
Comm Audio

User Documentation

Jaymz Boilard
Jerrold Hudson
Brendan Neva
Steffen L. Norgren

COMP 4985 • BCIT • April 14, 2009

TABLE OF CONTENTS

System Requirements	3
How to Compile	3
Program Interface	4
Server	5
Client	7
Local Play	8

SYSTEM REQUIREMENTS

- Windows 2000 or above
- Visual Studio 2005 or above
- Sound card
- Speakers
- Microphone
- Network connection

HOW TO COMPILE

Create a new Win32 project in Visual Studio 2005 or above. Add the C files, headers, and resource files to the project.

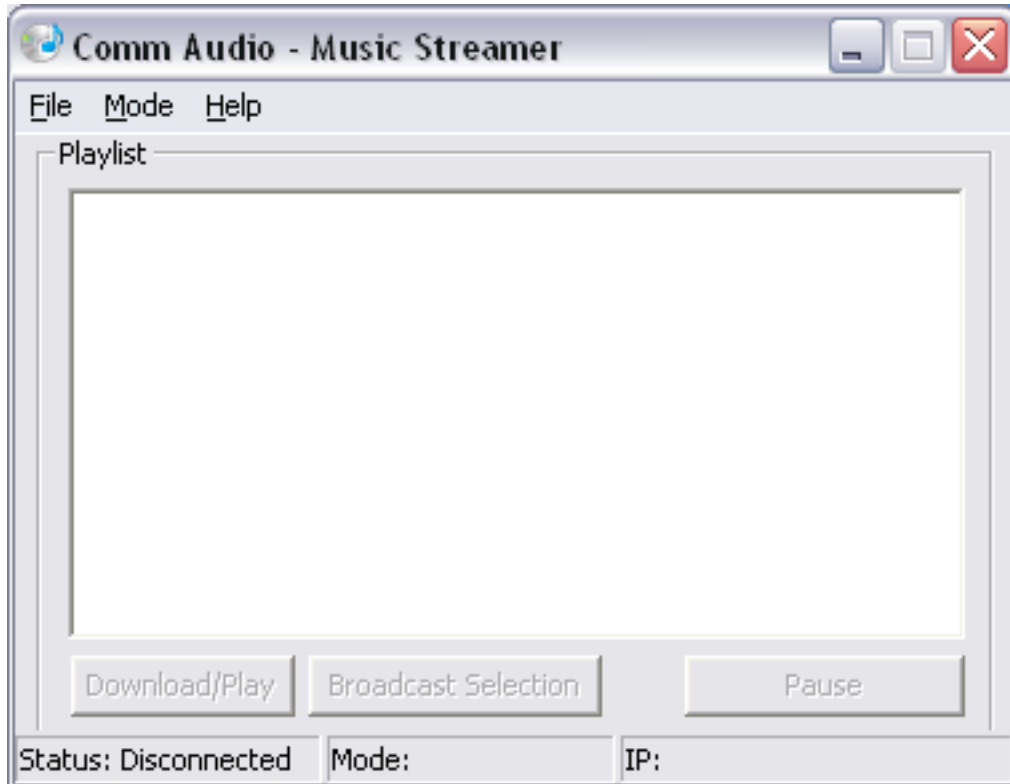
From the **Project** menu, select **Properties**. Under **Configuration Properties**, click the **General** tab. Change the **Character Set** to 'Not Set'. Expand the **Linker** tab and click the **Command Line** option. Add the following to the list:

- WS2_32.lib
- winmm.lib

You should now be able to compile the project.

PROGRAM INTERFACE

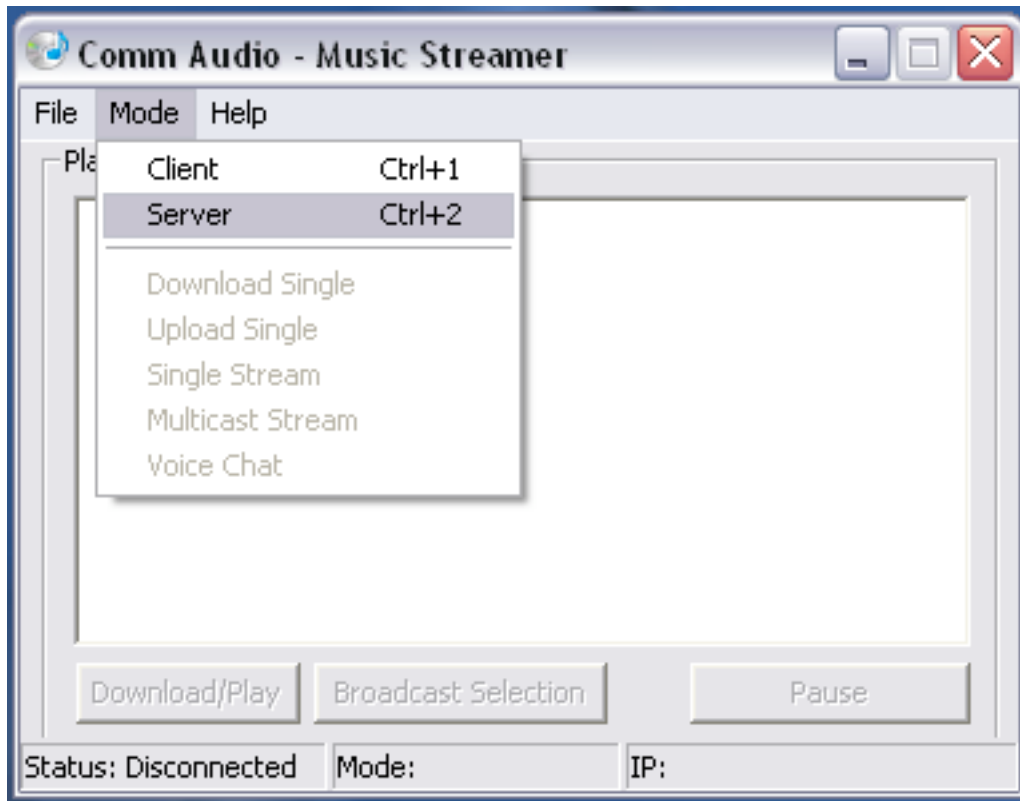
Upon starting the program, you will be presented with the following interface:



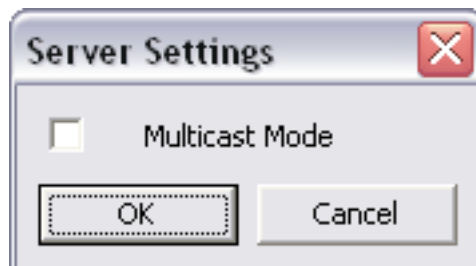
The application can operate in two main modes: *Client* and *Server*. Buttons and menu items will be enabled or disabled based on the chosen mode.

SERVER

Before hosting a server, it is advised to place your media files in the same directory as your program executable. To start hosting a server, first click on **Mode**, then on **Server**.



You will be presented with a server dialog with the option to start in Multicast Mode. This mode will allow the server to select the song that will be played, and streams it to all connected clients.



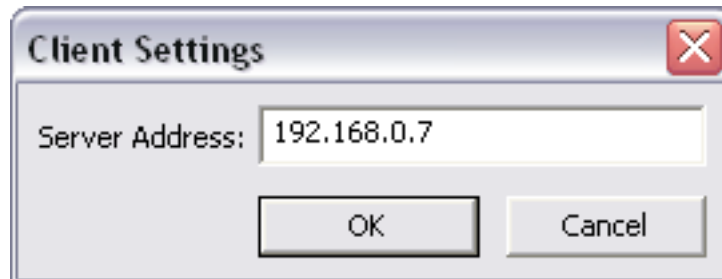
If you do not wish to operate in Multicast Mode, simply press **OK** without checking the Multicast Mode box. Finally, to start the server, select **Connect** from the **File** menu.

If Multicast was selected, the playlist area of the application will be populated with the .wav files located in the same directory as the executable. To start streaming a song in Multicast Mode, select a song, then press **Broadcast Selection**.



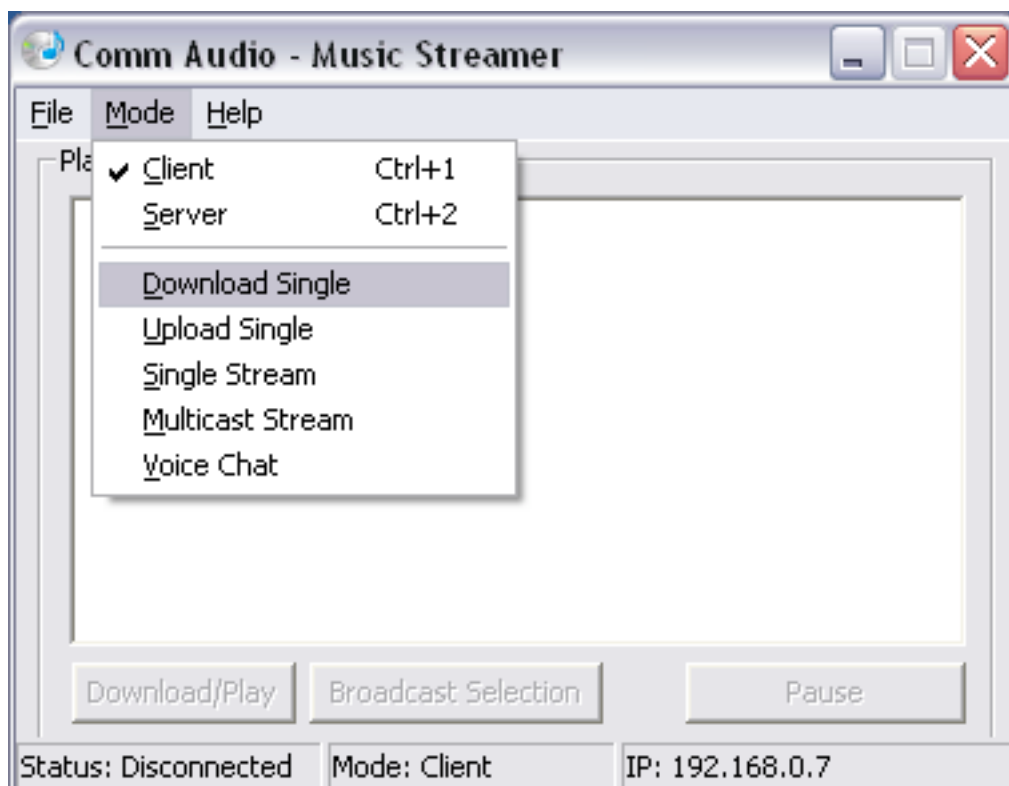
CLIENT

To start the application in client mode, select the **Client** option from the **Mode** menu. Upon doing so, you will be prompted for a server address.



Enter a server address in the field, then press **OK**.

Next, select the transmission method from the **Mode** menu, then select **Connect** from the **File** menu:



- **Download Single:** Displays a listing of .wav files on the server available for download. Selecting a song, then clicking Download/Play will download the selected song to the directory containing the application executable.
- **Upload Single:** Opens a file selection dialog box. Upon selecting a file, the client then uploads the file to the server. Files are uploaded to the directory containing the application executable.
- **Single Stream:** Displays a listing of .wav files on the server available for streaming. Selecting a song, then clicking Download/Play will stream the selected song. The song can be paused at any time by clicking the Pause button.
- **Multicast Stream:** In this mode, the server decides what song is played and when. The client has the ability to mute the song by pressing the Mute button.
- **Voice Chat:** Allows 2-way microphone communication between a client and the server. No other connections are allowed during this mode.

LOCAL PLAY

This application also has the ability to play files locally. To do this, first select **File**, then **Play Local File**. You will be presented with a dialog box to select a song to play. The file will automatically start playing once the **Open** button is clicked.