**TalkBox Configuration App: Requirements Document (Version 1.0)**

*This document explains what the system does for the client. Instructions on using the system will be described in the User Manual.*

*Project: TalkBox Configuration App*

*Date: 2019-02-22*

*Prepared by: Param Balaganeshan, Bryan Barcos and Dhruv Patel*

1. Introduction

This document contains the user requirements for the ***TalkBox Configuration App***. These requirements have been based on non-verbal users who will need to configure their TalkBox by using this application and then transfer the data onto the physical TalkBox itself. This document also contains use cases for the system and acceptance test cases.

1.1 Purpose of This Document

This document is intended to guide development of ***TalkBox Configuration App***. It will go through several stages during the course of the project:

1. **Proposed:** This is the current requirements that have been determined by the engineering team and project manager. Team has not met with the families of potential users therefore the team have not obtained any requirements from the families as a stakeholder
2. Not complete. These requirements may be updated or new requirements will be added in the coming future.

**Types of Reader**

*This document is directed towards project management team and the potential users.*

**Technical Background Required**

*No technical background is required to read and understand this document.*

1.2 Scope of the Product

*This product will have most (if all) major requirements that will allow the user to configure the TalkBox with extreme ease. The user should be able to understand how to navigate and use the application with simple interactions. This release of the project is a working prototype with major requirements covered. Some requirements are still currently in progress (the recording facility for users) due to the constraint of time.*

1.3 Case for the Product

*Why is this product required? There are three main reasons why this application should be developed.*

1. *Human rights: This product will allow the non-verbal to have their own voice. This makes the lives of the non-verbal much easier. It will allow them to communicate with others with ease and their needs will be better understood.*
2. *Profitability: This product should produce a market, yielding financial gain and contributing to the economy.*
3. *Altruism: Innovating for the less fortunate will make the world a better place.*

1.4 Overview of the Requirements Document

*Recall, all requirements are what the SYSTEM does for the USER. System and interface requirements are not included. These sections will include use cases and acceptance test cases. IMPORATANT… some requirements are not met, these requirements will be addressed to be in progress.*

1. *General Requirements*
   1. *User friendly*
      1. *Hover descriptions on the buttons*
      2. *Easy to understand button icons*
2. *Specific Requirements*
   1. *Recording facilities (still in progress)*
   2. *Choose pre-existing files*
   3. *User will be able to preview what the audio sounds like*
   4. *User is able to choose which audio files will be on which button on the physical TalkBox*
   5. *Create audio sets (still in progress)*
   6. *User will be able to preview what the Configuration of the physical TalkBox will look like*

2. General Requirements

This section of the document lists the general requirements for the user.

1. The user finds the system to be user-friendly.
   1. The user must find the application to appear simple, where components of the app is spaced out and looks professional
   2. The user will be able to understand what the buttons do by simply looking at the button. This means the icon (picture) that represents the button should correlate to what the picture does. Example, the save button is an icon that is a floppy disk, a universal sign for saving an object.
      1. This is extending user-friendliness by a hover description. When the user is hovering over the button, a one word description will appear, making the application more user-friendly, ultimately satisfying the user’s need of user-friendliness. This works if the user can hover over the button and the description appears, and when the user does not hover over the button, the description should not be visible.

2.2 Assumptions and Dependencies

*If the user still has difficulties in navigating the application, there is a user manual available for the client to use for more details on what each button does.*

3. Specific Requirements

This section of the document lists specific requirements for the user.

1. An important task the system must do for the user is to record and produce an audio that can be used. The user should be able to record and the audio will save in the application. The user should be able to press the button, record the audio, press the record button again to stop recording and the user must have access to use the audio immediately after. This has not been implemented yet, still a work in progress.
   1. In relation to the first, the user must be able to select from a set of previous recorded audio files. In this list of audio, the user must be able to select which audio they would like to use. Again if the file does not exist, the user can record, then that audio is now a part of the prerecorded audio files that the user can now select from.
2. This also includes the ability for the user to preview what the audio sounds like.. To preview these audio files, the user must be able to pause the audio, resume the audio and completely stop the audio. A potential secondary requirement may be if one audio file is currently being previewed and a second audio file is also pressed, the first audio should stop playing immediately. Essentially, the last button should have priority in the audio that is being played to avoid overlapping audio. If this occurs, this is simply a minor issue, the user can simply wait for the audio to finish or stop the audio before previewing another audio.
3. The user should be able to associate audio to their TalkBox in a simple manner. The user should be able to select a position on the Configuration App which would correlate to the button on the physical TalkBox and be able to update, add or delete the current state of the button. If the TalkBox is configured with the audio files ordered in the fashion the user intended, the association of applying the audio file to the specified button is working. So if the user first selects a button to change, then decides what to do with the button (update, remove or add) and the configuration is identical once the data is uploaded, the system completed this important task.
4. This is still in progress but the user should be able to create audio sets. As of right now, the audio sets are created based on the order of the available audio and the size of the chosen size of the TalkBox. In the future, the user will be able to choose a group of audio files and label it. For example, if the user would like to create an audio set that represents their feelings, they would chose all the files that relate to feelings, then label the audio set which is then stored in the Configuration App. Whenever the user would like to access this audio set, then the user would use the ‘swap’ button on the TalkBox to access this audio set.
5. Before launching the system, an important feature/requirement must be that the Configuration App must launch a Simulator. Why? This will allow the user to preview the configuration of the actual TalkBox. This will allow user to get a feel as to where the buttons should be placed for optimization purposes (if the user is right handed, more frequently used buttons should be placed on the right side). If the user gets a Simulator configuration the user intended, then the user is able to experiment to get a better feel before transferring the data onto the physical TalkBox.