

System and Unit Test Report

- PeersChat
- PCP
- 7/21/20

Most testing was done manually without the use of scripts, since the use of GUI does not allow for any automated forms of testing that we are aware of. Linking the GUI with the Networking and Audio background is where the team discovered most of the bugs present in the system, so the test cases given are mostly in regard to that set of interactions.

Every button and widget in the GUI was tested for functionality; for example, pressing the host button should launch a voice chat lobby with the host's user name, a volume slider, and another button that would leave the session. These were the cases given to each button/widget:

Username

- Using characters that are not alphanumeric (A-z), numeric (0-9), or the _ and - characters
- Using more than 18 characters
- Leaving the entry box empty
- Using a username already held by another user

Host

- A new session
 - On an open port
 - On a closed port
 - On Linux
 - On Windows
- With an improper username
- Multiple sessions at once
 - On the same port
 - On different ports
- Without a proper invite link
 - Invalid format (not following the IP:HostPort format)
 - An invalid IPV4 IP address
 - Without the port included
 - With the user's port set as the host's port

Join

- An existing session
 - With a proper username
 - With an improper username
 - With one other person in it

- With multiple people in it
 - From another instance when already in the current session
- A session that does not exist
- Through different platforms (Windows to Linux, vice versa)
- Multiple sessions at once

Leave

- While hosting
- A joined session
- One session while in multiple sessions

Volume Slider

- Change using plus button
- Change using minus button
- Change using slider
 - Slide from bottom to top
 - Slide from top to bottom
 - Slide back and forth once
 - Slide back and forth multiple times
- Audio from a user when that user is muted