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1. **INTRODUCTION**

The purpose of this application is to virtually stimulate a TalkBox that will later be simulated on Raspberry Pie. The software in general will aid in communication for the users, who currently struggle with it due to the medical reasons. The overall layout is interactive and easy to use.

The software consists of two applications:

1. TalkBox Simulator
2. TalkBox Configuration

The configuration will provide the users with a GUI App environment and show different functionalities available.

The Simulator will provide the users with buttons (that they will have a freedom to create) that can be used to aid communication.

* 1. **Functionality**

The software provides the user with much more functionalities than a usual Sound Generating Device (SGD). Some of them are as follows:

**TalkBox User Guide**

TalkBox is a Text-to-Speech device that is used for those with speech impairments. With the TalkBox Configurator(TBC) App that configures the TalkBox Hardware to the liking of the client. The configurator allows the user to do a multitude of things to make it customizable. Download Talkbox from this link and open the TCA from your device or the simulator.

**Configurating Buttons**

Once the TBC opens up the user can add a specific number of buttons in the text field on the simulator/device.

**Adding Audio Source**

On the left panel of the TBC, the record button is pressed to record and stop to end the recording. Once that is finished, the user enters the filename in the above text field and the Add Sound Button is pressed to add it the folder of existing audio files on the right side of the panel.

**Setting/Removing Profile**

The TBC can organize the audio categorically in a directory system where audio files can be organized based on the category it falls under. For example, files that say “Hello” and “Good Morning” can be found under the Greetings branch.

**Serializing**

The TBC can serialize the buttons and audio files to allow user to configure their TalkBox hardware. This is done by choosing the number of buttons as well as the profile with the desired audio files. The user then clicks serialize and a tbc object is created.

