# Software Configuration Management Plan

Paradigm Software Technologies, Inc. DBA Nexelus

## Purpose

This document contains information on the standards and practices implemented in Nexelus for Software Configuration Management, as well as information about the processing and storage of these documents.

## Roles and Responsibilities

Nexelus Product Owner, and Development Manager are responsible for establishing, with the approval from the CTO, and monitoring this policy.

## Scope

The scope of this document is:

* Listing the specific documents which need to be written during the course of the project.
* Giving naming conventions for these documents.
* Providing a structured way to create, store and update the documents.
* Providing a standard layout for these documents.

This document will not describe the detailed contents of the individual documents. The Configuration Items (CIs) that will be written during the Nexelus project are:

* Requirement Specification Document
* Design Document
* Software Configuration Management Plan
* Software Project Management Plan
* Software Quality Assurance Plan
* Software Verification and Validation Plan
* Code

# Management

## Organization

The roles directly involved in the configuration management are:

* Configuration Manager (CM)
* Assistant CM

## Responsibilities

The Configuration Manager (CM) is mostly responsible for the technical part, such as the maintenance of the server. Both the CM and his assistant are responsible for keeping the documentation up-to-date and correct. They may rename and move files that are incorrectly named or placed. However, they may not make significant changes to any project or product documents and are mainly responsible for the naming and storing of these documents, not the actual contents. They are also responsible for making regular backups.

## SCMP implementation

Contrary to the ESA Software Engineering Standard [ESA] there won’t be a separate SCMP document for each phase of the project. Instead this document will be updated with appendices for every phase of the project. For more information concerning planning of the phases, refer to the Software Project Management Plan (SPMP).

## Applicable procedures

All the documents are subject to the standards described in the [ESA] and must also adhere to the requirements as described in the [SQAP] and the [SVVP]. To make a proper document the writer should apply to the following subsections.

## Preamble and Title Page

Every document should start with a Title Page and Document Stats Page. The Document Stats Page should be the ’Document Status Sheet’ and the ’Document Change History. The former will describe current status of the document including its authors, title, identification, version and version status (draft / internally accepted / conditionally approved / approved). The latter describes the changes made to the external approved document over time accompanied by the reasons of change.

## Table of Contents

After Revision history, a table of content in form of a table summarizing all sections in the document should follow. We use standard Microsoft Word Table of Contents for this purpose.

## Document Content

The rest of the document should be structured using various sections and subsections as needed. If a lot of definitions are used it is suggested to include a list of definitions somewhere in the first sections. The same goes for a list of references.

# Configuration identification

## Naming Convention

All documents will be named as:

* [Document Name] \_R<major revision>\_<minor revision>.[file type extension]

Where the name should be precise and should be self-explanatory for the purpose of document.

## Document Names

Document names are required to abide by the following naming scheme:

* Product and management documents should be named after their abbreviation.
* Meeting Agenda should be named Meeting Agenda\_[YYYYMMDD], where YYYY should be replaced by the year, MM by the month and DD by the day the meeting is planned. For example the agenda for 12 January 2024 is called “Meeting Agenda 20240112”
* Minutes should be named “Meeting Minutes [YYYYMMDD]”, which is analogous to the agenda

## Version Tags

The version tags follow the format x.y, where:

* x denotes the external version number
* y denotes the internal version number

A document’s first version tag should be 0.0. The informal version number y of a document will be incremented whenever a new version of a document is created in order to let people give some informal feedback. The internal version x of a document will be incremented when a version of the document is internally approved.

## Baselines

Baselines are documents that have been internally reviewed and approved. They will be stored in the master library on Microsoft DevOps.

# Configuration Control

## Library Control

All CIs are stored in one of two libraries: the development library, the Compliance library.

## Development library

The development library contains configuration items (CI) that are under construction and CIs that are not official product documents. Every category has its own repository on DevOps, in which the different documents have their own directory. The DevOps directory tree as it exists on the server is shown in the table. A new branch must be created for every release of the product.

The CM creates the initial module and group for each CI. Because of the nature of DevOps, none of the users can overwrite or delete any of the files. The Configuration Manager is allowed to correct naming and placing of documents if their location or name does not conform with the conventions described herein.

When a document is ready for a review the authors can tag the DevOps snapshot themselves. When a document has passed an internal or external review the authors must request the Configuration Manager (CM) to tag the current DevOps snapshot and to generate the document. In effect this means that authors are allowed to change the informal revision number by themselves, but that the CM is responsible for tagging the external and internal revisions.

<Project>  
 / Repos   
 / Files   
 / <Repository>   
 / <Branch>  
 / ClientConfig  
 / Source Code

## Compliance Library

All compliance process and evidence are maintained in DRATA repository for SOC Compliance. User must login to Drata website( <https://app.drata.com/>) to view/update policies, and evidence for SOC compliance.

# Tools, techniques and methods

All produced documents and tools are available to any group member on Microsoft DevOps. For this access each member has been given a user account.

Access DevOps Server

Users must access DevOps from following URL:

<https://dev.azure.com/Nexelus>

The above service provides following feature:

* Define Teams
* Define Projects
* Provide project access to teams
* Backlog Items
* QA Verification Progress
* Automated Deployment Pipelines