Test Plan Template

(Based on the IEEE Standard for Software Test Documentation

ANSI/IEEE Standard 829-1983)

Version 1.0

**Revision History**

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**Table of Contents**

[1.0 Test Plan Identifier 4](#_Toc278527863)

[2.0 Introduction 4](#_Toc278527864)

[3.0 Summary of Items and Features to be Tested 4](#_Toc278527865)

[4.0 Test Plan Objectives 4](#_Toc278527866)

[5.0 Test Strategy 4](#_Toc278527867)

[6.0 Scope 4](#_Toc278527868)

[6.1 Data Entry 5](#_Toc278527869)

[6.2 Reports 5](#_Toc278527870)

[6.3 File Transfer 5](#_Toc278527871)

[6.4 Security 5](#_Toc278527872)

[6.5 System Test 5](#_Toc278527873)

[6.6 Performance Test 5](#_Toc278527874)

[6.7 Security Test 5](#_Toc278527875)

[6.8 Automated Test 5](#_Toc278527876)

[6.9 Stress and Volume Test 5](#_Toc278527877)

[6.10 Recovery Test 5](#_Toc278527878)

[6.11 Documentation Test 6](#_Toc278527879)

[6.12 Beta Test 6](#_Toc278527880)

[6.13 User Acceptance Test 6](#_Toc278527881)

[7.0 Test Items Contents 6](#_Toc278527882)

[7.1 Item List of Test Items and their Versions 6](#_Toc278527883)

[7.2 Characteristics of their Transmittal Media 6](#_Toc278527884)

[7.3 References to Related Documents 6](#_Toc278527885)

[8.0 Testing Tasks Contents 6](#_Toc278527886)

[9.0 Environment Requirements 6](#_Toc278527887)

[9.1 User 6](#_Toc278527888)

[9.2 System/Network 6](#_Toc278527889)

[10.0 Test Schedule 7](#_Toc278527890)

[11.0 Control Procedures 7](#_Toc278527891)

[11.1 Reviews 7](#_Toc278527892)

[11.2 Bug Review meetings 7](#_Toc278527893)

[11.3 Change Request 7](#_Toc278527894)

[11.4 Defect Reporting 7](#_Toc278527895)

[12.0 Features to Test contents. 7](#_Toc278527896)

[13.0 Features Not to Test Contents 7](#_Toc278527897)

[14.0 Resources and Responsibilities 8](#_Toc278527898)

[14.1 Resources 8](#_Toc278527899)

[14.2 Staffing and Training Needs Contents 8](#_Toc278527900)

[14.3 Responsibilities 8](#_Toc278527901)

[14.4 Testing Tasks Contents 8](#_Toc278527902)

[15.0 Deliverables 9](#_Toc278527903)

[16.0 Test input and output data: 9](#_Toc278527904)

[17.0 Testing tools: 9](#_Toc278527905)

[18.0 Suspension / Exit Criteria 9](#_Toc278527906)

[19.0 Resumption Criteria 10](#_Toc278527907)

[20.0 Dependencies 10](#_Toc278527908)

[20.1 Personnel Dependencies 10](#_Toc278527909)

[20.2 Software Dependencies 10](#_Toc278527910)

[20.3 Hardware Dependencies 10](#_Toc278527911)

[20.4 Test Data and Database 10](#_Toc278527912)

[21.0 Risk management 10](#_Toc278527913)

[21.1 Risk Area 10](#_Toc278527914)

[21.2 Schedule 10](#_Toc278527915)

[21.3 Technical 11](#_Toc278527916)

[21.4 Management 11](#_Toc278527917)

[21.5 Personnel 11](#_Toc278527918)

[21.6 Requirements 11](#_Toc278527919)

[22.0 Documentation 11](#_Toc278527920)

[23.0 Approvals 12](#_Toc278527921)

**List of Tables**

[Table 1: Staffing Roles and Responsibilities 9](#_Toc278527234)

[Table 2: Deliverable Responsibility and Completion Dates 10](#_Toc278527235)

This is a model test plan template based on principles defined in ANSI/IEEE Standard 829-1983[[1]](#footnote-1), which describes a test plan as “a document describing the scope, approach, resources, and schedule of intended testing activities. It identifies test items, the features to be tested, the testing tasks, who will do each task, and any risks requiring contingency planning.”

Sections of this document included in *“<bracketed italic text>”* are for informational or instructional purposes and are not to be included in the completed document. *“<Example –>”* identifies examples of text that might be included.

Reference CMS Testing Framework:

(<https://www.cms.gov/SystemLifecycleFramework/Downloads/CMSTestingFrameworkOverview.pdf>).

# Test Plan Identifier

*<A uniquely defined Identifier should be included for each test plan for ease of reference and retrieval.>*

# Introduction

# Summary of Items and Features to be Tested

*<Itemized bulleted list of features and items with a description>*

# Test Plan Objectives

This test plan for the updated MMIS system, or new system, supports the following objectives:

* *<List objectives here>*
* *<Example - Communicate to all responsible parties the system test strategy.>*
* *<Example - Define deliverables and responsible parties.>*
* *<Example - Communicate to all responsible parties the various dependencies and risks**.>*

# Test Strategy

*<Describe the overall approach to testing. For each major group of testing features, specify the group, major activities, techniques, and tools to test the groups. Specify the minimum degree of comprehensiveness required. Identify techniques to judge comprehensiveness. Specify any additional completion criteria. Specify techniques to trace requirements. Identify significant constraints on testing, such as test-item availability, testing-resource availability, and deadlines. The test strategy consists of a series of different tests that will fully exercise the MMIS system. The primary purpose of these tests is to uncover the system’s limitations and measure its full capabilities.>*

# Scope

*<Identify the types of content that will be tested.>*

## Data Entry

*<Include a description of the data entry that will be required to support the test.>*

## Reports

*<Describe the reports that will be generated as outputs from the test.>*

## File Transfer

*<Description of files that will be transferred to execute the test plan.>*

## Security

*<Include a description of the scope of the security elements that will be tested through this activity.>*

## System Test

*<Example - The System tests will focus on the behavior of the system. User scenarios will be executed against the system as well as screen mapping and error message testing. Overall, the system tests will test the integrated system and verify that it meets the requirements defined in the requirements document.>*

## Performance Test

*<Example - Performance test will be conducted to ensure that the system’s response times meet the user expectations and do not exceed the specified performance criteria. During these tests, response times will be measured under heavy stress and/or volume.>*

## Security Test

*<Example - Security tests will determine how secure the system is. The tests will verify that unauthorized user access to confidential data is prevented.>*

## Automated Test

*<Example - A suite of automated tests will be developed to test the basic functionality of the system and perform regression testing on areas of the systems that previously had critical/major defects. The tool will also assist to execute user scenarios thereby emulating several users.>*

## Stress and Volume Test

*<Example - The system will be subjected to high input conditions and a high volume of data during the peak times. The System will be stress tested using twice (20 users) the number of expected users.>*

## Recovery Test

*<Example - Recovery tests will force the system to fail in various ways and verify the recovery is properly performed. It is vitally important that all data is recovered after a system failure and no corruption of the data occurred.>*

## Documentation Test

*<Example - Tests will be conducted to check the accuracy of the user documentation. These tests will ensure that no features are missing, and the contents can be easily understood.>*

## Beta Test

*<Example - The department will beta test the system and will report any defects found. This will subject the system to tests that could not be performed in the SMA test environment.>*

## User Acceptance Test

*<Example - Once the system is ready for implementation, the department will perform User Acceptance Testing. The purpose of these tests is to confirm that the system is developed according to the specified user requirements and is ready for operational use.>*

# Test Items Contents

## Item List of Test Items and their Versions

* *<Description>*
* *<Example;Enrollment System >*
* *<Example;Claims AdjudicationSystem >*

## Characteristics of their Transmittal Media

*<Identify tape, CD or other media related to the testing>*

## References to Related Documents

*<Example - requirements specification, design specification, user guide, operations guide, and installation guide. References to bug reports related to test items.>*

# Testing Tasks Contents

***<****Identify tasks necessary to prepare for and perform testing. Identify all task interdependencies. Identify any special skills required.>*

# Environment Requirements

*<Specify necessary and desired properties of the test environment: physical characteristics of the facilities including hardware, communications, and system software, the mode of usage (i.e., stand-alone), and any other software or supplies needed. Specify the level of security required. Identify special test tools needed. Identify any other testing needs. Identify the source for all needs which are not currently available.>*

## User

*<Identify environmental requirements at the user or desktop level.>*

## System/Network

*<Identify environmental requirements at the system or network level.>*

# Test Schedule

*<Insert Schedule:*

* *Provide overall project schedule which includes all testing tasks and test milestones*
* *Specify all item transmittal events*
* *Estimate time required to do each testing task*
* *For each testing resource, specify its periods of use>*

# Control Procedures

## Reviews

*<Example - The project team will perform reviews for each Phase (i.e., Requirements Review, Design Review, Code Review, Test Plan Review, Test Case Review, and Final Test Summary Review). A meeting notice, with related documents, will be emailed to each participant.>*

## Bug Review meetings

*<Example - Regular weekly meetings will be held to discuss reported defects. The development department will provide status/updates on all defects reported and the test department will provide additional defect information, if needed. All members of the project team will participate.*

## Change Request

*<Example - Once testing begins, changes to the system are discouraged. If functional changes are required, these proposed changes will be discussed with the Change Control Board (CCB). The CCB will determine the impact of the change and if/when it should be implemented.>*

## Defect Reporting

*<Example - When defects are found, the testers will complete a defect report using the defect tracking system. The defect tracking system is accessible by testers, developers, and all members of the project team. When a defect has been fixed or more information is needed, the developer will change the status of the defect to indicate the current state. Once a defect is verified as FIXED by the testers, the testers will close the defect report.>*

# Features to Test contents.

*<List all the software features and combinations of features to be tested. This should include a reference to test-design specifications associated with each feature and combination of features. A requirements validation matrix will “map” the test cases back to the requirements. See Deliverables.>*

# Features Not to Test Contents

The following is a list of functions that will not be tested, including the reasons these features will not be tested:

* *<Feature>*
* *<Feature>*

# Resources and Responsibilities

*<Example - The Test Lead and Project Manager will determine when the system test will start and end. The Test lead will also be responsible for coordinating schedules, equipment, and tools for the testers as well as writing/updating the Test Plan, Weekly Test Status reports, and Final Test Summary report. The testers will be responsible for writing the test cases and executing the tests. With the help of the Test Lead, <xx users> will be responsible for the Beta and User Acceptance tests.>*

## Resources

*<Identify groups responsible for managing, designing, preparing, executing, witnessing, checking, and resolving. Example -*

* *A Project Manager*
* *Resource responsible for providing environmental needs*
* *Test Lead*
* *Testers*
* *User Testers>*

## Staffing and Training Needs Content

*<Specify staffing needs by skill level. Identify training options for providing necessary skills.>*

## Responsibilities

Table 1: Staffing Roles and Responsibilities

| **Staffing Role** | **Responsibilities** |
| --- | --- |
| **Project Manager** | *<Example - Responsible for Project schedules and the overall success of the project. Participate on Change Control Board (CCB)>* |
| **Lead Developer** | *<Example - Serve as a primary contact/liaison between the development department and the project team.*  *Participate on CCB.>* |
| **Test Lead** | *<Example - Ensures the overall success of the test cycles. He/she will coordinate weekly meetings and will communicate the testing status to the project team.*  *Participate on CCB.>* |

## Testing Tasks Contents

*<Identify tasks necessary to prepare for and perform testing. Identify all task interdependencies. Identify any special skills required.>*

# Deliverables

*<Identify the deliverable documents: test plan, test design specifications, test case specifications, test procedure specifications, test item transmittal reports, test logs, test incident reports, and test summary reports.>*

Table 2: Deliverable Responsibility and Completion Dates

| **Deliverable** | **Responsibility** | **Completion Date** |
| --- | --- | --- |
| **Develop Test cases** | *<Responsible party>* |  |
| **Test Case Review** | *<Responsible party>* |  |
| **Develop Automated test suites** | *<Responsible party>* |  |
| **Requirements Validation Matrix** | *<Responsible party>* |  |
| **Obtain User ids and Passwords for payroll system/database** | *<Responsible party>* |  |
| **Execute manual and automated tests** | *<Responsible party>* |  |
| **Complete Defect Reports** | *<Responsible party>* |  |
| **Document and communicate test status/coverage** | *<Responsible party>* |  |
| **Execute Beta tests** | *<Responsible party>* |  |
| **Document and communicate Beta test status/coverage** | *<Responsible party>* |  |
| **Execute User Acceptance tests** | *<Responsible party>* |  |
| **Document and communicate Acceptance test status/coverage** | *<Responsible party>* |  |
| **Final Test Summary Report** | *<Responsible party>* |  |

# Test input and output data:

*<Describe input and output data related to testing requirements.>*

# Testing tools:

*<Describe testing tools that will be used.>*

# Suspension / Exit Criteria

*<Specify criteria to be used to suspend the testing activity. Specify testing activities to redo upon resuming testing.>*

*<Example - If any defects are found which seriously impact the test progress, the QA manager may choose to suspend testing. Criteria that will justify test suspension include the following:*

* *Hardware/software is not available at the times indicated in the project schedule.*
* *Source code contains one or more critical defects, which seriously prevents or limits testing progress.*
* *Assigned test resources are not available when needed by the test team.>*

# Resumption Criteria

*<Example - If testing is suspended, resumption will only occur when the problem(s) that caused the suspension has been resolved. When a critical defect is the cause of the suspension, the “FIX” must be verified by the test department before testing is resumed.>*

# Dependencies

## Personnel Dependencies

*< Example - The test team requires experienced testers to develop, perform, and validate tests. The test team will also need the following resources available:*

* *<Itemize resources>*
* *<Itemize resources>*
* *<Itemize resources>*

## Software Dependencies

*<Example - The source code must be unit tested and provided within the scheduled time outlined in the project schedule.>*

## Hardware Dependencies

*<Describe the hardware dependencies for testing.>*

*<Example - The Mainframe, 10 PCs (with specified hardware/software), as well as the LAN environment need to be available during normal working hours. Any downtime will affect the test schedule.>*

## Test Data and Database

*<Define the test data and databases that will need to be available for testing, including data marts that may be required for report and analytic testing.>*

# Risk Management

*<Identify the high-risk assumptions of the test plan and include contingency plans for each risk.>*

## Risk Area

<*Identify specific areas of risk to the testing process including dependencies, resources, technology, time frames, etc.*>

## Schedule

The schedule for each phase is very aggressive and could affect testing. A slip in the schedule in one of the other phases could result in a subsequent slip in the test phase. Close project management is crucial to meeting the forecasted completion date.

## Technical

Since this is a new payroll system, in the event of a failure the old system can be used. We will run our test in parallel with the production system so that there is no downtime of the current system.

## Management

Management support is required so when the project falls behind, the test schedule does not get squeezed to make up for the delay. Management can reduce the risk of delays by supporting the test team throughout the testing phase and assigning people to this project with the required skill set.

## Personnel

Due to the aggressive schedule, it is very important to have experienced testers on this project. Unexpected turnovers can impact the schedule. If attrition does happen, all efforts must be made to replace the experienced individual.

## Requirements

The test plan and test schedule are based on the current Requirements Document. Any changes to the requirements could affect the test schedule and will need to be approved by the CCB.

# Documentation

The following documentation will be available at the end of the test phase:

* *<Example - Test Plan>*
* *<Example - Test Cases>*
* *<Example - Test Case review>*
* *<Example - Requirements Validation Matrix>*
* *<Example - Defect reports>*
* *<Example - Final Test Summary Report>*

# Approvals

Required sign-off roles:

* *<List of roles of persons required for sign-off>*

|  |  |  |  |
| --- | --- | --- | --- |
| **Name (Print)** | **Signature** | **Role** | **Date** |
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1. <http://www.sqatester.com/documentation/downloads/IEEEStandardTestPlans.doc>. [↑](#footnote-ref-1)