# Configuration Control

## 📌 Definition

**# Source**: **Chatgpt (GPT-5-Standard) at [8/18/2025]**

**Configuration Control** is the process of **systematically managing changes** to configuration items (CIs) to ensure that only **authorized, reviewed, and documented changes** are made.

It answers the question:  
 👉 *“How do we handle changes to project artifacts in a controlled way?”*

## **🔑 Objectives**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/18/2025]**

1. Prevent **unauthorized changes** to project artifacts.
2. Ensure changes are **reviewed, approved, tested, and documented**.
3. Maintain **traceability of changes** → what was changed, why, when, and by whom.
4. Keep project artifacts in **stable and consistent states**.

## **📂 Activities in Configuration Control**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/18/2025]**

1. **Change Request (CR) Submission**
   * Example: Developer requests to update a test script for a new feature.
2. **Impact Analysis**
   * Evaluate the effect of the change on cost, time, quality, and other artifacts.
3. **Change Approval / Rejection**
   * A **Change Control Board (CCB)** or manager decides.
4. **Implementation of Approved Change**
   * Update CI (code, test case, requirement, etc.).
5. **Version Update & Documentation**
   * Assign a new version and update the configuration records.

## **📘 Example**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/18/2025]**

Suppose a project has a **Test Case: TC\_Login\_v1.0**.

* A change request is submitted: *Add OTP verification step to login.*
* The change is analyzed → impact on code, test scripts, and requirements.
* Approved by CCB.
* New version created: TC\_Login\_v2.0.
* Old version (v1.0) is archived for traceability.

## **🎯 Why Important?**

**# Source**: **Chatgpt (GPT-5-Standard) at [8/18/2025]**

* Avoids **chaos from uncontrolled changes**.
* Ensures **every change is traceable** and reversible.
* Helps maintain **project integrity and compliance**.
* Protects against mistakes like overwriting or losing artifacts.

✅ **In short:** **Configuration Control** = The process of reviewing, approving, and tracking changes to project artifacts so that the system remains **stable, traceable, and consistent**.