

Talkbox Requirements

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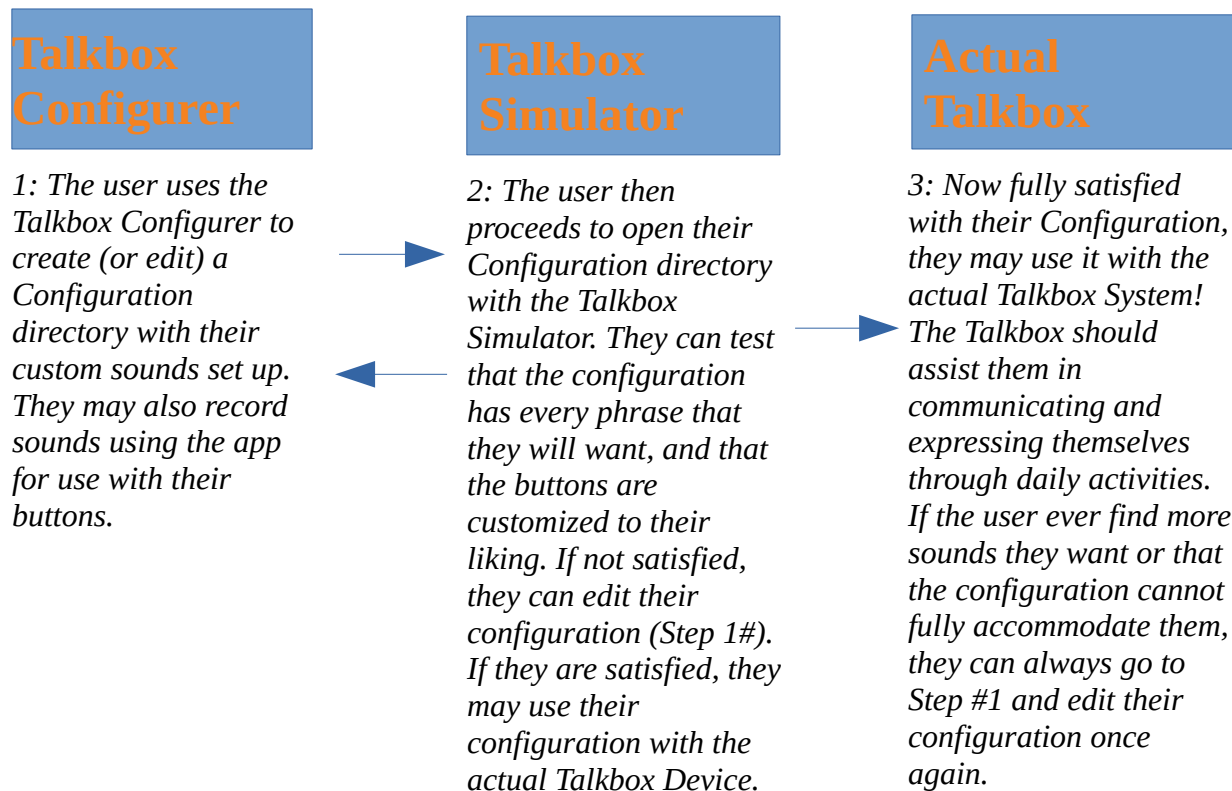
The Core Stakeholders for this project are those who need assistance speaking (and those who assist them).

To address their needs, the **Talkbox Configurer** must be able to set up a variety of buttons in an expressive way. The buttons should be able to be categorized (for example, with text or colors) to distinguish them and use existing sound files for playback. The Configurer should also provide facilities to record audio clips that can be used for the buttons to find something that suits users best. It should be able to store these buttons in either a new configuration directory – or edit an old one to perfect it. The buttons should be variable in number – users could be using hundreds of different phrases every day – so the Configurer must allow removing, adding, or editing of buttons as the user of the application sees fit.

The **Talkbox Simulator** should allow a user to test whether the configuration suits them. The simulator works very similarly to the actual Talkbox device and users should time with their Configuration seeing how well they can express themselves using it – *perhaps there are phrases they have missed and still need? Does the description not suit the sound or phrase that the button is set up with? How long can the user communicate with the configuration before it is insufficient to express themselves?* The user may continuously edit their Configuration with the **Talkbox Configurer** and test it with the **Simulator** until it is fully satisfactory.

Use Cases

The typical use of the Talkbox Configurer and Simulator should be as follows:



Acceptance Tests

Beyond simply functioning, the Talkbox Simulator and Configurer need to address the needs of the Stakeholders of this project. The following Acceptance Tests should assess whether the applications do indeed assist them with daily activities. Some sample stakeholders (and their assistants/caregivers, if applicable) should run the following tests with the assistance of the User Manual.

Test One

Test 1: Using the Talkbox Configurer application to create a configuration of 18-24 custom buttons, each with their unique sound, and uniquely identifying label.

Particular focus should be directed towards ease-of-use, can sounds be selected and associated buttons easily, is adding or editing buttons simple?

The test should be considered a failure if:

- The user is stuck for more than 2 minutes for any one task, due to confusion
 - It is too difficult to add/remove buttons, edit buttons
 - App-breaking critical failures occur during the test
 - Navigating buttons/switching Audio Sets is difficult

The test should be considered passed if:

- The criteria for a failure is not met, and;
- There are no critical features that the stakeholders feel the application is lacking that would help address their needs.

Step 1: Open the Talkbox Configurer application.

Step 2: The user creates a new Talkbox Configuration directory.

Step 3: The user sets up a button with a sound and a name/label. The button should appear how it would when using the Talkbox Simulator and playback of the selected sound should be available.

Step 4: Repeat step 3 making 17 more buttons.

Step 5: Close the Talkbox Configurer. The Talkbox Configuration directory is now set up.

(Optional) Step 6: Open the Talkbox Configurer, and open an existing Talkbox Configuration directory. The user should see their previous buttons, and be able to edit them as well as add additional buttons to the configuration directory.

Test 2: Using the Talkbox Simulator application to test a Talkbox Configuration, to see how well it suits the user in daily activities and to check that the sounds will be sufficient.

The aim of the test is to show whether the Simulator can help determine whether a configuration will work for the user or not. Insufficiency of a Talkbox Configuration does not reflect poorly on the Simulator – the simulator is simply meant to evaluate if a configuration is ready for the user or still needs some work.

Test Two

The test should be considered a failure if:

- The Talkbox Simulator is incapable of opening the configuration directory
 - The Configuration does not appear the same in the Simulator as it did when creating it.
- App-breaking critical failures occur during the test.
- The buttons do not behave consistently like they would when using the actual Talkbox Device

The test should be considered a success if:

- None of the failure conditions are met

Step 1: Open the Talkbox Simulator application.

Step 2: Open the existing Talkbox Configuration directory from Test 1

Step 3: Ensure that the buttons and sounds are exactly as they appeared when setting up.

Step 4: Try for 3 minutes using the buttons to communicate. *Does it feel like this setup could be used longer?* If the Simulator cannot assist you in answering that question, the test has been failed. If the question can be answered effectively, whether the Talkbox Configuration is sufficient or insufficient, the Simulator has passed the test.