

ICM SOLUTION

# QA Test Strategy

Product/Project name: ICM

Test Owner:

**Version:2017.4**

Date: 10/02/2017

# 1. INTRODUCTION

## 1.1 DOCUMENT SCOPE

The purpose of this Test Strategy document is to define the overall approach that will be taken by the Test Team when delivering testing services to all the ICM projects within the business. It defines the following areas:

- Documentation to be used
- Testing process
- Testing Approach
- Pass/Fail Criteria
- Perform Test Type
- QA environment;
- Responsibility Metrix
- Potential risks;
- High-level schedule.
- Approval

The document has been created based on the Scope documents provided by Project Manager/Owner.

## 1.2 PROJECT DESCRIPTION

This is the testing document to clarify the testing activities for up coming ICM release 2017.4 version

## 1.3 SPECIFICATION DOCUMENTATION

Listing of all documentation to be used in the project

- Technical Spec
- PBI stories in TFS
- Bug stories in TFS

## 2. TESTING PROCESS

### 2.1 CYCLE ONE

- Verify Testing Environment
- Verify fixed defects & PBI:
  - Test and Execute all the bug's, Hot fix during the sprints
  - Test and Execute all the PBI's during the sprints

### 2.2 CYCLE TWO

- Smoke Test:
  - Verify Testing Environment
  - General walkthrough including All Other Core Functionalities, Integrations

### 2.3 SUBSEQUENT CYCLES

- Verify Testing Environment
- Verify fixed defects, PBI and Hot fixed
- Regression Test functionality around fixed defects. Test Engineers will use their judgement to decide how much regression testing is required, based on the number and types of defects fixed in each version.

### 3. TEST APPROACH

All the testing tasks will be conducted in line with the Software Test Life Cycle (STLC) and in support of the Software Development Life Cycle (SDLC). The documents used within the SDLC will be completed both by the Test Team and the project participants that are responsible for providing information and deliverables to the Test Team.

So, All Testing will be completed **manually followed Agile method** using Microsoft Visual Studio Test Manager.

#### 3.1 TEST PHASE ENTRY CRITERIA

Before Test Items are made available for the Test Team to test it's expected that:

- The *Test Item Transmittal Report* will be completed
- All test tools and test infrastructure are available for use during testing
- All Test Items are development complete
- The correct versions of the code have been deployed to the correct test environments
- Sanity and Unit tests have been completed successfully by the developer

#### 3.2 TEST PHASE EXIT CRITERIA

For the Test Items to exit testing the following conditions will have to be met:

- The *Test Summary Report* will be completed.
- All planned testing activities has been completed to agreed levels.
- All high priority bugs have been fixed, retested and passed OR forward to the next version to fix, retest & Pass by the approved of PO.
- No defects must be left in an open unresolved status

### 3.3 MEASURES AND METRICS

At the Initiation Phase of the ICM project the Test Team will publish a set of measures and metrics related to the test activities of their Planning & Analysis and Execution phases.

#### Test Execution and Progress

- Number of Test cases mapped to requirements
- Number of Test Cases Planned Vs Test Cases Executed
- Number of Test Cases Passed Vs Failed

#### Bug Analysis

- Total Number of Bugs Raised and Closed per Regression
- Total Number of Bugs Re-Opened by Severity per Test Run
- Total Number of Bugs Committed by Severity per Test Run
- Total Number of Bugs Approved by Severity per Test Run

## 4. 'PASS/FAIL' CRITERIA

Each Test Item will be assigned a Pass or Fail state dependant on two criteria:

- Total number and severity of Bugs in an Open & Unresolved state within TFS/Bug Tracker.
- The level of successfully executed test requirements.

The combination of both criteria will be used to recognise the Test Item can be declared Test Complete. However as this is a minimum level of quality that is believed achievable it's recommended that where CIM project timescales allow further testing and development should be conducted to raise the overall quality level.

**Table of Issue Severity**

Severity	Definition	Maximum Allowable
Critical	Crash/Legal – System crash, data loss, no workaround	0
High	Major – Operational error, wrong result	<Set by PO/VP>
Medium	Minor – Minor problems	<Set by PO/VP>
Low	Incidental – Cosmetic problems, Config Issue/Need Investigation	<Set by PO/VP>

The total MAXIMUM number of issues recorded in TFS/ Bug Tracker that can remain as Open & Committed state for the Test Item and be acceptable for release.

**Table of Test Scenario Priority**

Test Scenario	Definition	Minimum Pass Rate
High	Essential to the Product	100%
Medium	Necessary to the Product	<Set by PO/VP>
Low	Preferred, but not essential to the Product	<Set by PO/VP>

The MINIMUM set of Test Scenarios that must pass before the Test Item can be considered for release.

Unforeseen issues arising during the Test Phase may impact the agreed 'Pass/Fail' Criteria for the Test Item. Issues can be managed through review with the Test Team and the Project/Product Owner.

## 5. TEST TYPE TO BE PERFORMED

The Testing Tasks that the ICM Test Team will deliver the following scope:

- **Fully In Scope:** Smoke, Functional, Exploratory and Regression Testing
- **Partially in Scope:** Cross Browser Compatibility, Integration in the Large.
- **Out of Scope:** Performance testing, Automated Regression, all forms of Non-Functional, Accessibility Compliance Testing, Reliability and Usability testing.

## 6. ENVIRONMENTAL AND INFRASTRUCTURE NEEDS

The following details are about the environmental and infrastructure needs for the testing of ICM Items and execution of Regression Testing.

### Hardware:

- Windows 10 installed machine
- Latest Chrome browser installed
- Internet Explorer 11 installed

### Testing Application:

- Sprint Test: <http://10.10.10.10/Web/>
- Smoke Test: [http:// 10.10.10.13/Web/](http://10.10.10.13/Web/)
- Regression Test: [https:// icmdev.obero.net/m](https://icmdev.obero.net/m)

Note: All the FORMs need to test in Xbap.

### Software

- Name of Bug Tracking Tool: Team Foundation Server
- Name of Test Case Management Tool: Microsoft Visual Studio Test Manager
- Name of Automation Tool: N/A

### Infrastructure

- Network connections are available on all Test Systems as required.
- All the CI and CLOUD environment are BUILD before & STABLE during the testing phase.

## 7. RESPONSIBILITY MATRIX

The table below outlines the main responsibilities in brief for test activities:

Activity	Product Owner	DevOps Engineer	QA Analyst	Test Engineer
Provision of Technical Documents	X			
Test Planning and Estimation			X	X
Review and Sign off Test Plan	X		X	
Testing Documentation	X		X	X
Test Preparation and Execution				X
Test Environment Set-up		X		X
Change Control of Test Environments		X	X	X
Bug fixes and return to the Test Team for re-test	X			



Product Change Control	X			
Ongoing Test Reporting			X	X
Test Summary Reporting			X	X

## 8. RISKS AND CONTINGENCIES

	Risk	Mitigation Strategy	Impact
1	Delays in delivering completed Test Items from Development would impact test timescales and final Release quality	Product Management and Development to advise of any delays and adjust Release Scope of Resources to allow the test activities to be performed.	High
2	Delays in the turn around time for fixing critical bugs, which would require re-testing, could have an impact on the release dates.	Strong management of bug resolution would be required from Development to ensure bugs are fixed and available for re-testing in the scheduled time.	High
3	Testing in unstable QA branch or environment could have impact and delay the release dates.	All the required testing branches or environment should build properly and ready for test in schedule before the test started.	High
3	The Test Team, Development or PO require domain guidance from one or the other and they are not available. This would delay project activities.	The Test Team, Developer and PO to ensure they are available at critical points or contactable during the project activities.	Medium
4	Features of Test Items will not be testable.	The Test Team will record untested features and request the PO to assess business risk in support of the release of untested features.	Low

5	Unexpected dependencies between Test Items and service components are encountered that require revision of Test Scenarios and related Test Cases.	Information about dependencies is updated and communicated promptly to allow timely revision of Test Scenarios and Test Cases	Low
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## 9. APPROVALS

The following people are required to approve the Test Strategy

Approval By	Name	Approval
QA Analyst	Sariful Islam	
Product Owner		
VP, Engineering		