**System Name**

***Testing Plan***



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# INTRODUCTION

## Purpose

The purpose of the Testing Plan is to describe the strategy for formally testing the system. It includes a description of the process for defining and writing tests, the plan for conducting and documenting the test execution, as well as specific test data and scenarios.

## Scope

### System Description

Describe the system that is covered within this Testing Plan. Include a brief description of the business processes within which the system is used.

### Validation Scope

Describe the scope of the system requirements covered within this Testing Plan. Refer to the Functional Requirements Specification. Also include a description of any portion(s) of the system requirements that are outside the scope of this plan.

## Definitions, Acronyms, Abbreviations

Definitions of any terms, acronyms, or abbreviations used in the Testing Plan:

|  |  |
| --- | --- |
| **Term** | **Definition** |
| IQ | Installation Qualification |
| OQ | Operational Qualification |
| PQ  | Performance Qualification |
|  |  |

## References

Identify references to any published work used to prepare this Testing Plan or referenced within this Testing Plan.

# Resource Requirements

## Roles and Responsibilities

Identify the organizations and personnel involved in the testing effort.

|  |  |  |  |
| --- | --- | --- | --- |
| **Action** | **Author(s)** | **Executer(s)** | **Approver(s)** |
| Unit Tests |  |  |  |
| System Integration Tests |  |  |  |
| Test Environment Setup |  | N/A | N/A |
| Installation Qualification |  |  |  |
| Operation Qualification |  |  |  |
| Performance Qualification |  |  |  |

## Human Resource Requirements

Identify the human resources that will be needed to carry out the Testing Plan

Per role, above, estimate the number of people, man-hours, days, etc. of effort needed to complete the activities in this plan.

Identify any training needed to support the plan. For example, testers might need to be trained in documentation procedures prior to requirements verification.

## Testing Environment

Describe the technical environment(s) within which the test will be executed. For example, a Development environment could be used for coding and unit testing, and another environment could be used for execution of the Validation Protocols.

Describe the data that will be used in each testing environment. For example, you can specify that the validation testing environment should contain a copy of production data.

## Testing Tool Requirements

Describe all tools required to execute the Testing Plan. This would include software testing tools, requirement management tools, configuration management tools, and protocol development tools.

List the operating procedures that must be followed and/or developed to support the use of each tool.

## Additional Resource Requirements

Identify and describe any additional resources that will be needed to execute the Testing Plan. Some areas to consider are:

* PCs for testers
* Peripheral equipment (e.g., printers, scanners)
* Work space for testers

# Validation Testing Strategy

Describe the testing plan strategy including the use of IQs, OQs, and PQs, the process for developing the protocols, the creation and data content of the validation test environment, and the plan for test execution and review.

# Installation Qualification

Identify the IQ test scripts (or protocols) that define the installation process. Include the steps to set up the hardware, load the software, and configure the application.

|  |
| --- |
| **IQ Test Script / Protocol *(example information)*** |
| **ID** | **Name** | **Purpose** |
| *IQ-001* | *Hardware Installation* | *Steps for installation and verification of the hardware to support System X* |
| *IQ-002* | *Software Installation* | *Steps for installation and verification of the System X application* |
| *IQ-003* | *Application Configuration* | *Steps for installation and verification of the configuration of System X* |
| *IQ-004* | *Printer Installation and Configuration* | *Steps for installation, configuration, and verification for printers for System X* |
|  |  |  |

# Operational Qualification

## Test Approach

Identify the approach that will be taken for OQ testing. Include approach to requirements coverage, boundary testing, path coverage, stress testing, data (e.g., production vs. engineered), and test methodologies.

## Test Cases

Identify the OQ test scripts (or protocols) and cases that define the testing of the system vs. the Functional Specification. Identify any specific scenarios and data sets that must be used to adequately challenge the system’s functionality to ensure consistent, reliable performance.

|  |
| --- |
| **OQ Test Script / Protocol *(example information)*** |
| **ID** | **Name** | **Requirement(s)** | **Test Case** | **Case Name** |
| OQ-001 | User Maintenance | FS 1.1  | 1 | Add New User |
| **Scenario(s)** | **Prerequisite Data** | **Test Data** |
| * Add a new user
* Try to add a user that already exists to test error message
* Try to add an invalid department ID to test error message
 | * At least one user ID already exists in the system
 | * any
 |
| **ID** | **Name** | **Requirement(s)** | **Test Case** | **Case Name** |
| OQ-001 | User Maintenance | FS 1.2 | 2 | Modify User |
| **Scenario(s)** | **Prerequisite Data** | **Test Data** |
| * Try to enter a non-existent user to test error message
* Try to change existing user’s department to an invalid department ID
* Select a valid department ID from the drop-down menu
* Modify the date of employment
 | * At least one user ID already exists in the system
* At least one department ID already exists in the system
 | * Attempt to use invalid employment starting dates:
	+ June 31, 2009
	+ February 29, 2009
	+ May 31, 20010
	+ Any future date
 |

## Test Documentation

Identify the documentation that will be generated by the OQ testing. Examples of documentation include:

* Pre-approved protocols
* Executed, post-approved protocols
* Evidence of test results (e.g., screen images)

# Performance Qualification

## Test Approach

Identify the approach that will be taken for PQ testing. Include approach to requirements coverage, boundary testing, path coverage, stress testing, data (e.g., production vs. engineered), use of use cases, and test methodologies.

## Test Cases

Identify the PQ test scripts (or protocols) that define the testing of the system vs. the User Requirements. Identify any specific scenarios and data sets that must be used to adequately challenge the system’s functionality to ensure that the system performs as expected for intended use in business situations.

|  |
| --- |
| **OQ Test Script / Protocol** |
| **ID** | **Name** | **Requirement(s)** | **Test Case** | **Case Name** |
|  |  |  |  |  |
| **Scenario(s)** | **Prerequisite Data** | **Test Data** |
|  |  | *
*
*
 |
| **ID** | **Name** | **Requirement(s)** | **Test Case** | **Case Name** |
|  |  |  |  |  |
| **Scenario(s)** | **Prerequisite Data** | **Test Data** |
|  |  | *
*
*
 |

## Test Documentation

Identify the documentation that will be generated by the OQ testing. Examples of documentation include:

* Pre-approved protocols
* Executed, post-approved protocols
* Evidence of test results (e.g., screen images)

# Testing Schedule

List the milestone dates for the major activities within the Testing Plan. For example:

| **Milestone** | **Target Date** |
| --- | --- |
| Test Plan Approval | January 31, xxxx |
| Unit Test Execution Completion | February 15, xxxx |
| Validation Environment Set Up | March 5, xxxx |
| Validation Protocol Execution | March 31, xxxx |
| IQs Authored | March 4, xxxx |
| IQs Pre-Approved | March 8, xxxx |
| OQs 1-4 Authored | March 10, xxxx |
| OQs 1-4 Pre-Approved | March 14, xxxx |
| OQs 1-4 Executed and Incidents Resolved | March 20, xxxx |
| OQs 1-4 Post Approved | March 24, xxxx |
| OQs 5 & 6 Authored | March 17, xxxx |
| OQs 5 & 6 Pre-Approved | March 21, xxxx |
| OQs 5 & 6 Executed and Incidents Resolved | March 27, xxxx |
| OQs 5 & 6 Post Approved | March 31, xxxx |
| PQs Authored | March 24, xxxx |
| PQs Pre-Approved | March 28, xxxx |
| PQs Executed and Incidents Resolved | April 5, xxxx |
| PQs Post Approved | April 12, xxxx |
| Test Report Post Approved | April 19, xxxx |

# Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Document Version Number** | **Document Revision Date** | **Revisions Made By:** | **Revision Summary***(Reference section[s] changed)* |
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# Approvals

Signature(s) below indicate agreement with the contents of this Testing Plan document as an accurate representation of the testing organization, environment, and approach.

|  |
| --- |
| Document Prepared by: |
| Function | Name | Signature | Date |
|  |  |  |  |

Signatures below additionally signify approval of this Testing Plan document.

| Document Approvals: |
| --- |
| Function | Name | Signature | Date |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**\*\*\*END OF DOCUMENT\*\*\***