

## Software Change, Configuration and Release Management - 3 Days Essentials for Reliable and Stable Products

### *Course 342 Overview*

- You Will Learn How To**
- Proactively manage the components of software development projects from requirements through maintenance
  - Construct a project-based Configuration Management (CM) plan for traditional and Agile projects
  - Choose hardware and software items to control through Configuration Identification
  - Manage the impact of change requests by specifying Configuration Control procedures
  - Design baseline and release audits to ensure product stability
  - Plan a release to implement change requests and scheduled feature rollout
- Course Benefits** Configuration and release management processes are critical for reliably producing stable deliverables in both traditional and Agile development. In this course, you implement essential processes and gain tactical skills essential to establishing effective and appropriate project-level controls to manage configurations, control change, and release a product.
- Who Should Attend** Configuration and release management professionals new to their position, software developers, hardware engineers, testers, project managers and anyone needing a solid foundation in monitoring and controlling a product during the development life cycle.
- RealityPlus™** Throughout this course, an interactive case study immerses you in a software and hardware CM project from requirements to product release as you carry out tasks that teach the skills you need. You acquire a robust skill set and experience in:
- Matching project needs to CM process capability
  - Gathering item attributes and characteristics for a candidate CI list
  - Coordinating the check-in and check-out of CIs from/to the library
  - Designing a change control process
  - Creating a design baseline based on requirements documents
  - Identifying key reports needed for effective CM communications
  - Preparing a CM plan for a project
  - Baselining a product at various points in the project
  - Preparing a release plan based on stakeholder needs

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### Essentials for Reliable and Stable Products

*Course 342 Outline*

#### Foundation for Configuration and Release Management

##### Analyzing business factors driving CM

- Determining causes of failure in project scenarios
- Positioning strong internal CM controls as the path to success
- Controlling quality in the development life cycle
- Releasing stable configurations

##### Demystifying core CM processes

- Configuration Identification
- Version Management
- Configuration Control
- Change Management
- Configuration Status Accounting
- Reporting
- Configuration Audits
- Compliance
- Build and Release Management

#### Identifying Configuration Items (CIs)

##### Deriving candidate items for the project

- Extracting CIs from the product and the project
- Itemizing six steps to bring a work product under configuration management control

##### Categorizing and naming items

- Devising an effective naming scheme
- Classifying items based on the nature of the project
- Aligning a CI into one of four categories

##### Baselining CIs

- Defining baselining procedures and creating a checklist
- Declaring configuration or phase baselines
- Checking CIs into a configuration management repository

#### Controlling Change

##### Determining roles and responsibilities

- Establishing an infrastructure to manage project change
- Comparing change control from a traditional to an Agile perspective
- Specifying the role of the SCM team in facilitating change

##### Creating a change control process

- Documenting the change request life cycle
- Establishing and communicating change control procedures
- Facilitating change from requirements through maintenance

#### Distinguishing between defects and enhancements

- Processing a change request
- Investigating defects and deciding corrective action
- Evaluating urgency
- Determining Severity
- Setting priority

#### Communicating Configuration Status

##### Planning the reporting requirements

- Identifying types and frequency of reports required in each phase of CM
- Determining the communication needs of stakeholders
- Improving report processing by using a configuration database

#### Matching reporting needs to development life cycle

- Anticipating report types by role types
- Who
- What
- When
- Where
- How
- Planning what to collect in order to report
- Adding CSA requirements to vendor contracts

#### Auditing in Preparation for a Release

##### Designing Configuration Audits

- Distinguishing between QA and SCM activities
- Clarifying types of SCM audits
- Timing audits throughout the development life cycle
- FCA and PCA checklists
- Baseline and release audits

##### Assessing release readiness

- Ensuring the documentation matches the product
- Verifying product configuration

#### Building and Releasing the Product

#### Ensuring consistency through the build process

- Establishing independence by separating development from the build
- Managing unique code lines and versions
- Knowing why and when to branch
- Knowing why and when to use variants
- The golden rule of merging

#### Specifying the product release process

- Planning a release strategy for your software development life cycle
- Resources needed for a smooth release process
- Matching process steps to release types
- Positioning Quality Gates in the development life cycle

#### Assigning release tasks

- Timing the release appropriately
- Preparing release notes based on change items
- Authorizing and releasing the build