections to integrated team charters by relevant
stakeholders.

129.7.7 Baseline Integrated Team Charters

Project managers shall submit team charters to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	RISK MANAGEMENT		
Practice	130.0 DETERMINE RISK SOURCES AND CATEGORIES		

130.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated project plans for determining risk sources and categories, project managers shall review and analyze integrated project plans for identifying risk sources and categories, project managers shall identify risk sources and categories from review of integrated project plans, project managers shall document risk sources and categories identified from integrated project plans, relevant stakeholders shall evaluate risk sources and categories, senior management, program management, and functional area managers shall review and approve risk sources and categories, and project management shall baseline risk sources and categories.

130.2   REVISION HISTORY

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130.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

130.4   POLICY

The policy of this organization is to ensure that:

130.4.1   Project managers receive integrated project plans for
          determining risk sources and categories.

130.4.2   Project managers review and analyze integrated project plans
          for identifying risk sources and categories.

130.4.3   Project managers identify risk sources and categories from
          review of integrated project plans.

130.4.4   Project managers document risk sources and categories
          identified from integrated project plans.

130.4.5 Relevant stakeholders evaluate risk sources and categories.

130.4.6 Senior management, program management, and functional area managers review and approve risk sources and categories.

130.4.7 Project management baseline risk sources and categories.

130.5 DEFINITIONS

130.5.1 Risk Sources and Categories: both internal and external to the project, and provides a mechanism for collecting and organizing risks as well as ensuring scrutiny and management attention.

130.6 RESPONSIBILITIES

130.6.1 Project managers are responsible for receiving integrated project plans for determining risk sources and categories, reviewing and analyzing integrated project plans for identifying risk sources and categories, identifying risk sources and categories from review of integrated project plans, documenting risk sources and categories identified from integrated project plans, and baselining risk sources and categories.

130.6.2 Relevant stakeholders are responsible for evaluating risk sources and categories.

130.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving risk sources and categories.

130.7 PROCESS

130.7.1 Receive Integrated Project Plans for Determining Risks Sources and Categories

Project managers shall receive integrated project plans from configuration management for determining risk sources and categories.

130.7.2 Review Integrated Project Plans for Identifying Risk Sources and Categories

Project managers shall review and analyze integrated project plans for identifying risk sources and categories, which are both internal and external to the project, and provides a mechanism for collecting and organizing risks as well as ensuring scrutiny and management attention.

130.7.3 Identify Risk Sources and Categories from Review of Integrated Project Plans

Project managers shall identify risk sources and categories from review of integrated project plans, which includes

determining risk sources and determining risk categories.

130.7.4 Document Risk Sources and Categories Identified from Integrated Project Plans

Project managers shall document risk sources and categories identified from integrated project plans, for defining risk parameters, establishing a risk management strategy, identifying risks, evaluating, categorizing, and prioritizing risks, and implementing risk mitigation plans.

130.7.5 Evaluate Risk Sources and Categories

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate risk sources and categories, and make necessary additions, deletions, enhancements, and corrections.

130.7.6 Review and Approve Risk Sources and Categories

Senior management, program management, and functional area managers shall review and approve risk sources and categories as well as any additions, deletions, enhancements, and corrections to risk sources and categories by relevant stakeholders.

130.7.7 Baseline Risk Sources and Categories

Project managers shall submit risk sources to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	RISK MANAGEMENT		
Practice	131.0 DEFINE RISK PARAMETERS		

131.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive risk sources and categories for defining risk parameters, project managers shall review and analyze risk sources and categories for identifying risk parameters, project managers shall identify risk parameters from review of risk sources and categories, project managers shall document risk parameters identified from review of risk sources and categories, relevant stakeholders shall evaluate risk parameters, senior management, program management, and functional area managers shall review and approve risk parameters, and project managers shall baseline risk parameters.

131.2 REVISION HISTORY

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131.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

131.4 PDLICY

The policy of this organization is to ensure that:

131.4.1 Project managers receive risk sources and categories for defining risk parameters.

131.4.2 Project managers review and analyze risk sources and categories for identifying risk parameters.

131.4.3 Project managers identify risk parameters from review of risk sources and categories.

131.4.4 Project managers document risk parameters identified from review of risk sources and categories.

131.4.5 Relevant stakeholders evaluate risk parameters.

131.4.6 Senior management, program management, and functional area managers review and approve risk parameters.

131.4.7 Project managers baseline risk parameters.

131.5 DEFINITIONS

131.5.1 <u>Risk Parameters</u>: risk likelihood (i.e., probability of risk occurrence), risk consequence (i.e., impact and severity of risk occurrence), and thresholds to trigger management activities.

131.6 RESPONSIBILITIES

131.6.1 Project managers are responsible for receiving risk sources and categories for defining risk parameters, reviewing and analyzing risk sources and categories for identifying risk parameters, identifying risk parameters from review of risk sources and categories, documenting risk parameters identified from review of risk sources and categories, and baselining risk parameters.

131.6.2 Relevant stakeholders are responsible for evaluating risk parameters.

131.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving risk parameters.

131.7 PROCESS

131.7.1 Receive Risk Sources and Categories for Defining Risk Parameters

Project managers shall receive risk sources and categories from configuration management for defining risk parameters.

131.7.2 Review Risk Sources and Categories for Identifying Risk Parameters

Project managers shall review and analyze risk sources and categories for identifying risk parameters, which are risk likelihood (i.e., probability of risk occurrence), risk consequence (i.e., impact and severity of risk occurrence), and thresholds to trigger management activities.

131.7.3 Identify Risk Parameters from Review of Risk Sources and Categories

Project managers shall identify risk parameters from review of risk sources and categories, which includes defining consistent criteria for evaluating and quantifying risk likelihood and severity levels; defining thresholds for each

risk category; and defining bounds on the extent to which
thresholds are applied against or within a category.

131.7.4 Document Risk Parameters Identified from Review of Risk Sources and Categories

Project managers shall document risk parameters identified
from review of risk sources and categories, for establishing
a risk management strategy, identifying risks, evaluating,
categorizing, and prioritizing risks, and implementing risk
mitigation plans.

131.7.5 Evaluate Risk Parameters

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate risk parameters, and make necessary additions,
deletions, enhancements, and corrections.

131.7.6 Review and Approve Risk Parameters

Senior management, program management, and functional area
managers shall review and approve risk parameters as well as
any additions, deletions, enhancements, and corrections to
risk parameters by relevant stakeholders.

131.7.7 Baseline Risk Parameters

Project managers shall submit risk parameters to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	RISK MANAGEMENT		
Practice	132.0 ESTABLISH A RISK MANAGEMENT STRATEGY		

132.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive risk parameters for establishing a risk management strategy, project managers shall review and analyze risk parameters for identifying risk management strategy, project managers shall identify risk management strategy from review of risk parameters, project managers shall document risk management strategy identified from review of risk parameters, relevant stakeholders shall evaluate risk management strategy, senior management, program management, and functional area managers shall review and approve risk management strategy, and project managers shall baseline risk management strategy.

132.2 REVISION HISTORY

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132.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

132.4 POLICY

The policy of this organization is to ensure that:

132.4.1 Project managers receive risk parameters for establishing a risk management strategy.

132.4.2 Project managers review and analyze risk parameters for identifying risk management strategy.

132.4.3 Project managers identify risk management strategy from review of risk parameters.

132.4.4 Project managers document risk management strategy identified from review of risk parameters.

132.4.5 Relevant stakeholders evaluate risk management strategy.

132.4.6 Senior management, program management, and functional area managers review and approve risk management strategy.

132.4.7 Project managers baseline risk management strategy.

132.5 DEFINITIONS

132.5.1 Risk Management Strategy: plans that define a common vision of success that describes the desired future project outcomes in terms of the product that is delivered, its cost, and its fitness for the task.

132.6 RESPONSIBILITIES

132.6.1 Project managers are responsible for receiving risk parameters for establishing a risk management strategy, reviewing and analyzing risk parameters for identifying risk management strategy, identifying risk management strategy from review of risk parameters, documenting risk management strategy identified from review of risk parameters, and baselining risk management strategy.

132.6.2 Relevant stakeholders are responsible for evaluating risk management strategy.

132.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving risk management strategy.

132.7 PROCESS

132.7.1 Receive Risk Parameters for Establishing a Risk Management Strategy

Project managers shall receive risk parameters from configuration management for establishing a risk management strategy.

132.7.2 Review Risk Parameters for Identifying Risk Management Strategy

Project managers shall review and analyze risk parameters for identifying risk management strategy, which are plans that define a common vision of success that describes the desired future project outcomes in terms of the product that is delivered, its cost, and its fitness for the task.

132.7.3 Identify Risk Management Strategy from Review of Risk Parameters

Project managers shall identify risk management strategy from review of risk parameters, which includes scoping of risk management effort; identifying methods and tools for

risk identification, analysis, mitigation, monitoring, and
communication; identifying project sources of risks;
determining how to organize, categorize, compare, and
consolidate risks; defining parameters, including
likelihood, consequence, and thresholds; documenting risk
mitigation techniques; defining risk measures to monitor the
status of the risks; and tracking time intervals for risk
monitoring or reassessment.

132.7.4 Document Risk Management Strategy Identified from Review of Risk Parameters

Project managers shall document risk management strategy
identified from review of risk parameters, for identifying
risks, evaluating, categorizing, and prioritizing risks, and
implementing risk mitigation plans.

132.7.5 Evaluate Risk Management Strategy

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate risk management strategy, and make necessary
additions, deletions, enhancements, and corrections.

132.7.6 Review and Approve Risk Management Strategy

Senior management, program management, and functional area
managers shall review and approve risk management strategy
as well as any additions, deletions, enhancements, and
corrections to risk management strategy by relevant
stakeholders.

132.7.7 Baseline Risk Management Strategy

Project managers shall submit risk strategy to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	RISK MANAGEMENT
Practice	133.0 IDENTIFY RISKS

133.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive risk management strategy for identifying risks, project managers shall review and analyze risk management strategy for identifying risks, project managers shall identify risks from review of risk management strategy, project managers shall document identified risks from review of risk management strategy, relevant stakeholders shall evaluate identified risks, senior management, program management, and functional area managers shall review and approve identified risks, and project managers shall baseline identified risks.

133.2 REVISION HISTORY

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133.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

133.4 POLICY

The policy of this organization is to ensure that:

133.4.1 Project managers receive risk management strategy for identifying risks.

133.4.2 Project managers review and analyze risk management strategy for identifying risks.

133.4.3 Project managers identify risks from review of risk management strategy.

133.4.4 Project managers document identified risks from review of risk management strategy.

133.4.5 Relevant stakeholders evaluate identified risks.

134.4.6 Senior management, program management, and functional area managers review and approve identified risks.

133.4.7 Project managers baseline identified risks.

133.5 DEFINITIONS

133.5.1 Project Risks: discrete occurrences that may affect the project for better or worse.

133.6 RESPONSIBILITIES

133.6.1 Project managers are responsible for receiving risk management strategy for identifying risks, reviewing and analyzing risk management strategy for identifying risks, identifying risks from review of risk management strategy, documenting identified risks from review of risk management strategy, and baselining identified risks.

133.6.2 Relevant stakeholders are responsible for evaluating identified risks.

133.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving identified risks.

133.7 PROCESS

133.7.1 Receive Risk Management Strategy for Identifying Risks

Project managers shall receive risk management strategy from configuration management for identifying risks.

133.7.2 Review Risk Management Strategy for Identifying Risks

Project managers shall review and analyze risk management strategy for identifying risks, which are discrete occurrences that may affect the project for better or worse.

133.7.3 Identify Risks from Review of Risk Management Strategy

Project managers shall identify risks from review of risk management strategy, which includes identifying the risks associated with cost, schedule, and performance in all appropriate product life-cycle phases; reviewing environmental elements that may impact the project; reviewing all elements of the work breakdown structure as part of identifying risks to help ensure that all aspects of the work effort have been considered; reviewing all elements of the project plan as part of identifying risks to help ensure that all aspects of the project have been considered; documenting the context, conditions, and potential consequences of the risk; and identifying the relevant stakeholders associated with each risk.

133.7.4 Document Identified Risks from Review of Risk Management

Strategy

Project managers shall document identified risks from review of risk management strategy, for evaluating, categorizing, and prioritizing risks, and implementing risk mitigation plans.

133.7.5 Evaluate Identified Risks

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality

assurance, and configuration management) shall evaluate identified risks, and make necessary additions, deletions, enhancements, and corrections.

133.7.6 Review and Approve Identified Risks

Senior management, program management, and functional area managers shall review and approve identified risks as well as any additions, deletions, enhancements, and corrections to identified risks

133.7.7 Baseline Identified Risks

Project managers shall submit identified risks to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
		Revision	
Model	**CMMI V1.1**	Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	RISK MANAGEMENT
Practice	134.0 EVALUATE, CATEGORIZE, AND PRIORITIZE RISKS

134.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive identified for evaluating, categorizing, and prioritizing risks, project managers shall review and analyze identified risks for evaluating, categorizing, and prioritizing risks, project managers shall evaluate, categorize, and prioritize risks from review of identified risks, project managers shall document risk evaluation from review of identified risks, relevant stakeholders shall evaluate risk evaluation, senior management, program management, and functional area managers shall review and approve risk evaluation, and project managers shall baseline risk evaluation.

134.2   REVISION HISTORY

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134.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

134.4   POLICY

The policy of this organization is to ensure that:

134.4.1   Project managers receive identified for evaluating, categorizing, and prioritizing risks.

134.4.2   Project managers review and analyze identified risks for evaluating, categorizing, and prioritizing risks.

134.4.3   Project managers evaluate, categorize, and prioritize risks from review of identified risks.

134.4.4   Project managers document risk evaluation from review of identified risks.

134.4.5 Relevant stakeholders evaluate risk evaluation.

134.4.6 Senior management, program management, and functional area managers review and approve risk evaluation.

134.4.7 Project managers baseline risk evaluation.

134.5 DEFINITIONS

134.5.1 <u>Risk Evaluation</u>: processes needed to assign relative importance to each identified risk, and is used in determining when appropriate management attention is required.

134.6 RESPONSIBILITIES

134.6.1 Project managers are responsible for receiving identified for evaluating, categorizing, and prioritizing risks, reviewing and analyzing identified risks for evaluating, categorizing, and prioritizing risks, evaluating, categorizing, and prioritizing risks from review of identified risks, documenting risk evaluation from review of identified risks, and baselining risk evaluation.

134.6.2 Relevant stakeholders are responsible for evaluating risk evaluation.

134.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving risk evaluation.

134.7 PROCESS

134.7.1 Receive Identified Risks for Evaluating, Categorizing, and Prioritizing Risks

Project managers shall receive identified from configuration management for evaluating, categorizing, and prioritizing risks.

134.7.2 Review Identified Risks for Evaluating, Categorizing, and Prioritizing Risks

Project managers shall review and analyze identified risks for evaluating, categorizing, and prioritizing risks, which are processes needed to assign relative importance to each identified risk, and is used in determining when appropriate management attention is required.

134.7.3 Evaluate, Categorize, and Prioritize Risks from Review of Identified Risks

Project managers shall evaluate, categorize, and prioritize risks from review of identified risks, which includes evaluating the identified risks using the defined risk

parameters; categorizing and group risks according to the defined risk categories; and prioritizing risks for mitigation.

134.7.4 Document Risk Evaluation from Review of Identified Risks

Project managers shall document risk evaluation from review of identified risks, for developing risk mitigation plans and implementing risk mitigation plans.

134.7.5 Evaluate Risk Evaluation

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate risk evaluation, and make necessary additions, deletions, enhancements, and corrections.

134.7.6 Review and Approve Risk Evaluation

Senior management, program management, and functional area managers shall review and approve risk evaluation as well as any additions, deletions, enhancements, and corrections to risk evaluation by relevant stakeholders.

134.7.7 Baseline Risk Evaluation

Project managers shall submit risk evaluation to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED

Process	RISK MANAGEMENT

Practice	135.0 DEVELOP RISK MITIGATION PLANS

135.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive risk evaluations for developing risk mitigation plans, project managers shall review and analyze risk evaluations for identifying risk mitigation plans, project managers shall identify risk mitigation plans from review of risk evaluations, project managers shall document risk mitigation plans identified from review of risk evaluations, relevant stakeholders shall evaluate risk mitigation plans, senior management, program management, and functional area managers shall review and approve risk mitigation plans, and project managers shall baseline risk mitigation plans.

135.2   REVISION HISTORY

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135.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

135.4   POLICY

The policy of this organization is to ensure that:

135.4.1   Project managers receive risk evaluations for developing risk mitigation plans.

135.4.2   Project managers review and analyze risk evaluations for identifying risk mitigation plans.

135.4.3   Project managers identify risk mitigation plans from review of risk evaluations.

135.4.4   Project managers document risk mitigation plans identified from review of risk evaluations.

135.4.5   Relevant stakeholders evaluate risk mitigation plans.

135.4.6 Senior management, program management, and functional area managers review and approve risk mitigation plans.

135.4.7 Project managers baseline risk mitigation plans.

135.5 DEFINITIONS

135.5.1 <u>Risk Mitigation Plans</u>: documents that capture the results of using techniques and methods used to avoid, reduce, and control the probability of occurrence of the risk, the extent of damage incurred should the risk occur (sometimes called a "contingency plan"), or both.

135.6 RESPONSIBILITIES

135.6.1 Project managers are responsible for receiving risk evaluations for developing risk mitigation plans, reviewing and analyzing risk evaluations for identifying risk mitigation plans, identifying risk mitigation plans from review of risk evaluations, documenting risk mitigation plans identified from review of risk evaluations, and baselining risk mitigation plans.

135.6.2 Relevant stakeholders are responsible for evaluating risk mitigation plans.

135.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving risk mitigation plans.

135.7 PROCESS

135.7.1 Receive Risk Evaluations for Developing Risk Mitigation Plans

Project managers shall receive risk evaluations from configuration management for developing risk mitigation plans.

135.7.2 Review Risk Evaluations for Identifying Risk Mitigation Plans

Project managers shall review and analyze risk evaluations for identifying risk mitigation plans, which are documents that capture the results of using techniques and methods used to avoid, reduce, and control the probability of occurrence of the risk, the extent of damage incurred should the risk occur (sometimes called a "contingency plan"), or both.

135.7.3 Identify Risk Mitigation Plans from Review of Risk Evaluations

Project managers shall identify risk mitigation plans from review of risk evaluations, which includes determine the levels and thresholds that define when a risk becomes unacceptable and triggers the execution of a risk mitigation plan or a contingency plan; identify the person or group responsible for addressing each risk; determine the cost-to-

benefit ratio of implementing the risk mitigation plan for
each risk; develop an overall risk mitigation plan for the
project to orchestrate the implementation of the individual
risk mitigation and contingency plans; and develop
contingency plans for selected critical risks in the event
their impacts are realized.

135.7.4 Document Risk Mitigation Plans Identified from Review of Risk Evaluations

Project managers shall document risk mitigation plans
identified from review of risk evaluations, for implementing
risk mitigation plans.

135.7.5 Evaluate Risk Mitigation Plans

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate risk mitigation plans, and make necessary
additions, deletions, enhancements, and corrections.

135.7.6 Review and Approve Risk Mitigation Plans

Senior management, program management, and functional area
managers shall review and approve risk mitigation plans as
well as any additions, deletions, enhancements, and
corrections to risk mitigation plans by relevant
stakeholders.

135.7.7 Baseline Risk Mitigation Plans

Project managers shall submit mitigation plans to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	RISK MANAGEMENT
Practice	136.0 IMPLEMENT RISK MITIGATION PLANS

136.1 PURPOSE

This procedure establishes the guidelines by which project managers
shall receive risk mitigation plans from configuration management
for implementing risk mitigation plans, project managers shall
review and analyze risk mitigation plans for identifying risk
mitigation tasks, project managers shall identify risk mitigation
tasks from review of risk mitigation plans, project managers shall
perform risk mitigation tasks identified from review of risk
mitigation plans, relevant stakeholders shall evaluate risk
mitigation results, senior management, program management, and
functional area managers shall review and approve risk mitigation
results, and project managers shall baseline risk mitigation
results.

136.2 REVISION HISTORY

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136.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

136.4 POLICY

The policy of this organization is to ensure that:

136.4.1 Project managers receive risk mitigation plans from
         configuration management for implementing risk mitigation
         plans.

136.4.2 Project managers review and analyze risk mitigation plans
         for identifying risk mitigation tasks.

136.4.3 Project managers identify risk mitigation tasks from review
         of risk mitigation plans.

136.4.4 Project managers perform risk mitigation tasks identified

from review of risk mitigation plans.

    136.4.5 Relevant stakeholders evaluate risk mitigation results.

    136.4.6 Senior management, program management, and functional area managers review and approve risk mitigation results.

    136.4.7 Project managers baseline risk mitigation results.

136.5 DEFINITIONS

    136.5.1 <u>Risk Mitigation Tasks</u>: proactive programs to regularly monitor risks and the status and results of risk-handling actions.

136.6 RESPONSIBILITIES

    136.6.1 Project managers are responsible for receiving risk mitigation plans from configuration management for implementing risk mitigation plans, reviewing and analyzing risk mitigation plans for identifying risk mitigation tasks, identifying risk mitigation tasks from review of risk mitigation plans, performing risk mitigation tasks identified from review of risk mitigation plans, and baselining risk mitigation results.

    136.6.2 Relevant stakeholders are responsible for evaluating risk mitigation results.

    136.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving risk mitigation results.

136.7 PROCESS

136.7.1 Receive Risk Mitigation Plans for Implementing Risk Mitigation Plans

Project managers shall receive risk mitigation plans from configuration management for implementing risk mitigation plans.

136.7.2 Review Risk Mitigation Plans for Identifying Risk Mitigation Tasks

Project managers shall review and analyze risk mitigation plans for identifying risk mitigation tasks, which are proactive programs to regularly monitor risks and the status and results of risk-handling actions.

136.7.3 Identify Risk Mitigation Tasks from Review of Risk Mitigation Plans

Project managers shall identify risk mitigation tasks from review of risk mitigation plans, which includes monitoring risk status; providing a method for tracking open risk-handling action items to closure; invoking selected risk-handling options when monitored risks exceed the defined

thresholds; establishing a schedule or period of performance
for each risk-handling activity that includes the start date
and anticipated completion date; providing continued
commitment of resources for each plan to allow successful
execution of the risk-handling activities; and collecting
performance measures on the risk-handling activities.

136.7.4 Perform Risk Mitigation Tasks Identified from Review of Risk Mitigation Plans

Project managers shall perform risk mitigation tasks
identified from review of risk mitigation plans, for
integrated teaming, decision analysis and resolution, and
organizational environment for integration.

136.7.5 Evaluate Risk Mitigation Results

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate risk mitigation results, and make necessary
additions, deletions, enhancements, and corrections.

136.7.6 Review and Approve Risk Mitigation Results

Senior management, program management, and functional area
managers shall review and approve risk mitigation results as
well as any additions, deletions, enhancements, and
corrections to risk mitigation results by relevant
stakeholders.

136.7.7 Baseline Risk Mitigation Results

Project managers shall submit mitigation results to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	INTEGRATED TEAMING		
Practice	137.0 IDENTIFY TEAM TASKS		

137.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated plans for identifying team tasks, project managers shall review and analyze integrated plans for identifying integrated team tasks, project managers shall identify integrated team tasks from review of integrated plans, project managers shall document integrated team tasks identified from review of integrated plans, relevant stakeholders shall evaluate integrated team tasks, senior management, program management, and functional area managers shall review and approve integrated team tasks, and project managers shall baseline integrated team tasks.

137.2 REVISION HISTORY

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137.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

137.4 POLICY

The policy of this organization is to ensure that:

137.4.1 Project managers receive integrated plans for identifying team tasks.

137.4.2 Project managers review and analyze integrated plans for identifying integrated team tasks.

137.4.3 Project managers identify integrated team tasks from review of integrated plans.

137.4.4 Project managers document integrated team tasks identified from review of integrated plans.

137.4.5 Relevant stakeholders evaluate integrated team tasks.

137.4.6 Senior management, program management, and functional area managers review and approve integrated team tasks.

137.4.7 Project managers baseline integrated team tasks.

137.5 DEFINITIONS

137.5.1 <u>Integrated Team Tasks</u>: the processes, activities, and steps outlined within work breakdown structures or project plans that are scheduled and executed to design, develop, and test products and product components.

137.6 RESPONSIBILITIES

137.6.1 Project managers are responsible for receiving integrated plans for identifying team tasks, reviewing and analyzing integrated plans for identifying integrated team tasks, identifying integrated team tasks from review of integrated plans, documenting integrated team tasks identified from review of integrated plans, and baselining integrated team tasks.

137.6.2 Relevant stakeholders are responsible for evaluating integrated team tasks.

137.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving integrated team tasks.

137.7 PROCESS

137.7.1 Receive Integrated Plans for Identifying Team Tasks

Project managers shall receive integrated plans from configuration management for identifying team tasks.

137.7.2 Review Integrated Plans for Identifying Integrated Team Tasks

Project managers shall review and analyze integrated plans for identifying integrated team tasks, which are the processes, activities, and steps outlined within work breakdown structures or project plans that are scheduled and executed to design, develop, and test products and product components.

137.7.3 Identify Integrated Team Tasks from Review of Integrated Plans

Project managers shall identify integrated team tasks from review of integrated plans, which includes defining team tasks required to deliver the assigned work products and deciding which tasks need team or individual member input.

137.7.4 Document Integrated Team Tasks Identified from Review of Integrated Plans

Project managers shall document integrated team tasks

identified from review of integrated plans, for identifying
needed knowledge and skills, assigning appropriate team
members, establishing a shared vision, establishing a team
charter, defining roles and responsibilities, establishing
operating procedures, and collaborating among interfacing
teams.

137.7.5 Evaluate Integrated Team Tasks

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate integrated team tasks, and make necessary
additions, deletions, enhancements, and corrections.

137.7.6 Review and Approve Integrated Team Tasks

Senior management, program management, and functional area
managers shall review and approve integrated team tasks as
well as any additions, deletions, enhancements, and
corrections to integrated team tasks by relevant
stakeholders

137.7.7 Baseline Integrated Team Tasks

Project managers shall submit integrated tasks to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 3 – DEFINED
Process	INTEGRATED TEAMING
Practice	138.0 IDENTIFY NEEDED KNOWLEDGE AND SKILLS

138.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated team tasks for identifying needed knowledge and skills, project managers shall review and analyze integrated team tasks for identifying integrated knowledge and skills, project managers shall identify integrated knowledge and skills from review of team tasks, project managers shall document integrated knowledge and skills identified from review of integrated team tasks, relevant stakeholders shall evaluate integrated knowledge and skills, senior management, program management, and functional area managers shall review and approve integrated knowledge and skills, and project managers shall baseline integrated knowledge and skill.

138.2   REVISION HISTORY

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138.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

138.4   POLICY

The policy of this organization is to ensure that:

138.4.1   Project managers receive integrated team tasks for identifying needed knowledge and skills.

138.4.2   Project managers review and analyze integrated team tasks for identifying integrated knowledge and skills.

138.4.3   Project managers identify integrated knowledge and skills from review of team tasks.

138.4.4   Project managers document integrated knowledge and skills identified from review of integrated team tasks.

138.4.5 Relevant stakeholders evaluate integrated knowledge and skills.

138.4.6 Senior management, program management, and functional area managers review and approve integrated knowledge and skills.

138.4.7 Project managers baseline integrated knowledge and skill.

138.5 DEFINITIONS

138.5.1 <u>Integrated Knowledge and Skills</u>: the functional knowledge and related job skills within the integrated team that are directly related to specific team tasks and responsibilities.

138.6 RESPONSIBILITIES

138.6.1 Project managers are responsible for receiving integrated team tasks for identifying needed knowledge and skills, reviewing and analyzing integrated team tasks for identifying integrated knowledge and skills, identifying integrated knowledge and skills from review of team tasks, documenting integrated knowledge and skills identified from review of integrated team tasks, and baselining integrated knowledge and skill.

138.6.2 Relevant stakeholders are responsible for evaluating integrated knowledge and skills.

138.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving integrated knowledge and skills.

138.7 PROCESS

138.7.1 Receive Integrated Team Tasks for Identifying Needed Knowledge and Skills

Project managers shall receive integrated team tasks from configuration management for identifying needed knowledge and skills.

138.7.2 Review Integrated Team Tasks for Identifying Integrated Knowledge and Skills

Project managers shall review and analyze integrated team tasks for identifying integrated knowledge and skills, which are the functional knowledge and related job skills within the integrated team that are directly related to specific team tasks and responsibilities.

138.7.3 Identify Integrated Knowledge and Skills from Review of Integrated Team Tasks

Project managers shall identify integrated knowledge and

skills from review of team tasks, which includes identifying the business functions and C processes in which the integrated team must maintain competence to perform its objectives; identifying the core competencies on which to base the integrated team's activities to sustain or achieve desired capability; establishing knowledge and skill profiles underlying each core and extended team competency; and defining staffing and competency requirements.

138.7.4 Document Integrated Knowledge and Skills Identified from Review of Integrated Team Tasks

Project managers shall document integrated knowledge and skills identified from review of integrated team tasks, for assigning appropriate team members, establishing a shared vision, establishing a team charter, defining roles and responsibilities, establishing operating procedures, and collaborating among interfacing teams.

138.7.5 Evaluate Integrated Knowledge and Skills

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate integrated knowledge and skills, and make necessary additions, deletions, enhancements, and corrections.

138.7.6 Review and Approve Integrated Knowledge and Skills

Senior management, program management, and functional area managers shall review and approve integrated knowledge and skills as well as any additions, deletions, enhancements, and corrections to integrated knowledge and skills by relevant stakeholders.

138.7.7 Baseline Integrated Knowledge and Skills

Project managers shall submit integrated skills to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	INTEGRATED TEAMING		
Practice	139.0 ASSIGN APPROPRIATE TEAM MEMBERS		

139.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated knowledge and skills for assigning appropriate team members, project managers shall review and analyze integrated knowledge and skills for identifying integrated team members, project managers shall identify integrated team members from review of team knowledge and skills, project managers shall document integrated team members identified from review of knowledge and skills, relevant stakeholders shall evaluate integrated team members, senior management, program management, and functional area managers shall review and approve integrated team members, and project managers shall baseline integrated team members.

139.2   REVISION HISTORY

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139.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

139.4   POLICY

The policy of this organization is to ensure that:

139.4.1   Project managers receive integrated knowledge and skills for assigning appropriate team members.

139.4.2   Project managers review and analyze integrated knowledge and skills for identifying integrated team members.

139.4.3   Project managers identify integrated team members from review of team knowledge and skills.

139.4.4   Project managers document integrated team members identified from review of knowledge and skills.

139.4.5 Relevant stakeholders evaluate integrated team members.

139.4.6 Senior management, program management, and functional area managers review and approve integrated team members.

139.4.7 Project managers baseline integrated team members.

139.5 DEFINITIONS

139.5.1 Integrated Team Members: team members selected and positioned to perform team tasks based on their ability to satisfy required knowledge, skills, and functional expertise, and complement those of other team members.

139.6 RESPONSIBILITIES

139.6.1 Project managers are responsible for receiving integrated knowledge and skills for assigning appropriate team members, reviewing and analyzing integrated knowledge and skills for identifying integrated team members, identifying integrated team members from review of team knowledge and skills, documenting integrated team members identified from review of knowledge and skills, and baselining integrated team members.

139.6.2 Relevant stakeholders are responsible for evaluating integrated team members.

139.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving integrated team members.

139.7 PROCESS

139.7.1 Receive Integrated Knowledge and Skills for Assigning Appropriate Team Members

Project managers shall receive integrated knowledge and skills from configuration management for assigning appropriate team members.

139.7.2 Review Integrated Knowledge and Skills for Identifying Integrated Team Members

Project managers shall review and analyze integrated knowledge and skills for identifying integrated team members, which are team members selected and positioned to perform team tasks based on their ability to satisfy required knowledge, skills, and functional expertise, and complement those of other team members.

139.7.3 Identify Integrated Team Members from Review of Integrated Knowledge and Skills

Project managers shall identify integrated team members from

review of team knowledge and skills, which includes establishing relevant criteria for evaluating team members against established knowledge and skills profiles; utilizing the criteria to qualify appropriate candidates against the knowledge and skills profiles; identifying and orient team members to best contribute to the team's capability; and assessing and determine the integrated team's capability to meet its objectives based on initial staffing and positioning.

139.7.4 Document Integrated Team Members Identified from Review of Integrated Knowledge and Skills

Project managers shall document integrated team members identified from review of knowledge and skills, for establishing a shared vision, establishing a team charter, defining roles and responsibilities, establishing operating procedures, and collaborating among interfacing teams.

139.7.5 Evaluate Integrated Team Members

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate integrated team members, and make necessary additions, deletions, enhancements, and corrections.

139.7.6 Review and Approve Integrated Team Members

Senior management, program management, and functional area managers shall review and approve integrated team members as well as any additions, deletions, enhancements, and corrections to integrated team members by relevant stakeholders.

139.7.7 Baseline Integrated Team Members

Project managers shall submit integrated team to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED
Process	INTEGRATED TEAMING
Practice	140.0 ESTABLISH A SHARED VISION

140.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated team members for establishing a shared vision, project managers shall review and analyze integrated team members for identifying the integrated shared vision, project managers shall identify integrated shared vision from review of team member lists, project managers shall document integrated shared vision identified from review of team member lists, relevant stakeholders shall evaluate integrated shared vision, senior management, program management, and functional area managers shall review and approve integrated shared vision, and project managers shall baseline integrated shared vision.

140.2   REVISION HISTORY

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! Date    !            Description            ! Author Initials !
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140.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

140.4   POLICY

The policy of this organization is to ensure that:

140.4.1 Project managers receive integrated team members for establishing a shared vision.

140.4.2 Project managers review and analyze integrated team members for identifying the integrated shared vision.

140.4.3 Project managers identify integrated shared vision from review of team member lists.

140.4.4 Project managers document integrated shared vision identified from review of team member lists.

140.4.5 Relevant stakeholders evaluate integrated shared vision.

140.4.6 Senior management, program management, and functional area managers review and approve integrated shared vision.

140.4.7 Project managers baseline integrated shared vision.

140.5 DEFINITIONS

140.5.1 <u>Integrated Shared Vision</u>: specifications that provide a statement of an envisioned future and establish common understanding of the aspirations and governing ideals of the team.

140.6 RESPONSIBILITIES

140.6.1 Project managers are responsible for receiving integrated team members for establishing a shared vision, reviewing and analyzing integrated team members for identifying the integrated shared vision, identifying integrated shared vision from review of team member lists, documenting integrated shared vision identified from review of team member lists, and baselining integrated shared vision.

140.6.2 Relevant stakeholders are responsible for evaluating integrated shared vision.

140.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving integrated shared vision.

140.7 PROCESS

140.7.1 Receive Integrated Team Members for Establishing a Shared Vision

Project managers shall receive integrated team members from configuration management for establishing a shared vision.

140.7.2 Review Integrated Team Members for Identifying the Integrated Shared Vision

Project managers shall review and analyze integrated team members for identifying the integrated shared vision, which are specifications that provide a statement of an envisioned future and establish common understanding of the aspirations and governing ideals of the team.

140.7.3 Identify Integrated Shared Vision from Review of Integrated Team Members

Project managers shall identify integrated shared vision from review of team member lists, which includes conveying the shared-vision context to team members; conducting meetings or workshops to discuss the shared vision;

articulating the shared vision in terms of both core ideology and the desired future end state; reinforcing the relevance of the shared vision in performing individual and team activities and tasks; checking the effectiveness of the shared vision and that individual and team activities or tasks are aligned with the shared vision; and periodically reexamining clarity and applicability of the shared vision and realigning it.

140.7.4 Document Integrated Shared Vision Identified from Review of Integrated Team Members

Project managers shall document integrated shared vision identified from review of team member lists, for establishing a team charter, defining roles and responsibilities, establishing operating procedures, and collaborating among interfacing teams.

140.7.5 Evaluate Integrated Shared Vision

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate integrated shared vision, and make necessary additions, deletions, enhancements, and corrections.

140.7.6 Review and Approve Integrated Shared Vision

Senior management, program management, and functional area managers shall review and approve integrated shared vision as well as any additions, deletions, enhancements, and corrections to integrated shared vision by relevant stakeholders.

140.7.7 Baseline Integrated Shared Vision

Project managers shall submit integrated vision to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	INTEGRATED TEAMING		
Practice	141.0 ESTABLISH A TEAM CHARTER		

141.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated shared visions for establishing a team charter, project managers shall review and analyze integrated shared visions for identifying integrated team charters, project managers shall identify integrated team charters from review of integrated shared visions, project managers shall document integrated team charters identified from review of integrated shared visions, relevant stakeholders shall evaluate integrated team charter, senior management, program management, and functional area managers shall review and approve integrated team charter, and project managers shall baseline integrated team charter.

141.2 REVISION HISTORY

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141.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

141.4 POLICY

The policy of this organization is to ensure that:

141.4.1 Project managers receive integrated shared visions for establishing a team charter.

141.4.2 Project managers review and analyze integrated shared visions for identifying integrated team charters.

141.4.3 Project managers identify integrated team charters from review of integrated shared visions.

141.4.4 Project managers document integrated team charters identified from review of integrated shared visions.

141.4.5 Relevant stakeholders evaluate integrated team charter.

141.4.6 Senior management, program management, and functional area managers review and approve integrated team charter.

141.4.7 Project managers baseline integrated team charter.

141.5 DEFINITIONS

141.5.1 Integrated Team Charters: the contracts among the team members and between the team and its sponsor for the expected work effort and level of performance (and solidify the rights, guarantees, privileges, and permissions for organizing and performing the team's objectives and tasks).

141.6 RESPONSIBILITIES

141.6.1 Project managers are responsible for receiving integrated shared visions for establishing a team charter, reviewing and analyzing integrated shared visions for identifying integrated team charters, identifying integrated team charters from review of integrated shared visions, documenting integrated team charters identified from review of integrated shared visions, and baselining integrated team charter.

141.6.2 Relevant stakeholders are responsible for evaluating integrated team charter.

141.6.3 Senior management, program management, and functional area managers are responsible for review and approve integrated team charter.

141.7 PROCESS

141.7.1 Receive Integrated Shared Visions for Establishing a Team Charter

Project managers shall receive integrated shared visions from configuration management for establishing a team charter.

141.7.2 Review Integrated Shared Visions for Identifying Integrated Team Charters

Project managers shall review and analyze integrated shared visions for identifying integrated team charters, which are the contracts among the team members and between the team and its sponsor for the expected work effort and level of performance (and solidify the rights, guarantees, privileges, and permissions for organizing and performing the team's objectives and tasks).

141.7.3 Identify Integrated Team Charters from Review of Integrated Shared Visions

Project managers shall identify integrated team charters
from review of integrated shared visions, which includes
defining and list the team objectives; identifying specific
strategies for achieving the team objectives; establishing
the team's level of empowerment and independence;
identifying how team and individual performance and
accomplishments are measured; and identifying critical
success factors.

141.7.4 Document Integrated Team Charters Identified from Review of Integrated Shared Visions

Project managers shall document integrated team charters
identified from review of integrated shared visions, for
defining roles and responsibilities, establishing operating
procedures, and collaborating among interfacing teams.

141.7.5 Evaluate Integrated Team Charter

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate integrated team charter, and make necessary
additions, deletions, enhancements, and corrections.

141.7.6 Review and Approve Integrated Team Charter

Senior management, program management, and functional area
managers shall review and approve integrated team charter as
well as any additions, deletions, enhancements, and
corrections to integrated team charter by relevant
stakeholders.

141.7.7 Baseline Integrated Team Charter

Project managers shall submit integrated charter to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	INTEGRATED TEAMING		
Practice	142.0 DEFINE ROLES AND RESPONSIBILITIES		

142.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated team charters for defining roles and responsibilities, project managers shall review and analyze integrated team charters for identifying integrated responsibilities, project managers shall identify integrated responsibilities from review of integrated team charters, project managers shall document integrated responsibilities identified from review of integrated team charters, relevant stakeholders shall evaluate integrated roles and responsibilities, senior management, program management, and functional area managers shall review and approve integrated roles and responsibilities, and project managers shall baseline integrated responsibilities.

142.2   REVISION HISTORY

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142.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

142.4   POLICY

The policy of this organization is to ensure that:

142.4.1   Project managers receive integrated team charters for defining roles and responsibilities.

142.4.2   Project managers review and analyze integrated team charters for identifying integrated responsibilities.

142.4.3   Project managers identify integrated responsibilities from review of integrated team charters.

142.4.4   Project managers document integrated responsibilities identified from review of integrated team charters.

142.4.5 Relevant stakeholders evaluate integrated roles and responsibilities.

142.4.6 Senior management, program management, and functional area managers review and approve integrated roles and responsibilities.

142.4.7 Project managers baseline integrated responsibilities.

142.5 DEFINITIONS

142.5.1 <u>Integrated Responsibilities</u>: requirements that provide a clear understanding of the team member's contributions, level of involvement, interfaces (with team members and other teams or groups), and the degree of influence or control each member has on the success and functioning of the team.

142.6 RESPONSIBILITIES

142.6.1 Project managers are responsible for receiving integrated team charters for defining roles and responsibilities, reviewing and analyzing integrated team charters for identifying integrated responsibilities, identifying integrated responsibilities from review of integrated team charters, documenting integrated responsibilities identified from review of integrated team charters, and baselining integrated responsibilities.

142.6.2 Relevant stakeholders are responsible for evaluating integrated roles and responsibilities.

142.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving integrated roles and responsibilities.

142.7 PROCESS

142.7.1 Receive Integrated Team Charters for Defining Roles and Responsibilities

Project managers shall receive integrated team charters from configuration management for defining roles and responsibilities.

142.7.2 Review Integrated Team Charters for Identifying Integrated Responsibilities

Project managers shall review and analyze integrated team charters for identifying integrated responsibilities, which are requirements that provide a clear understanding of the team member's contributions, level of involvement, interfaces (with team members and other teams or groups), and the degree of influence or control each member has on the success and functioning of the team.

142.7.3 Identify Integrated Responsibilities from Review of Integrated Team Charters

```
Project managers shall identify integrated responsibilities
from review of integrated team charters, which includes
mapping the roles, responsibilities, and expertise of the
team members to the team tasks and expected deliverables and
defining the working relationship and reporting structure
for team members.
```

142.7.4 Document Integrated Responsibilities Identified from Review of Integrated Team Charters

```
Project managers shall document integrated responsibilities
identified from review of integrated team charters, for
establishing operating procedures and collaborating among
interfacing teams.
```

142.7.5 Evaluate Integrated Responsibilities

```
Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate integrated roles and responsibilities, and make
necessary additions, deletions, enhancements, and
corrections.
```

142.7.6 Review and Approve Integrated Responsibilities

```
Senior management, program management, and functional area
managers shall review and approve integrated roles and
responsibilities as well as any additions, deletions,
enhancements, and corrections to integrated roles and
responsibilities by relevant stakeholders.
```

142.7.7 Baseline Integrated Responsibilities

```
Project managers shall submit responsibilities to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.
```

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	INTEGRATED TEAMING		
Practice	143.0 ESTABLISH OPERATING PROCEDURES		

143.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated responsibilities for establishing operating procedures, project managers shall review and analyze integrated responsibilities for identifying integrated procedures, project managers shall identify integrated procedures from review of integrated responsibilities, project managers shall document integrated procedures identified from review of integrated responsibilities, relevant stakeholders shall evaluate integrated procedures, senior management, program management, and functional area managers shall review and approve integrated procedures, and project managers shall baseline integrated procedures.

143.2 REVISION HISTORY

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143.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

143.4 POLICY

The policy of this organization is to ensure that:

143.4.1 Project managers receive integrated responsibilities for establishing operating procedures.

143.4.2 Project managers review and analyze integrated responsibilities for identifying integrated procedures.

143.4.3 Project managers identify integrated procedures from review of integrated responsibilities.

143.4.4 Project managers document integrated procedures identified from review of integrated responsibilities.

143.4.5 Relevant stakeholders evaluate integrated procedures.

143.4.6 Senior management, program management, and functional area managers review and approve integrated procedures.

143.4.7 Project managers baseline integrated procedures.

143.5 DEFINITIONS

143.5.1 <u>Integrated Procedures</u>: ground rules that serve to define and control how the team will interact and work together and to promote effective integration of efforts, high performance, and productivity for accomplishing objectives.

143.6 RESPONSIBILITIES

143.6.1 Project managers are responsible for receiving integrated responsibilities for establishing operating procedures, reviewing and analyzing integrated responsibilities for identifying integrated procedures, identifying integrated procedures from review of integrated responsibilities, documenting integrated procedures identified from review of integrated responsibilities, and baselining integrated procedures.

143.6.2 Relevant stakeholders are responsible for evaluating integrated procedures.

143.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving integrated procedures.

143.7 PROCESS

143.7.1 Receive Integrated Responsibilities for Establishing Operating Procedures

Project managers shall receive integrated responsibilities from configuration management for establishing operating procedures.

143.7.2 Review Integrated Responsibilities for Identifying Integrated Procedures

Project managers shall review and analyze integrated responsibilities for identifying integrated procedures, which are ground rules that serve to define and control how the team will interact and work together and to promote effective integration of efforts, high performance, and productivity for accomplishing objectives.

143.7.3 Identify Integrated Procedures from Review of Integrated Responsibilities

Project managers shall identify integrated procedures from

review of integrated responsibilities, which includes
defining the expectations and rules that will guide how the
team works collectively and what the team members will use
to moderate participation and interpersonal interaction;
defining the degree of collective decision making and level
of consensus needed for team decisions; and defining how
conflicts and differences of opinion within the team are
addressed and resolved.

143.7.4 Document Integrated Procedures Identified from Review of Integrated Responsibilities

Project managers shall document integrated procedures
identified from review of integrated responsibilities, for
collaborating among interfacing teams.

143.7.5 Evaluate Integrated Procedures

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate integrated procedures, and make necessary
additions, deletions, enhancements, and corrections.

143.7.6 Review and Approve Integrated Procedures

Senior management, program management, and functional area
managers shall review and approve integrated procedures as
well as any additions, deletions, enhancements, and
corrections to integrated procedures by relevant
stakeholders.

143.7.7 Baseline Integrated Procedures

Project managers shall submit procedures to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

		Number	
		Revision	
Model	**CMMI V1.1**	Approved by	
		Date	
Level	LEVEL 3 – DEFINED
Process	INTEGRATED TEAMING
Practice	144.0 COLLABORATE AMONG INTERFACING TEAMS

144.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated procedures for collaborating among interfacing teams, project managers shall review and analyze integrated procedures for performing integrated collaboration, project managers shall perform integrated collaboration using integrated procedures, project managers shall document results of integrated collaboration using integrated procedures, relevant stakeholders shall evaluate integrated collaboration, senior management, program management, and functional area managers shall review and approve integrated collaboration, and project manager shall baseline integrated collaboration.

144.2   REVISION HISTORY

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!  Date    !            Description            ! Author Initials !
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144.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

144.4   POLICY

The policy of this organization is to ensure that:

144.4.1 Project managers receive integrated procedures for collaborating among interfacing teams.

144.4.2 Project managers review and analyze integrated procedures for performing integrated collaboration.

144.4.3 Project managers perform integrated collaboration using integrated procedures.

144.4.4 Project managers document results of integrated collaboration using integrated procedures.

144.4.5 Relevant stakeholders evaluate integrated collaboration.

144.4.6 Senior management, program management, and functional area managers review and approve integrated collaboration.

144.4.7 Project manager baseline integrated collaboration

144.5 DEFINITIONS

144.5.1 <u>Integrated Collaboration</u>: processes where the success of a team-based project will be a function of how effectively and successfully the integrated teams collaborate with each other while achieving their own and the project's objectives.

144.6 RESPONSIBILITIES

144.6.1 Project managers are responsible for receiving integrated procedures for collaborating among interfacing teams, reviewing and analyzing integrated procedures for performing integrated collaboration, performing integrated collaboration using integrated procedures, documenting results of integrated collaboration using integrated procedures, and baselining integrated collaboration.

144.6.2 Relevant stakeholders are responsible for evaluating integrated collaboration.

144.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving integrated collaboration.

144.7 PROCESS

144.7.1 Receive Integrated Procedures for Collaborating Among Interfacing Teams

Project managers shall receive integrated procedures from configuration management for collaborating among interfacing teams.

144.7.2 Review Integrated Procedures for Performing Integrated Collaboration

Project managers shall review and analyze integrated procedures for performing integrated collaboration, which are processes where the success of a team-based project will be a function of how effectively and successfully the integrated teams collaborate with each other while achieving their own and the project's objectives.

144.7.3 Perform Integrated Collaboration Using Integrated Procedures

Project managers shall perform integrated collaboration using integrated procedures, which includes collaboratively establish and maintain the work product ownership boundaries

among interfacing teams within the project or organization; collaboratively establish and maintain interfaces and processes among interfacing teams for the exchange of inputs, 'outputs, or work products; and collaboratively develop, communicate, and distribute among interfacing teams the commitment lists and work plan's that are related to the work product or team interfaces.

144.7.4 Document Results of Integrated Collaboration Using Integrated Procedures

Project managers shall document results of integrated collaboration using integrated procedures, for decision analysis and resolution and organizational environment for integration.

144.7.5 Evaluate Integrated Collaboration

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate integrated collaboration, and make necessary additions, deletions, enhancements, and corrections.

144.7.6 Review and Approve Integrated Collaboration

Senior management, program management, and functional area managers shall review and approve integrated collaboration as well as any additions, deletions, enhancements, and corrections to integrated collaboration by relevant stakeholders.

144.7.7 Baseline Integrated Collaboration

Project managers shall submit collaboration to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	DECISION ANALYSIS AND RESOLUTION		
Practice	145.0 ESTABLISH GUIDELINES FOR DECISION ANALYSIS		

145.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated plans for establishing guidelines for decision analysis, project managers shall review and analyze integrated plans for identifying decision analysis guidelines, project managers shall identify decision analysis guidelines from review of integrated plans, project managers shall document decision analysis guidelines identified from review of integrated plans, relevant stakeholders shall evaluate decision analysis guidelines, senior management, program management, and functional area managers shall review and approve decision analysis guidelines, and project managers shall baseline decision analysis guidelines.

145.2   REVISION HISTORY

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145.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

145.4   POLICY

The policy of this organization is to ensure that:

145.4.1   Project managers receive integrated plans for establishing guidelines for decision analysis.

145.4.2   Project managers review and analyze integrated plans for identifying decision analysis guidelines.

145.4.3   Project managers identify decision analysis guidelines from review of integrated plans.

145.4.4   Project managers document decision analysis guidelines identified from review of integrated plans.

145.4.5 Relevant stakeholders evaluate decision analysis guidelines.

145.4.6 Senior management, program management, and functional area managers review and approve decision analysis guidelines.

145.4.7 Project managers baseline decision analysis guidelines.

145.5 DEFINITIONS

145.5.1 <u>Decision Analysis Guidelines</u>: typical guidelines for determining when to require a formal evaluation process include: when a decision is directly related to topics assessed as being of medium or high risk; when a decision is related to changing work products under configuration management; when a decision would cause schedule delays over a certain percentage or specific amount of time; when a decision affects the ability to achieve project objectives; and when the costs of the formal evaluation process are reasonable when compared to the decision's impact.

145.6 RESPONSIBILITIES

145.6.1 Project managers are responsible for receiving integrated plans for establishing guidelines for decision analysis, reviewing and analyzing integrated plans for identifying decision analysis guidelines, identifying decision analysis guidelines from review of integrated plans, documenting decision analysis guidelines identified from review of integrated plans, and baselining decision analysis guidelines.

145.6.2 Relevant stakeholders are responsible for evaluating decision analysis guidelines.

145.6.3 Senior management, program management, and functi6nal area managers are responsible for reviewing and approving decision analysis guidelines.

145.7 PROCESS

145.7.1 Receive Integrated Plans for Establishing Guidelines for Decision Analysis

Project managers shall receive integrated plans from configuration management for establishing guidelines for decision analysis.

145.7.2 Review Integrated Plans for Identifying Decision Analysis Guidelines

Project managers shall review and analyze integrated plans for identifying decision analysis guidelines, which are typical guidelines for determining when to require a formal evaluation process include: when a decision is directly related to topics assessed as being of medium or high risk; when a decision is related to changing work products under

configuration management; when a decision would cause schedule delays over a certain percentage or specific amount of time; when a decision affects the ability to achieve project objectives; and when the costs of the formal evaluation process are reasonable when compared to the decision's impact.

145.7.3 Identify Decision Analysis Guidelines from Review of Integrated Plans

Project managers shall identify decision analysis guidelines from review of integrated plans, which includes establishing guidelines and incorporating the use of the guidelines into the defined process where appropriate.

145.7.4 Document Decision Analysis Guidelines Identified from Review of Integrated Plans

Project managers shall document decision analysis guidelines identified from review of integrated plans, for establishing evaluation criteria, identifying alternative solutions, selecting evaluation methods, evaluating alternatives, and selecting solutions

145.7.5 Evaluate Decision Analysis Guidelines

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate decision analysis guidelines, and make necessary additions, deletions, enhancements, and corrections.

145.7.6 Review and Approve Decision Analysis Guidelines

Senior management, program management, and functional area managers shall review and approve decision analysis guidelines as well as any additions, deletions, enhancements, and corrections to decision analysis guidelines by relevant stakeholders.

145.7.7 Baseline Decision Analysis Guidelines

Project managers shall submit guidelines to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	# CMMI V1.1	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	DECISION ANALYSIS AND RESOLUTION		
Practice	146.0 ESTABLISH EVALUATION CRITERIA		

146.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive decision analysis guidelines for establishing evaluation criteria, project managers shall review and analyze decision analysis guidelines for identifying evaluation criteria, project managers shall identify evaluation criteria from review of decision analysis guidelines, project managers shall document evaluation criteria identified from review of decision analysis, relevant stakeholders shall evaluate evaluation criteria, senior management, program management, and functional area managers shall review and approve evaluation criteria, and project managers shall baseline evaluation criteria.

146.2 REVISION HISTORY

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!  Date   !            Description            ! Author Initials !
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146.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

146.4 POLICY

The policy of this organization is to ensure that:

146.4.1 Project managers receive decision analysis guidelines for establishing evaluation criteria.

146.4.2 Project managers review and analyze decision analysis guidelines for identifying evaluation criteria.

146.4.3 Project managers identify evaluation criteria from review of decision analysis guidelines.

146.4.4 Project managers document evaluation criteria identified from review of decision analysis.

146.4.5 Relevant stakeholders evaluate evaluation criteria.

146.4.6 Senior management, program management, and functional area managers review and approve evaluation criteria.

146.4.7 Project managers baseline evaluation criteria.

146.5 DEFINITIONS

146.5.1 <u>Evaluation Criteria</u>: requirements that provide the basis for evaluating alternative solutions and minimize the possibility that decisions will be second-guessed, or that the reason for making the decision will be forgotten.

146.6 RESPONSIBILITIES

146.6.1 Project managers are responsible for receiving decision analysis guidelines for establishing evaluation criteria, reviewing and analyzing decision analysis guidelines for identifying evaluation criteria, identifying evaluation criteria from review of decision analysis guidelines, documenting evaluation criteria identified from review of decision analysis, and baselining evaluation criteria.

146.6.2 Relevant stakeholders are responsible for evaluating evaluation criteria.

146.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving evaluation criteria.

146.7 PROCESS

146.7.1 Receive Decision Analysis Guidelines for Establishing Evaluation Criteria

Project managers shall receive decision analysis guidelines from configuration management for establishing evaluation criteria.

146.7.2 Review Decision Analysis Guidelines for Identifying Evaluation Criteria

Project managers shall review and analyze decision analysis guidelines for identifying evaluation criteria, which are requirements that provide the basis for evaluating alternative solutions and minimize the possibility that decisions will be second-guessed, or that the reason for making the decision will be forgotten.

146.7.3 Identify Evaluation Criteria from Review of Decision Analysis Guidelines

Project managers shall identify evaluation criteria from review of decision analysis guidelines, which includes

defining the criteria for evaluating alternative solutions;
defining the range and scale for ranking the evaluation
criteria; ranking the criteria; assessing the criteria and
their relative importance; evolving the evaluation criteria
to improve their validity; and documenting the rationale for
the selection and rejection of evaluation criteria.

146.7.4 Document Evaluation Criteria Identified from Review of Decision Analysis Guideline

Project managers shall document evaluation criteria
identified from review of decision analysis, for identifying
alternative solutions, selecting evaluation methods,
evaluating alternatives, and selecting solutions.

146.7.5 Evaluate Evaluation Criteria

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate evaluation criteria, and make necessary additions,
deletions, enhancements, and corrections.

146.7.6 Review and Approve Evaluation Criteria

Senior management, program management, and functional area
managers shall review and approve evaluation criteria as
well as any additions, deletions, enhancements, and
corrections to evaluation criteria by relevant stakeholders.

146.7.7 Baseline Evaluation Criteria

Project managers shall submit evaluation criteria to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	DECISION ANALYSIS AND RESOLUTION		
Practice	147.0 IDENTIFY ALTERNATIVE SOLUTIONS		

147.1   PURPOSE

This pr6cedure establishes the guidelines by which project managers shall receive evaluation criteria for identifying alternative solutions, project managers shall review and analyze evaluation criteria for identifying alternative solutions, project managers shall identify alternative solutions from review of evaluation criteria, project managers shall document alternative solutions identified from review of evaluation criteria, relevant stakeholders shall evaluate alternative solutions, senior management, program management, and functional area managers shall review and approve alternative solutions, and project managers shall baseline alternative solutions.

147.2   REVISION HISTORY

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147.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

147.4   POLICY

The policy of this organization is to ensure that:

147.4.1   Project managers receive evaluation criteria for identifying alternative solutions.

147.4.2   Project managers review and analyze evaluation criteria for identifying alternative solutions.

147.4.3   Project managers identify alternative solutions from review of evaluation criteria.

147.4.4   Project managers document alternative solutions identified from review of evaluation criteria.

147.4.5 Relevant stakeholders evaluate alternative solutions.

147.4.6 Senior management, program management, and functional area managers review and approve alternative solutions.

147.4.7 Project managers baseline alternative solutions.

147.5 DEFINITIONS

147.5.1 Alternative Solutions: the result of the generation and consideration of multiple alternatives early in a decision analysis and resolution process increases the likelihood that an acceptable decision will be made, and that consequences of the decision will be understood.

147.6 RESPONSIBILITIES

147.6.1 Project managers are responsible for receiving evaluation criteria for identifying alternative solutions, reviewing and analyzing evaluation criteria for identifying alternative solutions, identifying alternative solutions from review of evaluation criteria, documenting alternative solutions identified from review of evaluation criteria, and baselining alternative solutions.

147.6.2 Relevant stakeholders are responsible for evaluating alternative solutions.

147.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving alternative solutions.

147.7 PROCESS

147.7.1 Receive Evaluation Criteria for Identifying Alternative Solutions

Project managers shall receive evaluation criteria from configuration management for identifying alternative solutions.

147.7.2 Review Evaluation Criteria for Identifying Alternative Solutions

Project managers shall review and analyze evaluation criteria for identifying alternative solutions, which are the result of the generation and consideration of multiple alternatives early in a decision analysis and resolution process increases the likelihood that an acceptable decision will be made, and that consequences of the decision will be understood.

147.7.3 Identify Alternative Solutions from Review of Evaluation Criteria

Project managers shall identify alternative solutions from review of evaluation criteria, which includes performing a literature search; identifying alternatives for consideration in addition to those that may be provided with

the issue; and documenting the proposed alternatives.

147.7.4 Document Alternative Solutions Identified from Review of Evaluation Criteria

Project managers shall document alternative solutions identified from review of evaluation criteria, for selecting evaluation methods, evaluating alternatives, and selecting solutions.

147.7.5 Evaluate Alternative Solutions

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate alternative solutions, and make necessary additions, deletions, enhancements, and corrections.

147.7.6 Review and Approve Alternative Solutions

Senior management, program management, and functional area managers shall review and approve alternative solutions as well as any additions, deletions, enhancements, and corrections to alternative solutions by relevant stakeholders.

147.7.7 Baseline Alternative Solutions

Project managers shall submit solutions to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED
Process	DECISION ANALYSIS AND RESOLUTION
Practice	148.0 SELECT EVALUATION METHODS

148.1 PURPOSE

This procedure establishes the guidelines by which project managers
shall receive alternative solutions for selecting evaluation
methods, project managers shall review and analyze alternative
solutions for identifying evaluation methods, project managers shall
identify evaluation methods from review of alternative solutions,
project managers shall document evaluation methods from review of
alternative solutions, relevant stakeholders shall evaluate
evaluation methods, senior management, program management, and
functional area managers shall review and approve evaluation
methods, and project managers shall baseline evaluation methods.

148.2 REVISION HISTORY

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148.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

148.4 POLICY

The policy of this organization is to ensure that:

148.4.1 Project managers receive alternative solutions for selecting
         evaluation methods.

148.4.2 Project managers review and analyze alternative solutions
         for identifying evaluation methods.

148.4.3 Project managers identify evaluation methods from review of
         alternative solutions.

148.4.4 Project managers document evaluation methods from review of
         alternative solutions.

148.4.5 Relevant stakeholders evaluate evaluation methods.

148.4.6 Senior management, program management, and functional area managers review and approve evaluation methods.

148.4.7 Project managers baseline evaluation methods.

148.5 DEFINITIONS

148.5.1 <u>Evaluation Methods</u>: techniques for evaluating alternative solutions against established criteria that can range from simulations to the use of probabilistic models and decision theory.

148.6 RESPONSIBILITIES

148.6.1 Project managers are responsible for receiving alternative solutions for selecting evaluation methods, reviewing and analyzing alternative solutions for identifying evaluation methods, identifying evaluation methods from review of alternative solutions, documenting evaluation methods from review of alternative solutions, and baselining evaluation methods.

148.6.2 Relevant stakeholders are responsible for evaluating evaluation methods.

148.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving evaluation methods.

148.7 PROCESS

148.7.1 Receive Alternative Solutions for Selecting Evaluation Methods

Project managers shall receive alternative solutions from configuration management for selecting evaluation methods.

148.7.2 Review Alternative Solutions for Identifying Evaluation Methods

Project managers shall review and analyze alternative solutions for identifying evaluation methods, which are techniques for evaluating alternative solutions against established criteria that can range from simulations to the use of probabilistic models and decision theory.

148.7.3 Identify Evaluation Methods from Review of Alternative Solutions

Project managers shall identify evaluation methods from review of alternative solutions, which includes selecting the methods based on the purpose for analyzing a decision and on the availability of the information used to support the method; selecting evaluation methods based on their ability to

focus on the issues at hand without being overly influenced by side issues; and determining the measures needed to support the evaluation method.

148.7.4 Document Evaluation Methods from Review of Alternative Solutions

```
Project managers shall document evaluation methods from
review of alternative solutions, for evaluating alternatives
and selecting solutions.
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148.7.5 Evaluate Evaluation Methods

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Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate evaluation methods, and make necessary additions,
deletions, enhancements, and corrections.
```

148.7.6 Review and Approve Evaluation Methods

```
Senior management, program management, and functional area
managers shall review and approve evaluation methods as well
as any additions, deletions, enhancements, and corrections
to evaluation methods by relevant stakeholders.
```

148.7.7 Baseline Evaluation Methods

```
Project managers shall submit methods to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.
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		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	DECISION ANALYSIS AND RESOLUTION		
Practice	149.0 EVALUATE ALTERNATIVES		

149.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive evaluation methods for evaluating alternatives, project managers shall review and analyze evaluation methods for evaluating alternatives, project managers shall evaluate alternatives identified from review of evaluation methods, project managers shall document analysis of alternatives identified from review of evaluation methods, relevant stakeholders shall evaluate analysis of alternatives, senior management, program management, and functional area managers shall review and approve analysis of alternatives, and project managers shall baseline analysis of alternatives.

149.2 REVISION HISTORY

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149.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

149.4 POLICY

The policy of this organization is to ensure that:

149.4.1 Project managers receive evaluation methods for evaluating alternatives.

149.4.2 Project managers review and analyze evaluation methods for evaluating alternatives.

149.4.3 Project managers evaluate alternatives identified from review of evaluation methods.

149.4.4 Project managers document analysis of alternatives identified from review of evaluation methods.

149.4.5 Relevant stakeholders evaluate analysis of alternatives.

149.4.6 Senior management, program management, and functional area managers review and approve analysis of alternatives.

149.4.7 Project managers baseline analysis of alternatives.

149.5 DEFINITIONS

149.5.1 <u>Alternative Evaluation</u>: processes involving analysis, discussion, review, and iterative cycles of analysis, experimentation, prototyping, or simulations to substantiate scoring and conclusions.

149.6 RESPONSIBILITIES

149.6.1 Project managers are responsible for receiving evaluation methods for evaluating alternatives, reviewing and analyzing evaluation methods for evaluating alternatives, evaluating alternatives identified from review of evaluation methods, documenting analysis of alternatives identified from review of evaluation methods, and baselining analysis of alternatives.

149.6.2 Relevant stakeholders are responsible for evaluating analysis of alternatives.

149.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving analysis of alternatives.

149.7 PROCESS

149.7.1 Receive Evaluation Methods for Evaluating Alternatives

Project managers shall receive evaluation methods from configuration management for evaluating alternatives

149.7.2 Review Evaluation Methods for Evaluating Alternatives

Project managers shall review and analyze evaluation methods for evaluating alternatives, which are processes involving analysis, discussion, review, and iterative cycles of analysis, experimentation, prototyping, or simulations to substantiate scoring and conclusions.

149.7.3 Evaluate Alternatives Identified from Review of Evaluation Methods

Project managers shall evaluate alternatives identified from review of evaluation methods, which includes evaluating proposed alternative solutions using established evaluation criteria and selected methods; evaluating assumptions related to the evaluation criteria and evidence that supports assumptions; evaluating whether uncertainty in values for alternative solutions affects the evaluation and

- 447 -

address as appropriate; performing simulations, modeling, prototypes, and pilots as necessary, methods, and alternative solutions; considering new alternative solutions, criteria, or methods if the proposed alternatives do not test well; repeat the evaluations until alternatives do test well; and documenting the results of the evaluation.

149.7.4 Document Analysis of Alternatives Identified from R4eview of Evaluation Methods

Project managers shall document analysis of alternatives identified from review of evaluation methods, for selecting solutions.

149.7.5 Evaluate Analysis of Alternatives

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate analysis of alternatives, and make necessary additions, deletions, enhancements, and corrections.

149.7.6 Review and Approve Analysis of Alternatives

Senior management, program management, and functional area managers shall review and approve analysis of alternatives as well as any additions, deletions, enhancements, and corrections to analysis of alternatives by relevant stakeholders.

149.7.7 Baseline Analysis of Alternatives

Project managers shall submit analysis to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
		Revision	
Model	**CMMI V1.1**	Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	DECISION ANALYSIS AND RESOLUTION		
Practice	150.0 SELECT SOLUTIONS		

150.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive analysis of alternatives for selecting solutions, project managers shall review and analyze analysis of alternatives for identifying solutions, project managers shall identify solutions from review of analysis of alternatives, project managers shall document selected solutions identified from review of analysis of alternatives, relevant stakeholders shall evaluate selected solutions, senior management, program management, and functional area managers shall review and approve selected solutions, and project managers shall baseline selected solutions.

150.2 REVISION HISTORY

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!  Date   !           Description           ! Author Initials !
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150.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

150.4 POLICY

The policy of this organization is to ensure that:

150.4.1 Project managers receive analysis of alternatives for selecting solutions.

150.4.2 Project managers review and analyze analysis of alternatives for identifying solutions.

150.4.3 Project managers identify solutions from review of analysis of alternatives.

150.4.4 Project managers document selected solutions identified from review of analysis of alternatives.

150.4.5 Relevant stakeholders evaluate selected solutions.

150.4.6 Senior management, program management, and functional area managers review and approve selected solutions.

150.4.7 Project managers baseline selected solutions.

150.5 DEFINITIONS

150.5.1 <u>Solution Identification</u>: processes that involve weighing the results from the evaluation of alternatives and assessing risks associated with implementation of the solutions.

150.6 RESPONSIBILITIES

150.6.1 Project managers are responsible for receiving analysis of alternatives for selecting solutions, reviewing and analyzing analysis of alternatives for identifying solutions, identifying solutions from review of analysis of alternatives, documenting selected solutions identified from review of analysis of alternatives, and baselining selected solutions.

150.6.2 Relevant stakeholders are responsible for evaluating selected solutions.

150.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving selected solutions.

150.7 PROCESS

150.7.1 Receive Analysis of Alternatives for Selecting Solutions

Project managers shall receive analysis of alternatives from configuration management for selecting solutions.

150.7.2 Review Analysis of Alternatives for Identifying Solutions

Project managers shall review and analyze analysis of alternatives for identifying solutions, which are processes that involve weighing the results from the evaluation of alternatives and assessing risks associated with implementation of the solutions.

150.7.3 Identify Solutions from Review of Analysis of Alternatives

Project managers shall identify solutions from review of analysis of alternatives, which includes assess the risks associated with implementing the recommended solution and document the results and rationale for the recommended solution.

150.7.4 Document Selected Solutions Identified from Review of Analysis of Alternatives

Project managers shall document selected solutions identified from review of analysis of alternatives, for

organizational environment for organization.

150.7.5 Evaluate Selected Solutions

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate selected solutions, and make necessary additions,
deletions, enhancements, and corrections.

150.7.6 Review and Approve Selected Solutions

Senior management, program management, and functional area
managers shall review and approve selected solutions as well
as any additions, deletions, enhancements, and corrections
to selected solutions by relevant stakeholders.

150.7.7 Baseline Selected Solutions

Project managers shall submit selected solutions to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL ENVIRONMENT FOR INTEGRATION		
Practice	151.0 ESTABLISH THE ORGANIZATION'S SHARED VISION		

151.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated plans for establishing the organization's shared vision, project managers shall review and analyze integrated plans for identifying the organization's shared vision, project managers shall identify the organization's shared vision of review of integrated plans, project managers shall document vision for integration identified from review of integrated plans, relevant stakeholders shall evaluate vision for integration, senior management, program management, and functional area managers shall review and approve vision for integration, and project managers shall baseline vision for integration.

151.2   REVISION HISTORY

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151.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

151.4   POLICY

The policy of this organization is to ensure that:

151.4.1   Project managers receive integrated plans for establishing the organization's shared vision.

151.4.2   Project managers review and analyze integrated plans for identifying the organization's shared vision.

151.4.3   Project managers identify the organization's shared vision of review of integrated plans.

151.4.4   Project managers document vision for integration identified

from review of integrated plans.

151.4.5 Relevant stakeholders evaluate vision for integration.

151.4.6 Senior management, program management, and functional area managers review and approve vision for integration.

151.4.7 Project managers baseline vision for integration.

151.5 DEFINITIONS

151.5.1 <u>Shared Vision</u>: specifications that capture the organization's guiding principles including mission, objectives, expected behavior, and values.

151.6 RESPONSIBILITIES

151.6.1 Project managers are responsible for receiving integrated plans for establishing the organization's shared vision, reviewing and analyzing integrated plans for identifying the organization's shared vision, identifying the organization's shared vision of review of integrated plans, documenting vision for integration identified from review of integrated plans, and baselining vision for integration.

151.6.2 Relevant stakeholders are responsible for evaluating vision for integration.

151.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving vision for integration.

151.7 PROCESS

151.7.1 Receive Integrated Plans for Establishing the Organization's Shared Vision

Project managers shall receive integrated plans from configuration management for establishing the organization's shared vision.

151.7.2 Review Integrated Plans for Identifying the Organization's Shared Vision

Project managers shall review and analyze integrated plans for identifying the organization's shared vision, which are specifications that capture the organization's guiding principles including mission, objectives, expected behavior, and values.

151.7.3 Identify the Organization's Shared Vision from Review of Integrated Plans

Project managers shall identify the organization's shared vision of review of integrated plans, which includes identifying expectations, constraints, interfaces, and

boundary conditions; creating a shared vision for the organization; communicating the shared vision both externally and internally; ensuring that organizational practices and structures are aligned with the shared vision; periodically reviewing the shared vision and updating it as necessary; and providing guidelines for shared-vision building for use by projects and integrated teams.

151.7.4 Document Vision for Integration Identified from Review of Integrated Plans

Project managers shall document vision for integration identified from review of integrated plans, for establishing an integrated work environment, identifying IPPD-unique skill requirements, establishing leadership mechanisms, establishing incentives for integration, and establishing mechanisms to balance team and home organization responsibilities.

151.7.5 Evaluate Vision for Integration

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate vision for integration, and make necessary additions, deletions, enhancements, and corrections.

151.7.6 Review and Approve Vision for Integration

Senior management, program management, and functional area managers shall review and approve vision for integration as well as any additions, deletions, enhancements, and corrections to vision for integration by relevant stakeholders

151.7.7 Baseline Vision for Integration

Project managers shall submit vision to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED
Process	ORGANIZATIONAL ENVIRONMENT FOR INTEGRATION
Practice	152.0 ESTABLISH AN INTEGRATED WORK ENVIRONMENT

152.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive vision for integration for establishing an integrated work environment, project managers shall review and analyze vision for integration for establishing an integrated work environment, project managers shall establish integrated work environment identified from review of vision for integration, project managers shall document results of establishing integrated work environment, relevant stakeholders shall evaluate integrated work environment, senior management, program management, and functional area managers shall review and approve integrated work environment, and project managers shall baseline integrated work environment.

152.2   REVISION HISTORY

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!  Date    !              Description            ! Author Initials !
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152.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

152.4   POLICY

The policy of this organization is to ensure that:

152.4.1   Project managers receive vision for integration for establishing an integrated work environment.

152.4.2   Project managers review and analyze vision for integration for establishing an integrated work environment.

152.4.3   Project managers establish integrated work environment identified from review of vision for integration.

152.4.4   Project managers document results of establishing integrated work environment.

       152.4.5 Relevant stakeholders evaluate integrated work environment.

       152.4.6 Senior management, program management, and functional area managers review and approve integrated work environment.

       152.4.7 Project managers baseline integrated work environment.

152.5 DEFINITIONS

       152.5.1 <u>Integrated Work Environment</u>: information resources including the physical infrastructure (e.g., facilities, tools, equipment, and support needed to effectively use them) that people need to perform their jobs effectively.

152.6 RESPONSIBILITIES

       152.6.1 Project managers are responsible for receiving vision for integration for establishing an integrated work environment, reviewing and analyzing vision for integration for establishing an integrated work environment, establishing integrated work environment identified from review of vision for integration, documenting results of establishing integrated work environment, and baselining integrated work environment.

       152.6.2 Relevant stakeholders are responsible for evaluating integrated work environment.

       152.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving integrated work environment.

152.7 PROCESS

152.7.1 Receive Vision for Integration for Establishing aii Integrated Work Environment

Project managers shall receive vision for integration from configuration management for establishing an integrated work environment.

152.7.2 Review Vision for Integration for Establishing an Integrated Work Environment

Project managers shall review and analyze vision for integration for establishing an integrated work environment, which are information resources including the physical infrastructure (e.g., facilities, tools, equipment, and support needed to effectively use them) that people need to perform their jobs effectively.

152.7.3 Establish Integrated Work Environment Identified from Review of Vision for Integration

Project managers shall establish integrated work environment

identified from review of vision for integration, which includes determining requirements for the integrated work environment; evaluating the effectiveness of the existing environment; maintaining awareness of current and emerging technologies, tools, and resources; planning, designing, and implementing an integrated work environment; providing maintenance and operational support; monitoring and evaluating its adequacy; and revising the integrated work environment as necessary.

152.7.4 Document Results of Establishing Integrated Work Environment

Project managers shall document results of establishing integrated work environment, for identifying IPPD-unique skill requirements, establishing leadership mechanisms, establishing incentives for integration, establishing mechanisms to balance team and home organization responsibilities.

152.7.5 Evaluate Integrated Work Environment

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate integrated work environment, and make necessary additions, deletions, enhancements, and corrections.

152.7.6 Review and Approve Integrated Work Environment

Senior management, program management, and functional area managers shall review and approve integrated work environment as well as any additions, deletions, enhancements, and corrections to integrated work environment by relevant stakeholders.

152.7.7 Baseline Integrated Work Environment

Project managers shall submit environment to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL ENVIRONMENT FOR INTEGRATION		
Practice	153.0 IDENTIFY IPPD-UNIQUE SKILL REQUIREMENTS		

153.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive integrated work environment for identifying IPPD-unique skill requirements, project managers shall review and analyze integrated work environment for identifying skill requirements, project managers shall identify skill requirements from review of integrated work environment, project managers shall document skill requirements identified from review of integrated work environment, relevant stakeholders shall evaluate skill requirements, senior management, program management, and functional area managers shall review and approve skill requirements, and project managers shall baseline skill requirements.

153.2   REVISION HISTORY

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!  Date    !            Description            ! Author Initials !
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153.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

153.4   POLICY

The policy of this organization is to ensure that:

153.4.1   Project managers receive integrated work environment for identifying IPPD-unique skill requirements.

153.4.2   Project managers review and analyze integrated work environment for identifying skill requirements.

153.4.3   Project managers identify skill requirements from review of integrated work environment.

153.4.4   Project managers document skill requirements identified from review of integrated work environment

153.4.5 Relevant stakeholders evaluate skill requirements.

153.4.6 Senior management, program management, and functional area managers shall review and approve skill requirements.

153.4.7 Project managers baseline skill requirements.

153.5 DEFINITIONS

153.5.1 <u>Skill Requirements</u>: the skills to integrate all appropriate business and technical functions and their processes, the interpersonal skills to coordinate and collaborate with others, and the leadership skills to act, and successfully influence others to act, to achieve the shared vision.

153.6 RESPONSIBILITIES

153.6.1 Project managers are responsible for receiving integrated work environment for identifying IPPD-unique skill requirements, reviewing and analyzing integrated work environment for identifying skill requirements, identifying skill requirements from review of integrated work environment, documenting skill requirements identified from review of integrated work environment, and baselining skill requirements.

153.6.2 Relevant stakeholders are responsible for evaluating skill requirements.

153.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving skill requirements.

153.7 PROCESS

153.7.1 Receive Integrated Work Environment for Identifying IPPD-Unique Skill Requirements

Project managers shall receive integrated work environment from configuration management for identifying IPPD-unique skill requirements.

153.7.2 Review Integrated Work Environment for Identifying Skill Requirements

Project managers shall review and analyze integrated work environment for identifying skill requirements, which are the skills to integrate all appropriate business and technical functions and their processes, the interpersonal skills to coordinate and collaborate with others, and the leadership skills to act, and successfully influence others to act, to achieve the shared vision.

153.7.3 Identify Skill Requirements from Review of Integrated Work Environment

Project managers shall identify skill requirements from
review of integrated work environment, which includes
provide requirements for IPPD skills for inclusion in the
organization's strategic training needs and provide
requirements for IPPD skills for inclusion in the
organization's tactical training plan.

153.7.4 Document Skill Requirements Identified from Review of Integrated Work Environment

Project managers shall document skill requirements
identified from review of integrated work environment, for
establishing leadership mechanisms, establishing incentives
for integration, and establishing mechanisms to balance team
and home organization responsibilities.

153.7.5 Evaluate Skill Requirements

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate skill requirements, and make necessary additions,
deletions, enhancements, and corrections.

153.7.6 Review and Approve Skill Requirements

Senior management, program management, and functional area
managers shall review and approve skill requirements as well
as any additions, deletions, enhancements, and corrections
to skill requirements by relevant stakeholders.

153.7.7 Baseline Skill Requirements

Project managers shall submit skill requirements to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL ENVIRONMENT FOR INTEGRATION		
Practice	154.0 ESTABLISH LEADERSHIP MECHANISMS		

154.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive skill requirements for establishing leadership mechanisms, project managers shall review and analyze skill requirements for establishing leadership mechanisms, project managers shall establish leadership mechanisms identified from review of skill requirements, project managers shall document leadership mechanisms identified from review of skill requirements, relevant stakeholders shall evaluate leadership mechanisms, senior management, program management, and functional area managers shall review and approve leadership mechanisms, and project managers shall baseline leadership mechanisms.

154.2 REVISION HISTORY

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154.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

154.4 POLICY

The policy of this organization is to ensure that:

154.4.1 Project managers receive skill requirements for establishing leadership mechanisms.

154.4.2 Project managers review and analyze skill requirements for establishing leadership mechanisms.

154.4.3 Project managers establish leadership mechanisms identified from review of skill requirements.

154.4.4 Project managers document leadership mechanisms identified from review of skill requirements.

154.4.5 Relevant stakeholders evaluate leadership mechanisms.

154.4.6 Senior management, program management, and functional area managers review and approve leadership mechanisms.

154.4.7 Project managers baseline leadership mechanisms.

154.5 DEFINITIONS

154.5.1 <u>Leadership Mechanisms</u>: specifications consisting of mechanisms to handle empowerment, decision-making, and issue resolution to affect the timely collaboration of relevant stakeholders required for IPPD.

154.6 RESPONSIBILITIES

154.6.1 Project managers are responsible for receiving skill requirements for establishing leadership mechanisms, reviewing and analyzing skill requirements for establishing leadership mechanisms, establishing leadership mechanisms identified from review of skill requirements, documenting leadership mechanisms identified from review of skill requirements, and baselining leadership mechanisms.

154.6.2 Relevant stakeholders are responsible for evaluating leadership mechanisms.

154.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving leadership mechanisms.

154.7 PROCESS

154.7.1 Receive Skill Requirements for Establishing Leadership Mechanisms

Project managers shall receive skill requirements from configuration management for establishing leadership mechanisms.

154.7.2 Review Skill Requirements for Establishing Leadership Mechanisms

Project managers shall review and analyze skill requirements for establishing leadership mechanisms, which are specifications consisting of mechanisms to handle empowerment, decision-making, and issue resolution to affect the timely collaboration of relevant stakeholders required for IPPD.

154.7.3 Establish Leadership Mechanisms Identified from Review of Skill Requirements

Project managers shall establish leadership mechanisms identified from review of skill requirements, which includes

establishing and maintaining guidelines for the degree of empowerment provided to people and integrated teams; collaboratively determining rules for the use of different decision types in making various kinds of decisions; defining the process for using the decision-making rules; and defining a process for conflict resolution when an issue cannot be decided at the level at which it arose.

154.7.4 Document Leadership Mechanisms Identified from Review of Skill Requirements

Project managers shall document leadership mechanisms identified from review of skill requirements, for establishing incentives for integration and establishing mechanisms to balance team and home organization responsibilities.

154.7.5 Evaluate Leadership Mechanisms

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate leadership mechanisms, and make necessary additions, deletions, enhancements, and corrections.

154.7.6 Review and Approve Leadership Mechanisms

Senior management, program management, and functional area managers shall review and approve leadership mechanisms as well as any additions, deletions, enhancements, and corrections to leadership mechanisms by relevant stakeholders.

154.7.7 Baseline Leadership Mechanisms

Project managers shall submit mechanisms to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL ENVIRONMENT FOR INTEGRATION		
Practice	155.0 ESTABLISH INCENTIVES FOR INTEGRATION		

155.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive leadership mechanisms for establishing incentives for integration, project managers shall review and analyze leadership mechanisms for establishing incentives for integration, project managers shall establish incentives for integration identified from review of leadership mechanisms, project managers shall document incentives for integration established from leadership mechanisms, relevant stakeholders shall evaluate incentives for integration, senior management, program management, and functional area managers shall review and approve incentives for integration, and project managers shall baseline incentives for integration.

155.2 REVISION HISTORY

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155.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

155.4 POLICY

The policy of this organization is to ensure that:

155.4.1 Project managers receive leadership mechanisms for establishing incentives for integration.

155.4.2 Project managers review and analyze leadership mechanisms for establishing incentives for integration.

155.4.3 Project managers establish incentives for integration identified from review of leadership mechanisms.

155.4.4 Project managers document incentives for integration established from leadership mechanisms.

155.4.5 Relevant stakeholders evaluate incentives for integration.

155.4.6 Senior management, program management, and functional area managers review and approve incentives for integration.

155.4.7 Project managers baseline incentives for integration.

155.5 DEFINITIONS

155.5.1 Integration Incentives: both positive rewards and negative consequences that need to recognize a shift in values from a single point of success or failure (e.g., providing a management incentive package to the product or program manager alone) to integrated team success or failure (e.g., providing layered incentives to team members based on degree of involvement and contribution).

155.6 RESPONSIBILITIES

155.6.1 Project managers are responsible for receiving leadership mechanisms for establishing incentives for integration, reviewing and analyzing leadership mechanisms for establishing incentives for integration, establishing incentives for integration identified from review of leadership mechanisms, documenting incentives for integration established from leadership mechanisms, and baselining incentives for integration.

155.6.2 Relevant stakeholders are responsible for evaluating incentives for integration.

155.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving incentives for integration.

155.7 PROCESS

Receive Leadership Mechanisms for Establishing Incentives for Integration

Project managers shall receive leadership mechanisms from configuration management for establishing incentives for integration.

155.7.1 Review Leadership Mechanisms for Establishing Incentives for Integration

Project managers shall review and analyze leadership mechanisms for establishing incentives for integration, which are both positive rewards and negative consequences that need to recognize a shift in value from a single point of success or failure (e.g., providing a management incentive package to the product or program manager alone) to integrated team success or failure (e.g., providing layered incentives to team members based on degree of involvement and contribution).

155.7.2   Establish Incentives for Integration Identified from Review of Leadership Mechanisms

Project managers shall establish incentives for integration identified from review of leadership mechanisms, which includes structuring the recognition and reward system to be consistent with the IPPD environment; developing guidelines for team as well as individual recognition; defining procedures for integrated review processes that involve both the integrated team leader and the functional manager; and establishing criteria for distinguishing behaviors that promote integrated team performance from those that establish barriers to team behaviors.

155.7.3   Document Incentives for Integration Established from Leadership Mechanisms

Project managers shall document incentives for integration established from leadership mechanisms, for establishing mechanisms to balance team and home responsibilities.

155.7.4   Evaluate Incentives for Integration

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate incentives for integration, and make necessary additions, deletions, enhancements, and corrections.

155.7.5   Review and Approve Incentives for Integration

Senior management, program management, and functional area managers shall review and approve incentives for integration as well as any additions, deletions, enhancements, and corrections to incentives for integration by relevant stakeholders.

155.7.6   Baseline Incentives for Integration

Project managers shall submit incentives to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 3 – DEFINED		
Process	ORGANIZATIONAL ENVIRONMENT FOR INTEGRATION		
Practice	156.0 ESTABLISH MECHANISMS TO BALANCE TEAM AND HOME ORGANIZATION		

156.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive incentives for integration for establishing mechanisms to balance team and home organization responsibilities, project managers shall review and analyze incentives for integration for establishing balancing mechanisms, project managers shall identify balancing mechanisms from review of incentives for integration, project managers shall document balancing mechanisms identified from review of incentives for integration, relevant stakeholders shall evaluate balancing mechanisms, senior management, program management, and functional area managers shall review and approve balancing mechanisms, and project managers shall baseline balancing mechanisms.

156.2   REVISION HISTORY

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156.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

156.4   POLICY

The policy of this organization is to ensure that:

156.4.1   Project managers receive incentives for integration for establishing mechanisms to balance team and home organization responsibilities.

156.4.2   Project managers review and analyze incentives for integration for establishing balancing mechanisms.

156.4.3   Project managers identify balancing mechanisms from review of incentives for integration.

156.4.4   Project managers document balancing mechanisms identified

from review of incentives for integration.

    156.4.5 Relevant stakeholders evaluate balancing mechanisms.

    156.4.6 Senior management, program management, and functional area managers review and approve balancing mechanisms.

    156.4.7 Project managers baseline balancing mechanisms.

156.5 DEFINITIONS

    156.5.1 <u>Balancing Mechanisms</u>: mechanisms that support the home organization responsibility but align the work force to meet business objectives in a teaming environment.

156.6 RESPONSIBILITIES

    156.6.1 Project managers are responsible for receiving incentives for integration for establishing mechanisms to balance team and home organization responsibilities, reviewing and analyzing incentives for integration for establishing balancing mechanisms, identifying balancing mechanisms from review of incentives for integration, documenting balancing mechanisms identified from review of incentives for integration, and baselining balancing mechanisms.

    156.6.2 Relevant stakeholders are responsible for evaluating balancing mechanisms.

    156.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving balancing mechanisms.

156.7 PROCESS

156.7.1 Receive Incentives for Integration for Establishing Balancing Mechanisms

Project managers shall receive incentives for integration from configuration management for establishing mechanisms to balance team and home organization responsibilities.

156.7.2 Review Incentives for Integration for Establishing Balancing Mechanisms

Project managers shall review and analyze incentives for integration for establishing balancing mechanisms, which are mechanisms that support the home organization responsibility but align the work force to meet business objectives in a teaming environment.

156.7.3 Identify Balancing Mechanisms from Review of Incentives for Integration

Project managers shall identify balancing mechanisms from review of incentives for integration, which includes

establishing guidelines for home organization
responsibilities in promoting integrated team behavior;
establishing guidelines for team management responsibilities
to ensure integrated team members report appropriately to
their home organization; and establishing a performance
review process that considers input from home organization
and integrated team leaders.

156.7.4 Document Balancing Mechanisms Identified from Review of Incentives for Integration

Project managers shall document balancing mechanisms
identified from review of incentives for integration, for
organizational process performance, quantitative project
management, organizational innovation and deployment, and
causal analysis and resolution.

156.7.5 Evaluate Balancing Mechanisms

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate balancing mechanisms, and make necessary additions,
deletions, enhancements, and corrections.

156.7.6 Review and Approve Balancing Mechanisms

Senior management, program management, and functional area
managers shall review and approve balancing mechanisms as
well as any additions, deletions, enhancements, and
corrections to balancing mechanisms by relevant
stakeholders.

156.7.7 Baseline Balancing Mechanisms

Project managers shall submit mechanisms to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 4 – QUANTITATIVELY MANAGED
Process	ORGANIZATIONAL PROCESS PERFORMANCE
Practice	157.0 SELECT PROCESSES

157.1 PURPOSE

This procedure establishes the guidelines by which project managers
shall receive integrated plans for selecting processes, project
managers shall review and analyze integrated plans for identifying
processes to analyze, project managers shall identify processes to
analyze from review of Integrated plans, project managers shall
document selected processes identified from review of integrated
plans, relevant stakeholders shall evaluate selected processes,
senior management, program management, and functional area managers
shall review and approve selected processes, and project managers
shall baseline selected processes.

157.2 REVISION HISTORY

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!  Date   !              Description              ! Author Initials !
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157.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

157.4 POLICY

The policy of this organization is to ensure that:

157.4.1 Project managers receive integrated plans for selecting
         processes.

157.4.2 Project managers review and analyze integrated plans for
         identifying processes to analyze.

157.4.3 Project managers identify processes to analyze from review
         of integrated plans.

157.4.4 Project managers document selected processes identified from
         review of integrated plans.

157.4.5 Relevant stakeholders evaluate selected processes, senior

management.

      157.4.6 Program management, and functional area managers review and approve selected processes.

      157.4.7 Project managers baseline selected processes.

157.5 DEFINITIONS

      157.5.1 <u>Selected Processes</u>: processes or process elements from the organization's set of standard processes that are selected for performance analysis based upon organization and project needs and objectives.

157.6 RESPONSIBILITIES

      157.6.1 Project managers are responsible for receiving integrated plans for selecting processes, reviewing and analyzing integrated plans for identifying processes to analyze, identifying processes to analyze from review of integrated plans, documenting selected processes identified from review of integrated plans, and baselining selected processes.

      157.6.2 Relevant stakeholders are responsible for evaluating selected processes.

      157.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving selected processes.

157.7 PROCESS

      157.7.1 Receive Integrated Plans for Selecting Processes

            Project managers shall receive integrated plans from configuration management for selecting processes.

      157.7.2 Review Integrated Plans for Identifying Processes to Analyze

            Project managers shall review and analyze integrated plans for identifying processes to analyze, which are processes or process elements from the organization's set of standard processes that are selected for performance analysis based upon organization and project needs and objectives.

      157.7.3 Identify Processes to Analyze from Review of Integrated Plans

            Project managers shall identify processes to analyze from review of integrated plans, which includes identifying needs and objectives of organization and projects, identifying the organization's set of standard processes, identify relevant process elements within organization's set of standard processes, and selecting process elements for process performance analysis.

      157.7.4 Document Selected Processes Identified from Review of Integrated Plans

Project managers shall document selected processes
identified from review of integrated plans, for establishing
process performance measures, establishing quality and
process-performance objectives, establishing process
performance baselines, and establishing process performance
models.

157.7.5 Evaluate Selected Processes

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate selected processes, and make necessary additions,
deletions, enhancements, and corrections.

157.7.6 Review and Approve Selected Processes

Senior management, program management, and functional area
managers shall review and approve selected processes as well
as any additions, deletions, enhancements, and corrections
to selected processes by relevant stakeholders.

157.7.7 Baseline Selected Processes

Project managers shall submit selected processes to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 4 – QUANTITATIVELY MANAGED		
Process	ORGANIZATIONAL PROCESS PERFORMANCE		
Practice	158.0 ESTABLISH PROCESS PERFORMANCE MEASURES		

158.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive selected processes for establishing process performance measures, project managers shall review and analyze selected processes for establishing process performance measures, project managers shall establish process performance measures from review of selected processes, project managers shall document measurement definitions identified from review of selected processes, relevant stakeholders shall evaluate measurement definitions, senior management, program management, and functional area managers shall review and approve measurement definitions, and project managers shall baseline measurement definitions.

158.2   REVISION HISTORY

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158.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

158.4   POLICY

The policy of this organization is to ensure that:

158.4.1 Project managers receive selected processes for establishing process performance measures.

158.4.2 Project managers review and analyze selected processes for establishing process performance measures.

158.4.3 Project managers establish process performance measures from review of selected processes.

158.4.4 Project managers document measurement definitions identified from review of selected processes.

158.4.5 Relevant stakeholders evaluate measurement definitions.

158.4.6 Senior management, program management, and functional area managers review and approve measurement definitions.

158.4.7 Project managers baseline measurement definitions.

158.5 DEFINITIONS

158.5.1 <u>Process Performance Measures</u>: simple measures of volume (e.g., number of hours, defects, or resources), simple relationships or rates (e.g., number of hours per activity, number of defects per hours, or number of people per phase), and complex statistical models for estimating effort, cost, quality, reliability, and even risk.

158.6 RESPONSIBILITIES

158.6.1 Project managers are responsible for receiving selected processes for establishing process performance measures, reviewing and analyzing selected processes for establishing process performance measures, establishing process performance measures from review of selected processes, documenting measurement definitions identified from review of selected processes, and baselining measurement definitions.

158.6.2 Relevant stakeholders are responsible for evaluating measurement definitions.

158.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving measurement definitions.

158.7 PROCESS

158.7.1 Receive Selected Processes for Establishing Process Performance Measures

Project managers shall receive selected processes from configuration management for establishing process performance measures.

158.7.2 Review Selected Processes for Establishing Process Performance Measures

Project managers shall review and analyze selected processes for establishing process performance measures, which are simple measures of volume (e.g., number of hours, defects, or resources), simple relationships or rates (e.g., number of hours per activity, number of defects per hours, or number of people per phase), and complex statistical models for estimating effort, cost, quality, reliability, and even risk.

158.7.3 Establish Process Performance Measures from Review of Selected Processes

Project managers shall establish process performance measures from review of selected processes, which includes determining which of the organization's business objectives for quality and process performance need to be addressed; selecting measures that provide appropriate insight into the organization's quality and process performance; incorporating the selected measures into the organization's set of common measures; and revising the set of measures.

158.7.4 Document Measurement Definitions Identified from Review of Selected Processes

Project managers shall document measurement definitions identified from review of selected processes, for establishing quality and process-performance objectives, establishing process performance baselines, and establishing process performance models.

158.7.5 Evaluate Measurement Definitions

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate measurement definitions, and make necessary additions, deletions, enhancements, and corrections.

158.7.6 Review and Approve Measurement Definitions

Senior management, program management, and functional area managers shall review and approve measurement definitions as well as any additions, deletions, enhancements, and corrections to measurement definitions by relevant stakeholders.

158.7.7 Baseline Measurement Definitions

Project managers shall submit definitions to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 4 – QUANTITATIVELY MANAGED
Process	ORGANIZATIONAL PROCESS PERFORMANCE
Practice	159.0 ESTABLISH QUALITY AND PROCESS-PERFORMANCE OBJECTIVES

159.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive measurement definitions for establishing quality and process-performance objectives, project managers shall review and analyze measurement definitions for establishing quality and process-performance objectives, project managers shall establish quality and process objectives from review of measurement definitions, project managers shall document quality and process objectives identified from review of measurement definitions, relevant stakeholders shall evaluate quality and process objectives, senior management, program management, and functional area managers shall review and approve quality and process objectives, and project managers shall baseline quality and process objectives.

159.2   REVISION HISTORY

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159.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

159.4   POLICY

The policy of this organization is to ensure that:

159.4.1   Project managers receive measurement definitions for establishing quality and process-performance objectives.

159.4.2   Project managers review and analyze measurement definitions for establishing quality and process-performance objectives.

159.4.3   Project managers establish quality and process objectives from review of measurement definitions.

159.4.4   Project managers document quality and process objectives identified from review of measurement definitions.

        159.4.5 Relevant stakeholders evaluate quality and process objectives.

        159.4.6 Senior management, program management, and functional area managers review and approve quality and process objectives.

        159.4.7 Project managers baseline quality and process objectives.

159.5 DEFINITIONS

        159.5.1 <u>Quality and Process Performance Objectives</u>: based on business objectives and past performance of projects, defined to gauge process performance, and consider natural variation.

159.6 RESPONSIBILITIES

        159.6.1 Project managers are responsible for receiving measurement definitions for establishing quality and process-performance objectives, reviewing and analyzing measurement definitions for establishing quality and process-performance objectives, establishing quality and process objectives from review of measurement definitions, documenting quality and process objectives identified from review of measurement definitions, and baselining quality and process objectives.

        159.6.2 Relevant stakeholders are responsible for evaluating quality and process objectives.

        159.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving quality and process objectives.

159.7 PROCESS

159.7.1 Receive Measurement Definitions for Establishing Quality and Process-Performance Objectives

Project managers shall receive measurement definitions from configuration management for establishing quality and process-performance objectives.

159.7.2 Review Measurement Definitions for Establishing Quality and Process-Performance Objectives

Project managers shall review and analyze measurement definitions for establishing quality and process-performance objectives, which are based on business objectives and past performance of projects, defined to gauge process performance, and consider natural variation.

159.7.3 Establish Quality and Process Objectives from Review of Measurement Definitions

Project managers shall establish quality and process

objectives from review of measurement definitions, which includes reviewing the organization's business objectives related to quality and process performance; defining the organization's quantitative objectives for quality and pr6cess performance; defining the priorities of the organization's objectives for quality and process performance; reviewing, negotiating, and obtaining commitment for the organization's quality and process-performance objectives and their priorities from the relevant stakeholders; and revising the organization's quantitative objectives for quality and process performance.

159.7.4 Document Quality and Process Objectives Identified from Review of Measurement Definitions

Project managers shall document quality and process objectives identified from review of measurement definitions, for establishing process performance baselines and establishing process performance models.

159.7.5 Evaluate Quality and Process Objectives

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate quality and process objectives, and make necessary additions, deletions, enhancements, and corrections.

159.7.6 Review and Approve Quality and Process Objectives

Senior management, program management, and functional area managers shall review and approve quality and process objectives as well as any additions, deletions, enhancements, and corrections to quality and process objectives by relevant stakeholders.

159.7.7 Baseline Quality and Process Objectives

Project managers shall submit objectives to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 4 – QUANTITATIVELY MANAGED
Process	ORGANIZATIONAL PROCESS PERFORMANCE
Practice	160.0 ESTABLISH PROCESS PERFORMANCE BASELINES

160.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive quality and process objectives for establishing process performance baselines, project managers shall review and analyze quality and process objectives for establishing process performance baselines, project managers shall establish process performance baselines from review of quality and process objectives, project managers shall document process performance baselines identified from review of quality and process objectives, relevant stakeholders shall evaluate process performance baselines, senior management, program management, and functional area managers shall review and approve process performance baselines, and project managers shall baseline process performance baselines.

160.2   REVISION HISTORY

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160.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

160.4   POLICY

The policy of this organization is to ensure that:

160.4.1   Project managers receive quality and process objectives for establishing process performance baselines.

160.4.2   Project managers review and analyze quality and process objectives for establishing process performance baselines.

160.4.3   Project managers establish process performance baselines from review of quality and process objectives.

160.4.4   Project managers document process performance baselines identified from review of quality and process objectives.

160.4.5 Relevant stakeholders evaluate process performance baselines.

160.4.6 Senior management, program management, and functional area managers review and approve process performance baselines.

160.4.7 Project managers baseline process performance baselines.

160.5 DEFINITIONS

160.5.1 <u>Process Performance Baseline</u>: a measurement of performance for the organization's set of standard processes at various levels of detail, as appropriate.

160.6 RESPONSIBILITIES

160.6.1 Project managers are responsible for receiving quality and process objectives for establishing process performance baselines, reviewing and analyzing quality and process objectives for establishing process performance baselines, establishing process performance baselines from review of quality and process objectives, documenting process performance baselines identified from review of quality and process objectives, and baselining process performance baselines.

160.6.2 Relevant stakeholders are responsible for evaluating process performance baselines.

160.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving process performance baselines.

160.7 PROCESS

160.7.1 Receive Quality and Process Objectives for Establishing Process Performance Baselines

Project managers shall receive quality and process objectives from configuration management for establishing process performance baselines.

160.7.2 Review Quality and Process Objectives for Establishing Process Performance Baselines

Project managers shall review and analyze quality and process objectives for establishing process performance baselines, which are a measurement of performance for the organization's set of standard processes at various levels of detail, as appropriate.

160.7.3 Establish Process Performance Baselines from Review of Quality and Process Objectives

Project managers shall establish process performance

baselines from review of quality and process objectives, which includes collecting measurements from the organization's projects; establishing and maintain the organizations process performance baselines from the collected measurements and analyses; reviewing and getting agreement with relevant stakeholders about the organization's process performance baselines; making the organization's process performance information available across the organization in the organization's measurement repository; comparing the organization's process performance baselines to the associated objectives; and revising the organization's process performance baselines as necessary.

160.7.4 Document Process Performance Baselines Identified from Review of Objectives

Project managers shall document process performance baselines identified from review of quality and process objectives, for establishing process performance models.

160.7.5 Evaluate Process Performance Baselines

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate process performance baselines, and make necessary additions, deletions, enhancements, and corrections.

160.7.6 Review and Approve Process Performance Baselines

Senior management, program management, and functional area managers shall review and approve process performance baselines as well as any additions, deletions, enhancements, and corrections to process performance baselines by relevant stakeholders.

160.7.7 Baseline Process Performance Baselines

Project managers shall submit baselines to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
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		Date	
Level	LEVEL 4 – QUANTITATIVELY MANAGED		
Process	ORGANIZATIONAL PROCESS PERFORMANCE		
Practice	161.0 ESTABLISH PROCESS PERFORMANCE MODELS		

161.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive process performance baselines for establishing process performance models, project managers shall review and analyze process performance baselines for establishing process performance models, project managers shall establish process performance models from review of process performance baselines, project managers shall document process performance models identified from review of process performance baselines, relevant stakeholders shall evaluate process performance models, senior management, program management, and functional area managers shall review and approve process performance models, and project managers shall baseline process performance models.

161.2   REVISION HISTORY

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161.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

161.4   POLICY

The policy of this organization is to ensure that:

161.4.1   Project managers receive process performance baselines for establishing process performance models.

161.4.2   Project managers review and analyze process performance baselines for establishing process performance models.

161.4.3   Project managers establish process performance models from review of process performance baselines.

161.4.4   Project managers document process performance models identified from review of process performance baselines.

161.4.5 Relevant stakeholders evaluate process performance models.

161.4.6 Senior management, program management, and functional area managers review and approve process performance models.

161.4.7 Project managers baseline process performance models.

161.5 DEFINITIONS

161.5.1 <u>Process Performance Model</u>: used to estimate or predict the value of a process performance measure from the values of other process and product measurements.

161.6 RESPONSIBILITIES

161.6.1 Project managers are responsible for receiving process performance baselines for establishing process performance models, reviewing and analyzing process performance baselines for establishing process performance models, establishing process performance models from review of process performance baselines, documenting process performance models identified from review of process performance baselines, and baselining process performance models.

161.6.2 Relevant stakeholders are responsible for evaluating process performance models.

161.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving process performance models.

161.7 PROCESS

161.7.1 Receive Process Performance Baselines for Establishing Process Performance Models

Project managers shall receive process performance baselines from configuration management for establishing process performance models.

161.7.2 Review Process Performance Baselines for Establishing Process Performance Models

Project managers shall review and analyze process performance baselines for establishing process performance models, which are used to estimate or predict the value of a process performance measure from the values of other process and product measurements.

161.7.3 Establish Process Performance Models from Review of Process Performance Baselines

Project managers shall establish process performance models from review of process performance baselines, which includes

establishing the process performance models based on the organization's set of standard processes and process performance baselines; calibrating the process performance models based on the organization's past results and current needs; reviewing the process performance models and getting agreement with stakeholders; supporting the project's use of process performance models; and revising the process performance models.

161.7.4   Document Process Performance Models Identified from Review of Process Performance Baselines

Project managers shall document process performance models identified from review of process performance baselines, for quantitatively managing the project, statistically managing subprocess performance, selecting improvements, deploying improvements, determining causes of defects, and addressing causes of defects.

161.7.5   Evaluate Process Performance Models

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate process performance models, and make necessary additions, deletions, enhancements, and corrections.

161.7.6   Review and Approve Process Performance Models

Senior management, program management, and functional area managers shall review and approve process performance models as well as any additions, deletions, enhancements, and corrections to process performance models by relevant stakeholders.

161.7.7   Baseline Process Performance Models

Project managers shall submit models to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 4 – QUANTITATIVELY MANAGED		
Process	QUANTITATIVE PROJECT MANAGEMENT		
Practice	162.0 ESTABLISH THE PROJECT'S OBJECTIVES		

162.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive process performance models for establishing the project's objectives, project managers shall review and analyze process performance models for establishing project objectives, project managers shall establish project objectives from review of process performance models, project managers shall document project objectives identified from review of process performance models, relevant stakeholders shall evaluate project objectives, senior management, program management, and functional area managers shall review and approve project objectives, and project managers shall baseline project objectives.

162.2 REVISION HISTORY

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162.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

162.4 POLICY

The policy of this organization is to ensure that:

162.4.1 Project managers receive process performance models for establishing the project's objectives.

162.4.2 Project managers review and analyze process performance models for establishing project objectives.

162.4.3 Project managers establish project objectives from review of process performance models.

162.4.4 Project managers document project objectives identified from review of process performance models.

162.4.5 Relevant stakeholders evaluate project objectives.

162.4.6 Senior management, program management, and functional area managers review and approve project objectives.

162.4.7 Project managers baseline project objectives.

162.5 DEFINITIONS

162.5.1 <u>Project Objectives</u>: created to ensure that projects understand the broader business context in which they need to operate, and are developed in the context of the overall organizational objectives.

162.6 RESPONSIBILITIES

162.6.1 Project managers are responsible for receiving process performance models for establishing the project's objectives, reviewing and analyzing process performance models for establishing project objectives, establishing project objectives from review of process performance models, documenting project objectives identified from review of process performance models, and baselining project objectives.

162.6.2 Relevant stakeholders are responsible for evaluating project objectives.

162.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving project objectives.

162.7 PROCESS

162.7.1 Receive Process Performance Models for Establishing the Project's Objectives

Project managers shall receive process performance models from configuration management for establishing the project's objectives.

162.7.2 Review Process Performance Models for Establishing Project Objectives

Project managers shall review and analyze process performance models for establishing project objectives, which are created to ensure that projects understand the broader business context in which they need to operate, and are developed in the context of the overall organizational objectives.

162.7.3 Establish Project Objectives from Review of Process Performance Models

Project managers shall establish project objectives from

review of process performance models, which includes reviewing the organization's objectives; identifying needs and priorities; identifying how measure process performance; defining and documenting objectives; deriving interim objectives; establishing traceability to the project's objectives; defining and negotiating objectives for suppliers; and revising the quality and process objectives.

162.7.4 Document Project Objectives Identified from Review of Process Performance Models

Project managers shall document project objectives identified from review of process performance models, for composing the defined process, selecting the subprocesses to be statistically managed, managing project performance, selecting measures and analytic techniques, applying statistical methods to understand variation, monitoring performance of the selected subprocesses, and recording statistical management data.

162.7.5 Evaluate Project Objectives

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate project objectives, and make necessary additions, deletions, enhancements, and corrections.

162.7.6 Review and Approve Project Objectives

Senior management, program management, and functional area managers shall review and approve project objectives as well as any additions, deletions, enhancements, and corrections to project objectives by relevant stakeholders.

162.7.7 Baseline Project Objectives

Project managers shall submit project objectives to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
		Revision	
Model	**CMMI V1.1**	Approved by	
		Date	
Level	LEVEL 4 – QUANTITATIVELY MANAGED		
Process	QUANTITATIVE PROJECT MANAGEMENT		
Practice	163.0 COMPOSE THE DEFINED PROCESS		

163.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive project defined process for composing the defined process, project managers shall review and analyze project defined process for identifying candidate subprocesses, project managers shall identify candidate subprocesses from review of project defined process, project managers shall document candidate subprocesses identified from review of project defined process, relevant stakeholders shall evaluate candidate subprocesses, senior management, program management, and functional area managers shall review and approve candidate subprocesses, and project managers shall baseline candidate subprocesses.

163.2   REVISION HISTORY

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163.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

163.4   POLICY

The policy of this organization is to ensure that:

163.4.1 Project managers receive project defined process for composing the defined process.

163.4.2 Project managers review and analyze project defined process for identifying candidate Subprocesses.

163.4.3 Project managers identify candidate subprocesses from review of project defined process

163.4.4 Project managers document candidate subprocesses identified from review of project defined process.

163.4.5 Relevant stakeholders evaluate candidate subprocesses.

163.4.6 Senior management, program management, and functional area managers review and approve candidate subprocesses.

163.4.7 Project managers baseline candidate subprocesses.

163.5 DEFINITIONS

163.5.1 <u>Candidate Subprocesses</u>: identified from the process elements in the organizations set of standard processes and the process artifacts in the organization's process asset library.

163.6 RESPONSIBILITIES

163.6.1 Project managers are responsible for receiving project defined process for composing the defined process, reviewing and analyzing project defined process for identifying candidate subprocesses, identifying candidate subprocesses from review of project defined process, documenting candidate subprocesses identified from review of project defined process, and baselining candidate subprocesses.

163.6.2 Relevant stakeholders are responsible for evaluating candidate subprocesses.

163.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving candidate subprocesses.

163.7 PROCESS

163.7.1 Receive Project Defined Process for Composing the Defined Process

Project managers shall receive project defined process from configuration management for composing the defined process.

163.7.2 Review Project Defined Process for Identifying Candidate Subprocesses

Project managers shall review and analyze project defined process for identifying candidate subprocesses, which are identified from the process elements in the organization's set of standard processes and the process artifacts in the organization's process asset library.

163.7.3 Identify Candidate Subprocesses from Review of Project Defined Process

Project managers shall identify candidate subprocesses from review of project defined process, which includes establishing the criteria to use in identifying which subprocesses are valid; determining whether the subprocesses

that are to be statistically managed; analyzing the interaction of subprocesses to understand the relationships among the subprocesses; and identifying the risk when no subprocess is available.

163.7.4 Document Candidate Subprocesses Identified from Review of Project Defined Process

Project managers shall document candidate subprocesses identified from review of project defined process, for selecting the subprocesses to be statistically managed, managing project performance, selecting measures and analytic techniques, applying statistical methods to understand variation, monitoring performance of the selected subprocesses, and recording statistical management data.

163.7.5 Evaluate Candidate Subprocesses

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate candidate subprocesses, and make necessary additions, deletions, enhancements, and corrections.

163.7.6 Review and Approve Candidate Subprocesses

Senior management, program management, and functional area managers shall review and approve candidate subprocesses as well as any additions, deletions, enhancements, and corrections to candidate subprocesses by relevant stakeholders.

163.7.7 Baseline Candidate Subprocesses

Project managers shall submit subprocesses to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	# CMMI V1.1	Revision	
		Approved by	
		Date	
Level	LEVEL 4 – QUANTITATIVELY MANAGED		
Process	QUANTITATIVE PROJECT MANAGEMENT		
Practice	164.0 SELECT THE SUBPROCESSES THAT WILL BE STATISTICALLY MANAGED		

164.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive candidate subprocesses for selecting the subprocesses that will be statistically managed, project managers shall review and analyze candidate subprocesses for identifying subprocesses for statistical management, project managers shall identify subprocesses for statistical management identified from candidate subprocesses, project managers shall document selected subprocesses identified from review of candidate subprocesses, relevant stakeholders shall evaluate selected subprocesses, senior management, program management, and functional area managers shall review and approve selected subprocesses, and project managers shall baseline selected subprocesses.

164.2   REVISION HISTORY

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164.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

164.4   POLICY

The policy of this organization is to ensure that:

164.4.1   Project managers receive candidate subprocesses for selecting the subprocesses that will be statistically managed.

164.4.2   Project managers review and analyze candidate subprocesses for identifying subprocesses for statistical management.

164.4.3   Project managers identify subprocesses for statistical management identified from candidate subprocesses.

164.4.4   Project managers document selected subprocesses identified

from review of candidate subprocesses.

164.4.5 Relevant stakeholders evaluate selected subprocesses.

164.4.6 Senior management, program management, and functional area managers review and approve selected subprocesses.

164.4.7 Project managers baseline selected subprocesses.

164.5 DEFINITIONS

164.5.1 <u>Subprocesses for Statistical Management</u>: the results of a concurrent and iterative process of identifying applicable project and organization quality and process-performance objectives, selecting the subprocesses, and identifying the process and product attributes to measure and control.

164.6 RESPONSIBILITIES

164.6.1 Project managers are responsible for receiving candidate subprocesses for selecting the subprocesses that will be statistically managed, reviewing and analyzing candidate subprocesses for identifying subprocesses for statistical management, identifying subprocesses for statistical management identified from candidate subprocesses, documenting selected subprocesses identified from review of candidate subprocesses, and baselining selected subprocesses.

164.6.2 Relevant stakeholders are responsible for evaluating selected subprocesses.

164.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving selected subprocesses.

164.7 PROCESS

164.7.1 Receive Candidate Subprocesses for Selecting the Subprocesses for Statistical Management

Project managers shall receive candidate subprocesses from configuration management for selecting the Subprocesses that will be statistically managed.

164.7.2 Review Candidate Subprocesses for Identifying Subprocesses for Statistical Management

Project managers shall review and analyze candidate subprocesses for identifying Subprocesses for statistical management, which are the results of a concurrent and iterative process of identifying applicable project and organization quality and process-performance objectives, selecting the subprocesses, and identifyng the process and product attributes to measure and control.

164.7.3 Identify Subprocesses for Statistical Management from Review of Candidate Subprocesses

Project managers shall identify subprocesses for statistical management identified from candidate subprocesses, which includes identifying which of the quality and process-performance objectives of the project will be statistically managed; identifying the criteria to be used in selecting the subprocesses; selecting the subprocesses that will be statistically managed using the selection criteria; and identifying attributes that will be measured and controlled.

164.7.4 Document Selected Subprocesses Identified from Review of Candidate Subprocesses

Project managers shall document selected subprocesses identified from review of candidate subprocesses, for managing project performance, selecting measures and analytic techniques, applying statistical methods to understand variation, monitoring performance of the selected subprocesses, and recording statistical management data.

164.7.5 Evaluate Selected Subprocesses

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate selected subprocesses, and make necessary additions, deletions, enhancements, and corrections.

164.7.6 Review and Approve Selected Subprocesses

Senior management, program management, and functional area managers shall review and approve selected subprocesses as well as any additions, deletions, enhancements, and corrections to selected subprocesses by relevant stakeholders.

164.7.7 Baseline Selected Subprocesses

Project managers shall selected subprocesses to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 4 – QUANTITATIVELY MANAGED
Process	QUANTITATIVE PROJECT MANAGEMENT
Practice	165.0 MANAGE PROJECT PERFORMANCE

165.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive selected subprocesses for managing project performance, project managers shall review and analyze selected Subprocesses for measuring process and product performance, project managers shall measure process and product performance from review of selected subprocesses, project managers shall document process and product performance measured from selected subprocesses, relevant stakeholders shall evaluate process and product performance, senior management, program management, and functional area managers shall review and approve process and product performance, and project managers shall baseline process and product performance.

165.2   REVISION HISTORY

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165.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

165.4   POLICY

The policy of this organization is to ensure that:

165.4.1   Project managers receive selected subprocesses for managing project performance.

165.4.2   Project managers review and analyze selected Subprocesses for measuring process and product performance.

165.4.3   Project managers measure process and product performance from review of selected subprocesses.

165.4.4   Project managers document process and product performance measured from selected subprocesses.

165.4.5 Relevant stakeholders evaluate process and product performance.

165.4.6 Senior management, program management, and functional area managers review and approve process and product performance.

165.4.7 Project managers baseline process and product performance.

165.5 DEFINITIONS

165.5.1 <u>Process and Product Performance Measurement</u>: processes involving monitoring the project to determine whether the project's objectives for quality and process performance will be satisfied, and identify corrective actions.

165.6 RESPONSIBILITIES

165.6.1 Project managers are responsible for receiving selected subprocesses for managing project performance, reviewing and analyzing selected subprocesses for measuring process and product performance, measuring process and product performance from review of selected subprocesses, documenting process and product performance measured from selected subprocesses, and baselining process and product performance.

165.6.2 Relevant stakeholders are responsible for evaluating process and product performance.

165.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving process and product performance.

165.7 PROCESS

165.7.1 Receive Selected Subprocesses for Managing Project Performance

Project managers shall receive selected subprocesses from configuration management for managing project performance.

165.7.2 Review Selected Subprocesses for Measuring Process and Product Performance

Project managers shall review and analyze selected Subprocesses for measuring process and product performance, which are processes involving monitoring the project to determine whether the project's objectives for quality and process performance will be satisfied, and identify corrective actions.

165.7.3 Measure Process and Product Performance from Review of Selected Subprocesses

Project managers shall measure process and product

performance from review of selected subprocesses, which
includes periodically reviewing the performance of each
subprocess and the capability of each subprocess;
periodically reviewing the results; tracking suppliers'
results for achieving their quality and process-performance
objectives; using process performance models calibrated with
obtained measures; identifying and managing the risks; and
determining and documenting actions needed to address the
deficiencies.

165.7.4 Document Process and Product Performance Measured from Selected Subprocesses

Project managers shall document process and product
performance measured from selected subprocesses, for
selecting measures and analytic techniques, applying
statistical methods to understand variation, monitoring
performance of the selected subprocesses, and recording
statistical management data.

165.7.5 Evaluate Process and Product Performance

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate process and product performance, and make necessary
additions, deletions, enhancements, and corrections.

165.7.6 Review and Approve Process and Product Performance

Senior management, program management, and functional area
managers shall review and approve process and product
performance as well as any additions, deletions,
enhancements, and corrections to process and product
performance by relevant stakeholders.

165.7.7 Baseline Process and Product Performance

Project managers shall submit performance to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 4 – QUANTITATIVELY MANAGED		
Process	QUANTITATIVE PROJECT MANAGEMENT		
Practice	166.0 SELECT MEASURES AND ANALYTIC TECHNIQUES		

166.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive process and product performance for selecting measures and analytic techniques, project managers shall review and analyze process and product performance for selecting measures and analytic techniques, project managers shall select measures and analytic techniques from review of process and product performance, project managers shall document measures and analytic techniques from review of process and product performance, relevant stakeholders shall evaluate measures and analytic techniques, senior management, program management, and functional area managers shall review and approve measures and analytic techniques, and project managers shall baseline measures and analytic techniques.

166.2   REVISION HISTORY

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166.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

166.4   POLICY

The policy of this organization is to ensure that:

166.4.1   Project managers receive process and product performance for selecting measures and analytic techniques.

166.4.2   Project managers review and analyze process and product performance for selecting measures and analytic techniques.

166.4.3   Project managers select measures and analytic techniques from review of process and product performance.

166.4.4   Project managers document measures and analytic techniques from review of process and product performance.

     166.4.5 Relevant stakeholders evaluate measures and analytic
              techniques.

     166.4.6 Senior management, program management, and functional area
              managers review and approve measures and analytic
              techniques.

     166.4.7 Project managers baseline measures and analytic techniques

166.5 DEFINITIONS

     166.5.1 <u>Measure and Analytic Technique Selection</u>: processes of
              selecting the measures and analytic techniques to be used in
              statistically managing the selected subprocesses.

166.6 RESPONSIBILITIES

     166.6.1 Project managers are responsible for receiving process and
              product performance for selecting measures and analytic
              techniques, reviewing and analyzing process and product
              performance for selecting measures and analytic techniques,
              selecting measures and analytic techniques from review of
              process and product performance, documenting measures and
              analytic techniques from review of process and product
              performance, and baselining measures and analytic
              techniques.

     166.6.2 Relevant stakeholders are responsible for evaluating
              measures and analytic techniques.

     166.6.3 Senior management, program management, and functional area
              managers are responsible for reviewing and approving
              measures and analytic techniques.

166.7 PROCESS

166.7.1 Receive Process and Product Performance for Selecting Measures and Analytic Techniques

Project managers shall receive process and product
performance from configuration management for selecting
measures and analytic techniques.

166.7.2 Review Process and Product Performance for Selecting Measures and Analytic Techniques

Project managers shall review and analyze process and
product performance for selecting measures and analytic
techniques, which are processes of selecting the measures
and analytic techniques to be used in statistically managing
the selected subprocesses.

166.7.3 Select Measures and Analytic Techniques from Review of Process and Product Performance

Project managers shall select measures and analytic techniques from review of process and product performance, which includes identifying common measures from the organizational process assets; identifying additional measures; identifying the measures that are appropriate for statistical management; specifying the operational definitions of the measures; analyzing the relationship of the identified measures to the organization's and project's objectives; instrumenting the organizational support environment to support collection; identifying the appropriate statistical analysis techniques; and revising the measures and statistical techniques.

166.7.4 Document Measures and Analytic Techniques from Review of Process and Product Performance

Project managers shall document measures and analytic techniques from review of process and product performance, for applying statistical methods to understand variation, monitoring performance of the selected subprocesses, and recording statistical management data.

166.7.5 Evaluate Measures and Analytic Techniques

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate measures and analytic techniques, and make necessary additions, deletions, enhancements, and corrections.

166.7.6 Review and Approve Measures and Analytic Techniques

Senior management, program management, and functional area managers shall review and approve measures and analytic techniques as well as any additions, deletions, enhancements, and corrections to measures and analytic techniques by relevant stakeholders.

166.7.7 Baseline Measures and Analytic Techniques

Project managers shall submit techniques to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 4 – QUANTITATIVELY MANAGED		
Process	QUANTITATIVE PROJECT MANAGEMENT		
Practice	167.0 APPLY STATISTICAL METHODS TO UNDERSTAND VARIATION		

167.1   PURPOSE

This procedure establishes the guidelines by which project managers
shall receive measures and analytic techniques for applying
statistical methods to understand variation, project managers shall
review and analyze measures and analytic techniques for analyzing
process and product variation, project managers shall analyze
process and product variation from review of measures and analytic
techniques, project managers shall document process and product
variation from analysis of measures and analytic techniques,
relevant stakeholders shall evaluate process and product variation,
senior management, program management, and functional area managers
shall review and approve process and product variation, and project
managers shall baseline process and product variation.

167.2   REVISION HISTORY

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167.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program
management, and functional area managers.

167.4   POLICY

The policy of this organization is to ensure that:

167.4.1   Project managers receive measures and analytic techniques
          for applying statistical methods to understand variation.

167.4.2   Project managers review and analyze measures and analytic
          techniques for analyzing process and product variation.

167.4.3   Project managers analyze process and product variation from
          review of measures and analytic techniques.

167.4.4   Project managers document process and product variation from
          analysis of measures and analytic techniques.

167.4.5　Relevant stakeholders evaluate process and product variation.

　　　167.4.6　Senior management, program management, and functional area managers review and approve process and product variation.

　　　167.4.7　Project managers baseline process and product variation.

167.5　DEFINITIONS

　　　167.5.1　<u>Process and Product Variation Analysis</u>: processes consisting of analyzing process and product measures so that special causes of variation can be addressed to achieve predictable performance.

167.6　RESPONSIBILITIES

　　　167.6.1　Project managers are responsible for receiving measures and analytic techniques for applying statistical methods to understand variation, reviewing and analyzing measures and analytic techniques for analyzing process and product variation, analyzing process and product variation from review of measures and analytic techniques, documenting process and product variation from analysis of measures and analytic techniques, and baselining process and product variation.

　　　167.6.2　Relevant stakeholders are responsible for evaluating process and product variation.

　　　167.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving process and product variation.

167.7　PROCESS

　　　167.7.1　Receive Measures and Analytic Techniques for Applying Statistical Methods

　　　　　Project managers shall receive measures and analytic techniques from configuration management for applying statistical methods to understand variation.

　　　167.7.2　Review Measures and Analytic Techniques for Analyzing Process and Product Variation

　　　　　Project managers shall review and analyze measures and analytic techniques for analyzing process and product variation, which are processes consisting of analyzing process and product measures so that special causes of variation can be addressed to achieve predictable performance.

　　　167.7.3　Analyze Process and Product Variation from Review of Measures and Analytic Techniques

Project managers shall analyze process and product variation from review of measures and analytic techniques, which includes establishing trial natural bounds for subprocesses having suitable historical performance data; collecting data on the subprocesses as they execute; calculating the natural bounds of process performance for each measured attribute; identifying special causes of variation; analyzing the special cause of process variation; determining what corrective action should be taken; and recalculating the natural bounds for each measured attribute of the selected subprocesses as necessary.

167.7.4 Document Process and Product Variation from Analysis of Measures and Analytic Techniques

Project managers shall document process and product variation from analysis of measures and analytic techniques, for monitoring performance of the selected subprocesses and recording statistical management data.

167.7.5 Evaluate Process and Product Variation

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate process and product variation, and make necessary additions, deletions, enhancements, and corrections.

167.7.6 Review and Approve Process and Product Variation

Senior management, program management, and functional area managers shall review and approve process and product variation as well as any additions, deletions, enhancements, and corrections to process and product variation by relevant stakeholders.

167.7.7 Baseline Process and Product Variation

Project managers shall submit variation to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 4 – QUANTITATIVELY MANAGED		
Process	QUANTITATIVE PROJECT MANAGEMENT		
Practice	168.0 MONITOR PERFORMANCE OF THE SELECTED SUBPROCESSES		

168.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive process and product variation for monitoring performance of the selected subprocesses, project managers shall review and analyze process and product variation for analyzing subprocess performance, project managers shall analyze subprocess performance from review of process and product variation, project managers shall document subprocess variation from analysis and review of process and product variation, relevant stakeholders shall evaluate subprocess performance, senior management, program management, and functional area managers shall review and approve subprocess performance, and project managers shall baseline Subprocess performance.

168.2   REVISION HISTORY

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168.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

168.4   POLICY

The policy of this organization is to ensure that:

168.4.1   Project managers receive process and product variation for monitoring performance of the selected subprocesses.

168.4.2   Project managers review and analyze process and product variation for analyzing subprocess performance.

168.4.3   Project managers analyze subprocess performance from review of process and product variation.

168.4.4   Project managers document subprocess variation from analysis and review of process and product variation.

168.4.5 Relevant stakeholders evaluate subprocess performance.

168.4.6 Senior management, program management, and functional area managers review and approve subprocess performance.

168.4.7 Project managers baseline subprocess performance.

168.5 DEFINITIONS

168.5.1 <u>Subprocess Performance Analysis</u>: processes used to determine statistically the process behavior expected from the subprocess; appraise the probability that the process will meet its quality and process-performance objectives; and identify the corrective action to be taken, based upon a statistical analysis of the process performance data.

168.6 RESPONSIBILITIES

168.6.1 Project managers are responsible for receiving process and product variation for monitoring performance of the selected subprocesses, reviewing and analyzing process and product variation for analyzing subprocess performance, analyzing subprocess performance from review of process and product variation, documenting subprocess variation from analysis and review of process and product variation, and baselining subprocess performance.

168.6.2 Relevant stakeholders are responsible for evaluating subprocess performance.

168.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving subprocess performance.

168.7 PROCESS

168.7.1 Receive Process and Product Variation for Monitoring Performance of the Selected Subprocesses

Project managers shall receive process and product variation from configuration management for monitoring performance of the selected subprocesses.

168.7.2 Review Process and Product Variation for Analyzing Subprocess Performance

Project managers shall review and analyze process and product variation for analyzing subprocess performance, which are processes used to determine statistically the process behavior expected from the subprocess; appraise the probability that the process will meet its quality and process-performance objectives; and identify the corrective action to be taken, based upon a statistical analysis of the process performance data.

168.7.3 Analyze Subprocess Performance from Review of Process and Product Variation

Project managers shall analyze Subprocess performance from review of process and product variation, which includes comparing the quality and process-performance objectives to the natural bounds of the measured attribute; monitoring changes in quality and process-performance objectives and selected subprocess' process capability; identifying and document subprocess capability deficiencies; and determining and document actions needed to address subprocess capability deficiencies.

168.7.4 Document Subprocess Variation from Analysis and Review of Process and Product Variation

Project managers shall document subprocess variation from analysis and review of process and product variation, for recording statistical management data.

168.7.5 Evaluate Subprocess Performance

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate subprocess performance, and make necessary additions, deletions, enhancements, and corrections.

168.7.6 Review and Approve Subprocess Performance

Senior management, program management, and functional area managers shall review and approve subprocess performance as well as any additions, deletions, enhancements, and corrections to subprocess performance by relevant stakeholders.

168.7.7 Baseline Subprocess Performance

Project managers shall submit performance to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 4 – QUANTITATIVELY MANAGED
Process	QUANTITATIVE PROJECT MANAGEMENT
Practice	169.0 RECORD STATISTICAL MANAGEMENT DATA

169.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive subprocess performance for recording statistical management data, project managers shall review and analyze subprocess performance for identifying statistical management data, project managers shall identify statistical management data from review of subprocess performance, project managers shall document statistical management data identified from review of subprocess performance, relevant stakeholders shall evaluate statistical management data, senior management, program management, and functional area managers shall review and approve management data, and project managers shall baseline statistical management data.

169.2   REVISION HISTORY

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169.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

169.4   POLICY

The policy of this organization is to ensure that:

169.4.1   Project managers receive subprocess performance for recording statistical management data.

169.4.2   Project managers review and analyze subprocess performance for identifying statistical management data.

169.4.3   Project managers identify statistical management data from review of subprocess performance.

169.4.4   Project managers document statistical management data identified from review of subprocess performance.

169.4.5 Relevant stakeholders evaluate statistical management data.

169.4.6 Senior management, program management, and functional area managers review and approve management data.

169.4.7 Project managers baseline statistical management data.

169.5 DEFINITIONS

169.5.1 <u>Statistical Management Data Identification</u>: processes to record statistical and quality management data in the organization's measurement repository.

169.6 RESPONSIBILITIES

169.6.1 Project managers are responsible for receiving subprocess performance for recording statistical management data, reviewing and analyzing subprocess performance for identifying statistical management data, identifying statistical management data from review of subprocess performance, documenting statistical managers baselining statistical management data.

169.6.2 Relevant stakeholders are responsible for evaluating statistical management data.

169.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving management data.

169.7 PROCESS

169.7.1 Receive Subprocess Performance for Recording Statistical Management Data

Project managers shall receive subprocess performance from configuration management for recording statistical management data.

169.7.2 Review Subprocess Performance for Identifying Statistical Management Data

Project managers shall review and analyze subprocess performance for identifying statistical management data, which are processes to record statistical and quality management data in the organization's measurement repository.

169.7.3 Identify Statistical Management Data from Review of Subprocess Performance

Project managers shall identify statistical management data from review of subprocess performance, which includes identifying sources of statistical data, identifying characteristics of statistical data, identifying results of

analyzing statistical data, ensuring validity of statistical
data, and recording statistical data in the organization
measurement repository.

169.7.4 Document Statistical Management Data Identified from Review of
Subprocess Performance

Project managers shall document statistical management data
identified from review of subprocess performance, for
organizational innovation and deployment and causal analysis
and resolution.

169.7.5 Evaluate Statistical Management Data

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate statistical management data, and make necessary
additions, deletions, enhancements, and corrections.

169.7.6 Review and Approve Statistical Management Data

Senior management, program management, and functional area
managers shall review and approve management data as well as
any additions, deletions, enhancements, and corrections to
management data by relevant stakeholders.

169.7.7 Baseline Statistical Management Data

Project managers shall submit statistical data to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 5 – OPTIMIZING		
Process	ORGANIZATIONAL INNOVATION AND DEPLOYMENT		
Practice	170.0 COLLECT AND ANALYZE IMPROVEMENT PROPOSALS		

170.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive improvement proposals for collecting and analyzing improvement proposals, project managers shall review and analyze improvement proposals for developing an analysis of proposals, project managers shall develop an analysis of proposals from review of improvement proposals, project managers shall document analysis of proposals from review of improvement proposals, relevant stakeholders shall evaluate analysis of proposals, senior management, program management, and functional area managers shall review and approve analysis of proposals, and project managers shall baseline analysis of proposals.

170.2 REVISION HISTORY

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170.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

170.4 POLICY

The policy of this organization is to ensure that:

170.4.1 Project managers receive improvement proposals for collecting and analyzing improvement proposals.

170.4.2 Project managers review and analyze improvement proposals for developing an analysis of proposals.

170.4.3 Project managers develop an analysis of proposals from review of improvement proposals.

170.4.4 Project managers document analysis of proposals from1review of improvement proposals.

170.4.5 Relevant stakeholders evaluate analysis of proposals.

170.4.6 Senior management, program management, and functional area managers review and approve analysis of proposals.

170.4.7 Project managers baseline analysis of proposals.

170.5 DEFINITIONS

170.5.1 Analysis of Proposals: processes to evaluate contribution toward objectives; effect on mitigating identified project and organizational risks; ability to respond quickly to changes in project requirements, market situations, and the business environment; effect on related processes and associated assets; costs; and expected life span of the proposal.

170.6 RESPONSIBILITIES

170.6.1 Project managers are responsible for receiving improvement proposals for collecting and analyzing improvement proposals, reviewing and analyzing improvement proposals for developing an analysis of proposals, developing an analysis of proposals from review of improvement proposals, documenting analysis of proposals from review of improvement proposals, and baselining analysis of proposals.

170.6.2 Relevant stakeholders are responsible for evaluating analysis of proposals.

170.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving analysis of proposals.

170.7 PROCESS

170.7.1 Receive Improvement Proposals for Collecting and Analyzing Improvement Proposals

Project managers shall receive improvement proposals from configuration management for collecting and analyzing improvement proposals.

170.7.2 Review Improvement Proposals for Developing an Analysis of Proposals

Project managers shall review and analyze improvement proposals for developing an analysis of proposals, which are processes to evaluate contribution toward objectives; effect on mitigating identified project and organizational risks; ability to respond quickly to changes in project requirements, market situations, and the business environment; effect on related processes and associated assets; costs; and expected life span of the proposal.

170.7.3 Develop an Analysis of Proposals from Review of Improvement Proposals

Project managers shall develop an analysis of proposals from review of improvement proposals, which includes collecting process and technology improvement proposals; analyzing the costs and benefits; identifying the proposals that are innovative; identifying potential barriers and risks; estimating the cost, effort, and schedule; selecting the proposals to be piloted before deployment; documenting the results of the evaluation; and monitoring the status.

170.7.4 Document Analysis of Proposals from Review of Improvement Proposals

Project managers shall document analysis of proposals from review of improvement proposals, for identifying and analyzing innovations, piloting improvements, selecting improvements for deployment, planning the deployment, managing the deployment, and measuring effects.

170.7.5 Evaluate Analysis of Proposals

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate analysis of proposals, and make necessary additions, deletions, enhancements, and corrections.

170.7.6 Review and Approve Analysis of Proposals

Senior management, program management, and functional area managers shall review and approve analysis of proposals as well as any additions, deletions, enhancements, and corrections to analysis of proposals by relevant stakeholders.

170.7.7 Baseline Analysis of Proposals

Project managers shall submit analysis to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 5 – OPTIMIZING		
Process	ORGANIZATIONAL INNOVATION AND DEPLOYMENT		
Practice	171.0 IDENTIFY AND ANALYZE INNOVATIONS		

171.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive analysis of proposals for identifying and analyzing innovations, project managers shall review and analyze analysis of proposals for identifying innovative improvements, project managers shall identify innovative improvements from review of analysis of proposals, project managers shall document innovative improvements identified from review of analysis of proposals, relevant stakeholders shall evaluate innovative improvements, senior management, program management, and functional area managers shall review and approve innovative improvements, and project managers shall baseline innovative improvements.

171.2 REVISION HISTORY

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171.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

171.4 POLICY

The policy of this organization is to ensure that:

171.4.1 Project managers receive analysis of proposals for identifying and analyzing innovations.

171.4.2 Project managers review and analyze analysis of proposals for identifying innovative improvements.

171.4.3 Project managers identify innovative improvements from review of analysis of proposals.

171.4.4 Project managers document innovative improvements identified from review of analysis of proposals.

171.4.5 Relevant stakeholders evaluate innovative improvements.

171.4.6 Senior management, program management, and functional area managers review and approve innovative improvements.

171.4.7 Project managers baseline innovative improvements.

171.5 DEFINITIONS

171.5.1 Innovative Improvements: analyses performed to determine which subprocesses are critical to achieving the organization's quality and process-performance objectives.

171.6 RESPONSIBILITIES

171.6.1 Project managers are responsible for receiving analysis of proposals for identifying and analyzing innovations, reviewing and analyzing analysis of proposals for identifying innovative improvements, identifying innovative improvements from review of analysis of proposals, documenting innovative improvements identified from review of analysis of proposals, and baselining innovative improvements.

171.6.2 Relevant stakeholders are responsible for evaluating innovative improvements.

171.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving innovative improvements.

171.7 PROCESS

171.7.1 Receive Analysis of Proposals for Identifying and Analyzing Innovations

Project managers shall receive analysis of proposals from configuration management for identifying and analyzing innovations.

171.7.2 Review Analysis of Proposals for Identifying Innovative Improvements

Project managers shall review and analyze analysis of proposals for identifying innovative improvements, which are analyses performed to determine which subprocesses are critical to achieving the organizations quality and process-performance objectives.

171.7.3 Identify Innovative Improvements from Review of Analysis of Proposals

Project managers shall identify innovative improvements from review of analysis of proposals, which includes analyzing the organization's set of standard processes to determine

areas where innovative improvements would be most helpful;
investigating innovative improvements that may improve the
organization's set of standard processes; analyzing
potential innovative improvements to understand their
effects; analyzing the costs and benefits; creating process
and technology improvement proposals; selecting the
innovative improvements to be piloted; and documenting the
results of the evaluations of innovative improvements.

171.7.4 Document Innovative Improvements Identified from Review of Analysis of Proposals

Project managers shall document innovative improvements
identified from review of analysis of proposals, for
piloting improvements, selecting improvements for
deployment, planning the deployment, managing the
deployment, and measuring effects.

171.7.5 Evaluate Innovative Improvements

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate innovative improvements, and make necessary
additions, deletions, enhancements, and corrections.

171.7.6 Review and Approve Innovative Improvements

Senior management, program management, and functional area
managers shall review and approve innovative improvements as
well as any additions, deletions, enhancements, and
corrections to innovative improvements by relevant
stakeholders.

171.7.7 Baseline Innovative Improvements

Project managers shall submit improvements to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 5 – OPTIMIZING
Process	ORGANIZATIONAL INNOVATION AND DEPLOYMENT
Practice	172.0 PILOT IMPROVEMENTS

172.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive innovative improvements for piloting improvements, project managers shall review and analyze innovative improvements for conducting process improvement pilots, project managers shall conduct process improvement pilots based on innovative improvements, project managers shall document results of pilots from conducting process improvement pilots, relevant stakeholders shall evaluate results of pilots, senior management, program management, and functional area managers shall review and approve results of pilots, and project managers shall baseline results of pilots.

172.2   REVISION HISTORY

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172.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

172.4   POLICY

The policy of this organization is to ensure that:

172.4.1 Project managers receive innovative improvements for piloting improvements.

172.4.2 Project managers review and analyze innovative improvements for conducting process improvement pilots.

172.4.3 Project managers conduct process improvement pilots based on innovative improvements.

172.4.4 Project managers document results of pilots from conducting process improvement pilots.

172.4.5 Relevant stakeholders evaluate results of pilots.

172.4.6 Senior management, program management, and functional area managers review and approve results of pilots.

172.4.7 Project managers baseline results of pilots.

172.5 DEFINITIONS

172.5.1 <u>Process Improvement Pilots</u>: performed to assess new and unproven major changes before they are broadly deployed, as appropriate.

172.6 RESPONSIBILITIES

172.6.1 Project managers are responsible for receiving innovative improvements for piloting improvements, reviewing and analyzing innovative improvements for conducting process improvement pilots, conducting process improvement pilots based on innovative improvements, documenting results of pilots from conducting process improvement pilots, and baselining results of pilots.

172.6.2 Relevant stakeholders are responsible for evaluating results of pilots.

172.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving results of pilots.

172.7 PROCESS

172.7.1 Receive Innovative Improvements for Piloting Improvements

Project managers shall receive innovative improvements from configuration management for piloting improvements.

172.7.2 Review Innovative Improvements for Conducting Process Improvement Pilots

Project managers shall review and analyze innovative improvements for conducting process improvement pilots, which are performed to assess new and unproven major changes before they are broadly deployed, as appropriate.

172.7.3 Conducting Process Improvement Pilots Based on Innovative Improvements

Project managers shall conduct process improvement pilots based on innovative improvements, which includes planning the pilots; reviewing and get relevant stakeholder agreement on the plans for the pilots; consulting with and assist the people performing the pilots; performing each pilot in an environment that is characteristic of the environment present in a broadscale deployment; tracking the pilots against their plans; and reviewing and documenting the results of pilots.

172.7.4   Document Results of Pilots from Conducting Process
Improvement Pilots

Project managers shall document results of pilots from
conducting process improvement pilots, for selecting
improvements for deployment, planning the deployment,
managing the deployment, and measuring effects.

172.7.5   Evaluate Results of Pilots

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate results of pilots, and make necessary additions,
deletions, enhancements, and corrections.

172.7.6   Review and Approve Results of Pilots

Senior management, program management, and functional area
managers shall review and approve results of pilots as well
as any additions, deletions, enhancements, and corrections
to results of pilots by relevant stakeholders.

172.7.7   Baseline Results of Pilots

Project managers shall submit results of pilots to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 5 – OPTIMIZING		
Process	ORGANIZATIONAL INNOVATION AND DEPLOYMENT		
Practice	173.0 SELECT IMPROVEMENTS FOR DEPLOYMENT		

173.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive results of pilots for selecting improvements for deployment, project managers shall review and analyze results of pilots for identifying improvements for deployment, project managers shall identify improvements for deployment from reviewing results of pilots, project managers shall document selected improvements identified from reviewing results of pilots, relevant stakeholders shall evaluate selected improvements, senior management, program management, and functional area managers shall review and approve selected improvements, and project managers shall baseline selected improvements.

173.2 REVISION HISTORY

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173.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

173.4 POLICY

The policy of this organization is to ensure that:

173.4.1 Project managers receive results of pilots for selecting improvements for deployment.

173.4.2 Project managers review and analyze results of pilots for identifying improvements for deployment.

173.4.3 Project managers identify improvements for deployment from reviewing results of pilots.

173.4.4 Project managers document selected improvements identified from reviewing results of pilots.

173.4.5 Relevant stakeholders evaluate selected improvements.

173.4.6 Senior management, program management, and functional area managers review and approve selected improvements.

173.4.7 Project managers baseline selected improvements.

173.5 DEFINITIONS

173.5.1 <u>Improvements for Deployment</u>: process and technology improvement proposals for deployment across the organization based on quantifiable criteria derived from the organization's quality and process performance objectives.

173.6 RESPONSIBILITIES

173.6.1 Project managers are responsible for receiving results of pilots for selecting improvements for deployment, reviewing and analyzing results of pilots for identifying improvements for deployment, identifying improvements for deployment from reviewing results of pilots, documenting selected improvements identified from reviewing results of pilots, and baselining selected improvements.

173.6.2 Relevant stakeholders are responsible for evaluating selected improvements.

173.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving selected improvements.

173.7 PROCESS

173.7.1 Receive Results of Pilots for Selecting Improvements for Deployment

Project managers shall receive results of pilots from configuration management for selecting improvements for deployment.

173.7.2 Review Results of Pilots for Identifying Improvements for Deployment

Project managers shall review and analyze results of pilots f6r identifying improvements for deployment, which are process and technology improvement proposals for deployment across the organization based on quantifiable criteria derived from the organization's quality and process performance objectives.

173.7.3 Identify Improvements for Deployment from Reviewing Results of Pilots

Project managers shall identify improvements for deployment from reviewing results of pilots, which includes

prioritizing the candidate process and technology
improvements for deployment; selecting the process and
technology improvements to be deployed; determining how each
process and technology improvement will be deployed; and
documenting the results of the selection process.

173.7.4   Document Selected Improvements Identified from Reviewing
Results of Pilots

Project managers shall document selected improvements
identified from reviewing results of pilots, for planning
the deployment, managing the deployment, and measuring
effects.

173.7.5   Evaluate Selected Improvements

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate selected improvements, and make necessary
additions, deletions, enhancements, and corrections.

173.7.6   Review and Approve Selected Improvements

Senior management, program management, and functional area
managers shall review and approve selected improvements as
well as any additions, deletions, enhancements, and
corrections to selected improvements by relevant
stakeholders.

173.7.7   Baseline Selected Improvements

Project managers shall submit improvements to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 5 – OPTIMIZING		
Process	ORGANIZATIONAL INNOVATION AND DEPLOYMENT		
Practice	174.0 PLAN THE DEPLOYMENT		

174.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive selected improvements for planning the deployment, project managers shall review and analyze selected improvements for identifying deployment plans, project managers shall identify deployment plans from review of selected improvements, project managers shall document deployment plans identified from review of selected improvements, relevant stakeholders shall evaluate deployment plans, senior management, program management, and functional area managers shall review and approve deployment plans, and project managers shall baseline deployment plans.

174.2 REVISION HISTORY

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174.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

174.4 POLICY

The policy of this organization is to ensure that:

174.4.1 Project managers receive selected improvements for planning the deployment.

174.4.2 Project managers review and analyze selected improvements for identifying deployment plans.

174.4.3 Project managers identify deployment plans from review of selected improvements.

174.4.4 Project managers document deployment plans identified from review of selected improvements.

174.4.5 Relevant stakeholders evaluate deployment plans.

174.4.6 Senior management, program management, and functional area managers review and approve deployment plans.

174.4.7 Project managers baseline deployment plans.

174.5 DEFINITIONS

174.5.1 <u>Deployment Plans</u>: documents consisting of process descriptions, standards, and procedures; development environments; education and training; skills; existing commitments; existing activities; continuing support to end users; and organizational culture and characteristics.

174.6 RESPONSIBILITIES

174.6.1 Project managers are responsible for receiving selected improvements for planning the deployment, reviewing and analyzing selected improvements for identifying deployment plans, identifying deployment plans from review of selected improvements, documenting deployment plans identified from review of selected improvements, and baselining deployment plans.

174.6.2 Relevant stakeholders are responsible for evaluating deployment plans.

174.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving deployment plans.

174.7 PROCESS

174.7.1 Receive Selected Improvements for Planning the Deployment

Project managers shall receive selected improvements from configuration management for planning the deployment.

174.7.2 Review Selected Improvements for Identifying Deployment Plans

Project managers shall review and analyze selected improvements for identifying deployment plans, which are documents consisting of process descriptions, standards, and procedures; development environments; education and training; skills; existing commitments; existing activities; continuing support to end users; and organizational culture and characteristics.

174.7.3 Identify Deployment Plans from Review of Selected Improvements

Project managers shall identify deployment plans from review of selected improvements, which includes determining how each process and technology improvement must be adjusted; determining the changes necessary; identifying strategies to address potential barriers; establishing measures and objectives for determining the value of each process and technology improvement; documenting the plan for deploying

each process and technology improvement; reviewing and getting agreement; and revising the plan for deploying each process and technology improvement as necessary.

174.7.4 Document Deployment Plans Identified from Review of Selected Improvements

Project managers shall document deployment plans identified from review of selected improvements, for managing the deployment and measuring effects.

174.7.5 Evaluate Deployment Plans

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate deployment plans, and make necessary additions, deletions, enhancements, and corrections.

174.7.6 Review and Approve Deployment Plans

Senior management, program management, and functional area managers shall review and approve deployment plans as well as any additions, deletions, enhancements, and corrections to deployment plans by relevant stakeholders.

174.7.7 Baseline Deployment Plans

Project managers shall submit deployment plans to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 5 – OPTIMIZING
Process	ORGANIZATIONAL INNOVATION AND DEPLOYMENT
Practice	175.0 MANAGE THE DEPLOYMENT

175.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive deployment plans for managing the deployment, project managers shall review and analyze deployment plans for conducting deployments of selected improvements, project managers shall conduct deployments of selected improvements based on deployment plans, project managers shall document results of deployments from conducting deployments of selected improvements, relevant stakeholders shall evaluate results of deployments, senior management, program management, and functional area managers shall review and approve results of deployments, and project managers shall baseline results of deployments.

175.2 REVISION HISTORY

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175.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

175.4 POLICY

The policy of this organization is to ensure that:

175.4.1 Project managers receive deployment plans for managing the deployment.

175.4.2 Project managers review and analyze deployment plans for conducting deployments of selected improvements.

175.4.3 Project managers conduct deployments of selected improvements based on deployment plans.

175.4.4 Project managers document results of deployments from conducting deployments of selected improvements.

175.4.5　Relevant stakeholders evaluate results of deployments.

175.4.6　Senior management, program management, and functional area managers review and approve results of deployments.

175.4.7　Project managers baseline results of deployments.

175.5　DEFINITIONS

175.5.1　<u>Deployments</u>: tasks consisting of coordinating the activities of projects, support groups, and organizational groups for each process and technology improvement and coordinating the activities for deploying related process and technology improvements.

175.6　RESPONSIBILITIES

175.6.1　Project managers are responsible for receiving deployment plans for managing the deployment, reviewing and analyzing deployment plans for conducting deployments of selected improvements, conducting deployments of selected improvements based on deployment plans, documenting results of deployments from conducting deployments of selected improvements, and baselining results of deployments.

175.6.2　Relevant stakeholders are responsible for evaluating results of deployments.

175.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving results of deployments.

175.7　PROCESS

175.7.1　Receive Deployment Plans for Managing the Deployment

Project managers shall receive deployment plans from configuration management for managing the deployment.

175.7.2　Review Deployment Plans for Conducting Deployments of Selected Improvements

Project managers shall review and analyze deployment plans for conducting deployments of selected improvements, which are tasks consisting of coordinating the activities of projects, support groups, and organizational groups for each process and technology improvement and coordinating the activities for deploying related process and technology improvements.

175.7.3　Conduct Deployments of Selected Improvements based on Deployment Plans

Project managers shall conduct deployments of selected improvements based on deployment plans, which includes monitoring the deployment; coordinating the deployment;

quickly deploying improvements; incorporating the
improvements into organizational process assets;
coordinating the deployment into the project's defined
processes; providing consulting to support deployment;
providing updated training materials; confirming that the
deployment is completed; determining whether the ability of
the defined process to meet objectives is adversely
affected; and documenting and reviewing the results of the
deployment.

175.7.4   Document Results of Deployments from Conducting Deployments
of Selected Improvements

Project managers shall document results of deployments from
conducting deployments of selected improvements, for
measuring improvement effects.

175.7.5   Evaluate Results of Deployments

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate results of deployments, and make necessary
additions, deletions, enhancements, and corrections.

175.7.6   Review and Approve Results of Deployments

Senior management, program management, and functional area
managers shall review and approve results of deployments as
well as any additions, deletions, enhancements, and
corrections to results of deployments by relevant
stakeholders.

175.7.7   Baseline Results of Deployments

Project managers shall submit results to configuration
management for configuration identification, configuration
control, configuration status accounting, and configuration
auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	
Level	LEVEL 5 – OPTIMIZING		
Process	ORGANIZATIONAL INNOVATION AND DEPLOYMENT		
Practice	176.0 MEASURE IMPROVEMENT EFFECTS		

176.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive results of deployments for measuring improvement effects, project managers shall review and analyze results of deployments for determining effects of improvements, project managers shall determine effects of improvements from reviewing results of deployments, project managers shall document effects of improvement determined from reviewing results of deployments, relevant stakeholders shall evaluate effects of improvements, senior management, program management, and functional area managers shall review and approve effects of improvements, and project managers shall baseline effects of improvements.

176.2 REVISION HISTORY

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176.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

176.4 POLICY

The policy of this organization is to ensure that:

176.4.1 Project managers receive results of deployments for measuring improvement effects.

176.4.2 Project managers review and analyze results of deployments for determining effects of improvements.

176.4.3 Project managers determine effects of improvements from reviewing results of deployments.

176.4.4 Project managers document effects of improvement determined from reviewing results of deployments.

176.4.5 Relevant stakeholders evaluate effects of improvements.

176.4.6 Senior management, program management, and functional area managers review and approve effects of improvements.

176.4.7 Project managers shall baseline effects of improvements.

176.5 DEFINITIONS

176.5.1 <u>Improvement Effects</u>: results of measuring the costs, benefits, productivity, cycle time, quality, reliability, and customer satisfaction associated with the results of deployment.

176.6 RESPONSIBILITIES

176.6.1 Project managers are responsible for receiving results of deployments for measuring improvement effects, reviewing and analyzing results of deployments for determining effects of improvements, determining effects of improvements from reviewing results of deployments, documenting effects of improvement determined from reviewing results of deployments, and baselining effects of improvements.

176.6.2 Relevant stakeholders are responsible for evaluating effects of improvements.

176.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving effects of improvements.

176.7 PROCESS

176.7.1 Receive Results of Deployments for Measuring Improvement Effects

Project managers shall receive results of deployments from configuration management for measuring improvement effects.

176.7.2 Review Results of Deployments for Determining Effects of Improvements

Project managers shall review and analyze results of deployments for determining effects of improvements, which are the results of measuring the costs, benefits, productivity, cycle time, quality, reliability, and customer satisfaction associated with the results of deployment.

176.7.3 Determine Effects of Improvements from Reviewing Results of Deployments

Project managers shall determine effects of improvements from reviewing results of deployments, which includes measuring the actual cost, effort, and schedule for deploying each process and technology improvement; measuring

the value of each process and technology improvement; measuring the progress toward achieving the organization's quality and process-performance objectives; analyzing the progress toward achieving the organization's quality and process-performance objectives and take corrective action as needed; and storing the measures in the organization's measurement repository.

176.7.4 Document Effects of Improvements Determined from Reviewing Results of Deployments

Project managers shall document effects of improvement determined from reviewing results of deployments, for causal analysis and resolution.

176.7.5 Evaluate Effects of Improvements

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate effects of improvements, and make necessary additions, deletions, enhancements, and corrections.

176.7.6 Review and Approve Effects of Improvements

Senior management, program management, and functional area managers shall review and approve effects of improvements as well as any additions, deletions, enhancements, and corrections to effects of improvements by relevant stakeholders.

176.7.7 Baseline Effects of Improvements

Project managers shall submit effects to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	
Level	LEVEL 5 – OPTIMIZING		
Process	CAUSAL ANALYSIS AND RESOLUTION		
Practice	177.0 SELECT DEFECT DATA FOR ANALYSIS		

177.1 PURPOSE

This procedure establishes the guidelines by which project managers shall receive defect data for selecting defect data for analysis, project managers shall review and analyze defect data for identifying defect data for analysis, project managers shall identify defect data for analysis from review of defect data, project managers shall document selected defect data identified from review of defect data for analysis, relevant stakeholders shall evaluate selected defect data, senior management, program management, and functional area managers shall review and approve selected defect data, and project managers shall baseline selected defect data.

177.2 REVISION HISTORY

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177.3 PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

177.4 POLICY

The policy of this organization is to ensure that:

177.4.1 Project managers receive defect data for selecting defect data for analysis.

177.4.2 Project managers review and analyze defect data for identifying defect data for analysis.

177.4.3 Project managers identify defect data for analysis from review of defect data.

177.4.4 Project managers document selected defect data identified from review of defect data for analysis.

177.4.5 Relevant stakeholders evaluate selected defect data.

177.4.6 Senior management, program management, and functional area managers review and approve selected defect data.

177.4.7 Project managers baseline selected defect data.

177.5 DEFINITIONS

177.5.1 <u>Defect Data Analysis</u>: processes for determining which defects to analyze further, consider the impact of the defects, the frequency of occurrence, the similarity between defects, the cost of analysis, the time and resources needed, and safety considerations.

177.6 RESPONSIBILITIES

177.6.1 Project managers are responsible for receiving defect data for selecting defect data for analysis, reviewing and analyzing defect data for identifying defect data for analysis, identifying defect data for analysis from review of defect data, documenting selected defect data identified from review of defect data for analysis, and baselining selected defect data.

177.6.2 Relevant stakeholders are responsible for evaluating selected defect data.

177.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving selected defect data.

177.7 PROCESS

177.7.1 Receive Defect Data for Selecting Defect Data for Analysis

Project managers shall receive defect data from configuration management for selecting defect data for analysis.

177.7.2 Review Defect Data for Identifying Defect Data for Analysis

Project managers shall review and analyze defect data for identifying defect data for analysis, which are processes for determining which defects to analyze further, consider the impact of the defects, the frequency of occurrence, the similarity between defects, the cost of analysis, the time and resources needed, and safety considerations.

177.7.3 Identify Defect Data for Analysis from Review of Defect Data

Project managers shall identify defect data for analysis from review of defect data, which includes gathering relevant defect data and determining which defects and other problems will be analyzed further.

177.7.4 Document Selected Defect Data Identified from Review of Defect Data for Analysis

Project managers shall document selected defect data identified from review of defect data for analysis, for analyzing causes, implementing the action proposals, evaluating the effect of changes, and recording data.

177.7.5 Evaluate Selected Defect Data

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate selected defect data, and make necessary additions, deletions, enhancements, and corrections.

177.7.6 Review and Approve Selected Defect Data

Senior management, program management, and functional area managers shall review and approve selected defect data as well as any additions, deletions, enhancements, and corrections to selected defect data by relevant stakeholders.

177.7.7 Baseline Selected Defect Data

Project managers shall submit defect data to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	CMMI V1.1	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 5 – OPTIMIZING
Process	CAUSAL ANALYSIS AND RESOLUTION
Practice	178.0 ANALYZE CAUSES

178.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive selected defect data for analyzing causes, project managers shall review and analyze selected defect data for identifying causes and defining action proposals, project managers shall identify causes and define action proposals from review of selected defect data, project managers shall document action proposals identified from review of selected defect data, relevant stakeholders shall evaluate action proposals, senior management, program management, and functional area managers shall review and approve action proposals, and project managers shall baseline action proposals.

178.2   REVISION HISTORY

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178.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

178.4   POLICY

The policy of this organization is to ensure that:

178.4.1 Project managers receive selected defect data for analyzing causes.

178.4.2 Project managers review and analyze selected defect data for identifying causes and defining action proposals.

178.4.3 Project managers identify causes and define action proposals from review of selected defect data.

178.4.4 Project managers document action proposals identified from review of selected defect data.

178.4.5 Relevant stakeholders evaluate action proposals.

178.4.6 Senior management, program management, and functional area managers review and approve action proposals.

178.4.7 Project managers baseline action proposals.

178.5 DEFINITIONS

178.5.1 <u>Action Proposals</u>: used to develop solutions to the identified problems by analyzing the relevant data and producing action proposals for c implementation.

178.6 RESPONSIBILITIES

178.6.1 Project managers are responsible for receiving selected defect data for analyzing causes, reviewing and analyzing selected defect data for identifying causes and defining action proposals, identifying causes and defining action proposals from review of selected defect data, documenting action proposals identified from review of selected defect data, and baselining action proposals.

178.6.2 Relevant stakeholders are responsible for evaluating action proposals.

178.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving action proposals.

178.7 PROCESS

178.7.1 Receive Selected Defect Data for Analyzing Causes

Project managers shall receive selected defect data from configuration management for analyzing causes.

178.7.2 Review Selected Defect Data for Identifying Causes and Defining Action Proposals

Project managers shall review and analyze selected defect data for identifying causes and defining action proposals, which are used to develop solutions to the identified problems by analyzing the relevant data and producing action proposals for implementation.

178.7.3 Identify Causes and Define Action Proposals from Review of Selected Defect Data

Project managers shall identify causes and define action proposals from review of selected defect data, which includes conducting causal analysis with the people who are responsible for performing the task; analyzing selected defects and other problems to determine their root causes; grouping the selected defects and other problems based on their root causes; and proposing and documenting actions

that need to be taken to prevent the future occurrence of similar defects or other problems.

178.7.4 Document Action Proposals Identified from Review of Selected Defect Data

Project managers shall document action proposals identified from review of selected defect data, for implementing the action proposals, evaluating the effect of changes, and recording data.

178.7.5 Evaluate Action Proposals

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate action proposals, and make necessary additions, deletions, enhancements, and corrections.

178.7.6 Review and Approve Action Proposals

Senior management, program management, and functional area managers shall review and approve action proposals as well as any additions, deletions, enhancements, and corrections to action proposals by relevant stakeholders.

178.7.7 Baseline Action Proposals

Project managers shall submit action proposals to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

		Number	
Model	**CMMI V1.1**	Revision	
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		Date	
Level	LEVEL 5 – OPTIMIZING		
Process	CAUSAL ANALYSIS AND RESOLUTION		
Practice	179.0 IMPLEMENT THE ACTION PROPOSALS		

179.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive action proposals for implementing the action proposals, project managers shall review and analyze action proposals for identifying results of implementation, project managers shall identify results of implementation from review of action proposals, project managers shall document results of implementation identified from review of action proposals, relevant stakeholders shall evaluate results of implementation, senior management, program management, and functional area managers shall review and approve results of implementation, and project managers shall baseline results of implementation.

179.2   REVISION HISTORY

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179.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

179.4   POLICY

The policy of this organization is to ensure that:

179.4.1 Project managers receive action proposals for implementing the action proposals.

179.4.2 Project managers review and analyze action proposals for identifying results of implementation.

179.4.3 Project managers identify results of implementation from review of action proposals.

179.4.4 Project managers document results of implementation identified from review of action proposals.

179.4.5　Relevant stakeholders evaluate results of implementation.

　　　　179.4.6　Senior management, program management, and functional area managers review and approve results of implementation.

　　　　179.4.7　Project managers baseline results of implementation.

179.5　DEFINITIONS

　　　　179.5.1　<u>Implementation Results</u>: the outcome of making assignments, coordinating the persons doing the work, reviewing the results, and tracking the action items to closure.

179.6　RESPONSIBILITIES

　　　　179.6.1　Project managers are responsible for receiving action proposals for implementing the action proposals, reviewing and analyzing action proposals for identifying results of implementation, identifying results of implementation from review of action proposals, documenting results of implementation identified from review of action proposals, and baselining results of implementation.

　　　　179.6.2　Relevant stakeholders are responsible for evaluating results of implementation.

　　　　179.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving results of implementation.

179.7　PROCESS

　　　　179.7.1　Receive Action Proposals for Implementing the Action Proposals

　　　　　　　Project managers shall receive action proposals from configuration management for implementing the action proposals.

　　　　179.7.2　Review Action Proposals for Identifying Results of Implementation

　　　　　　　Project managers shall review and analyze action proposals for identifying results of implementation, which are the outcome of making assignments, coordinating the persons doing the work, reviewing the results, and tracking the action items to closure.

　　　　179.7.3　Identify Results of Implementation from Review of Action Proposals

　　　　　　　Project managers shall identify results of implementation from review of action proposals, which includes analyzing the action proposals and determine their priorities; selecting the action proposals that will be implemented; creating action items for implementing the action proposals; identifying and remove similar defects that may exist in

other processes and work products; and identifying and document improvement proposals for the organization's set of standard processes.

179.7.4 Document Results of Implementation Identified from Review of Action Proposals

Project managers shall document results of implementation identified from review of action proposals, for evaluating the effect of changes and recording data.

179.7.5 Evaluate Results of Implementation

Relevant stakeholders such as senior management, configuration control boards, architecture control boards, interface control working groups, program management, systems engineering, software engineering, integrated product teams, and other functional areas (e.g., testing, quality assurance, and configuration management) shall evaluate results of implementation, and make necessary additions, deletions, enhancements, and corrections.

179.7.6 Review and Approve Results of Implementation

Senior management, program management, and functional area managers shall review and approve results of implementation as well as any additions, deletions, enhancements, and corrections to results of implementation by relevant stakeholders.

179.7.7 Baseline Results of Implementation

Project managers shall submit results to configuration management for configuration identification, configuration control, configuration status accounting, and configuration auditing.

Model	**CMMI V1.1**	Number	
		Revision	
		Approved by	
		Date	

Level	LEVEL 5 – OPTIMIZING
Process	CAUSAL ANALYSIS AND RESOLUTION
Practice	180.0 EVALUATE THE EFFECT OF CHANGES

180.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive results of implementation for evaluating effect of changes, project managers shall review and analyze results of implementation for identifying effects of changes, project managers shall identify effects of changes from reviewing results of implementation, project managers shall document effects of changes identified from reviewing results of implementation, relevant stakeholders shall evaluate effects of changes, senior management, program management, and functional area managers shall review and approve effects of changes, and project managers shall baseline effects of changes.

180.2   REVISION HISTORY

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180.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

180.4   PDLICY

The policy of this organization is to ensure that:

180.4.1   Project managers receive results of implementation for evaluating effect of changes.

180.4.2   Project managers review and analyze results of implementation for identifying effects of changes.

180.4.3   Project managers identify effects of changes from reviewing results of implementation.

180.4.4   Project managers document effects of changes identified from reviewing results of implementation.

180.4.5　Relevant stakeholders evaluate effects of changes.

　　　　180.4.6　Senior management, program management, and functional area managers review and approve effects of changes.

　　　　180.4.7　Project managers baseline effects of changes.

180.5　DEFINITIONS

　　　　180.5.1　<u>Effects of Changes</u>: artifacts of evidence that the process change has corrected the problem and improved performance.

180.6　RESPONSIBILITIES

　　　　180.6.1　Project managers are responsible for receiving results of implementation for evaluating effect of changes, reviewing and analyzing results of implementation for identifying effects of changes, identifying effects of changes from reviewing results of implementation, documenting effects of changes identified from reviewing results of implementation, and baselining effects of changes.

　　　　180.6.2　Relevant stakeholders are responsible for evaluating effects of changes.

　　　　180.6.3　Senior management, program management, and functional area managers are responsible for reviewing and approving effects of changes.

180.7　PROCESS

　　　　180.7.1　Receive Results of Implementation for Evaluating Effect of Changes

　　　　　　　　Project managers shall receive results of implementation from configuration management for evaluating effect of changes.

　　　　180.7.2　Review Results of Implementation for Identifying Effects of Changes

　　　　　　　　Project managers shall review and analyze results of implementation for identifying effects of changes, which are artifacts of evidence that the process change has corrected the problem and improved performance.

　　　　180.7.3　Identify Effects of Changes from Reviewing Results of Implementation

　　　　　　　　Project managers shall identify effects of changes from reviewing results of implementation, which includes measuring the change in the performance of the projects defined process as appropriate and measuring the capability of the project's defined process as appropriate.

180.7.4   Document Effects of Changes Identified from Reviewing Results
           of Implementation

           Project managers shall document effects of changes
           identified from reviewing results of implementation, for
           recording data.

180.7.5   Evaluate Effects of Changes

           Relevant stakeholders such as senior management,
           configuration control boards, architecture control boards,
           interface control working groups, program management,
           systems engineering, software engineering, integrated
           product teams, and other functional areas (e.g., testing,
           quality assurance, and configuration management) shall
           evaluate effects of changes, and make necessary additions,
           deletions, enhancements, and corrections.

180.7.6   Review and Approve Effects of Changes

           Senior management, program management, and functional area
           managers shall review and approve effects of changes as well
           as any additions, deletions, enhancements, and corrections
           to effects of changes by relevant stakeholders.

180.7.7   Baseline Effects of Changes

           Project managers shall submit effects of changes to
           configuration management for configuration identification,
           configuration control, configuration status accounting, and
           configuration auditing.

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Model	**CMMI V1.1**	Revision	
		Approved by	
		Date	

Level	LEVEL 5 – OPTIMIZING
Process	CAUSAL ANALYSIS AND RESOLUTION

Practice	181.0 RECORD DATA

181.1   PURPOSE

This procedure establishes the guidelines by which project managers shall receive effects of changes for recording data, project managers shall review and analyze effects of changes for identifying causal analysis data, project managers shall identify causal analysis data from reviewing effects of changes, project managers shall document causal analysis data identified from reviewing effects of changes, relevant stakeholders shall evaluate causal analysis data, senior management, program management, and functional area managers shall review and approve causal analysis, and project managers shall baseline causal analysis data.

181.2   REVISION HISTORY

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181.3   PERSONS AFFECTED

Project managers, relevant stakeholders, senior management, program management, and functional area managers.

181.4   POLICY

The policy of this organization is to ensure that:

181.4.1 Project managers receive effects of changes for recording data.

181.4.2 Project managers review and analyze effects of changes for identifying causal analysis data.

181.4.3 Project managers identify causal analysis data from reviewing effects of changes.

181.4.4 Project managers document causal analysis data identified from reviewing effects of changes.

181.4.5 Relevant stakeholders evaluate causal analysis data.

181.4.6 Senior management, program management, and functional area managers review and approve causal analysis.

181.4.7 Project managers baseline causal analysis data.

181.5 DEFINITIONS

181.5.1 <u>Causal Analysis Data</u>: data that are recorded so that other projects and organizations can make appropriate process changes and achieve similar results.

181.6 RESPONSIBILITIES

181.6.1 Project managers are responsible for receiving effects of changes for recording data, reviewing and analyzing effects of changes for identifying causal analysis data, identifying causal analysis data from reviewing effects of changes, documenting causal analysis data identified from reviewing effects of changes, and baselining causal analysis data.

181.6.2 Relevant stakeholders are responsible for evaluating causal analysis data.

181.6.3 Senior management, program management, and functional area managers are responsible for reviewing and approving causal analysis.

181.7 PROCESS

181.7.1 Receive Effects of Changes for Recording Data

Project managers shall receive effects of changes from configuration management for recording data.

181.7.2 Review Effects of Changes for Identifying Causal Analysis Data

Project managers shall review and analyze effects of changes for identifying causal analysis data, which are data that are recorded so that other projects and organizations can make appropriate process changes and achieve similar results.

181.7.3 Identify Causal Analysis Data from Reviewing Effects of Changes

Project managers shall identify causal analysis data from reviewing effects of changes, which includes recording data on defects and other problems that were analyzed; recording rationale for decisions; recording action proposals from causal analysis meetings; recording action items resulting from action proposals; recording cost of the analysis and resolution activities; and recording measures of changes to the performance of the defined process resulting from resolutions.

181.7.4 Document Causal Analysis Data Identified from Reviewing Effects of Changes

Project managers shall document causal analysis data
identified from reviewing effects of changes, for
maintenance of causal analysis and resolution records.

181.7.5 Evaluate Causal Analysis Data

Relevant stakeholders such as senior management,
configuration control boards, architecture control boards,
interface control working groups, program management,
systems engineering, software engineering, integrated
product teams, and other functional areas (e.g., testing,
quality assurance, and configuration management) shall
evaluate causal analysis data, and make necessary additions,
deletions, enhancements, and corrections.

181.7.6 Review and Approve Causal Analysis Data

Senior management, program management, and functional area
managers shall review and approve causal analysis data as
well as any additions, deletions, enhancements, and
corrections to causal analysis data by relevant
stakeholders.

181.7.7 Baseline Causal Analysis Data

Project managers shall submit causal analysis data to
configuration management for configuration identification,
configuration control, configuration status accounting, and
configuration auditing.