



Enterprise CM “Concept To Delivery”

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Crusader software/hardware Configuration Management

Configuration Management (Concept to Delivery)

Overview

This session will present a “Conception to Delivery” overview of data/product development beginning with establishment of initial systems Engineering Requirements through the final release of the software/hardware/hardware development.

Configuration Management (Concept to Delivery)

1. PURPOSE

To establish and maintain the integrity of the products - of the software/hardware - throughout the programs software/hardware life cycle.

2. OBJECTIVE

To verify *existence, identification, and location* of the software/hardware product configuration (i.e., selected software/hardware work products and their descriptions) at any given points in time, systematically controlling changes to the configuration, and maintaining the integrity and traceability of the configuration throughout the developmental life cycle.

3. GOAL

Establish a software/hardware baseline library to ensure that changes to the baselines are systematically controlled via the change control and configuration auditing functions of software/hardware Configuration Management.

- CM activities are *PLANNED*.
- software/hardware products are *IDENTIFIED, CONTROLLED, and AVAILABLE*.
- software/hardware changes are *CONTROLLED*.
- Organization is informed of the *STATUS* and content of the software/hardware baseline.

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CM Tools needed from the Toolbox:

Tool Needed: Benchmarking

Tool Needed: Brainstorming

Tool Needed: Group Consensus Technique

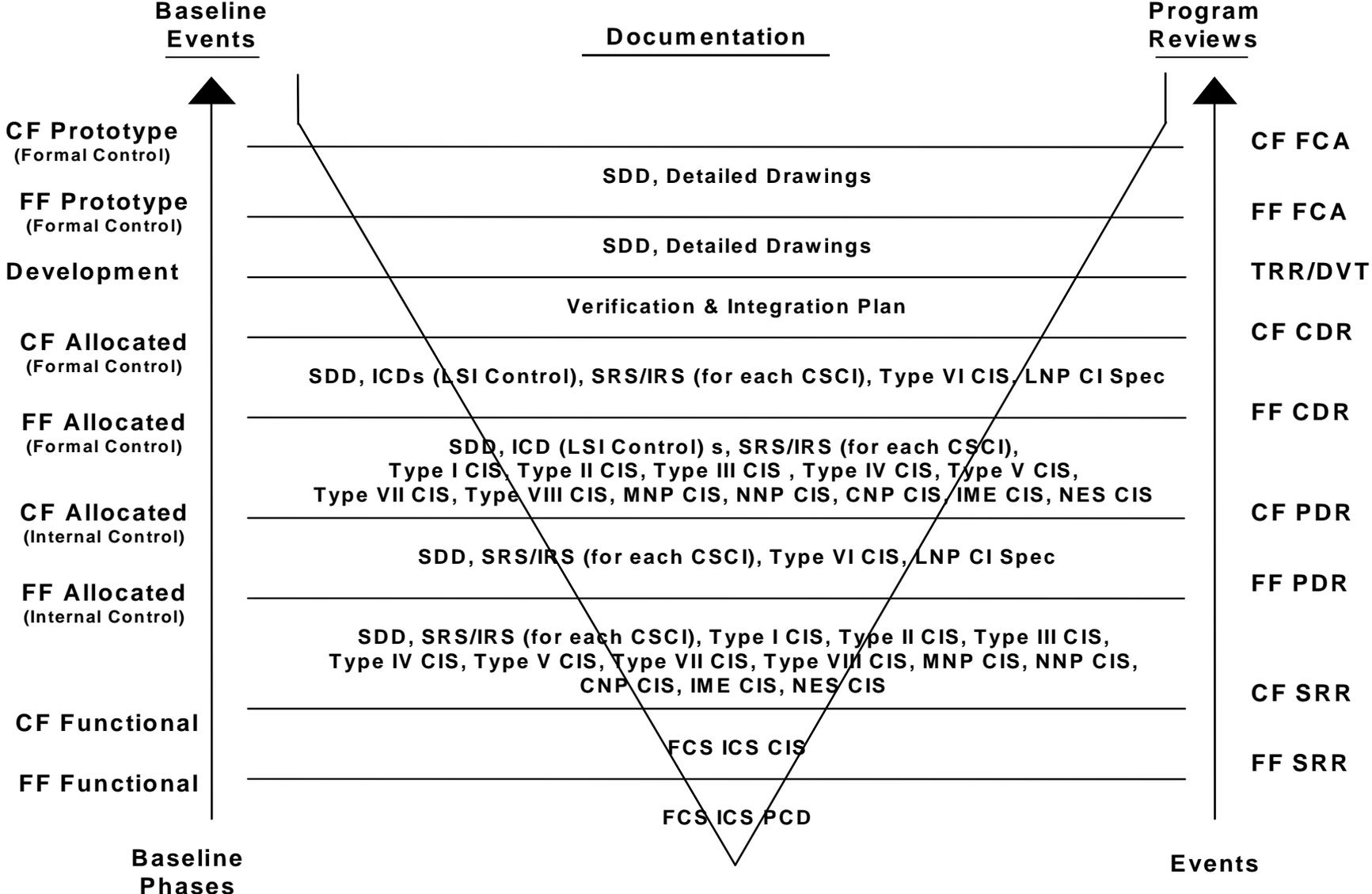
Tool Needed: Flowcharting

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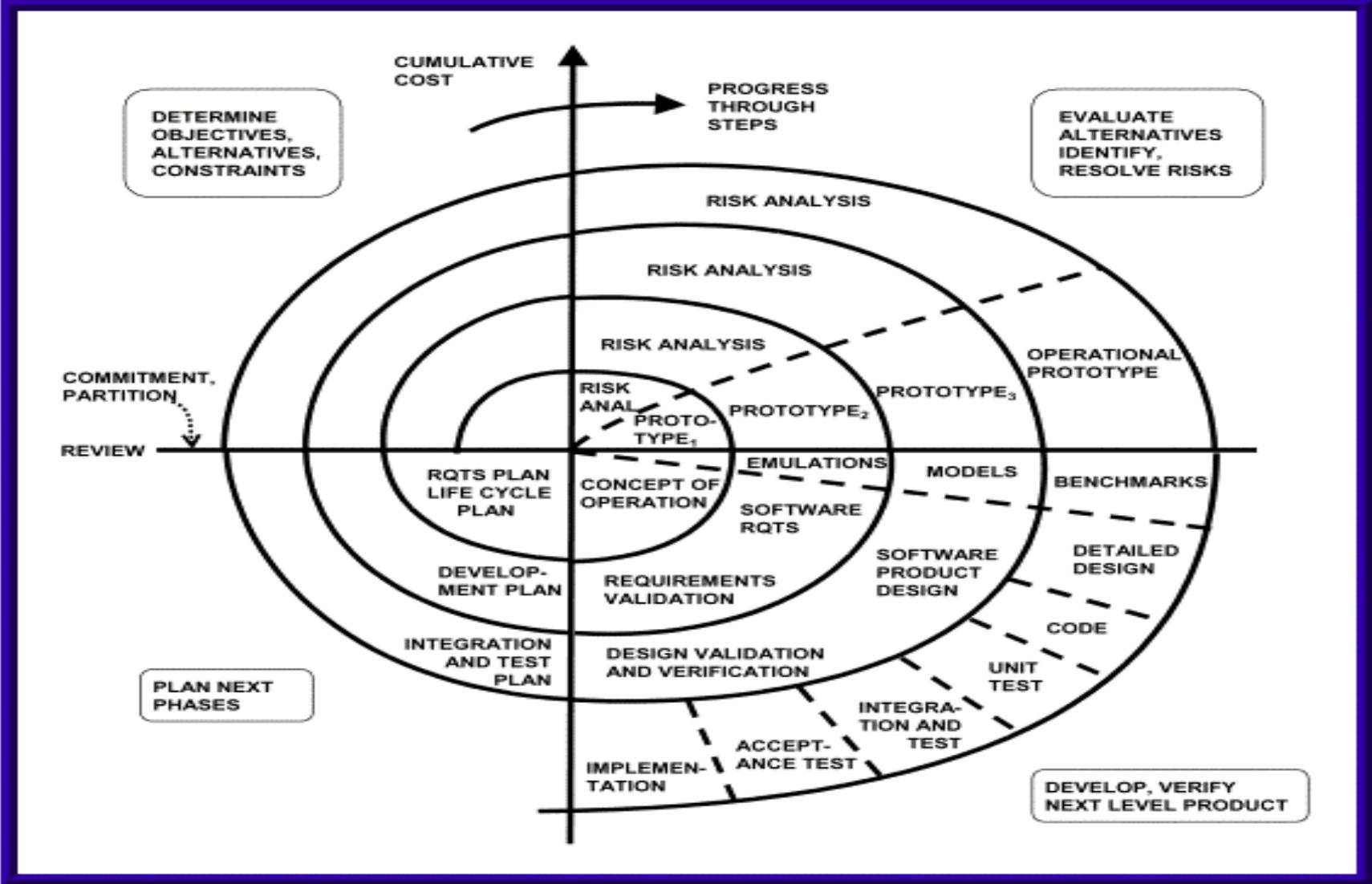
V-Model

Spiral Model

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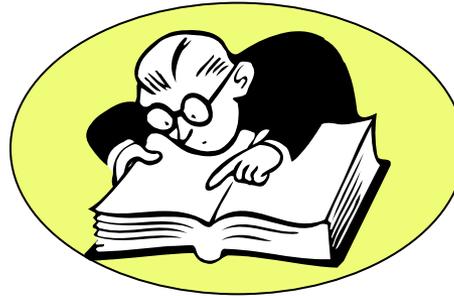
“Concept to Delivery”



System software/hardware Requirements Analysis Process



software/hardware Architecture Process, Plans, and Guidelines



CM Must be involved in “All Areas”



software/hardware Requirement Specification Development Process



Preliminary Design/Build Process



Segment software/hardware Integration and Test Process



Implementation Process

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Lifecycle Phase (Where)
Referenced Document (How)
Change Authority (Who)
CI Elements Developed (What)
Artifact Location (Where)



Configuration Management (Concept to Delivery)

Lifecycle Phase	System Requirement Analysis
Referenced Document	Location of Process/Procedure
Change Authority	Manager System Engineering
CI Elements Developed	<p style="text-align: center;"> Rose Model DOORS RTM Requisite Pro Etc... </p>
Artifact Location	<p> Apex (-) Use Case Descriptions IDE (-) SSDD, (+) Domain Approach RTM (-) SBE, (-) SSC, (-) SWC, (-) BIF </p>

Configuration Management (Concept to Delivery)

Lifecycle Phase	Software Requirements Analysis
Referenced Document	Location of Process/Procedure
Change Authority	S/W Project Manager
CI Elements Developed	Rose Model DOORS RTM Requisite Pro Etc...
Artifact Location	Apex (-) Behavior Sequences IDE (+) Studies, (-) SRS, (-) IRS RTM (-) BLD, (-) BIS, (-) USE, (-) SW Req

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Lifecycle Phase	Prel Design	Detailed Design	Code & Unit Test
Referenced Document	Identify Process/Procedure Used		
Change Authority	S/W – H/W Project Manager		
CI Elements Developed	Build Plans Concept ADD Ada Spec TIM	Ada Bodies Ada Specs C++ Code Drawings	Test Plan Test Desc. Test Report BOM
Artifact Location	Apex (+) Ada Spec IDE (-) Build Plan, (+) Concept, etc.	Apex (-) Ada Bodies & Specs, (-) C++ Code IDE (+) Design Artifacts Pro E	Apex (-) Source Code IDE (-) Plan, Desc., (-) Test, (-) BOM

Configuration Management (Concept to Delivery)

Lifecycle Phase	CSCI I&T	Segment I&T	Vehicle I&T
Referenced Document	Identify Process/Procedure Used		
Change Authority	S/W – H/W Project Manager		
CI Elements Developed	Test Plan Test Desc. Test Report BOM	Test Plan Test Desc. Test Report BOM	Test Plan Test Desc. Test Report BOM
Artifact Location	Apex (-) Source Code IDE (-) Plan, (-) Desc., (-) Test, (-) BOM RTM (-) Test Case, (-) Results, (-) Class)	Apex (-) Source Code IDE (-) Plan, (-) Desc., (-) Test, (-) BOM RTM (-) Test Case, (-)Test Results, (-) Test Class	Apex (-) Source Code IDE (-) Plan, (-) Desc., (-) Test, (-) BOM RTM (-) Test Case, (-) Test Results, (-) Test Class

Configuration Management (Concept to Delivery)

Lifecycle Phase (Where)
Referenced Document (How)
Change Authority (Who)
CI Elements Developed (What)
Artifact Location (Where)

CSCI Integration & Test Phase

Objective: Verify Existence, Identification, and Location.

Walkthrough/Peer Review Results

- Are open issues/discrepancies from the Readiness Walkthrough closed?
- Is the Source Code identified in the SDL?
- Are the CSCI Test Artifacts (Harness) identified in the SDL?
- Is the BOM identified in the SDL?
- Is the Anomaly List identified in the SDL?
- Is the CSCI I&T Plan or SITP identified in the SDL?
- Is the CSCI I&T Description or SITD identified in the SDL?
- Is the software/hardware Test Report identified in the SDL?
- Are the Release Notes identified in the SDL?
- Is the software/hardware Test Case identified in RTM?
- Are the software/hardware Test Results identified in RTM?
- Is the software/hardware Test Class identified in RTM?
- Is Walkthrough Info identified in the SDL (Workbook, Checklists, & Supporting Docs)?

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