

Project Configuration Management



**Project Management Institute (PMI)
Practice Standard for**

Configuration Management



Project Configuration Management



What we will cover:

- Introduction
- Relationship with other standards
- Configuration Management Planning
- Configuration Change Management
- Configuration Status Accounting and Metrics
- Configuration verifications and audits
- Additional Source of information on CM

Configuration Management: Introduction

- Definitions
- Relationship with other standards
- The purpose of the standard
- Benefits of using Project Configuration Management standard.
- Who should care about using CM standard?

Configuration Management: Introduction

- Definitions

- CM is part and parcel of the overall PM Methodology (see Big Picture chart)

- CM is defined (by EIA 649) as a management process designed to **establish** and maintain **consistency between a deliverable's** (performance, functional and physical) **characteristics and it's requirements** (design and operational information) **all** through the project.

Configuration Management: Introduction

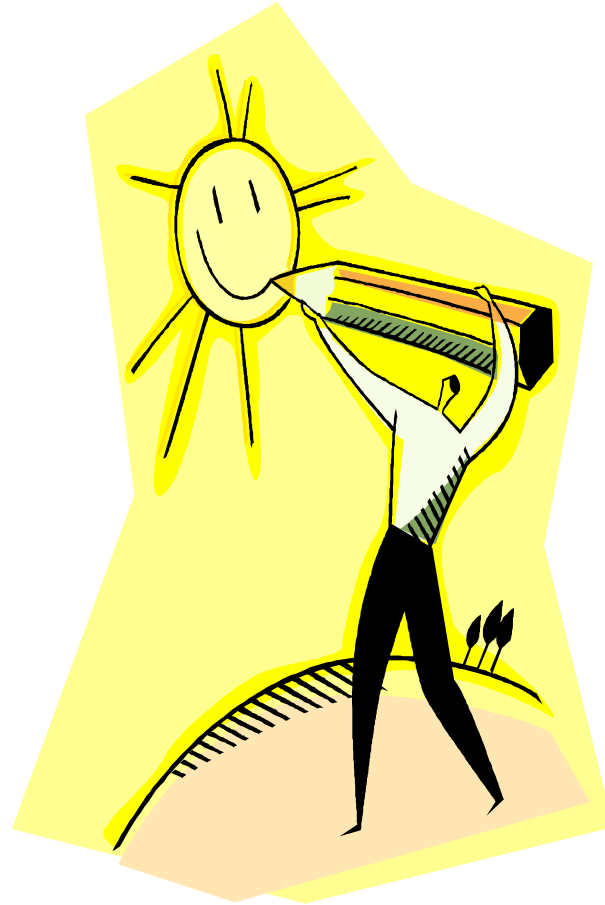
- Definitions
 - Configuration Item (CI)
 - Any aggregate deliverable (e.g. hardware or software component etc)
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 - Any aggregate deliverable (e.g. hardware or software component etc)

Knowledge Area and Process Group Relationship



Process Group/ Knowledge Area	INITIATING	PLANNING	EXECUTING	MONITORING & CONTROLLING	CLOSING	PROF. RESP.
INTEGRATION	Develop Project Charter Develop Preliminary Project Scope Statement	Develop Project Management Plan	Direct and Manage Project Execution	Monitor and Control Project Work Integrated Change Control	Close Project	X
SCOPE		Scope Planning Scope Definition Create WBS		Scope Verification Scope Control		X
TIME		Activity Definition Activity Sequencing Activity Resource Estimating Activity Duration Estimating Schedule Development		Schedule Control		X
COST		Cost Estimating Cost Budgeting		Cost Control		X
QUALITY		Quality Planning	Perform Quality Assurance	Perform Quality Control		X
HUMAN RESOURCE		Human Resource Planning	Acquire Project Team Develop Project Team	Manage Project Team		X
COMMUNICATIONS		Communications Planning	Information Distribution	Performance Reporting Manage Stakeholders		X
RISK		Risk Mgmt Planning Risk Identification Qualitative Risk Analysis Quantitative Risk Analysis Risk Response Planning		Risk Monitoring & Control		X
PROCUREMENT		Plan Purchases and Acquisitions Plan Contracting	Request Seller Responses Select Sellers	Contract Administration	Contract Closure	X

Q & A



- Configuration Management: Introduction

- Relationship with other standards

- ASME Y14.35M – 1997 Revision of Engineering drawings and associated documents.
- EIA/IEEE 649 (National consensus for CM practices)
- IEEE 1042 Guide to Software CM
- ISO 10007 CM in quality management.

■ Configuration Management: Introduction

■ The purpose of the standard

■ Provides guidance as to:

- Appropriate tools and processes
- Optimal design for a well functioning CM system

■ Accelerates organizational learning

- Improved organizational process assets
- Improved productivity.

- Configuration Management: Introduction

- Benefits of using Project Configuration Management standard.

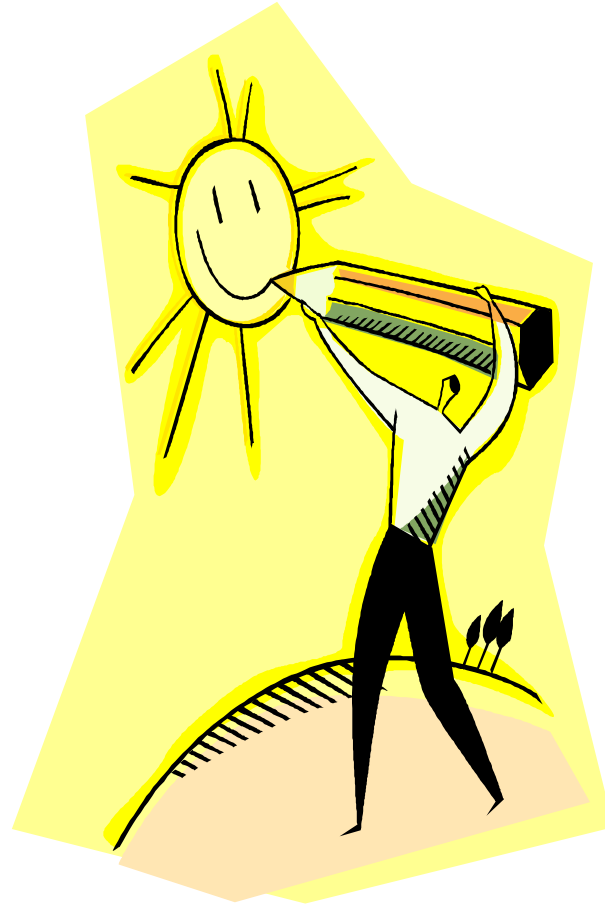
- From a deliverable standpoint:

- Reproducibility
 - Traceability
 - Accountability
 - Coordination

- Configuration Management: Introduction

- Who should use CM?
 - Senior Executives
 - Project Managers
 - Project Team members
 - Consultants in PM field
 - Stakeholders

Q & A



Configuration Management: Configuration Identification

- Project Artifacts
- Artifact Structure & repository (PM plan)
- Item Identification
- Taxonomy or Nomenclature

Configuration Management: Configuration Identification

- Artifact Structure & repository (PM plan)
 - Format
 - Access
 - Security
 - Availability
 - recovery

Configuration Management: Configuration Identification

- Project Artifacts
 - Any information to entrust to PCM
 - Is the PM plan

Configuration Management: Configuration Identification

- Item Identification
 - All baselines termed Configuration Items (CIs)
 - Baseline management

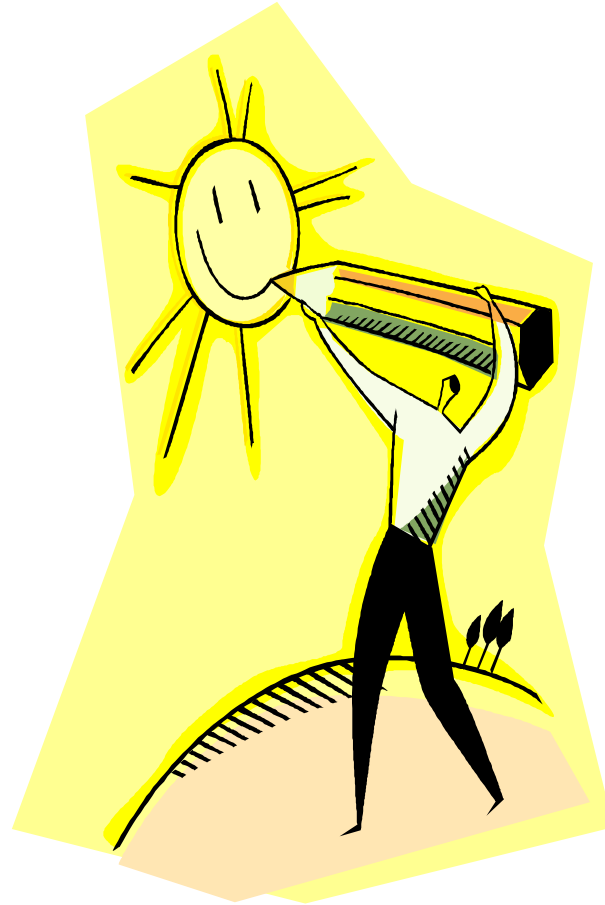
Configuration Management: Configuration Identification

- Taxonomy or Nomenclature
 - Use meaningful acronyms for your environment
 - Cataloguing (dates Stamp & serialization)

Configuration Management: Configuration Identification

- Project Artifacts
- Artifact Structure & repository (PM plan)
- Item Identification
- Taxonomy or Nomenclature

Q & A



Configuration Management: Configuration Change Management

- Identification of CIs
- Process (how it is designed to work)
- Control
- Assessment & Approval
- Implementation
- Verification & Acceptance
- Closure

Configuration Management: Configuration Change Management

- Identification of CIs
 - Identifies CIs for inclusion in CM
 - Details in Project Change Control Plan
 - Part of Scope statement

Configuration Management: Configuration Change Management

- Process (how it is designed to work)
 - Detail definition of how CM will happen on project
 - Includes process & procedures
 - Configuration management system selected

Configuration Management: Configuration Change Management

- Control
 - Track change requests over life time
 - Re Planning (change request ramifications)

Configuration Management: Configuration Change Management

- Assessment & Approval
 - PM's full responsibility
 - Can bypass CCM board

Configuration Management: Configuration Change Management

- Change Implementation
 - Documented approvals
 - Use of relevant CM Tools & techniques

Configuration Management: Configuration Change Management

- Verification & Acceptance
 - Of change request decision
 - Sign off by appropriate authority

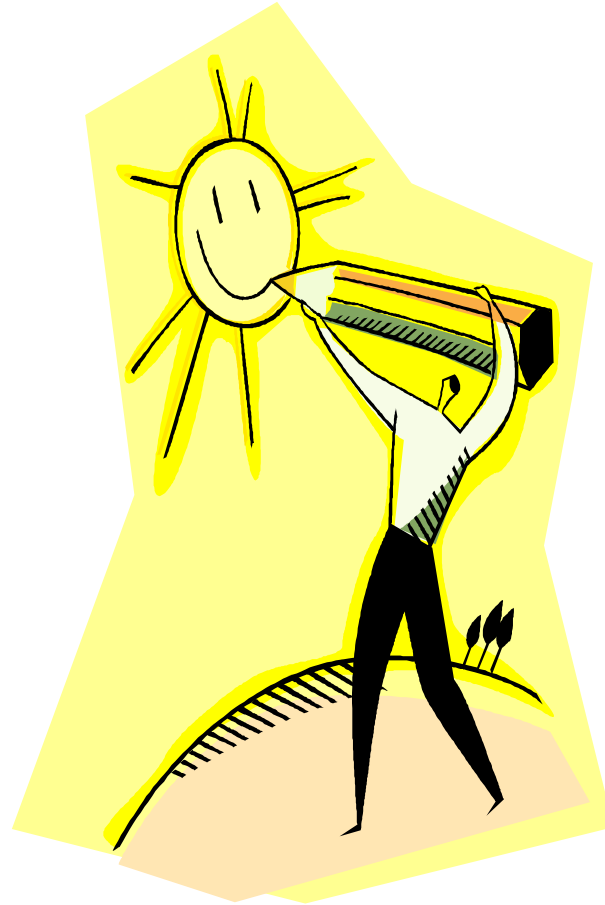
Configuration Management: Configuration Change Management

- Closure
 - All change requests that impact a deliverable must be closed before scope verification.

Configuration Management: Configuration Change Management

- Identification of CIs
- Process (how it is designed to work)
- Control
- Assessment & Approval
- Implementation
- Verification & Acceptance
- Closure

Q & A



Configuration Management: Configuration Status Accounting & Metrics

- Information Repository
- Reporting
- Analysis

Configuration Management: Configuration Status Accounting & Metrics

- Information Repository
 - Repository with controlled access
 - Typically electronic today

Configuration Management: Configuration Status Accounting & Metrics

- Reporting
 - Status (audit trail)
 - Metrics (estimate of CI effort)
 - Benchmarking (with other projects)
 - Performance measurements
 - Delivering operational data (quality tools & techniques)
 - Reports (of all kinds)

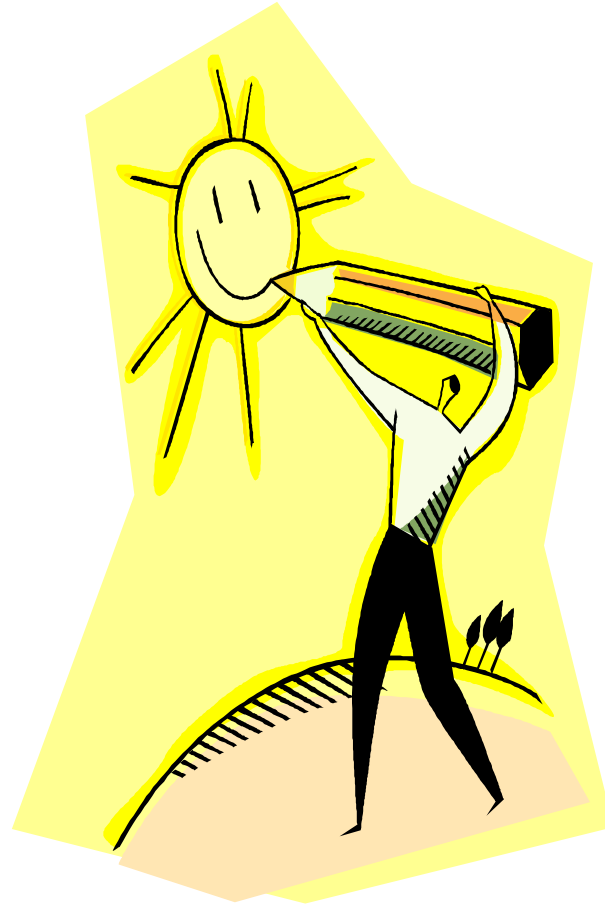
Configuration Management: Configuration Status Accounting & Metrics

- Analysis
 - Primarily of organizational process assets growth
 - Process metrics evolution

Configuration Management: Configuration Status Accounting & Metrics

- Information Repository
- Reporting
- Analysis

Q & A



Configuration Management: Configuration Verification & Audits

- Verification
- Audit
- Both (Verification & Audit)

Configuration Management: Configuration Verification & Audits

- Verification
 - Compares requirements with initial, interim & final testing results.

Configuration Management: Configuration Verification & Audits

- Audit
 - CI handling as per documentation

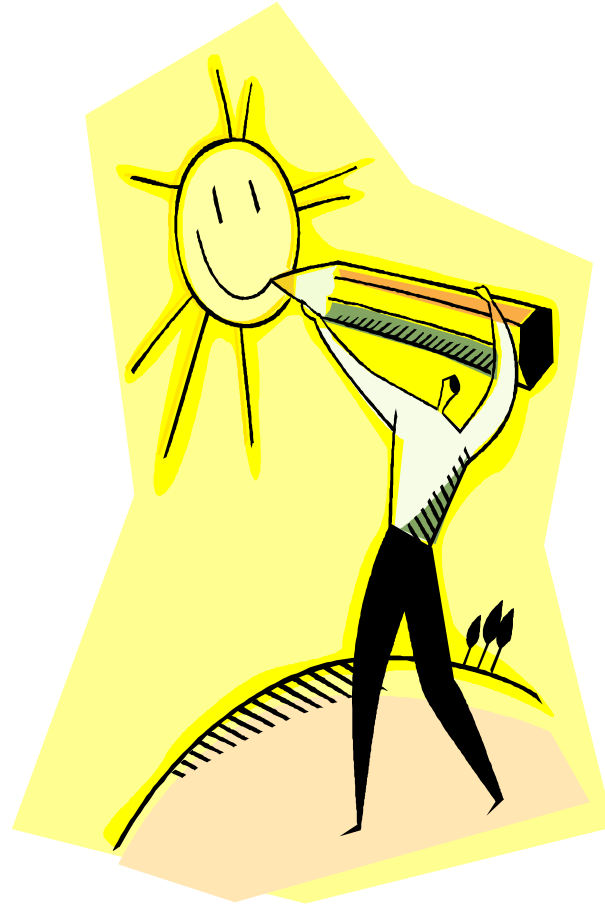
Configuration Management: Configuration Verification & Audits

- Both (Verification & Audit)
 - Planning
 - Executing
 - Monitoring & Reporting
 - Communicating results

Configuration Management: Configuration Verification & Audits

- Verification
- Audit
- Both (Verification & Audit)

Q & A

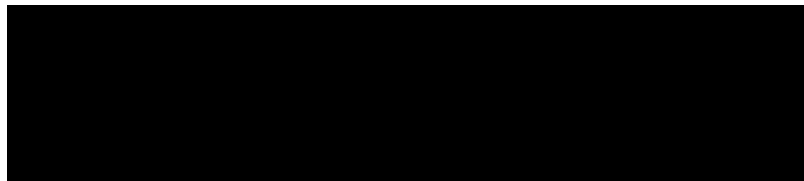


Configuration Management: **Take Home Assignment**

- **Compare and Contrast any two Configuration Management (CM) Methodologies**
 - Maximum two pages
 - Due May 21st 2008
 - Submit by email to hful@technologycenterinc.com

Configuration Management: Links to Other CM Methodologies

- <http://www.cmresourceguide.com/cmstandards.htm>
- <http://www.icmhq.com/>



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