

Project Management

Change Management

For any given project, a key management component is the practice of managing change. Change management, sometimes also referred to as change control, is an iterative process that continues throughout the project lifecycle. All projects, regardless of type or size, should maintain a change log and regularly manage requested changes. As change requests are submitted and resolved, the updated change log provides historical documentation of requested changes that have been addressed throughout the project's life.

The Project Management Institute (PMI) Project Management Body of Knowledge (PMBOK) defines a change control system as a collection of formal documented procedures that define how project deliverables and documentation will be controlled, changed, and approved.

It is also important to distinguish change management from the practice of configuration management. Configuration management focuses on the maintenance, consistency, and control of established project products, results, services, etc. This includes items such as hardware, software, documentations, etc. Change management, on the other hand, is the process during which requested changes are implemented using a pre-defined change control process.

The primary purpose of a change management system is to provide a standard process for submitting, documenting, and reviewing changes in preparation for prioritizing those corrections/enhancements. It identifies what changes to make, the authority for approving changes, the support for implementing changes, and the process for formal deviations and waivers from the original agreed upon requirements. The change management process establishes an orderly and effective procedure for tracking the submission, coordination, review, evaluation, categorization, and approval for release of all changes to the project's baselines. The change management system defines the guidelines for the management of project

change and describes in detail how changes will be documented, organized, and managed.

Analyze the triple constraints... scope, time, and cost to understand the costs and benefits of accepting a requested change. When managing competing requirements evaluate how a change in one constraint affects one or both of the remaining two.

Each change request is unique. How change requests are evaluated is dependent upon their importance and/or urgency. The proper evaluation of each new change request is a vital management practice with the objective of:

- Understanding the impact of the changes on all affected parties
- Ensuring that all eventualities are considered
- Consolidating all the individual impact analyses for the purpose of making an informed management decision
- Ensuring that due diligence has been exercised in the evaluation of the change request
- Ensuring that all affected parties have been consulted
- Evaluating the impact of the change being considered and weigh the cost against the benefits of the original change request

There are typically two types of change to contend with during the life of a project: product change and project change. Within each of these two categories scope, time, duration, cost, resource, deliverable, product, process, and quality all need to be considered when evaluating a change request.

1. Product Change - PMI PMBOK defines a product as an artifact that is produced, is quantifiable, and can be either an end item in itself or a component item. Product change impacts the product's deliverables, functionality, quality, etc. A product change may be large enough to also have an impact on project change.
2. Project Change - PMI PMBOK defines a project as a temporary endeavor undertaken to create a

unique product, service or result. Project change impacts the project's scope, time, duration, cost, resources, processes, etc.

To more easily manage change within a project, especially large complex projects, it is a common practice to establish thresholds within the change management system that define who has authority to approve what level of change. Changes with a larger size or scope impact require escalation to a higher level for approval. As an example, a project manager may be authorized to personally approve changes with a project impact of less than \$5,000. Changes with a project impact greater than \$5,000 would require approval by a Change Control Board (CCB).

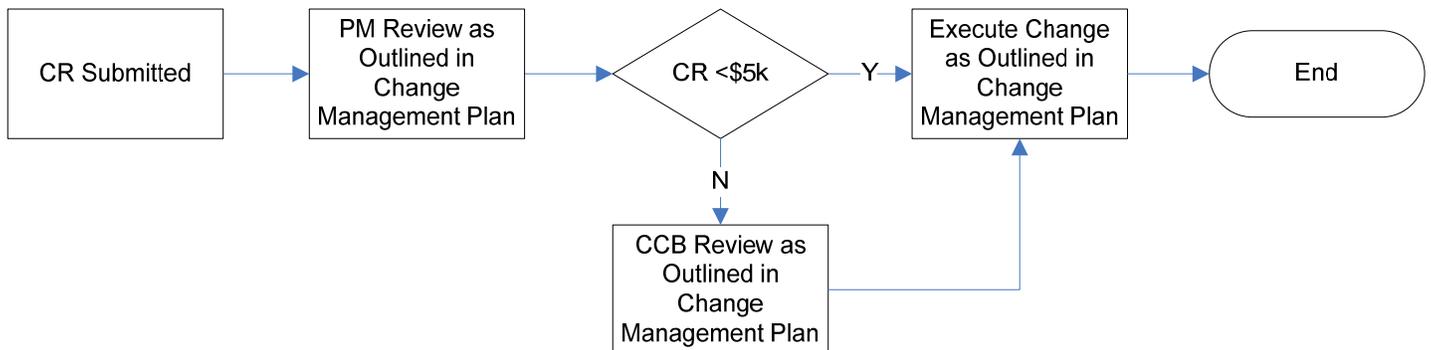
A CCB is a formally constituted group of stakeholders responsible for reviewing, evaluating, approving, delaying, or rejecting changes to the project. All decisions and recommendations related to change requests are recorded. The project team often works with the CCB to communicate details regarding requested changes and to help evaluate the most appropriate response.

A Change Management Plan is outlined during the Planning Phase of the project and describes the steps that will be followed to initiate, review, and resolve change requests within the project. Its intended audience is the project manager, project team, project sponsor and any senior leaders whose support is needed to carry out the plan. The process of management of the Change Management Plan and process is an ongoing process that continues throughout the project life cycle.

All projects, regardless of type or size, should maintain a change log and regularly manage requested changes. As change requests are submitted and resolved, the change log is updated, and thus serves as a historical record of requested changes that have been addressed throughout the project's life.

For more information and tools related to change management or the CDC Unified Process, please visit the CDC UP website at <http://www.cdc.gov/cdcup/>. ■

Simple Example:



Project Management Community of Practice

- *October 30*
Stage Gate Reviews – EPLC Lessons
- *December 4*
Authority, Power, & Influence

For more information on the Project Management Community of Practice visit the PMCoP website at <http://www2.cdc.gov/cdcup/library/pmcop/>

Contact the CDC Unified Process Team

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