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**ABC project**

**Test Plan**

**Version 1.0**

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**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 05 Aug 10 | 1.0 | Initial edition | Alexandre Stelmakh |
|  |  |  |  |

**TEST PLAN**

# **1. Introduction**

## 1.1. Purposse

This Test Plan document for ABC project supports the following objectives:

* Identify existing project information and software components to be tested.
* List recommended Requirements for Test (high level).
* Recommend and describe testing strategies to be employed.
* Identify required resources and provide a test effort estimate.
* List the test project deliverable elements.

## 1.2. Background

The system developed is an instant messenger for Palm platform. The system should provide a

capability to use ICQ instant messaging service. So, the protocol used by this service must be

supported by the system.

The system developed is intended for Palm application market and positioned as standalone

product.

## 1.3. Scope

This Test Plan describes the system tests that will be conducted within Build 1, Build 2, Build 3,

Release candidates and Release versions.

This Test Plan applies to testing all ABC project requirements defined in the Software

Requirements Specification [1].

## 1.4. Project Identification

The table below identifies the documentation and availability used for developing the Test Plan:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Document  (and version /date) | Created or  Available | Received or  Reviewed | Author or  Resource | Notes |
| Requirements Specification |  Yes  No |  Yes  No |  |  |
| Functional Specification |  Yes  No |  Yes  No |  |  |
| Use-case reports |  Yes  No |  Yes  No |  |  |
| Project Plan |  Yes  No |  Yes  No |  |  |
| Design Specifications |  Yes  No |  Yes  No |  |  |
| Prototype |  Yes  No |  Yes  No |  |  |
| User’s Manuals |  Yes  No |  Yes  No |  |  |
| Business Model or Flow |  Yes  No |  Yes  No |  |  |
| Data Model or Flow |  Yes  No |  Yes  No |  |  |
| Business Functions and  Rules |  Yes  No |  Yes  No |  |  |
| Project or Business Risk  Assessment |  Yes  No |  Yes  No |  |  |

## 1.5. Preferences

The following table contains references to external documents.

|  |  |  |
| --- | --- | --- |
| No. | Document | Description |
| 1 | ABC project Software  Requirements Specification,  Version 1.0.3.3, Monday,  25/Aug/10 | The SRS fully describes the external behavior of the  application or subsystem identified. It also describes non-  functional requirements, design constraints, and other factors  necessary to provide a complete and comprehensive  description of the software requirements. |
| 2 | ABC project Software  Development Plan, Version  1.0.5, 05/Sep/10 | The purpose of Software Development Plan is to define tasks  of ABC project (hereinafter referred to as IM or the project) to  be developed. It focuses on the capabilities sought after by  stakeholders, the target users in particular, and the reasons for  this search. |
| 3 |  |  |

# **2. Feature to be tested**

The listing below identifies those items − use cases, functional requirements, and non-functional

requirements − that have been identified as targets for testing. This list represents what is to be tested.

## **2.1. Functionality**

### 2.1.1. Download contact list from server

* Verify that the system provides the capability to download a contact list from the server. This operation should be performed automatically during connection to ICQ service.
* Verify that the system provides the capability to disable automatic download of the contact list.
* Verify that the system provides the capability to download the contact list upon the user request.

### 2.1.2. Upload contact list to server

* Verify that the system provides the capability to upload a changed contact list from the server. This operation should be performed automatically upon change the contact list.
* Verify that the system provides the capability to disable the contact list automatic upload.
* Verify that the system provides the capability to upload the contact list upon the user request.

### 2.1.3. Add new contact to contact list

* Verify that the system provides the capability to add a contact to the contact list. To do this the user should provide a valid account identifier to be added. The specified account that exists and is recognized by the system the user will be added to the contact list

### 2.1.4. Delete contact from contact list

* Verify that the system provides the capability to delete a contact from the contact list.  
  To do this, the user should select an existing contact from the contact list.  
  The specified contact will be removed from the list, and the updated contact list should be displayed without that entry.

### 2.1.5. Create new message

* Verify that the system provides the capability to Create a new message. . To do this the user should select the message reciepient from contact list.
* Verify that the system provides the capability to type a new text message
* Verify that the system provides the capability to send the created message to a specified recipient.

### 2.1.6. Receive new message.

* Verify that the system provides the capability to recieve a message from ICQ service. The operation should be performed automatically when a new message incomes. The system should indicate that the new message has come from the sender whose name is highlighted in the user’s contact list.

### 2.1.7. Message history

* Verify that the system provides the capability to view the message history.
* Verify that the system provides the capability to export the message history to a memo (memo pad application).

## **2.2. Usability**

### 2.2.1. Sessions support

* Verify that he system provides the capability to maintain a user session after login. The user should be able to pause and return without logging in again for a reasonable period of time.
* Verify that he system provides the capability to open multiple messaging sessions at the same time. The total number of open messaging sessions should be limited to maximize the amount of network connections and available memory under Palm OS.

### 2.2.2. Fonts support

* Verify that the system provides the capability to supports many different types of fonts, ensuring clear display of message content and can customize font size to suit the user.
* Verify that the system displays the received messages with fonts, font colors and background color as it is specified by by the message sender.

### 2.2.3. Graphical emoticons

* Users can insert and display graphic emoticons in messages. Emoticons are displayed fully on both the sending and receiving devices.

### 2.2.4. Internet connection management.

* The system must detect and handle the loss of Internet connection. When the connection is restored, the messages will be synchronized and sent without losing data.

### 2.2.5. Display Support

* Verify that the system supports the color, grayscale, and monochrome displays of Palm all-in-one devices
* Verify that the system is adaptive to multiple devices.

## **2.3. Design Constraints**

### 2.3.1. Maximum message length

* The system must enforce a limit on the maximum length of each message according to ICQ protocol specifications. Messages exceeding this limit should be truncated or blocked, and the user must be notified.

### 2.3.2. Test environment

* The application must be tested in an environment simulating actual Palm devices, including Palm OS versions 3.5 through 5.0, Palm OS emulator (3.5–4.1 ROMs), and Palm OS 5 Simulator. Network connectivity for ICQ service must also be available in the test environment.

### 2.3.3. Characters

* The system must support standard ASCII character sets and extended international characters (where applicable) to allow sending and receiving messages in multiple languages. Unsupported characters should be gracefully handled without causing application errors

## **2.4. Interfaces**

### 2.4.1. User Interfaces

* The system shall provide a graphical user interface (GUI) optimized for Palm devices. The interface must be simple, intuitive, and adapted to the small screen size.
  + **Login screen:** allows users to enter account credentials and connect to the ICQ service.
  + **Contact list screen:** displays all available contacts with their current status (online, offline, busy, idle)
  + **Chat screen:** allows users to compose, send, and receive messages in real time. The screen shall include text input, send button, and message display area.
  + **Status/Settings screen:** enables users to change connection status, switch accounts, and manage preferences (e.g., fonts, alerts).
  + **Notification alerts:** visual (flashing) and audible alerts for incoming messages or status changes.
* The interface must use Palm OS standard widgets and ensure consistency in navigation (menus, buttons, icons).

# **3. Feature not to be tested**

## 3.1. Setup a user account

* Verify that the system provides the capability to setup user account for ICQ service.
* Verify that the system provides the capability to setup several user accounts.
* Verify that the system provides the capability to set option “Remember password” for each user account individually.

## 3.2. Remove user account

* Verify that the system provides the capability to remove a user account.
* Verify that the system provides the capability to remove multiple user accounts at once.
* Verify that the system ensures proper deletion of user data associated with the account being removed.
* Verify that the system allows the option to permanently delete the user account or just deactivate it.

# **4. Test Strategy**

## 4.1. Testing Types

### 4.1.1. Function and Usability Testing

|  |  |
| --- | --- |
| Test Objective: | To ensure proper target-of-test functionality, including navigation, data entry, processing, and retrieval. |
| Technique: | Execute each use case, use-case flow, or function, using valid and invalid data, to verify the following:  • The expected results occur when valid data are used.  • The appropriate error or alert messages are displayed when invalid data  are used. |
| Completion Criteria: | • All planned tests have been executed.  • All identified defects have been fixed. |
| Special Considerations: | Identify or describe those items or issues (internal or external) that impact  the implementation and execution of function test. |

### 4.1.2. User Interface Testing (Phần của Linh)

### 

|  |  |
| --- | --- |
| Test Objective (Mục tiêu kiểm thử): | Đảm bảo rằng:  **Giao diện người dùng (GUI)** hoạt động chính xác, trực quan và đáp ứng các yêu cầu về **tính khả dụng (Usability)**, định dạng và tính thẩm mỹ. |
| Technique (Kỹ thuật): | Thực hiện kiểm thử trực quan và tương tác để xác minh các yếu tố sau:   * Xác minh tính chính xác của thông tin hiển thị trên từng cửa sổ. * Kiểm thử hoạt động của menu, biểu tượng, thanh công cụ, và các điều khiển giao diện. * Kiểm tra định dạng, nội dung, bố cục, đồ họa, và sự hỗ trợ đối với **Phông chữ (Fonts support)** và **Biểu tượng cảm xúc đồ họa (Graphical emoticons)**. * Đánh giá phản hồi và thông báo lỗi hiển thị có rõ ràng và hữu ích. * Kiểm tra khả năng mở nhiều cửa sổ và sự chồng lấn (multi-window overlapping). |
| Completion Criteria (Tiêu chí hoàn thành): | * Tất cả các trường hợp kiểm thử giao diện đã được thực thi. * Không còn lỗi nghiêm trọng ảnh hưởng đến trải nghiệm người dùng. * Các vấn đề về định dạng, hiển thị và thông báo lỗi đã được khắc phục. |
| Special Considerations (Lưu ý đặc biệt): | * Đảm bảo giao diện đồng nhất với các tài liệu thiết kế. * Kiểm thử giao diện trên các môi trường và độ phân giải màn hình khác nhau (liên quan đến **Display support** ). * Đảm bảo tính dễ sử dụng và thân thiện cho người dùng cuối. |

## 4.2. Tools

The following tools are employed in this project:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Tool** | **Vendor/In-house** | **Version** |
| Bug Tracking | Mantis |  |  |
| Project Management | MS project |  |  |

# **5. Resources**

## 5.1. Roles

This table shows the staff required for the project.

|  |  |  |
| --- | --- | --- |
| Human Resources | | |
| Employee | Minimum Resources Recommended  (number of full-time roles allocated) | Specific Responsibilities/Job Description |
| Test Developer |  | Identifies, sets priorities for, and implements  test cases.  Responsibilities:  • generates test plan  • evaluates effectiveness of test effort |
| Tester |  | Executes tests.  Responsibilities:  • develops test case specifications  • develops test cases  • executes tests  • logs results  • monitors bug fixing  • requests for documentation to be changes |

# **6. Project Milestones**

* Test activities and milestones are very much dependent upon the development iterations. The Construction Phase is split into 3 builds, release candidate and release version. Each build contains a full test cycle of test planning,design, development, execution, and evaluation.
* The following table shows Test Milestones. effort, start date, and end date.

|  |  |  |  |
| --- | --- | --- | --- |
| Milestone Task | Effort | Start Date | End Date |
| Build 1  Plan Test  Design Test  Execute Test  Evaluate Test | 123.7 | 07/Sep/2010 | 07/Sep/2010 |
|  |  |  |  |

# **7. Deliverables**

## 7.1. Test Model

* Test Model defines all test cases, and references, test procedures and test scripts which are associated with each test case.

## 7.2. Test Logs

* Microsoft Word is used to record and report test results.

## 7.3. Bug Reports

* Mantis bug tracker is used for logging and tracking individual malfunctions.

# **Appendix A Project Tasks**

Test-related tasks are given below:

• Test Planning

- identify requirements for testing

- assess risks

- develop test strategy

- identify test resources

- create schedule

- generate Test Plan

• Test Design

- prepare workload analysis

- identify and describe test cases

• Test Execution

- execute test procedures

- verify results

- investigate unexpected results

- log bugs

• Evaluate Test

- evaluate test-case coverage

- evaluate code coverage

- analyze defects

- determine whether Test Completion Criteria and Success Criteria have been achieved