




# SCM

SOFTWARE CONFIGURATION MANAGEMENT

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- ▶ It is the task of tracking and controlling changes in the software, part of the larger cross-disciplinary field of configuration management.
  - ▶ SCM practices include revision control and the establishment of baselines.
  - ▶ If something goes wrong, SCM can determine what was changed and who changed it.
  - ▶ If a configuration is working well, SCM can determine how to replicate it across many hosts.
  - ▶ Configuration Management (CM) is a technic of identifying, organizing, and controlling modification to software being built by a programming team.
  - ▶ The objective is to maximize productivity by minimizing mistakes.

# Req....

- ▶ A configuration of the product refers not only to the product's constituent but also to a particular version of the component
- ▶ **it provides the tool to ensure that changes are being properly implemented.**
- ▶ It has the capability of describing and storing the various constituent of software.
- ▶ SCM is used in keeping a system in a consistent state by automatically producing derived version upon modification of the same component

# SCM Process

It uses the tools which keep that the necessary change has been implemented adequately to the appropriate component. The SCM process defines a number of tasks:

- ▶ Identification of objects in the software configuration
- ▶ Version Control
- ▶ Change Control
- ▶ Configuration Audit
- ▶ Status Reporting
- ▶

## 1. Planning and Identification Process

- ▶ This is the initial level of the SCM process to planning properly for the development of the application and identifies the configuration items as per the scope of the project. To conduct kick-off meetings or start meeting and welcome to change requests are the basic criteria for this process. The project management plan is the input for this process and approval of the plan is the exit criteria.

## 2. Version Control Process or Baselines

- ▶ The version control or baselines indicates to store the different versions of development/configuration by changing the scope or requirements or code or software environment. This process provides several versions of that software product.

## 3. Change Control Process

- ▶ In this process the new change request created by the client to change some configurations on the software product i.e. to add or remove or edit on the configuration items as the request is received by the team. As per approval of the change request the application will develop and the request will be closed on status.

## 4. Configuration Release Process

- ▶ This process is used to ensure the application will develop as per the project plan and test/verify the application as per scope. The software-related documents and software release notes are the inputs to provide a working version of the software application.

## 5. Configuration Auditing Process

- ▶ In this process to verify the developed software product as per the baselines or not. Here we go for function requirement audit and physical audit of the software application.

## 6. Review and Status Reporting Process

- ▶ It is a technical review on the application workflow, process, configuration items, and change requests, etc to generate the status report in every phase of the software development life cycle process. In this process we go for multiple reviews of the application to develop some application-related documents like user manual, Installation process guide, Do's and Don't Do's, Release notes, etc.



# In brief....SCM

- ▶ Tracking and managing the changes in the software development process.
- ▶ It provides to enhance the Productivity of the software application with minimal error.
- ▶ It provides a smooth workflow inside the development process.
- ▶ Easy to communicate with team members to develop a better quality of the product.
- ▶ To track every member of the team with project workflow status.
- ▶ It updates each team member's code parallelly by considering different version control.
- ▶ To manage the different tools and development processes in a software product.
- ▶ It is used to managing the software and hardware inside the application.
- ▶ It is used to controlling and managing defects, teamwork and process.
- ▶ It handles the software budgeting as per the change in the application.