# Configuration Management Plan

**April 1, 2024**

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# 1. Introduction

This Configuration Management Plan (CMP) is intended to provide guidance on how changes and improvements to *Double Dash Dodge & Deceive* are to be implemented and tracked.

## 1.1. Purpose

This CMP provides a system of procedures and rules for management of the Configuration Items (CIs) within the *Double Dash Dodge & Deceive* Unity project.

## 1.2. Scope

This CMP applies to all CIs within the *Double Dash Dodge & Deceive* Unity project. This includes, but is not limited to: documentation, source code, art assets, and prefabricated objects.

## 1.3. Key Terms

- **Configuration Management Plan (CMP):** A document which manages and tracks how changes to CIs are to be implemented.
- **Configuration Item (CI):** Any document or artifact managed by this CMP.
- **Version Control (VC):** Any system which provides a systematic method to organize and document changes to CIs.

## 1.4. References

# 2. SCM Management

## 2.1. Organization

The *Double Dash Dodge & Deceive* project team will be responsible for carrying out the SCM activities described in this document.

## 2.2. Responsibilities

- Project Manager
    - Responsible for guiding the development of *Double Dash Dodge & Deceive*.
    - Has the sole authority to approve pull requests to the main development branch on the project GitHub repository.
- Configuration Manager
    - Responsible for ensuring that the CMP is followed.
- Development Team
    - Responsible for identifying CIs, as well as producing and managing script and game object assets.
    - Is able to view the project GitHub, and modify their own branches, but is unable to modify the main development branch.
- Artists
    - Responsible for identifying CIs, as well as producing and managing art assets.
    - Is a subset of the development team.

# 3. SCM Activities

## 3.1. Configuration Identification

- All C# scripts in the Assets/Scripts/ directory are CIs, and shall be referred to by name.
- All animation assets in the Assets/Animations/ directory are CIs, and shall be referred to by name.
- All scenes in the Assets/Scenes/ directory are CIs, and shall be referred to by name.
- Additional art assets are located in the Assets/Menu/ and Assets/SceneObjects/ directories.

## 3.2. Configuration Control

3.2.1. Changes to CIs will be implemented in a separate branch on the project GitHub repository. Pull requests will be required to merge changes to the main development branch.

3.2.2. Pull requests will be evaluated by the project manager before they are merged to the main development branch.

## 3.3. Configuration Status Accounting

3.3.1. Changes to CIs will be tracked through the project GitHub repository. The project manager will be notified of all pull requests.

3.3.2. The project repository will be available to all team members. Only the project manager will have the authority to accept or reject pull requests.

## 3.4. Configuration Evaluation and Reviews

3.4.1. CIs will be audited by the project manager prior to each release.

3.4.2. CIs are required to pass all tests prior to approval.

## 3.5. Interface Control

3.5.1. Changes to the Unity editor will be disregarded unless they are security critical.

## 3.6. Subcontractor/Vendor Control

3.6.1. Unity is managed by Unity Technologies.

## 3.7. Release Management and Delivery

3.7.1. Upon release, the Unity editor will be used to build a binary executable for distribution.

3.7.2. This binary will be distributed via the project website.

# 4. SCM Schedules

## 4.1. Sequence and coordination of SCM activities

- SCM activities will be jointly coordinated by the project manager and the configuration manager.

### 4.2. Relationship of key SCM activities to project milestones or events:

- A configuration baseline will be established after this document is published, once all changes are merged to the main GitHub branch by the project manager.
- Implementation of change control procedures will happen effective immediately, and be enforced by the project manager and configuration manager.
- A configuration audit is to be started within 5 days of its initial scheduling, and completed within 15 days of its initial scheduling.

### 4.3. Schedule

- Configuration audits are to be performed bimonthly after the establishment of a configuration baseline.
- Additional audits may be scheduled at the discretion of either the project manager or the configuration manager, with two (2) weeks notice.

## 5. SCM Resources

### 5.1. Identifies environment, infrastructure, software tools, techniques, equipment, personnel, and training.

- The Unity game engine will be the primary development environment, with scripts being written in C#. GitHub will be used as a version control (VC) system. All team members will be trained in using these tools.
- Art assets will be created using Aseprite. All artists will be trained in using this tool.

### 5.2. Key factors for infrastructure:

- Must take up less than 1GiB of space.
- Must be completed prior to December 1st 2024.
- Dependencies: Unity 2022.3.19f1

### 5.3. Identify which tools are used in which activity.

- GitHub (Remote version control and backup system)
- Unity (Game engine)
- C# (Backend and frontend)

## 6. SCM Plan Maintenance

### 6.1. Who is responsible for monitoring the plan?

The configuration manager is responsible for monitoring the plan and ensuring that it is followed.

### 6.2. How frequently updates are to be performed?

Updates are to be performed semiannually or on an as-needed basis.

### 6.3. How changes to the Plan are to be evaluated and approved?

Changes to the CMP are to be evaluated by members of the development team, and approved jointly by the project manager and configuration manager.

### 6.4. How changes to the Plan are to be made and communicated?

Changes to the CMP are to be reflected in the project repository, and communicated to team members via email.

### 6.5. Also includes history of changes made to the plan.

| Changes | Date | Initials |
|---|---|---|
| CMP created (0.0.1) | 04/01/2024 | KF |
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