

**TALKBOX SOFTWARE**

**DESIGN DOCUMENT**

**Version <vF>**

**GROUP 8**

**THANH HUYNH, ANAS ISHTIAQUE, LINWEI WANG**

**2019.04.03**

# Software Design Document

## I. Introduction

The Software Design Document is a document to provide documentation which will be used to aid software development by providing details for how the software should be build. Within the Software Design Document are narrative and graphical documentation of the software design for the project including Class Diagram, Sequence Diagrams, and other supporting requirement information.

## II. Design Overview

### 1. System Architecture

Please refer to *Figure 1*

### 2. System Interfaces

#### a) User Interfaces (UI)

- The UI for the Configurator App will allow the user to easily creating multiple profiles in which each has a set of buttons with images and sounds attached accordingly.
- The UI for the Simulator App will allow the user to easily display the profiles' sets of buttons that they created in the Configurator and they can also switch between their profiles.

#### b) Software Interfaces and Communication Interfaces:

- The software will need to interface with a case management system to pull fata from it and push data updates to it. This can be done by storing the profiles user created into a local config directory where it stores all the data.

### 3. Constraints and Assumptions

- It is assumed that user read the User Manual carefully before using the software. User Manual have listed all the files format that are allowable for the image and sound, as well as the Operating System the Software can be run on.

### III. Object Collaboration

#### 1. UML Class Diagram

The below UML Class Diagram displays the important classes and how they are connected (static view)

TalkBox UML Class Diagram

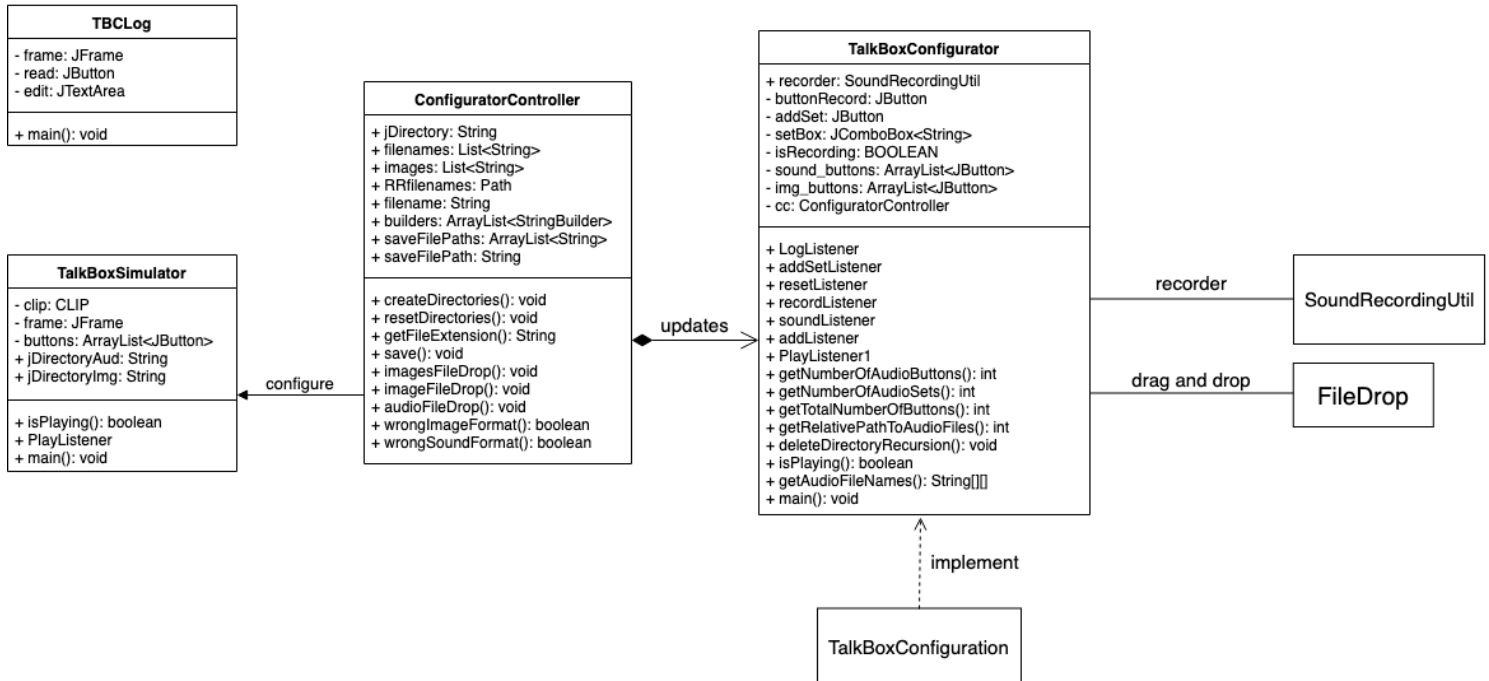


Figure 1 This is a diagram depicting the classes relationships

IV. Dynamic Model

1. Sequence Diagrams

1.1 Simulator Sequence Diagram

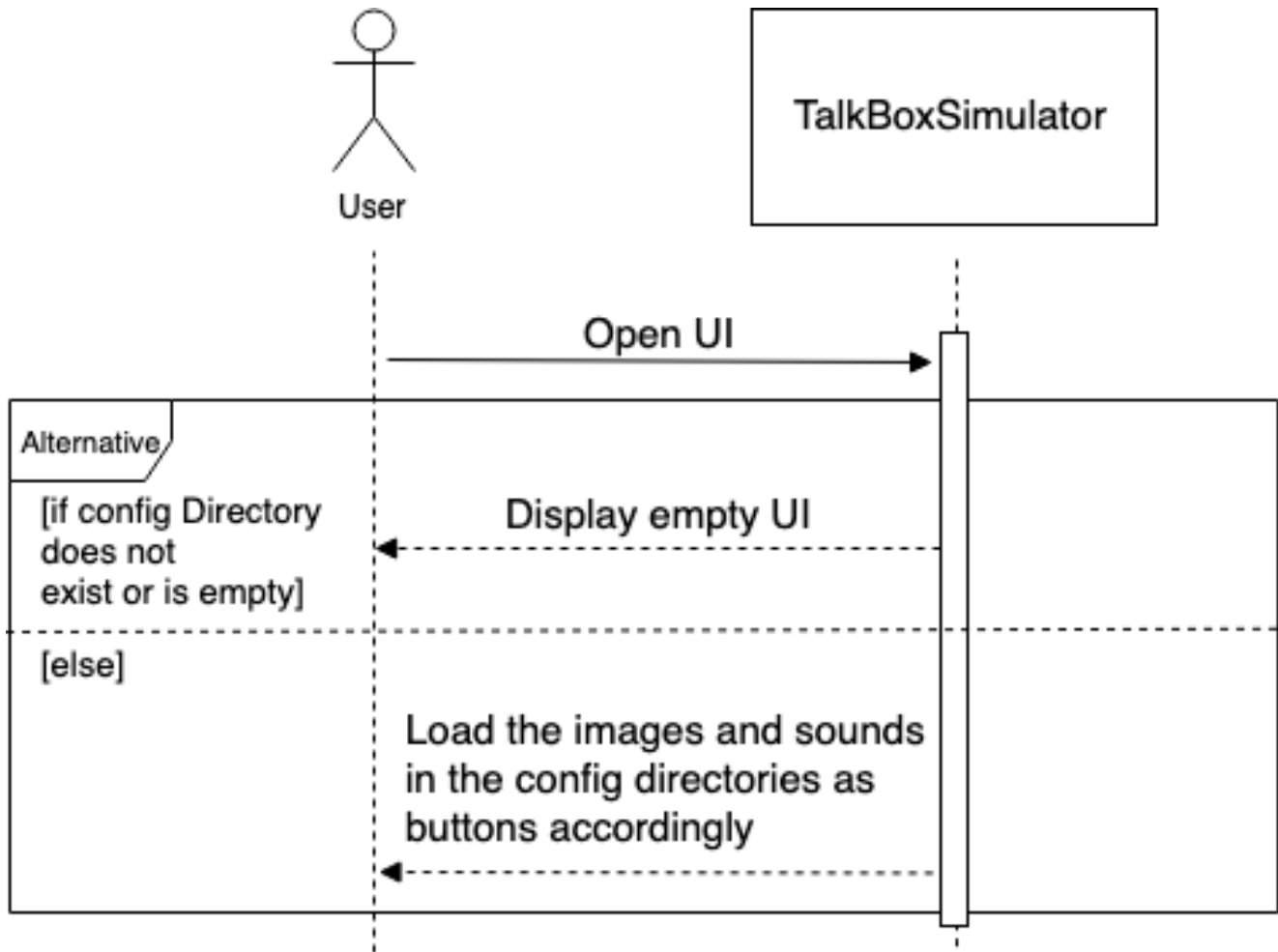


Figure 1.2 This diagram shows the overview level sequence for using the Simulator App

## 1.2 Configurator Sequence Diagram

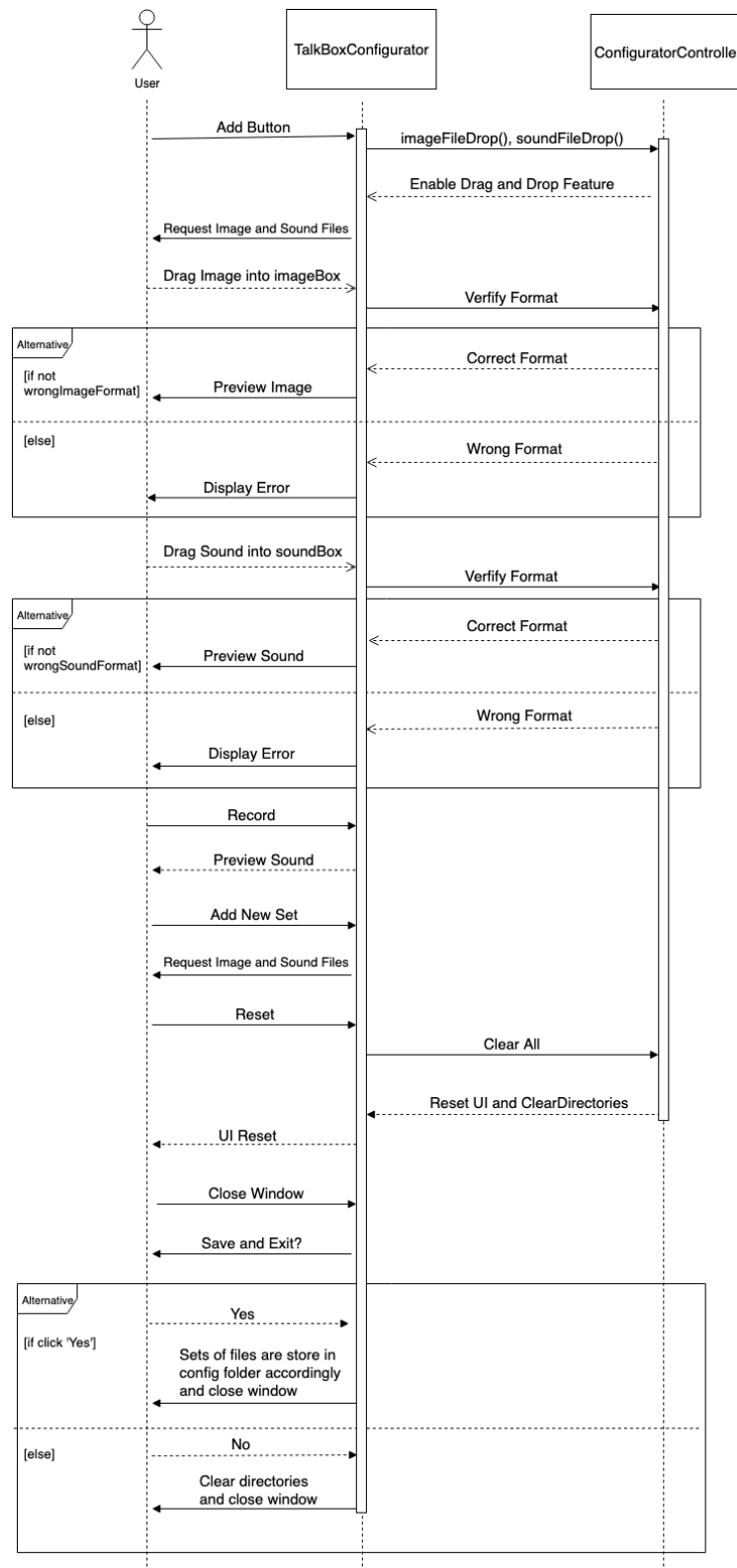


Figure 1.3 This diagram shows the overview level sequence for using the Configurator App

## **V. Non-functional Requirements**

### **1. Swap Profile Function:**

- The Configurator should be able to create multiple Profiles with each profile has multiple sets of buttons including images and sounds.
- The Simulator should be able to display multiple Profiles those have been configured in the Configurator. There should also be a swap button for User to switch between their created profiles.

## **VI. Design Constrains**

- User can also be allowed to import their images and sounds, not just by drag and drop.