

Federal Student Aid (FSA)



Enterprise Change Management (ECM) CONFIGURATION MANAGEMENT (CM) PLAN

Created By: Steve Jarboe
Updated By: Steve Jarboe

Version: 2.0
Updated On: 3/20/03

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Status: Draft

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Project:	ECM
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1 Document History

Author	Date	Version	Description
Steve Jarboe	3/1/03	1	Initial Drafting of Plan
Steve Jarboe	3/11/03	2	Updated version of Plan
Steve Jarboe	3/18/03	3	Updates based on Peer Review #1
Steve Jarboe	3/19/03	4	Updates based on Peer Review #2

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3 Purpose and Scope

Configuration Management (CM) enables the controlled and repeatable management of information technology (IT) architecture components as they evolve in all stages of development and maintenance. CM implements a process by which the project teams and stakeholders identify, communicate, implement, document and manage changes in the systems environment. When properly implemented, CM ensures the integrity of the items that have been placed under its control.

The purpose of this CM Plan is to establish a sound CM approach that maintains the integrity of the ECM system and provides traceability for changes incorporated into the environment. The CM process integrates the technical and administrative actions of identifying the functional, performance and physical characteristics of a configuration item (CI) and controls the changes to those characteristics.

The Overall ECM Configuration Management process flow is shown below

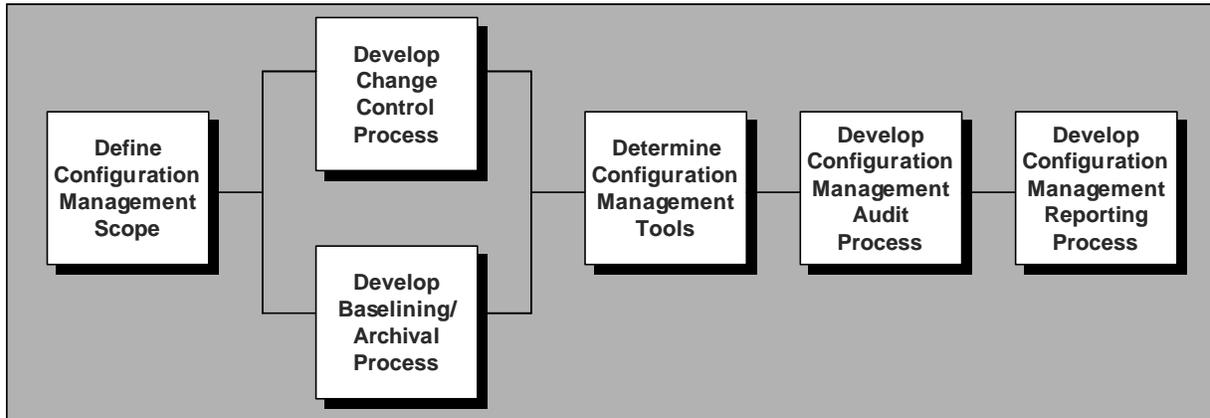


Figure 1



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4 Organization, Responsibilities and Resources

This section details the authority and the specific responsibilities for configuration management throughout the project life cycle and identifies the specific resources necessary to perform effectively.

The ECM configuration management team will be composed of a configuration management lead, test manager, tester(s), and developers.

Configuration Management Lead(s) - The configuration management lead is responsible for interacting with the development teams to ensure all controlled items are checked in and out of code repository and that changes to critical work products are tracked.

The ECM team has identified the need to have 2 Configuration Leads (co-CM leads):

- Work Product CM Lead** – Responsible for CM over Project Management documentation
- Technical CM Lead** – Responsible for CM over Code & technical documentation

These two CM leads are responsible for coordinating to maintain this CM Plan and carrying out it's mandate. They Report to Project Management on CM status.

Test Manager – The test manager is responsible for planning and leading the testing effort for each of the ECM Tool's releases. The specific responsibilities include:

- Creating detail test plans for identified iterations of testing
- Monitoring resolution to noted defects
- Deciding to suspend or resume testing based on outstanding defects/issues
- Providing status to the Technical Project Lead and Configuration Management Lead
- Leading and participating in the testing process

Developer (Development Team) – The developers are responsible for designing, documenting, building and unit testing all tasks assigned to them by the team lead. These tasks may include creating source code, preparing unit test data, completing unit tests and code reviews. The developer is also responsible for addressing any defects or modification requests assigned to them during the testing stages. For the purposes of this design, developer responsibilities include:

- Executing unit testing
- Checking files in and out of the version control tool
- Participating in design and code reviews
- Implementing defect fixes and change requests
- Following project guidelines when using the configuration management tools

Tester(s) – The tester is responsible for planning and leading the testing effort. The tester will work with the development team lead to develop the test plan. These responsibilities include:

- Follow detailed test plans provided by the Iteration Test Manager
- Execute test cases
- Monitoring resolution to noted defects and regression testing fixes to modification requests
- Provide status of testing progress to the Iteration Test Manager and the Technical Project lead



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Change Control Group – The ECM Change Control Group (CCG) evaluates requirements as they are identified to determine if the requirement is out of scope, in scope, or out of scope but should be included in the current project. The group meets regularly and consists of the following roles:

FSA Business Owner
ECM Tool Project Manager
Configuration Management Lead
ECM Training/Process Lead

Training

The ECM Team actively participates in the FSA “CM coaching and Review Program”. Training on CM tools has been provided to appropriate roles and must continue to be provided as needs arise.

5 CM Activities

Electronic file configuration management is required to keep files synchronized with each other and the project as a whole. This configuration management process applies to all files (Word, Excel, PowerPoint, Project, etc.) created as a part of the project, whether as a deliverable to be given to the client or as an internal project working paper.

The goals are to:

- Have the ability to identify the most current copy of a particular document
- Have the ability to identify the who, when, and what for each document change

The ECM file repository is organized under the “ECM” heading(s) into the following sub-folders that logically organize the team’s data:

- ECM Release I
 - Project Management
 - Technical
 - Schema
 - Schema for ECM
 - Record Types
 - Data Components
 - Etc.
 - Etc.
- ECM Release II
 - Project Management
 - Project Workplan
 - ECM Training/Orientation Briefing
 - Technical
- Current Release / Under Development
 - Project Management
 - Technical
- Etc.



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The ECM Team collects baselines at the end time of each successful release. Also, there will always be a "Current Release / Under Development" folder to manage ongoing work.

The contents of each of these folders are files. These files are sometimes sub-divided into lower-level folders. For example, within the Project Management folder, one can access the following folders: Issues Log, Meetings, Status Reports, Templates, Workplans etc.

The project team will:

1. Store all electronic files in the ECM file repository
2. Only modify files which are within their responsibility
3. Record each document change in the edit history section (as needed)
4. Preserve prior versions of DRAFT FINAL and FINAL electronic files by saving new versions of the file in the ECM file repository

The standard naming convention for files in the ECM file repository would include the following:

Description_date_version#

The description of the file should convey (even to the uninitiated) the basic idea about what a given file is. For example, a file containing the project workplan should be called:

"ECM Workplan_0808_V3"

as opposed to:

"ECM WP_0808_V3".

The format of the date as represented in the file's name should be in the following format: _mmdd(yy)

Versions of files should be represented in the following format: _V#

Configuration management activities will include several areas of the development process. Configuration items must be identified and version control procedures established. Code will be checked in and out through the configuration management tool Rational ClearCase. A standard directory structure within the development repository has been established for the ECM project. These guidelines will ensure development processes continue efficiently and effectively. All changes must be controlled to ensure accurate tracking.

5.1 Configuration Identification

Configuration identification is the process for selecting, identifying, and naming configuration items (which will be configuration managed). Once these items are identified, they are known as Configuration Items (CI). The Configuration Management Leads has the responsibility for configuration identification (Identifying CIs) within their respective areas.

Prior to fully utilizing ClearCase as the main configuration management tool the CM process for developing and migrating code will be a manual process.

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ECM has identified the following configuration items (CI) to be placed under CM. The CIs identified are grouped together in numerous baselines based on ECM Tool Release. All change that occurs to the baselines during the project are being accounted for and tracked. At the end of each Release, a record of that moment in the life cycle will be preserved (it is also the baseline upon which the next release builds).

Configuration Items

The following Items are to be subjected to the configuration management practices set forth in this plan:

CI Cntrl #	CI Name	Type	Description	BASELINE NAME*	Date or Phase CI Placed under CM	Owner	Repository / Path	Level of CM
1	Technical Proposal	PM	EXAMPLE:	TO51 EAFS (Mod 06) ECM Tech Prop 3-19-03.doc	Vision Phase	Ron Langkamp	Modpartner.eproject.com/TO51/Documents/Project Management/Task Order	Version control on e-project
2	ECM Task Order	PM						
3	ECM Project Plan	PM						
4	ECM Workplan	PM						
5	ECM Issues Log	PM						
6	ECM Status Reports	PM						
7	ECM Tool User's Guide	PM						
8	ECM Roles and Respons. Docs	PM						
9	ECM Training/Orientation Briefing	PM						
10	Project Procedures and Policies	PM						
11	ECM Issues & Enhancements Log	PM						
12	ECM User Tracking Spreadsheet	PM						
13	ECM User ID Request Form	PM						
14	ECM Infrastructure Process Guide	PM						
15	ECM CCG Methodology Document	PM						
16	ECM Frequently Asked Questions	PM						
17	ECM Impact	PM						

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CI Cntrl #	CI Name	Type	Description	BASELINE NAME*	Date or Phase CI Placed under CM	Owner	Repository / Path	Level of CM
	Analysis Worksheet							
18	ECM Tool Email Notification Matrix	PM						
19	ECM CM Plan	PM						
20	ECM Security Plan	PM						
21	ECM Source Code (1 page Document Key)	Tech	EXAMPLE OF Tech Item					CCG Approval Required
22	ECM Requirements Document	Tech						
23	ECM Field List	Tech						
24	ECM Test Scripts	Tech						
25	VB Script (TBD by VDC)	Tech						
26	ECM Installation Guide (1 Pager)	Tech						



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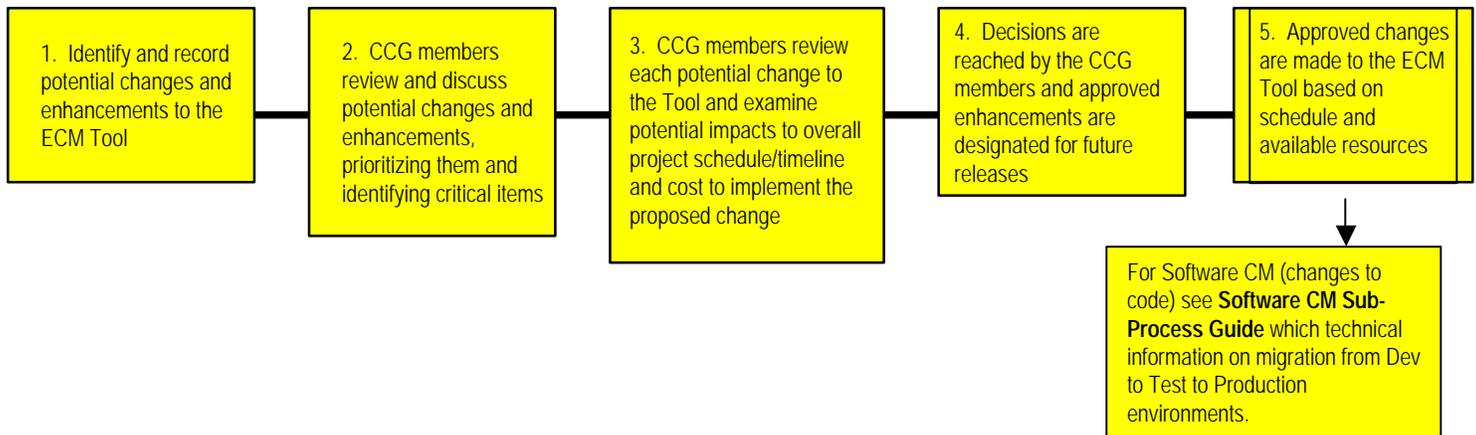
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5.2 Configuration Control

Configuration control is the process of controlling change to the developed software. Configuration control includes the systematic evaluation, coordination, and approval of proposed changes to configuration items. In addition, configuration control also includes the process of moving developed software from one environment to another.

Change Control Process

The ECM Change Control Group Meets regularly to discuss, prioritize and determine which possible enhancements to the Tool will be implemented as part of a future release. The CCG Process is shown here:



All changes to configuration Items (identified in table above as requiring CCG approval) should proceed through this process.

During the development and maintenance processes, controlled baselines will change and configuration control is designed to manage the changes.



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5.3 Configuration Status Accounting

In order to give ECM Project Management high-level insight into the overall status of CM activities, CM status will be reported in the CM Status Report. Project management is responsible for reviewing the report and taking necessary action to resolve potential issues. If necessary, CM issues will be escalated and addressed by the Project Management.

The CM Status Report will contain the following information:

- Technical, cost, staffing and schedule performance as compared to the CM plan
- Resource use as compared to estimate
- CM conflicts or issues
- Dependency between groups
- CM risks
- Action items. Action items should appear on the reports until they are closed

As part of the CM Status Report, a Configuration Item Status Report (CISR) will be prepared periodically for the CM Manager and other affected groups. The CISR provides an in-depth status accounting of all of the project's Configuration Items (CI).

Configuration Item Status Reporting

ECM will utilize the Configuration Item Status Report (CISR) section of the Configuration Management Status Report upon beginning a major new development effort.

The CISR provides an in-depth status accounting of all the project's CIs and is the record keeping function of CM.

The CISR will track the following information against the CM Plan and CM baselines:

- Time at which each baseline is established
- When each CI was included in the baseline
- A description of each CI
- Status of each CI related change
- Description of the change to the CI
- Documentation status of each baseline
- Changes planned for each identified future baseline

The CISR will be compiled periodically and distributed to the CM Manager and other affected groups with the CM status report. If necessary, issues identified in the CISR will be escalated and resolved by Project Management.

By performing this status accounting of CIs, the CM Manager will be able to determine how the CM program is progressing in relation to documentation required, baselines established, changes and the rate at which changes are occurring. A review can be made of the type of changes, reasons for changes and cost of changes scheduled.



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5.4 Configuration Baseline Auditing

Several audits will be performed on the CM activities of ECM, including an audit of the baselines in the ECM file repository, to ensure that project team members follow the processes and procedures in this plan. The following process flow will be used to complete CM audits:

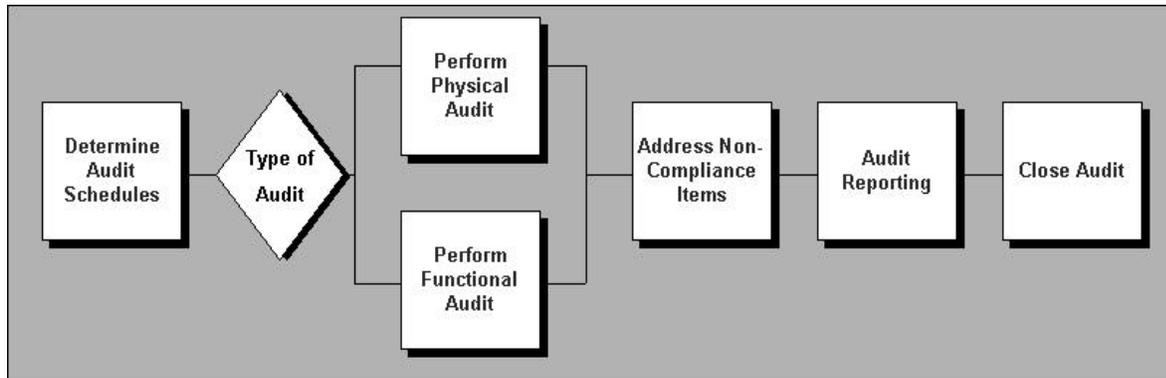


Figure 3

ECM Team strives to perform an audit associated with each major Release. A new baseline will be taken only if the results of the audit are successful. The Configuration Management Audit template located at location will be used to facilitate the CM audits.

The CM Managers are responsible for performing these audits.

When auditing the ECM file repository tool, the auditor will:

- assess the integrity of the baseline,
- review the structure and facilities of the e-project file repository tool,
- verify the correctness and completeness of the baseline contents,
- verify that changes to the baseline have been implemented as intended, and
- verify compliance with CM processes and procedures.

The results of each audit will be reported to the Project Manager and other necessary parties. The CM Manager will track all action items until closure and report on the status to the Project Manager(s).



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6 Audits and Reports

Name of CM activity (Report, Audit, etc.)	Description	Scheduled completion date

7 Schedules

(Document the schedule for the baseline audits and other major CM activities detailed in section 3.)

8 Appendix A – Document References and Definitions (CISR)

Identify all referenced documents, definitions, associated abbreviations and acronyms.

Reference Document	Location (LAN)	CISR Changes	Document Description
[name]	[number]		[short description]

Definitions, Acronyms and Abbreviations

Word/Abbreviation	Description
[name]	[short description]