

TalkBox Software

Test Cases

EECS 2311 Group 2

24th February, 2019



Description of Test Cases

The software was extensively tested to try to exhaust as many possible situations as possible with the current features of the software. As the Configuration app was near finished, it was tested most extensively. As much of the Simulator is still in progress, only some parts of it required testing.

For each varying parameter of the operating system configuration, code coverage was enacted on the TalkBox Software. All coverage of each case exceeded over 80%, with much of the remaining parts being either (1) error-checking and messages, and (2) future code to be implemented in the software. ([Full coverage report](#))

Controlled Parameters

More specifically, the software as tested on macOS 10.14.3 using a MacBook Pro (15-inch, 2016), various Windows 8 and 10 machines, and Linux CentOS and Ubuntu (the latter using a VM). All devices performed equally and as expected.

Furthermore, the internet connection was either disabled or cut off during usage of the app. As some features of the app (specifically, the TTS Wizard) require a valid internet connection, an error message was presented to the user as expected, and did not attempt to use any internet connection. In the future, the upon not having an internet connection, an offline TTS service will be used in place.

Finally, another test case included a user manually deleting or adding audio files to the TalkBox directory using the OS filesystem. The app handled this as expected, and took preventative measures as required.

All devices tested had a sufficient Java version installed. Beta software was not tested.

Conclusion

As the software is still yet to be completed, and as much of the Simulator is still unfinished, the above testing is extremely sufficient. In the numerous test cases, no unforeseen errors were caused, with ~80% of all lines covered in the coverage report. Most possible parameters of the environment the software was run were altered and the tests repeated as necessary. Edge cases were also accounted for, including accidental access to the filesystem.