

SEM supports CMM-SW Level 2

Mapping of the DOE Systems Engineering Methodology to the Software Engineering Institute (SEI) Software Capability Maturity Model (CMM-SW) level 2.

KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
REQUIREMENTS MANAGEMENT				
RM-1	The software engineering group reviews the allocated requirements before they are incorporated in the software project.	Chapter 3.0 <ul style="list-style-type: none"> • Develop High-Level Project Requirements Chapter 4.0 <ul style="list-style-type: none"> • Establish Functional Baseline 	<ul style="list-style-type: none"> • Project Plan • Requirements Specification Document 	<ul style="list-style-type: none"> • Requirements Management awareness • Defining Project Requirements
RM-2	The software engineering group uses the allocated requirements as the basis for software plans, work products, and activities	Chapter 3.0 <ul style="list-style-type: none"> • Develop High-Level Project Requirements Chapter 4.0 <ul style="list-style-type: none"> • Develop Requirements Traceability Matrix • Establish Functional Baseline • Revise Project Plan 	<ul style="list-style-type: none"> • Project Plan • Requirements Traceability Matrix • Revised Project Plan 	<ul style="list-style-type: none"> • Requirements Management awareness • Defining Project Requirements
RM-3	Changes to the allocated requirements are reviewed and incorporated into the software project.	Chapter 4.0 <ul style="list-style-type: none"> • Requirements Management • Establish Functional Baseline 	<ul style="list-style-type: none"> • Revised Requirements Specification Document 	<ul style="list-style-type: none"> • Requirements Management awareness • Defining Project Requirements

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE PROJECT PLANNING				
SPP-1	The software engineering group participates on the project proposal team.	Chapter 3.0 <ul style="list-style-type: none"> • Define Project Objectives • Define Project Scope • Establish Communication with Functional Areas 	<ul style="list-style-type: none"> • Project Plan • Project Profile • Feasibility Review or Feasibility Study 	<ul style="list-style-type: none"> • Project Planning Checklist
SPP-2	Software project planning is initiated in the early stages of, and in parallel with, the overall project planning.	Chapter 2.0 <ul style="list-style-type: none"> • Lifecycle Model Chapter 3.0 <ul style="list-style-type: none"> • Define Project Objects • Define Project Scope • Develop Project Plan 	<ul style="list-style-type: none"> • Project Plan • Project Profile • Work Breakdown Structure (WBS) 	<ul style="list-style-type: none"> • Microsoft Project SEM Models • Project Plan Example
SPP-3	The software engineering group participates with other affected groups in the overall project planning through the project's life.	Chapter 3.0 <ul style="list-style-type: none"> • Establish Communication with Functional Areas • Develop Project Plan 	<ul style="list-style-type: none"> • Project Plan • Project Profile • Quality Assurance Plan 	<ul style="list-style-type: none"> • Project Planning Checklist • Project Plan Example
SPP-4	Software project commitments made to individuals and groups external to the organization are reviewed with senior management according to a documented procedure.	Chapter 2.0 <ul style="list-style-type: none"> • Lifecycle Model Chapter 3.0 <ul style="list-style-type: none"> • Develop Project Plan 	<ul style="list-style-type: none"> • Project Plan • WBS • Quality Assurance Plan 	<ul style="list-style-type: none"> • Project Planning Checklist • Project Plan Example
SPP-5	A software lifecycle with predefined stages of manageable size is identified or defined.	Chapter 2.0 <ul style="list-style-type: none"> • Lifecycle Model Chapter 3.0 <ul style="list-style-type: none"> • Develop Project Plan 	<ul style="list-style-type: none"> • Project Plan 	<ul style="list-style-type: none"> • Project Planning Checklist • Project Plan Example • Microsoft Project SEM Models

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE PROJECT PLANNING				
SPP-6	The project's software development plan is developed according to a documented procedure.	Chapter 2.0 <ul style="list-style-type: none"> • Lifecycle Model • Project Sizes • Adapting the Lifecycle Chapter 3.0 <ul style="list-style-type: none"> • Develop Project Plan 	<ul style="list-style-type: none"> • Project Plan • WBS 	<ul style="list-style-type: none"> • Project Planning Checklist • Project Plan Example • Microsoft Project SEM Models
SPP-7	The plan for the software project is documented.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Project Plan 	<ul style="list-style-type: none"> • Project Plan • WBS 	<ul style="list-style-type: none"> • Project Planning Checklist • Project Plan Example • Microsoft Project SEM Models
SPP-8	Software work products that are needed to establish and maintain control of the software project are identified.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Plan • Develop Configuration Management Plan 	<ul style="list-style-type: none"> • Project Plan • Configuration Management Plan 	<ul style="list-style-type: none"> • Project Planning Checklist • Project Plan Example • Microsoft Project SEM Models
SPP-9	Estimates for the size of the software work products (or changes to the size of the software work products) are derived according to a documented procedure.	Chapter 2.0 <ul style="list-style-type: none"> • Project Sizes • Adapting the Lifecycle Chapter 3.0 <ul style="list-style-type: none"> • Develop Project Plan • Develop the Project Estimate 	<ul style="list-style-type: none"> • Project Plan 	<ul style="list-style-type: none"> • Project Planning Checklist • Project Plan Example

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE PROJECT PLANNING				
SPP-10	Estimates for the software project's efforts and costs are derived according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Determine Project Feasibility • Conduct Feasibility Review • Conduct Feasibility Study • Conduct Analysis of Benefits and Costs • Develop the Project Estimate 	<ul style="list-style-type: none"> • Feasibility Review or Study • Analysis of Benefits and Costs 	<ul style="list-style-type: none"> • Project Planning Checklist • ABC Guideline • Feasibility Study • Template • Microsoft Project SEM Models
SPP-11	Estimates for the software project's critical computer resources are derived according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Develop High-Level Project Requirements • Determine Project Feasibility • Investigate Software Alternatives • Investigate Hardware Alternatives • Formulate Platform Options • Conduct Feasibility Review Chapter 4.0 <ul style="list-style-type: none"> • Define Project Requirements 	<ul style="list-style-type: none"> • Project Plan • Feasibility Review • Requirements Specification Document 	<ul style="list-style-type: none"> • Project Planning Checklist • Project Plan Example • Feasibility Study • Defining Project Requirements
SPP-12	The project's software schedule is derived according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Project Plan • Develop Software Project Schedule 	<ul style="list-style-type: none"> • Project Plan • WBS 	<ul style="list-style-type: none"> • Project Planning Checklist • Project Plan Example • Microsoft Project SEM Models

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE PROJECT PLANNING				
SPP-13	The software risks associated with the cost, resource, schedule, and technical aspects of the project are identified, assessed, and documented.	Chapter 3.0 <ul style="list-style-type: none"> • Conduct a Feasibility Review • Develop Project Plan • Risk Management 	<ul style="list-style-type: none"> • Feasibility Review • Project Plan • Risk Management Plan • Contingency Plan 	<ul style="list-style-type: none"> • Project Planning Checklist • Risk Management Guidelines • Risk Assessment Questionnaire • Feasibility Study Template
SPP-14	Plans for the project's software engineering facilities and support tools are prepared.	Chapter 3.0 <ul style="list-style-type: none"> • Conduct a Feasibility Review • Develop Project Plan Chapter 4.0 <ul style="list-style-type: none"> • Define Implementation Requirements 	<ul style="list-style-type: none"> • Feasibility Review • Project Plan • Implementation Plan 	<ul style="list-style-type: none"> • Project Planning Checklist • Project Plan Example • Feasibility Study Template
SPP-15	Software planning data are recorded.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Project Plan • Develop the Project Estimate 	<ul style="list-style-type: none"> • Project Plan 	<ul style="list-style-type: none"> • Project Planning Checklist • Project Plan Example

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE PROJECT TRACKING AND OVERSIGHT				
SPTO-1	A documented software development plan is used for tracking the software activities and communicating status.	Chapter 3.0 <ul style="list-style-type: none"> • Project Tracking and Oversight • Develop Project Plan 	<ul style="list-style-type: none"> • Project Plan 	<ul style="list-style-type: none"> • Project Plan Example • Project Tracking Checklist
SPTO-2	The project's software development plan is revised according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Project Tracking and Oversight Chapter 4.0 – 9.0 <ul style="list-style-type: none"> • Revise Project Plan 	<ul style="list-style-type: none"> • Revised Project Plan 	<ul style="list-style-type: none"> • Project Plan Example • Project Tracking Checklist
SPTO-3	Software project commitments and changes to commitments made to individuals and groups external to the organization are reviewed with senior management according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Project Tracking and Oversight • Develop Project Plan 	<ul style="list-style-type: none"> • Project Plan 	<ul style="list-style-type: none"> • Project Plan Example • Project Tracking Checklist
SPTO-4	Approved changes to commitments that affect the software project are communicated to the members of the software engineering group and other software-related groups.	Chapter 3.0 <ul style="list-style-type: none"> • Project Tracking and Oversight Chapter 4.0 – 9.0 <ul style="list-style-type: none"> • Revise Project Plan • Conduct Stage Exit 	<ul style="list-style-type: none"> • Project Plan • Stage Exit Meeting 	<ul style="list-style-type: none"> • Project Plan Example • Project Tracking Checklist • Stage Exit Process Guide

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE PROJECT TRACKING AND OVERSIGHT				
SPTO-5	The sizes of the software work products (or sizes of the changes to the software work products) are tracked, and corrective actions are taken as necessary.	Chapter 3.0 <ul style="list-style-type: none"> • Project Tracking and Oversight Chapter 4.0 <ul style="list-style-type: none"> • Establish Functional Baseline Chapter 6.0 <ul style="list-style-type: none"> • Develop System Design Chapter 7.0 <ul style="list-style-type: none"> • Establish Development Baselines 	<ul style="list-style-type: none"> • Requirements Specification Document • Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Requirements • Project Tracking Checklist
SPTO-6	The project's software effort and costs are tracked, and corrective actions are taken as necessary.	Chapter 3.0 <ul style="list-style-type: none"> • Project Tracking and Oversight • Develop Project Plan Chapter 4.0 – 9.0 <ul style="list-style-type: none"> • Revise Project Plan 	<ul style="list-style-type: none"> • Project Plan • Revised Project Plan 	<ul style="list-style-type: none"> • Project Plan Example • Project Tracking Checklist
SPTO-7	The project's critical computer resources are tracked and corrective actions are taken as necessary.	Chapter 3.0 <ul style="list-style-type: none"> • Project Tracking and Oversight • Develop Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Requirements • Project Tracking Checklist
SPTO-8	The project's software schedule is tracked, and corrective actions are taken as necessary.	Chapter 3.0 <ul style="list-style-type: none"> • Project Tracking and Oversight • Develop Project Plan 	<ul style="list-style-type: none"> • Project Plan • WBS 	<ul style="list-style-type: none"> • Project Tracking Checklist • Project Plan Example • Microsoft Project SEM Models

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SOFTWARE PROJECT TRACKING AND OVERSIGHT				
SPTO-9	Software engineering technical activities are tracked, and corrective actions are taken as necessary.	Chapter 3.0 <ul style="list-style-type: none"> • Project Tracking and Oversight • Develop Project Plan 	<ul style="list-style-type: none"> • Project Plan 	<ul style="list-style-type: none"> • Project Tracking Checklist • Project Plan Example
SPTO-10	The software risks associated with cost, resource, schedule, and technical aspects of the project are tracked.	Chapter 3.0 <ul style="list-style-type: none"> • Project Tracking and Oversight • Determine Project Feasibility • Develop Project Plan 	<ul style="list-style-type: none"> • Feasibility Review or Study • Project Plan 	<ul style="list-style-type: none"> • Project Tracking Checklist • Project Plan Example • Feasibility Study Template
SPTO-11	Actual measurement data and replanning data for the software project are recorded.	Chapter 3.0 <ul style="list-style-type: none"> • Performance Measures • Project Tracking and Oversight • Develop Project Plan 	<ul style="list-style-type: none"> • Project Plan • Project File 	<ul style="list-style-type: none"> • Project Tracking Checklist • Project Plan Example

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE PROJECT TRACKING AND OVERSIGHT				
SPTO-12	The software engineering group conducts periodic internal reviews to track technical progress, plans, performance, and issues against the software development plan.	Chapter 2.0 <ul style="list-style-type: none"> • Quality Reviews Chapter 3.0 <ul style="list-style-type: none"> • Performance Measures • Software Project Tracking and Oversight 	<ul style="list-style-type: none"> • Project Plan • In Stage Assessment • Stage Exit Meetings • Structure Walkthroughs 	<ul style="list-style-type: none"> • Project Tracking Checklist • Project Plan Example • Stage Exit Process Guide • In Stage Assessment Process Guide • Structure Walkthroughs Process Guide • Software Quality Assurance
SPTO-13	Formal reviews to address the accomplishments and results of the software project are conducted at selected project milestones according to a documented procedure.	Chapter 2.0 <ul style="list-style-type: none"> • Quality Reviews Chapter 3.0 <ul style="list-style-type: none"> • Project Tracking and Oversight 	<ul style="list-style-type: none"> • Project Plan • Stage Exit Meetings 	<ul style="list-style-type: none"> • Project Tracking Checklist • Project Plan Example • Stage Exit Process Guide

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE SUBCONTRACTOR MANAGEMENT				
SM-1	The work to be subcontracted is defined and planned according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Project Management • Subcontractor Management 	<ul style="list-style-type: none"> • Project File 	<ul style="list-style-type: none"> • Project Management Guide
SM-2	The software subcontractor is selected based on an evaluation of the subcontract bidder's ability to perform the work, according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Project Management • Subcontractor Management 	<ul style="list-style-type: none"> • Project File 	<ul style="list-style-type: none"> • Project Management Guide
SM-3	The contractual agreement between the prime contractors and the software subcontractor is used at the basis for managing the subcontract.	Chapter 3.0 <ul style="list-style-type: none"> • Project Management • Subcontractor Management 	<ul style="list-style-type: none"> • Project File 	<ul style="list-style-type: none"> • Project Management Guide
SM-4	A documented subcontractor's software development plan is reviewed and approved by the prime contractor.	Chapter 3.0 <ul style="list-style-type: none"> • Project Management • Subcontractor Management 	<ul style="list-style-type: none"> • Project File 	<ul style="list-style-type: none"> • Project Management Guide
SM-5	A documented and approved subcontractor's software development plan is used for tracking the software activities and communicating status.	Chapter 3.0 <ul style="list-style-type: none"> • Project Management • Subcontractor Management 	<ul style="list-style-type: none"> • Project File 	<ul style="list-style-type: none"> • Project Management Guide
SM-6	Changes to the subcontractor's statement of work, subcontract terms and conditions, and other commitments are resolved according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Project Management • Subcontractor Management 	<ul style="list-style-type: none"> • Project File 	<ul style="list-style-type: none"> • Project Management Guide
SM-7	The prime contractor's management conducts periodic status/coordination reviews with the software subcontractor's management.	Chapter 3.0 <ul style="list-style-type: none"> • Project Management • Subcontractor Management 	<ul style="list-style-type: none"> • Project File 	<ul style="list-style-type: none"> • Project Management Guide

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE SUBCONTRACTOR MANAGEMENT				
SM-8	Periodic technical reviews and interchanges are held with the software subcontractor.	Chapter 3.0 <ul style="list-style-type: none"> • Project Management • Subcontractor Management 	<ul style="list-style-type: none"> • Project File 	<ul style="list-style-type: none"> • Project Management Guide
SM-9	Formal reviews to address the subcontractor's software engineering accomplishments and results are conducted at selected milestones according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Project Management • Subcontractor Management 	<ul style="list-style-type: none"> • Project File 	<ul style="list-style-type: none"> • Project Management Guide
SM-10	The prime contractor's software quality assurance group monitors the subcontractor's software quality assurance activities according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Project Management • Subcontractor Management 	<ul style="list-style-type: none"> • Project File 	<ul style="list-style-type: none"> • Project Management Guide
SM-11	The prime contractor's software configuration management group monitors the subcontractor's activities for software configuration management according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Project Management • Subcontractor Management 	<ul style="list-style-type: none"> • Project File 	<ul style="list-style-type: none"> • Project Management Guide
SM-12	The prime contractor conducts acceptance testing as part of the delivery of the subcontractor's software products according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Project Management • Subcontractor Management 	<ul style="list-style-type: none"> • Project File 	<ul style="list-style-type: none"> • Project Management Guide
SM-13	The software subcontractor's performance is evaluated on a periodic basis, and the evaluation is reviewed with the subcontractor.	Chapter 3.0 <ul style="list-style-type: none"> • Project Management • Subcontractor Management 	<ul style="list-style-type: none"> • Project File 	<ul style="list-style-type: none"> • Project Management Guide

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SOFTWARE QUALITY ASSURANCE				
SQA-1	A SQA plan is prepared for the software project according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Quality Assurance Plan 	<ul style="list-style-type: none"> • Quality Assurance Plan 	<ul style="list-style-type: none"> • Quality Assurance Template • Quality Assurance Plan Example • Quality Assurance Checklist
SQA-2	The SQA groups' activities are performed in accordance with the SQA plan.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Quality Assurance Plan 	<ul style="list-style-type: none"> • Quality Assurance Plan 	<ul style="list-style-type: none"> • Quality Assurance Template • Quality Assurance Plan Example • Quality Assurance Checklist

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE QUALITY ASSURANCE				
SQA-3	The SQA group participates in the preparation and review of the project's software development plan, standards and procedures.	Chapter 2.0 <ul style="list-style-type: none"> • Quality Reviews Chapter 3.0 <ul style="list-style-type: none"> • Develop Quality Assurance Plan 	<ul style="list-style-type: none"> • Quality Assurance Plan • In-Stage Assessments • Stage Exit Meetings • Structure Walkthroughs 	<ul style="list-style-type: none"> • Quality Assurance Template • Quality Assurance Plan Example • Quality Assurance Checklist • Stage Exit Process Guide • In Stage Assessment Process Guide • Structure Walkthroughs Process Guide • Software Quality Assurance

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE QUALITY ASSURANCE				
SQA-4	The SQA group reviews the software engineering activities to verify compliance.	Chapter 2.0 <ul style="list-style-type: none"> • Quality Reviews Chapter 3.0 <ul style="list-style-type: none"> • Develop Quality Assurance Plan 	<ul style="list-style-type: none"> • Quality Assurance Plan • In-Stage Assessments • Stage Exit Meetings • Structure Walkthroughs 	<ul style="list-style-type: none"> • Quality Assurance Template • Quality Assurance Plan Example • Quality Assurance Checklist • Stage Exit Process Guide • In Stage Assessment Process Guide • Structure Walkthroughs Process Guide • Software Quality Assurance

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE QUALITY ASSURANCE				
SQA-5	The SQA group audits designated software work products to verify compliance.	Chapter 2.0 <ul style="list-style-type: none"> • Quality Reviews Chapter 3.0 <ul style="list-style-type: none"> • Develop Quality Assurance Plan 	<ul style="list-style-type: none"> • Quality Assurance Plan • In-Stage Assessments • Stage Exit Meetings • Structure Walkthroughs 	<ul style="list-style-type: none"> • Quality Assurance Template • Quality Assurance Plan Example • Quality Assurance Checklist • Stage Exit Process Guide • In Stage Assessment Process Guide • Structure Walkthroughs Process Guide • Software Quality Assurance

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SOFTWARE QUALITY ASSURANCE				
SQA-6	The SQA group periodically reports the results of its activities to the software engineering group.	Chapter 2.0 <ul style="list-style-type: none"> • Quality Reviews Chapter 3.0 <ul style="list-style-type: none"> • Develop Quality Assurance Plan 	<ul style="list-style-type: none"> • Quality Assurance Plan • In-Stage Assessments • Stage Exit 	<ul style="list-style-type: none"> • Quality Assurance Template • Quality Assurance Plan Example • Quality Assurance Checklist • Stage Exit Process Guide • In Stage Assessment Process Guide • Software Quality Assurance
SQA-7	Deviations identified in the software activities and software work products are documented and handled according to a documented procedure.	Chapter 2.0 <ul style="list-style-type: none"> • Lifecycle Model • Project Sizes • Adapting the Lifecycle Chapter 3.0 <ul style="list-style-type: none"> • Develop Quality Assurance Plan • Develop Project Plan 	<ul style="list-style-type: none"> • Project Plan • Quality Plan • In-Stage Assessments • Stage Exit Meetings 	<ul style="list-style-type: none"> • Project Plan Example • Quality Assurance Template • Quality Assurance Plan Example • Quality Assurance Checklist • Stage Exit Process Guide • In Stage Assessment Process Guide • Software Quality Assurance

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE QUALITY ASSURANCE				
SQA-8	The SQA group conducts periodic reviews of its activities and findings with the customer's SQA personnel, as appropriate.	Chapter 2.0 <ul style="list-style-type: none"> • Quality Reviews Chapter 3.0 <ul style="list-style-type: none"> • Develop Quality Assurance Plan 	<ul style="list-style-type: none"> • Quality Plan • In-Stage Assessments • Stage Exit Meetings • Structure Walkthroughs 	<ul style="list-style-type: none"> • Quality Assurance Template • Quality Assurance Plan Example • Quality Assurance Checklist • Stage Exit Process Guide • In Stage Assessment Process Guide • Structure Walkthroughs Process Guide • Software Quality Assurance

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE CONFIGURATION MANAGEMENT				
SCM-1	A SCM plan is prepared for each software project according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Checklist • Configuration Management Plan Template • Configuration Management
SCM-2	A documented and approved SCM plan is used as the basis for performing the SCM activities.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Checklist • Configuration Management Plan Template • Configuration Management
SCM-3	A configuration management library system is established as a repository for the software baselines.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Checklist • Configuration Management Plan Template • Configuration Management

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KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE CONFIGURATION MANAGEMENT				
SCM-4	The software work products to be placed under configuration management are identified.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Checklist • Configuration Management Plan Template • Configuration Management
SCM-5	Change requests and problem reports for all configuration items/units are initiated, recorded, reviewed, approved, and tracked according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Checklist • Configuration Management Plan Template • Configuration Management
SCM-6	Changes to baselines are controlled according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Checklist • Configuration Management Plan Template • Configuration Management

SEM supports CMM-SW Level 2

Mapping of the DOE Systems Engineering Methodology to the Software Engineering Institute (SEI) Software Capability Maturity Model (CMM-SW) level 2.

KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE CONFIGURATION MANAGEMENT				
SCM-7	Products from the software baseline library are created and their release is controlled according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Checklist • Configuration Management Plan Template • Configuration Management
SCM-8	The status of configuration items/units is recorded according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Checklist • Configuration Management Plan Template • Configuration Management
SCM-9	Standard reports documenting the SCM activities and the contents of software baseline are developed and made available to affected groups and individuals.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Checklist • Configuration Management Plan Template • Configuration Management

SEM supports CMM-SW Level 2

Mapping of the DOE Systems Engineering Methodology to the Software Engineering Institute (SEI) Software Capability Maturity Model (CMM-SW) level 2.

KPA Activity Number	KPA Activity	SEM Section	SME Work Product	SQSE Web Site http://cio.doe.gov/sqse
SOFTWARE CONFIGURATION MANAGEMENT				
SCM-10	Software baseline audits are conducted according to a documented procedure.	Chapter 3.0 <ul style="list-style-type: none"> • Develop Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Plan 	<ul style="list-style-type: none"> • Configuration Management Checklist • Configuration Management Plan Template • Configuration Management