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DATA COMMUNICATIONS (COMP 4985)

COMM AUDIO -- TESTING

RHEA LAUZON // JEFF BAYNTUN // MICHAEL CHIMICK // JULIAN BRANDRICK

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Contents
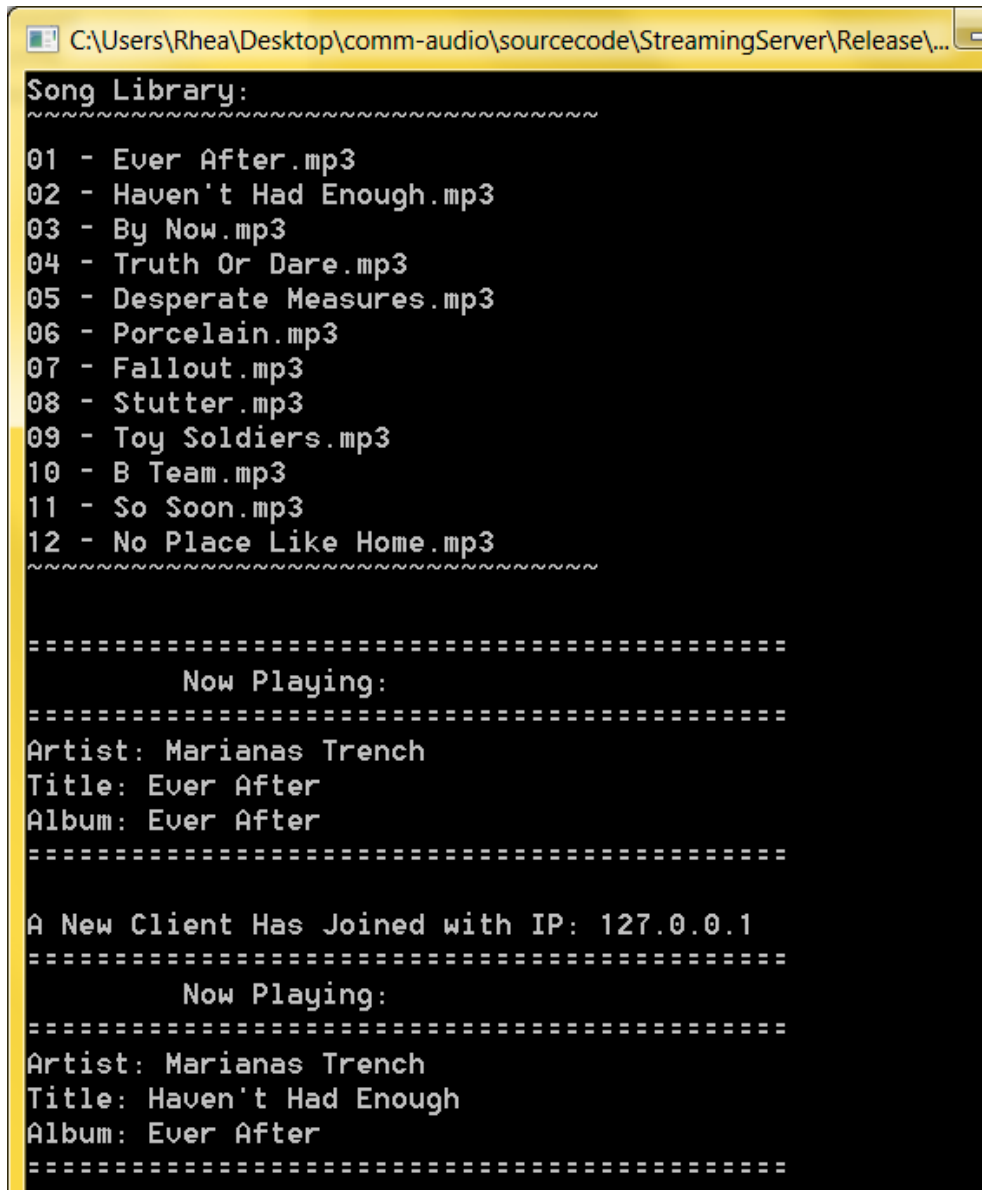
Test Cases

Test Number	Test	Tool / Application	Expected Outcome	Pass / Fail
1	Server loads and accepts clients	StreamingServer.exe	Server loads and does not crash	Pass (fig. 1)
2	Server can drop sessions	StreamingServer.exe	When a client disconnects server does not crash	Pass (fig. 1)
3	Server can handle multiple clients	StreamingServer.exe	Multiple clients can stream multicast	Pass (fig. 1)
4	Server relays playlist to multiple clients	StreamingServer.exe	When the last song finishes the server goes back to the beginnings	Pass (fig. 2)
5	Server relays user list to multiple clients	StreamingServer.exe	User list appears on the clients	Pass (fig. 2)
6	Server relays currently playing song to multiple clients	StreamingServer.exe	All clients update their now playing	Pass (fig. 3)
7	Server continually streams songs on multicast to clients	StreamingServer.exe	Server plays music constantly	Pass (fig. 3)
8	Server accepts and completes TCP download requests from playlist	StreamingServer.exe	Server handles downloads	Pass (fig. 4)
9	Server accepts and completes unicast streaming requests for songs	StreamingServer.exe	Server handles unicast requests	Pass (fig. 4)
10	Client can connect to server	Qt client, StreamingServer.exe	Client connects and plays audio	Pass (fig. 2)
11	Client receives user/playlist from server	Qt client, StreamingServer.exe	Users are displayed and the now playing/library are populated	Pass (fig. 2)
12	Client displays error message if unable to connect	Qt client, StreamingServer.exe	Error is displayed on inability to connect	Pass (fig. 8)
13	Client can have voice chat with another client in the list	Qt client, StreamingServer.exe	Voice chat works and two clients hear each other	Pass (fig. 7)
14	Client can request TCP download of song from playlist	Qt client, StreamingServer.exe	Client requests download and can play it after download	Pass (fig. 5)

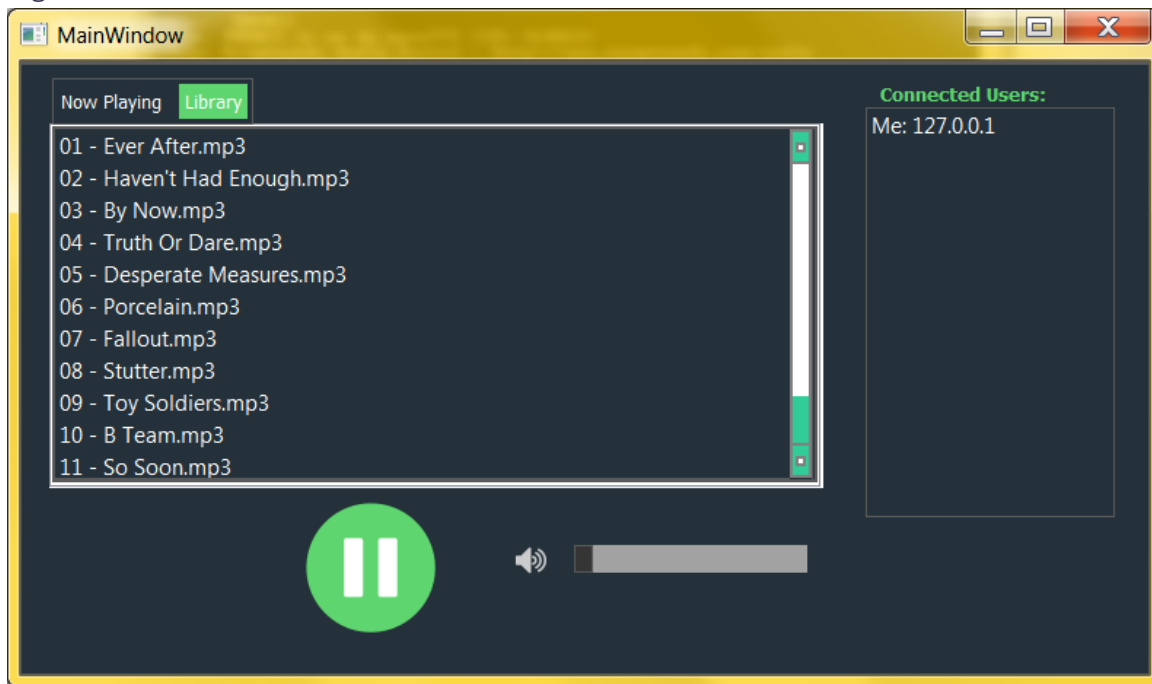| 15	Client can request streaming song from playlist	Qt client, StreamingServer.exe	Client hears a unicast song play instead of multicast	Pass (fig. 6)
16	Client gracefully handles server dropping	Qt client, StreamingServer.exe	Client displays an error and closes	Pass (Fig. 9)

Figures

Figure 1

Server playing multiple songs, accepting multiple clients
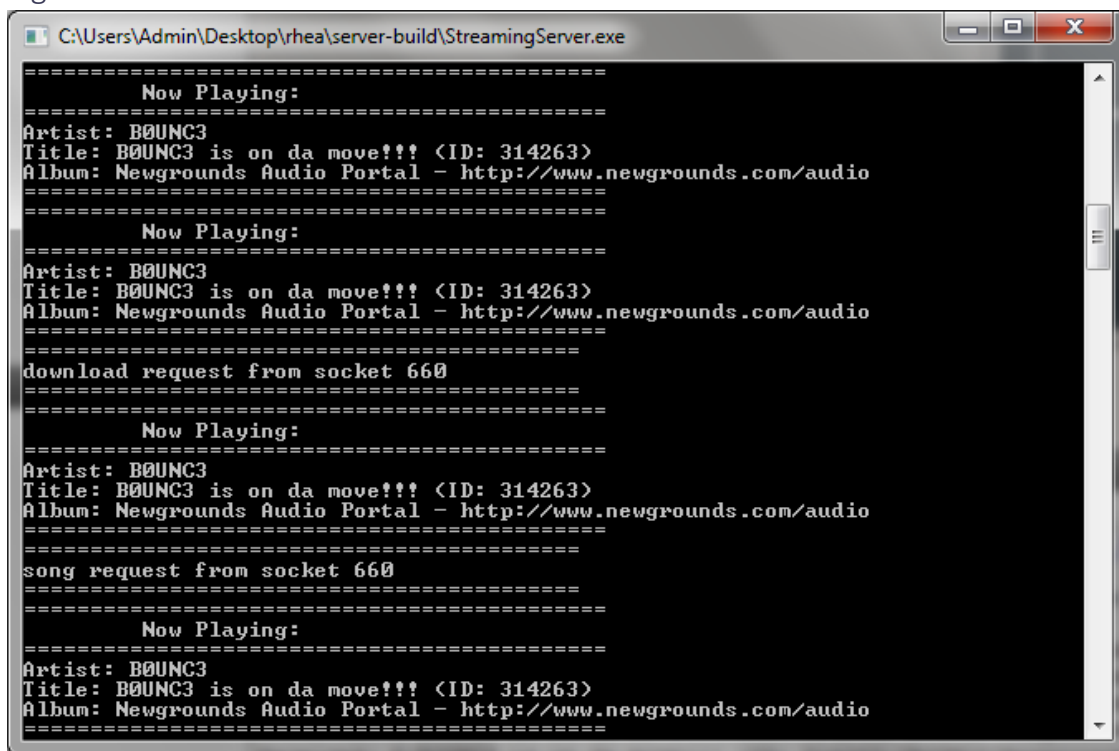
Figure 2

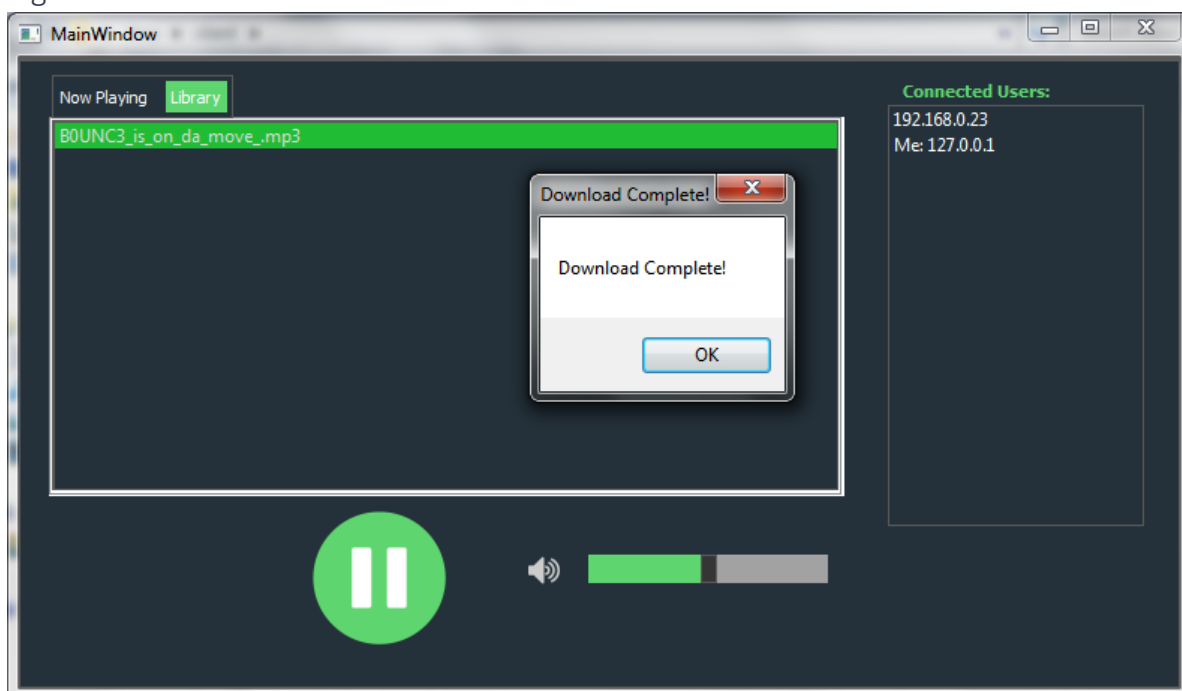Client displaying server playlist and user list

Figure 3
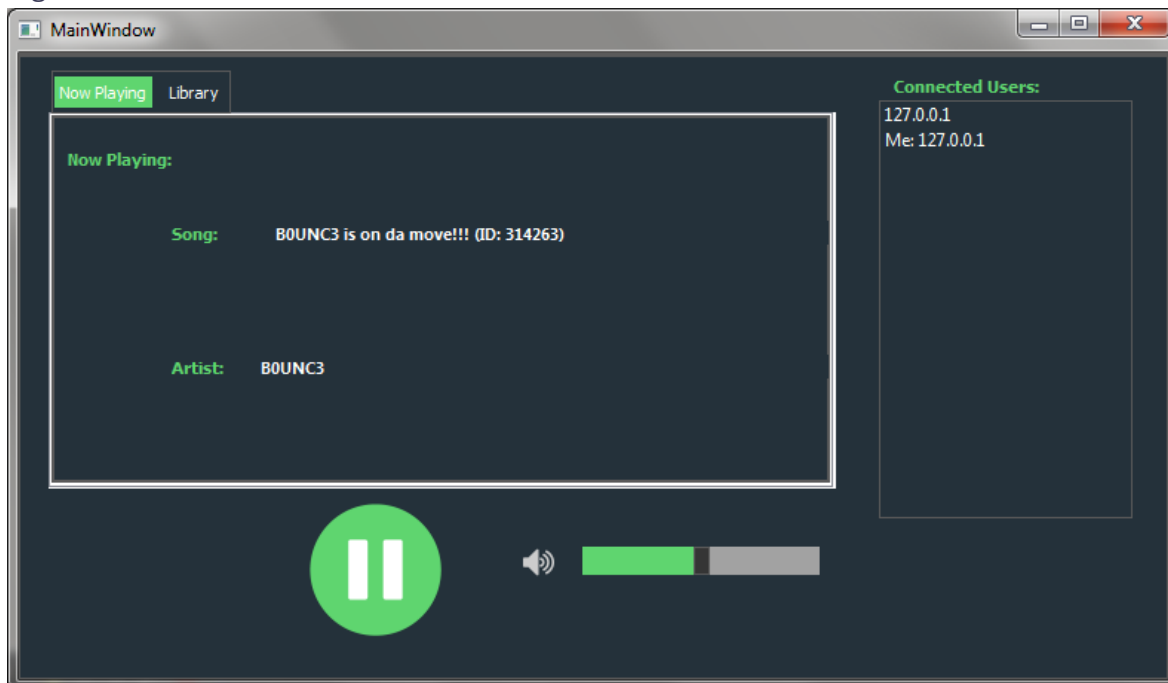
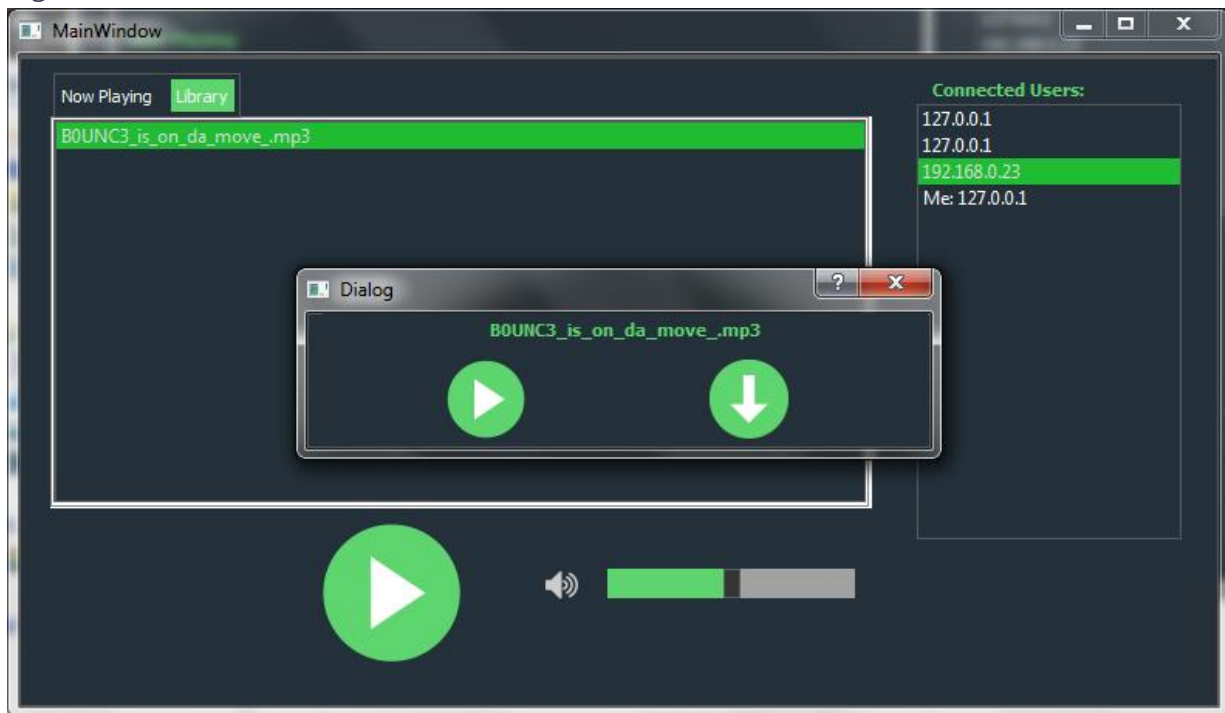Client displaying now playing song

Figure 4

Server accepting download and unicast requests

Figure 5

Client downloading a song from the server

Figure 6

Client making a unicast request

Figure 7

Client starting a voice chat

Figure 8

Figure 9