1.TEST PLAN

Product Name: IMAGE RECONSTRUCTION APPLICATION

1.1 Table of Contents

1.2 Objective

As a part of the project test the functionality of the Image Reconstruction Application.

This document serves as high level test planning document with details on the scope of the project, test strategy, test schedule and resource requirements, test deliverables and schedule.

1.3 Scope

The scope of the project Includes testing the following features of Image Reconstruction Application.

- Load Image module
- Image Conversio
- Grayscale Image modul
- Binary Image modul
- Add Noise
- Salt and Pepper noise
- Gaussian Noise
- Speckle Noise
- Poisson Noise
- Filters
- High pass filter
- Median filter
- Low pass filter
- Butter worth filter
- Image Enhancement
- Morphological filter
- Dilate
- Erode

- Open
- Close
- Low-light Image
- Decorations Stretch
- Histogram equalization
- Image Restoration
- Mean Filte
- Order statistics filter
- Blind DE-Convolution Algorithms
- Wiener filter

From our understanding, we believe above functional areas need to be Tested.

1.4 Test Methodology

We have understood that we need to perform Functional Testing of all the functionalities mentioned in the above Scope section.

As part of Functional Testing, we will follow the below approach for Testing:

Step#1-Creation of Test Scenarios and Test Cases for the different features in scope.

- We will apply several Test Designing techniques while creating Test Cases
  - Equivalence Class Partition.
  - Boundary Value Analysis.
  - Decision Table Testing.
  - State Transition Testing.
  - Use Case Testing.

- We also use our expertise in creating Test Cases by applying the below:
    - Error Guessing.
    - Exploratory Testing We priorities the Test Cases.

Step #2 - Our Testing process, when we get an Application for Testing:

- Firstly, we will perform Smoke Testing to check whether the different and Important functionalities of the application are working.
- We reject the build, if the Smoke Testing fails and will wait for the stable
- build before performing in depth testing of the application functionalities. Once we receive a stable build, which passes Smoke Testing we perform.in depth testing using the Test Cases created.
- Multiple Test Resources will be testing the same Application on Multiple Supported Environments simultaneously.
- We then report the bugs in bug tracking tool and send dev. management the defect found on that day in a status end of the day email.
- As part of the Testing, we will perform the below types of Testing:.
    - Smoke Testing and Sanity Testing Regression Testing and Retesting.
    - Usability Testing, Functionality & UI Testing
- We repeat Test Cycles until we get the quality product..

1.5 Schedule

Task	Time Duration
● Creating Test Plan	Start Date to End Date
● Test Case Creation	Start Date to End Date
● Test Case Execution	Start Date to End Date
● Summary Report Submission	Start Date to End Date

1.6 Risk

- Image not clear
- Misuse of copy right.
- Quality may be reduced
- if it is enlarged certain size.
- Process may be slower
- Cost effective.

1.7 Mitigation Plan

- Creared Image must be provide.
- Improves the software to maintain quality.
- Improves the software to process fast.

1.8 Entry And Exit Criteria

The below are the entry and exit criteria for every phase of Software Testing Life Cycle:

Requirement Analysis

Entry Criteria:

- Once the testing team receives the Requirements Documents or details about the Project

Exit Criteria:

- List of Requirements are explored and understood by the Testing team
- Doubts are cleared.

Test Planning

Entry Criteria:

- Testable Requirements derived from the given Requirements Documents or Project details
- Doubts are cleared

Exit Criteria:

- Test Plan document (includes Test Strategy) is signed-off by the Client.

Test Designing

Entry Criteria:

- Test Plan Document is signed-off by the Client

Exit Criteria:

- Test Scenarios and Test Cases Documents are signed-off by the Client.

Test Execution

Entry Criteria:

- Test Scenarios and Test Cases Documents are signed-off by the Client

Exit Criteria:

- Test Case Reports, Defect Reports are ready.

Test Closure

Entry Criteria:

- Test Case Reports, Defect Reports are ready

Exit Criteria:

- Test Summary Reports.

1.9 Test Environment

Hardware

- Hard disk: 50GB or more
- RAM:4GB or more
- Intel: duel core processor or more

Software

- Operating system: windows 7 or above
- Coding tool: MATLAB R-201

1.10 Defect Tracking

During the test execution-

- Any deviation from expected behaviour by the application will be noted. If It can't be reported as a defect, it'd be reported as an observation/issue or posed as a question.
- Any usability issues will also be reported.

- After discovery of a defect, it will be retested to verify reproducability of the defect. Screenshots with steps to reproduce are documented.
- Every day, at the end of the test execution, defects encountered will be sent along with the observations.

Note:

- Defects will be documented in a excel.
- Test scenarios and Test cases will be documented in an excel document.

1.11 Deliverables

The following are to be delivered to the client:

Deliverables	Description	Target Completion Date
Test Plan	Details on the scope of the project ,test strategy ,test schedule,resource requirements,test deliverables and schedule.	Date
Functional Test Case	Test Cases created for the scope defined.	Date
Defect Report	Detailed Description of the defects identified along with screenshots and steps to reproduce on a daily basis.	NA
Summary Report	Summary Report- Bugs by bugs#, Bugs by Functional Area and Bugs by priority	Date

1.12 Roles And Responsibilities

Name	Role	Responsibilities
Person A	Test Manager	✓ Escalations
Person B	Test Lead	✓ Create the test plan and get the clients sign Offs ✓ Interact with the application,create and execute the test cases ✓ Report Defect ✓ Coordinate the test execution.Verify Validity of the defects being reported. ✓ Submit daily issue updates and summary defect reports to the client. ✓ Attend any meeting with client.
Person C	Senior Test Engineer	✓ Interact with the application ✓ Create and execute the Test cases ✓ Report defects
Person D	Test Engineer	✓ Interact with the application ✓ Execute the test cases ✓ Report defects