

Testing of Talkbox Configurer

The configurer has been tested in a number of ways. First, the classes it uses have been tested for their functionality. These include utilities such as copying files and serializing objects. Then, we tested the major use cases for the configurer itself in a number of scenarios and ensured that a valid directory was present at all times and that the configurer changed according to a pre-existing directory. We also tested to make sure the software did not crash under illegal operations.

Classes used by Talkbox Configurer GUI

Major Classes	Summary
Configurer	Configuration of the Talkbox instance itself; creating Talkboxdata directory and updating its contents as the user changes it
ConfigSerialization	Serialization and deserialization of the Talkboxdata object
ButtonConfiguration	Configuration for the button's color, text, image, and emoji
FileIO	File format verification, reading/writing to text files,
FileSelector	Selecting files and directories

Testing Implementation

For **Configurer**, we tested the main functionalities such as creating the TalkboxData directory, writing the button directories, changing the button directories, and setting the Talkboxdata serialized object into it.

For **ConfigSerialization**, we verified whether an object could be serialized into an object file. In our case, the extension was .tbc. We then deserialized the object and checked if the object.

For **ButtonConfiguration**, we tested whether the button configuration changes according to the user input.

For **FileIO**, we tested whether audio and image files could be verified. We also tested whether files could be copied and whether text files could be written and read.

For **FileSelector** we tested the "directory only" option to ensure that we could choose whether the user was picking a directory. We also verified that the file selector could go into directories and come out properly.

For **Configuration** we tested the ability to create a new configuration directory. We also verified that, when the configuration or the configuration directory was changed, the appearance of the buttons and their associated files changed.