Software Configuration Management Plan

Version <1.0>

Document Control

Approval

The Guidance Team and the customer shall approve this document.

Document Change Control

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| --- | --- |
| Initial Release: |  |
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| Indicator of Last Page in Document: |  |
| Date of Last Review: |  |
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This following list of people shall receive a copy of this document every time a new version of this document becomes available:

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Customer:

Software Team Members:

Change Summary

The following table details changes made between versions of this document

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Modifier | Description |
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# Introduction

<< This section gives introductory information regarding the project and the software configuration management plan. Identify the project. Describe the purpose of the software configuration management plan. Indicate what the document contains and who the intended audience is. Describe the sections of the document>>

## References

<<References used to create this document>>

# Software Configuration Identification

<< This section provides labels for the baselines and their updates.

>>

## Software Configuration Item Identification

2.1.1 Configuration Elements – elements that are likely to change throughout the “Improving Visualization Knowledge” process:

1. Documents
2. Source Code
3. Test Suites
4. Audit Report

## Software Configuration Item Organization

2.2.1 Naming Convention

|  |  |  |
| --- | --- | --- |
| Configuration Elements | Baseline Format | Example |
| Documents | *documentTitle\_leadPosition* | planReport\_Analyst.docx |
| Source Code | *className* | dataFeature.java |
| Test Suite | *testName\_date\_#* | dbtestOne\_Jan30\_1.jtt |
| Audit Report | *auditName\_PCA*  *auditName\_FCA* | auditOne\_PCA.docx |

Figure 1.0 – Elements Naming Convention

2.2.2 Labeling Scheme

**Documentation**

v3.0

v2.0

v1.0

v2.2

v2.1

v1.2

v1.1

* Baseline: v1.0, v2.0, v3.0, etc.
* Updates: v1.1, v1.2, v1.3, etc.

**Source Code**

v2.0

v1.0

v1.2

v1.1

v1.1.1

v1.1.2

v1.1.3

* Baseline: v1.0.0, v2.0.0, v3.0.0, etc.
* Group Updates: Updates: v1.1.0, v1.2.0, v1.3.0, etc.
* Individual Updates: v1.0.1, v1.0.2, v1.0.3, etc.

**Test Suites**

|  |
| --- |
| **Labeling** |
| testData\_Jan30\_1.jtt |
| testData\_Jan30\_2.jtt |
| testDB\_Jan31\_1.jtt |
| testTwo\_Jan31\_2.jtt |
| testTwo\_Feb1\_1.jtt |

* Labeled by date and numbered in order by that date (as defined in naming convention).

**Audit Report**

* Every Audit Report is labeled with the version number the team is working.

2.2.3 Management

**Documents**

As mentioned in 2.2.2, Documents will primarily be stored in the appropriate assignment folder that the team creates. The assignment folder will contain each baseline version/subversion of the document in that folder, as well as the final submitted assignment document.

**Program**

There will be only one program folder that contains multiple versions of source code in that folder.

**Test suites**: specified to each version of the code

Each test suite specific to its appropriate sourced code will be stored with that source code version and only that version. As mention before, the program folder will contain each version of source code, each with its appropriate test case.

**Audit Report:** specified to each version of the code

Each Audit Report will be stored in each update (v1.1..v1.3 etc) in order to guide the team with their duties. Also, each Audit Report will be stored in the folder where the source code in progress is saved.

2.2.4 Detailed Directory Structure

* Documents
* Source Code
  + v1.0
    - v1.1
      1. Test Suites
      2. Audit Reports
    - v1.2
      1. Test Suites
      2. Audit Reports
  + v2.0
    - v2.1
      1. Test Suits
      2. Audit Reports

2.2.5 Back-Up

Primary control of back up will be the teams repository on GitHub, however each member is responsible for maintaining each document, source code, test, etc. on his or her personal computers. Each member is also responsible for maintaining their branch on GitHub, then following the process of merging with others.

Google Drive will also be an additional back up form that contains all our documents/files that have been worked on, but will no be modified through there. Since there will always be online it doesn’t require an actual date to back it up.

# Software Configuration Control

<< Provide a detailed mechanism for preparing, evaluating, and approving or disapproving all change proposals to the configuration items throughout the life cycle. The purpose of this section is to identify what mechanisms will be used to control access to items in the configuration in order to prevent unauthorized updates and collisions between team members working on the system simultaneously. >>

## Documentation

<< Provide documentation for formally precipitating and defining a proposed change to a software system.

Explain how you will document changes to the configuration. What style will be used? NOTE: In a large software project, this section would include a series of forms or procedures for submitting a change request to a committee for review. A change request form usually contains information related to who is requesting the change, expected start and delivery dates, a description of the change, priority level, business justification for the change and a section to be completed by the development team where an initial assessment is provided on what the impact of the change will be in the system, level of effort needed to complete the change, approval signatures and actual start and delivery dates. This type of documentation assists project managers to maintain and evaluate metrics related to the progress of the project. >>

## Configuration Control Board

<< Provide an organizational body (Configuration Control Board) for formally evaluating and approving or disapproving a proposed change to a software system. Explain who will have access to modifying different parts of the system. How will changes be approved or disapproved, i.e., what factors will be evaluated in order to approve or disapprove a change. Can anyone make changes to any other person’s components? Who will be in charge of distributing changes? NOTE: The Configuration Control Board in your software team is the software team. Describe how V & V will report errors in the code. Describe how changes are approved and distributed. A common approach is to have two people, e.g., the implementer and one other team member, approve a change. The changed artifacts are placed in a current working version directory with appropriate copies of previous artifacts saved.) >>

## Procedures

<< Provide procedures for controlling changes to a software system. Describe in detail the team guidelines for managing your configuration items. Explain what tools (such as SourceSafe or SCC) or policies will be used to document, approve, and make changes to the configuration. If no tools are used, then explain how it will be done manually. How will you document the version number(s) of these tools?

The procedures defined in this section must be consistent with the considerations and procedures defined in other sections of this document. Define who will be in charge of administering the database and making sure that the team follows the process detailed in this part of the plan. Determine in detail what steps each team member must follow in order to checkout and modify an item, what steps are needed to create a new baseline for the project and what approvals are needed from the configuration control board at each point in the process.

This section of the document must contain enough information to serve as a training mechanism of the above described procedures for new team members.

>>

# Software Configuration Auditing

<<Provide a mechanism for determining the degree to which the current configuration of the software system mirrors the software system pictured in the baseline and the requirements documentation. This serves two purposes:

Verification. It ensures that what is intended for each SCI as specified in a baseline or update is actually achieved in the succeeding baseline or update.

Validation. It ensures that the baselines reflect what the customer wants. Describe how you will ensure that whenever there is a change in the system, it complies with the specifications, and the design.

Note: In your plan, this will be a complete report describing the extent to which your final implementation meets the requirements specified in the SRS. You can use an approach similar to the traceability matrix, where each requirement is mapped to different configuration items that have been developed to document or fulfill this requirement. This mapping must assist team members in easily identifying target configuration items as new changes are requested. >>