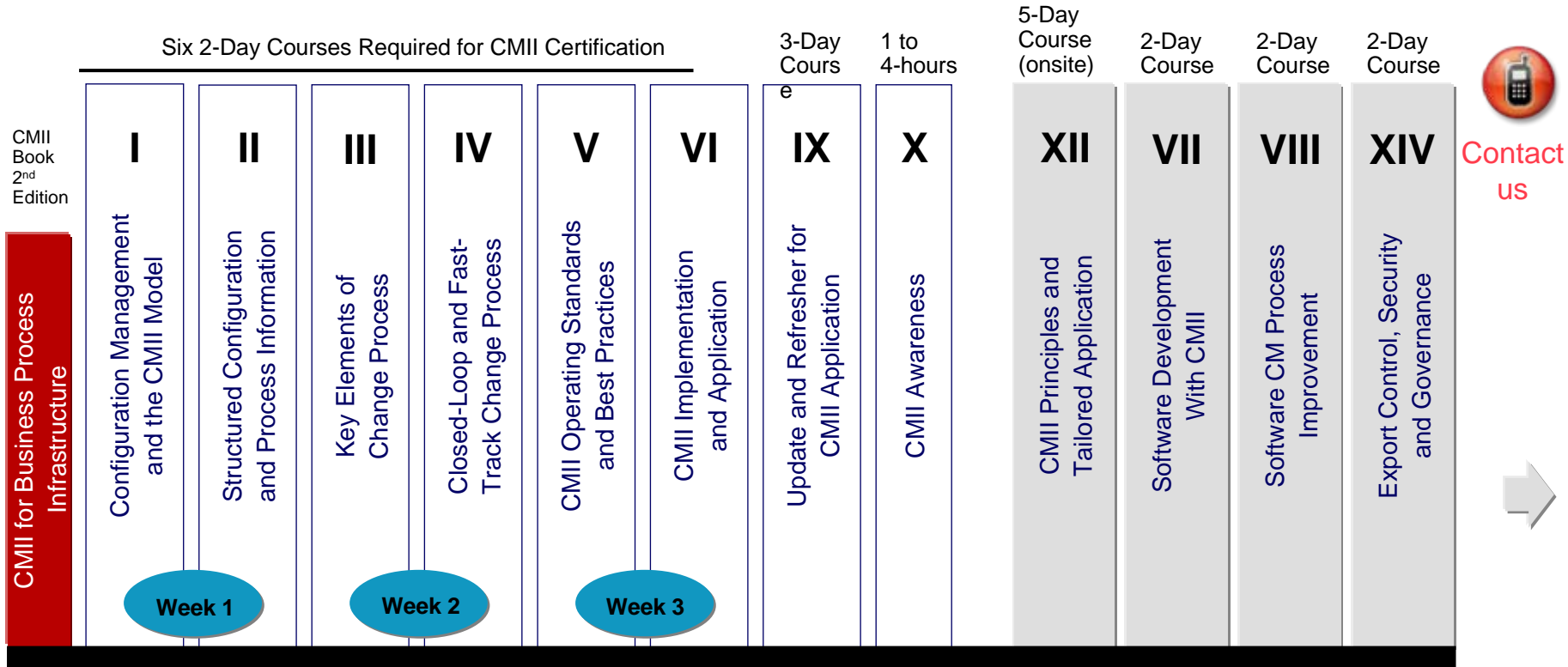


## CMII Training Services

## Catalogue of Courses

November 2009

# CMII Training Course Overview



## Standard CMII Course

- Required for CMII Certification
- I. Configuration Management and the CMII Model
  - II. Structured Configuration and Process Information
  - III. Key Elements of Change Management
  - IV. Closed-Loop and Fast-Track change Process
  - V. CMII Operating Standards and Best Practices
  - VI. CMII Implementation and Application
  - IX. Updated and Refresher for CMII Grads
  - X. CMII Awareness

## CMII Courses for Specific Environments

- VII. Software Development with CMII (under construction)
- VIII. Software CM Process Improvement (under construction)
- XII. CMII Principles and Tailored Application
- XIV. Export Control, Security and Governance



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us

## Course overview

- I [Configuration Management & the CMII Model](#)
- II [Structured Configuration and Process Information](#)
- III [Key Elements of Change Management](#)
- IV [Closed-Loop and Fast Track Change Process](#)
- V [CMII Operating Standards and Best Practices](#)
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## Abstract

This course describes configuration management, its purpose, the associated activities and how those activities are performed. It describes the CMII model, its innovative approach, and why it is being adopted worldwide as the best CM practice.

As-planned and as-released baselines, closely coupled with a closed-loop change process, are the cornerstone to the CMII model. The model provides a business process infrastructure with which any organisation can escape the corrective action mode and become a world class performer.

The CMII model enables an organisation to accommodate change and keep requirements clear, concise and valid. Without this capability, an organisation has no choice but to operate in a corrective action mode. A highly efficient CM process is the only solution.

The required efficiency is achieved by integrating all CM-related activities into one cohesive unit. Consistent conformance and continuous improvement are by-products of the CMII model.

## Outline

### CMII ORIENTATION

- A. An Organisation Runs on Requirements
- B. Structuring of Requirements
- C. Corrective Action, Causes and Solutions
- D. Design Basis for the CMII Model

### AS-PLANNED AND AS-RELEASED BASELINES

- E. Physical Item Hierarchies and Linkages
- F. Administrative Hierarchy and Linkages
- G. Development Plans and Work Packages
- H. Flow-Down of Requirements

### VALIDATION AND CHANGE PROCESS

- I. Document Validation and Release
- J. How to Achieve Data Accuracy of 100%
- K. Change Process and Key Decision Points
- L. Fast-Track Changes

### BUSINESS CASE FOR CMII

- M. Proof that CM Is, or Is Not, Working
- N. CMII Relative to Other Initiatives
- O. Potential for One Common CM Process
- P. Course Review and Summary



## Abstract

A change process cannot be fast and efficient change process if the information being changed is not properly identified, structured, linked and owned. This course describes how each of these prerequisites should be accomplished.

It describes an eight-step development process. The first two steps serve to establish the design basis and consume less than 6% of the development costs while locking in over 90% of total life cycle costs.

This course describes how baselines are used to manage evolving design and process definition and how each set of information transitions from an as-planned to an as-released state. It describes the life cycle phases and how to keep all activities synchronised throughout each phase.

This course describes how to use the same CM process to manage the business enterprise. It describes how to consolidate the requirements to be achieved by each core business process into one set of operating standards. It also describes how to prepare effective procedures.

## Outline

### IDENTIFICATION & PHYSICAL ITEM HIERARCHY

- A. Naming and Numbering Conventions
- B. Part Standards, Packaging and Labels
- C. As-Planned Physical Item Hierarchy
- D. Other Aspects of Product Structuring

### DEVELOPMENT AND PROJECT PLANNING

- E. As-Planned and As-Released Baselines
- F. Design Basis in Multiple Views
- G. Development of the Design Basis Views
- H. Project Planning and Work Packages

### OTHER LIFE CYCLE PHASES AND ACTIVITIES

- I. Detailed Design
- J. Production, Build and Test
- K. Operation and Maintenance
- L. Decommissioning & Environmental Issues

### BUSINESS PROCESSES AND PROCEDURES

- M. Enterprise CM and Strategic Plan
- N. Core Processes and Operating Standards
- O. Administrative Procedures
- P. Course Review and Summary



## Abstract

This course describes the complexities of change management. It describes the importance of item identification numbers and how they are used to identify physical items and control interchangeability.

This course goes deeper into the closed-loop change process, its steps and decision points. It describes how forms are used as templates to guide work through the process. It describes the content and format of each six forms. It describes how completed forms are used to create the appropriate records.

This course describes the various facets of interchangeability and traceability. It describes how the rules of interchangeability are used to make re-identification decisions. It describes the most efficient ways to achieve both lot traceability and end-item traceability.

This course describes how to assign change effectivities and why some approaches are better than others. It describes how to keep changes synchronized across the most complex environments. It concludes by describing how to assess the value and maturity of your change process.



## Outline



### BACKBONE OF REQUIREMENTS MANAGEMENT

- A. CMII Approach to Change Management
- B. Reidentification Rules and Numbering
- C. Replacement Item Issues and Solutions
- D. Visibility of Changes for System Users

### CHANGE FORMS AS PROCESS TEMPLATES

- E. Authorize and Control Work With Forms
- F. Problem Report Form and ECR Form
- G. ECN Form with Impact Matrix & DCR Forms
- H. Work Authorisation and Waiver Forms

### TRACEABILITY AND CHANGE EFFECTIVITIES

- I. Traceability of Changes to End-Items
- J. Lot Traceability and Serial Numbers
- K. Effectivities, Release and Effective
- L. Proper Use and Misuse of Effectivities

### CHANGE PROCESS RELIABILITY, THEN SPEED

- M. Changes Across Multiple Production Sites
- N. Changes to In-Service System /Methods
- O. CM Process Value and Maturity
- P. Course Review and Summary

## Abstract

This course provides a detailed review of the closed-loop change process and its fast-track feature. It describes the specific roles of Change Specialists I, II and III and how they manage all facets of the closed-loop process. It describes why Change Specialist I and II are ideally suited to chair the change board (CRB and CIB) activities.

This course describes the members of the CRB and CIB and their specific roles. It describes how technical reviews are performed, how change costs are estimated and how business decisions are made. It describes how to plan the implementation of approved changes in a way that achieves end-item traceability without compromising the rules of interchangeability.

This course describes how to develop detailed implementation plans for approved changes, balance work loads with capacity, keep tasks properly synchronized, and achieve the as-planned effectivity for each change.

Students completing courses I through IV will thoroughly understand the CMII model and how it fits into the process of running a business.

## Outline

### CHANGE ANALYSIS AND IMPACT MATRIX

- A. Change Specialist I
- B. Technical Reviews and Recommendations
- C. Change Review Board & Business Decisions
- D. Change Specialist II

### DETAILED ECN IMPLEMENTATION PLANS

- E. Change Implementation Board
- F. Superseded/Superseding Item Transition
- G. Change Specialist III
- H. Approved ECR and In-Process ECN Changes

### ECN IMPLEMENTATION MANAGEMENT

- I. Revision Levels and Out-of-Sequence ECNs
- J. Implementation Task Management System
- K. Capacity Planning and Priority Control
- L. Changes Without Formality of ECRs/ECNs

### SUPPLY CHAIN AND MAJOR COST DRIVERS

- M. CMII in Supply Chain Management
- N. Cost Accounting and Financial Reporting
- O. Cost of CM and Cost of Sales/Services
- P. Course Review and Summary




## Abstract

This course describes the close correlation between CM and the potential for legal liabilities. It describes how a sound CM process can minimise an organisation's legal liabilities. In essence, any delivered product that is not "as promised" is due to a failure in CM.

This course includes an introduction to the U.S. regulations and international agreements for import and export controls — especially those that involve arms and other restricted dual-use items.

This course provides a review of the leading quality standards, quality awards and other business process improvement initiatives which have been most successful. Provisions for CM are evaluated in each case.

This course concludes with an itemised listing of the best CM practices. It describes how to establish CM as a core business process and where it best fits in the organisational hierarchy.

The course supplement provides a standardised version of the CMII model which students may use to create their own tailored version. 

## Outline

### CORRELATION OF CM WITH LEGAL PRINCIPLES

- A. CM Products, Persons and Breaches
- B. Contract Law
- C. Tort Law
- D. Fraudulent Activities and False Claims Act

### BUSINESS PROTECTION AND EXPORT CONTROLS

- E. Disclaimers, Immunity and Indemnification
- F. Patents, Copyrights & Data Rights
- G. World Trade, Tariffs and Export Controls
- H. Arms Sales and Joint Control Programs

### COMMON OBJECTIVES AND BEST PRACTICES

- I. DOD Naming, Numbering and Item Unique ID
- J. Quality Standards, Awards and Views
- K. Business Process Breakthroughs
- L. Best CM Practices per CMII

### CMII MODEL FOR PROCESS IMPROVEMENT

- M. CMII Model and Operating Standards
- N. Organise Around Core Business Processes
- O. Create Your Own CMII Destination
- P. Course Review and Summary

## Abstract

This course describes how to create a CMII implementation plan and determine what its scope should be. Students learn how to define their destination, assess existing practices relative to that destination, and use the results to build a transition plan.

The workshops allow students to practice what they learned in the preceding chapter. They go through the process of defining their destination, conducting an assessment and creating a transition plan. They share ideas and gain confidence in their respective plans. Students focus on the implementation of their plans during the second day. They learn the pitfalls that could impact their implementation and how to remove those pitfalls before they happen.

Workshops during the second day allow students to walk through the implementation steps and make further refinements to their plan. Students that satisfactorily complete this sixth course receive CMII certification. They leave the class knowing what to do and how to do it.

## Outline

### CMII DESTINATION AND TRANSITION PLAN

- A. CMII Implementation Plans & Approaches
  - (1) *Organisational Readiness for CMII*
- B. Select Team, Define Destination and Goals
  - (2) *Select CMII Principles to be Implemented*
  - (3) *Interdependencies of Selected Principles*
- C. Assessment of Existing Practices
  - (4) *Establish Team and Assess Existing Practices*
- D. Build Transition Plan from Action Items
  - (5) *Prepare Transition Plan and Identify Phases*

### TRANSITION AND APPLICATION

- E. Transition Plan Extension and Execution
- F. Enabling Software Tools
  - (6) *Evaluate Capabilities of Existing Tools*
- G. Plans for Organisational Realignment
  - (7) *Fill Change Specialists I and II Positions*
  - (8) *Permanent Process Improvement Team*
- H. Application and Performance Metrics
  - (9) *Impromptu Meeting with Top Management*
- I. Course Review and Summary

Supplement: *CMII Assessment Guide*



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Supplement: *CMII Assessment Guide*



## Abstract

This course was designed to introduce the potential benefits of CMII to top management. It is a 2 hour presentation but the discussions often extend the session to 4 hours.

An organisation that cannot accommodate change and keep requirements clear, concise and valid has no choice but to operate in the corrective action. Once mired in corrective action, they are too busy fighting fires to make real improvements.

← To ensure survival, organisations must get *lean and mean*.  
To get *lean* is to transition out of the corrective action mode.  
To get *mean* is to ramp up the rate of real improvements.  
Attendees learn how to do both.

## Outline

- A. The CMII Model
- B. Business Process Infrastructure
- C. Corrective Action & Intervention Resources
- D. Process Improvement; First Steps
- E. The "V" Model for Development
- F. Automation, Implementation and ROI



## Abstract

CMII implementation is accomplished in three phases; (1) preparation and justification, (2) transition from current practices to the CMII practices and (3) application of the CMII practices. Return on investment is achieved in the application phase. Those who achieve CMII certification are skilled in all three phases.

This 5-day course focuses on the application phase. It is ideal for large organisations where the CMII baselines and closed-loop change process with fast-track capability have been piloted and are ready to be applied in all business programs.

This course is designed to be taught by two instructors. An ICM instructor teaches the principles. A host instructor describes how the principles are to be applied internally, how the process is supported by existing software tools, and so on.

Each half-day increment is comprised of three chapters plus a workshop. The workshops may also be tailored in accordance with the specific applications.

Students completing this course receive a "CMII Application Specialist" certificate. Those who also pursue certification receive credit for Course I only.



## Outline



DAY 1 (am): Orientation for CM and CMII

DAY 1 (pm): Work Flows and CMII Forms

DAY 2 (am): Hierarchies, Linkages and Validation

DAY 2 (pm): Re-identification, Traceability & Effectivities

DAY 3 (am): Development per the CMII Model

DAY 3 (pm): Change Analysis and Impact Matrix

DAY 4 (am): CMII Baselines as the Cornerstone

DAY 4 (pm): CMII Implementation Plans and Execution


DAY 5 (am): Site-Specific Application of the Principles

DAY 5 (pm): Site-Specific Application of the Principles

## Abstract

Import and export control is essentially supply chain management in which the network of participants includes foreign parties. It is a highly regulated form of supply chain management when classified or otherwise restricted materials or information are involved. The degree of regulation varies by type of item or information, its end-use, countries involved and individuals involved.

The first day provides a review of foreign military and direct commercial sales programs, joint programs to control exports and the U.S. export regulations. It includes a review of the National Industrial Security Program (NISP) Operating Manual for managing classified information.

During the second day, students are introduced to CMII baselines, the closed-loop change process, core business processes, operating standards, procedures and enabling tools. They learn that the controls and records that regulatory agencies want to see are built into the CMII model. Students learn how to close-the-loop on each export program and make regulatory compliance a by-product of the process. 

## Outline

### EXPORT CONTROL AND SECURITY REGULATION

- A. World Trade, Tariffs & Export Controls
- B. Arms Sales and Joint Control Programs
- C. U.S. Munitions List & Export Licenses (ITAR)
- D. Arms Services & Technology Exports (ITAR)  
*Workshop (1)*
- E. Control of Classified Information (per NISP)
- F. Commerce Control List & Country Chart (EAR)
- G. EAR Decision Tree, Forms and Penalties
- H. Key Components of ITAR, NISP and EAR  
*Workshop (2)*

### CMII-ENABLED EXPORT CONTROLS & SECURITY

- I. Introduction to the CMII Model
- J. Baselines, Changes & Project Management
- K. Export Plans with Closed-Loop Controls
- L. Extend Design Basis into a Supply Chain  
*Workshop (3)*
- M. Expanded Baselines, Metadata & Linkages
- N. DOD Naming, Numbering & Item Unique ID
- O. Export Operating Standards & Procedures
- P. Internal Controls and Export Records

## Contacts to Register for CMII Courses

To book one of the above CMII courses or for further information, please contact:



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