

TEST PLAN

- 1.0 Introduction and Background
- 2.0 Organizational Responsibilities
 - 2.1 Organization Description
 - 2.2 Controlling Documents
 - 2.3 Applicable Documents
- 3.0 Test Objectives, Scope, Purpose, Constraints and Limitations
 - 3.1 Test Objectives
 - 3.2 Test Scope and Purpose
 - 3.3 Test Constraints and Limitations
- 4.0 Areas of Risk
- 5.0 Functional Allocation of Requirements to Tests
- 6.0 How Tests Will Be Accomplished
 - 6.1 Test Levels
 - 6.2 Test Description
 - 6.3 Test Sequence and Schedule
 - 6.4 Specification Requirements/Evaluation Allocation Matrix
 - 6.5 Acceptance Criteria
 - 6.6 Test Results Analysis. Metrics and Reporting
 - 6.7 Test Results Database
- 7.0 Test Requirements and Resources
 - 7.1 Description of the Operational and Test Configuration
 - 7.2 Estimate of Computer Resource Requirements for Testing
 - 7.3 Simulation Plan
 - 7.4 Personnel Requirements for Testing
 - 7.5 Test Support Tools

- 7.6 Testbed Description
- 8.0 Test Cases/Scenarios
- 9.0 Test Procedures
- 10.0 Test Scripts

(INDEPENDENT) VERIFICATION & VALIDATION ACTIVITIES DURING SDLC

- 1.0 Activities Performed During System Planning Phase
 - 1.1 Prepare System Test Requirements
 - 1.2 Review Requirements Documentation
 - 1.3 Prepare System Integration Plan
 - 1.4 Define Test Software Requirements
- 2.0 Activities Performed During System Requirements/Analysis Phase
 - 2.1 Prepare CSCI Test Requirements
 - 2.2 Review Requirements Documentation
- 3.0 Activities Performed During System Design Phase
 - 3.1 Review Design Documentation
 - 3.2 Prepare CSCI Test Plans
 - 3.3 Prepare CSCI Test Procedures
 - 3.4 Prepare Test Database
- 4.0 Activities Performed During System Implementation Phase
 - 4.1 Prepare Integration Test Plan
- 5.0 Activities Performed During System Testing Phase
 - 5.1 Prepare Integration Test Procedures
 - 5.2 Conduct CSCI Formal Qualification Tests
 - 5.3 Prepare CSCI Test Reports
 - 5.4 Manage Test Problem Reporting
- 6.0 Activities Performed During System Integration & Deployment/Delivery Phase

- 6.1 Conduct System Integration Testing
- 6.2 Prepare Integration Test Reports
- 6.3 Manage Test Problem Reporting

- 7.0 Activities Performed During System Operation & Maintenance Phase
 - 7.1 Prepare Test Plan/Procedure
 - 7.2 Conduct Maintenance Retesting
 - 7.3 Manage Test Problem Reporting

(SOFTWARE) PRODUCT QUALITY ASSURANCE ACTIVITIES DURING SDLC

- 1.0 Activities Performed During System Planning Phase
 - 1.1 Publish QA Plan
 - 1.2 Review Requirements Specifications
 - 1.3 Track Requirements Review Action Items
- 2.0 Activities Performed During System Requirements/Analysis Phase
 - 2.1 Review CSCI Requirements Specification
 - 2.2 Track Requirements Review Action Items
- 3.0 Activities Performed During System Design Phase
 - 3.1 Review Design Compliance to Standards
 - 3.2 Monitor Requirements vs. Design Matrix
 - 3.3 Review Test Plans for Compliance
 - 3.4 Track Design Review Action Items
- 4.0 Activities Performed During System Implementation Phase
 - 4.1 Review Code for Compliance Standards
 - 4.2 Review Test Plans/Procedures for Compliance
- 5.0 Activities Performed During System Testing Phase
 - 5.1 Witness Formal Qualification Tests

- 5.2 Verify Documentation Reflects Baseline
- 5.3 Review Test Plans/Procedures for Compliance
- 5.4 Evaluate Test Results
- 6.0 Activities Performed During System Integration & Deployment/Delivery Phase
 - 6.1 Witness integration Tests
 - 6.2 Verify Documentation Reflects Baseline
 - 6.3 Review Test Plans/Procedures for Compliance
 - 6.4 Evaluate Test Results
 - 6.5 Monitor Corrective Action
- 7.0 Activities Performed During System Operation & Maintenance Phase
 - 7.1 Verify Documentation Reflects Baseline

DEFINITIONS

Validation—This activity ensures that each end item product functions and contains the features as prescribed by its requirements and specifications at the corresponding level.

The process of evaluating a component at the end of the development process to ensure compliance with requirements. (Does it do the right job?)

Verification—This activity ensures that each step of the development process correctly echoes the intentions of the immediately preceding step.

The process of determining whether or not the products of a given phase of the development cycle fulfill the requirements established during the previous phase. (Does it do the job right?)

Certification—This activity ensures that the data processing system properly interacts within the total system and performs its specified functions within the total system context.

Quality Assurance—This activity consists of a series of methods, techniques and tools, applied over the entire SDLC to ensure that the correct process is being followed and consequently the end product satisfy the initial requirements.

A planned and systematic pattern of audits, inspections, and evaluations necessary to provide adequate confidence that an item, product, or process conforms to established technical requirements.

TESTING

Methods

Techniques

Tools

VERIFICATION & VALIDATION

Methods

Techniques

Tools

QUALITY ASSURANCE

Methods

Techniques

Tools