DO Qualification Kit

Software Development Plan (SDP)

R2017a

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DO Qualification Kit: Software Development Plan (SDP)

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**Document Number: *<DocNo>***

Revision: ***<Revision>***

Project: **<*Project*>**

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| --- | --- | --- |
| Approvals: |  |  |
| *<Name1>*, Author |  | Date |
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| *<Name 2>*, Project Management |  | Date |
|  |  |  |
| *<Name 3>*, Engineering |  | Date |
|  |  |  |
| *<Name 4>*, Quality Engineering |  | Date |

| Change History | | | | |
| --- | --- | --- | --- | --- |
| Rev. | Modification / Description | Date | Author | Checked |
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|  |  |  |  |  |
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# Introduction

## Purpose and Scope

The purpose of this document is to provide the Software Development Plan (SDP) for the project <*Project*>. This document provides the planning data defined in DO-178C, Section 11.2. The certification authority uses the SDP for a project as a description of the software development procedures and software life cycle(s) to be used to satisfy the software development process objectives.

Therefore, this document explains how the software development procedure objectives of the project *<Project>* are satisfied, including:

* Software requirements, design, model, and coding standards.
* Description of the software life cycle processes.
* Description of the software development environment.

The purpose of the SDP is to describe the software development process for the project <*Project*>.

This document provides the planning data defined in [DO-178C] Section 11.2 and [DO-331] Section MB.11.2, respectively.

You can use this SDP template as a resource when creating a SDP. If you are updating an existing SDP to support Model-Based Design (MBD), you can use this template as a reference document. Although representative of SDPs used in the industry, this SDP template has not been reviewed, approved, or accepted by any certification authority. It is the user’s responsibility to gain approval and acceptance of their SDP by the appropriate certification authority.

## Applicable Documents

Table 1 – Regulations and Standards

| ID | Document Title |
| --- | --- |
| DO-178C | *Software Considerations in Airborne Systems and Equipment Certification*.  RTCA, Inc., 2011 |
| DO-330 | *Software Tool Qualification Considerations*.  RTCA, Inc., 2011 |
| DO-331 | *Model-Based Development and Verification Supplement to DO-178C and DO-278A*.  RTCA, Inc., 2011 |
|  | *<List additional documents here, e.g. Advisory Circulars, EASA Certification Memos, etc.>* |

Table 2 – Company and Project Plans, Standards, and Documents

| Document | Document Title |
| --- | --- |
| PSAC | ***Plan for Software Aspects of Certification for*** <*Project*> |
| SDP | ***Software Development Plan for*** <*Project*> This document. |
| SVP | ***Software Verification Plan for*** <*Project*> |
| SCMP | ***Software Configuration Management Plan for*** <*Project*> |
| SQAP | ***Software Quality Assurance Plan for*** <*Project*> |
| SRS | ***Software Requirements Standards for*** <*Project*> |
| SDS | ***Software Design Standards for*** <*Project*> |
| SCS | ***Software Code Standards for*** <*Project*> |
| SMS | ***Software Model Standards for*** <*Project*> |
| SCI | ***Software Configuration Index for*** <*Project*> \* |
| SECI | ***Software Life Cycle Environment Configuration Index for*** <*Project*> \*\* |
| SAS | *Software Accomplishment Summary* ***for*** <*Project*> |
|  | *<List additional documents>* |

\* The information that defines the software configuration for the project <*Project*> is recorded in the *Software Configuration Index* (SCI).

\*\* The tool environment used for the project <*Project*> is defined in the *Software Life Cycle Environment Configuration Index* (SECI).

This initial release will identify the versions of completed documents, versions of the tools used, and the initial software configuration.

At the completion of the project, the SCIs and SECI will be updated with the final configuration information and final document version information.

If any of the plans are revised during the project, the reasons for the changes are captured and documented in the *Software Accomplishment Summary* (SAS).

## Referenced Documents

| ID | Document Title |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |
|  | *<List additional documents here.>* |

# Standards

## Software Requirements Standards

* <Insert your software requirements standards here.>

## Software Design Standards

* <Insert your software design standards here.>

## Software Model Standards

* <Insert your software model standards here.>

## Software Code Standard

* <Insert your software code standards here.>

# Software Life Cycle

## Development Teams

* <Describe.>

## Development Processes and Activities

* <Describe.>

## Software Requirements Process

* <Describe.>

## Software Design Process

* <Describe.>

## Software Coding Process

* <Describe.>

## Software Integration Process

* <Describe.>

# Software Development Environment

## Requirements Development Methods and Tools

* <Describe.>

## Design Methods and Tools

* <Describe.>

## Modeling Methods, Modeling Languages, and Modeling Tools

* <Describe.>

## Coding Methods, Programming Languages, and Coding Tools

* <Describe. These include your compilers, linkers, and loaders.>

## Hardware Platforms for the Tools

* <Describe.>