

EXHIBIT A-5

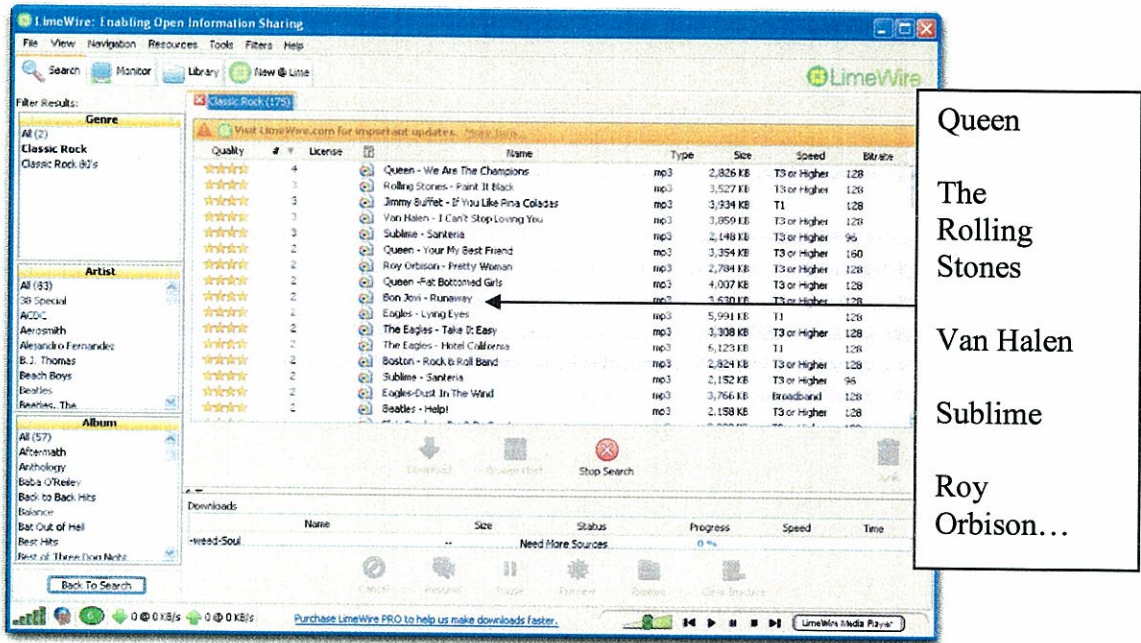


Figure 13: Result of Genre Search “Classic Rock”

iii. iTunes Integration

67. The LimeWire file sharing application includes software that allows it to communicate directly using Apple’s DAAP Server Protocol²⁵ with music organizing software such as Apple’s iTunes, assuming both are running on the same local area network. Figure 14 shows the Options window in LimeWire where the integration with music players can be established. Sharing with iTunes is turned on by default. Notice that the automatic setting for the Shared Name is “ellis horowitz LimeWire Tunes.” As seen in Figure 15, this is the name that will appear in iTunes as one of the iTunes devices, confirming that the LimeWire DAAP server connection has been established. The virtue of the sharing option is that any songs downloaded by LimeWire will be immediately visible to iTunes while LimeWire is running and can be played from iTunes.

²⁵ Apple introduced the Digital Audio Access Protocol (DAAP) with iTunes, version 4.0. Though originally limited to iTunes, DAAP is now available for other media applications.

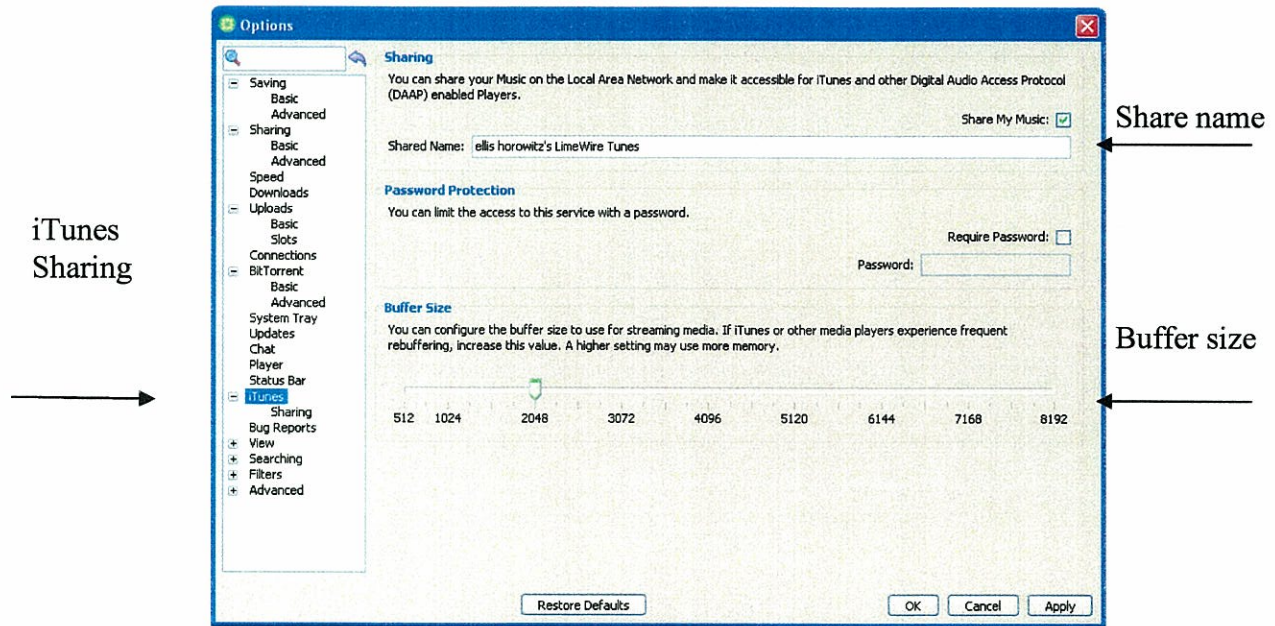
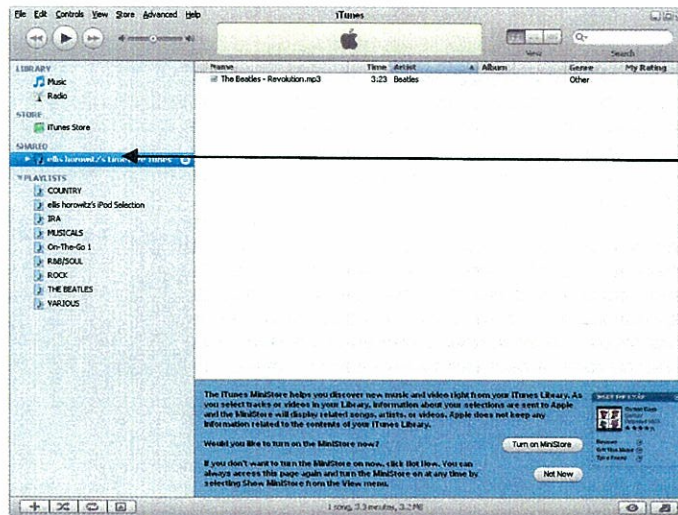


Figure 14: Tools | Options Window with iTunes Options Displayed



ellis
horowitz'
limewire
tunes

Figure 15: Apple iTunes Screen showing Integration with LimeWire DAAP Server

iv. Anti-Freeloading Features

68. A common problem on P2P networks is the issue of “freeloading.” A “freeloader” is a user who downloads files from the network without making files available for download by others. LimeWire contains a number of features designed to reduce the incidence of freeloading.

69. LimeWire's default is to share files as they are downloaded. On the Tools | Options | Sharing | Advanced pane, there is a setting for "Partial Files, you can choose whether or not to automatically share partially downloaded files." This option is initially set to ON. Thus, in the act of downloading a file, the user is automatically involved in allowing the uploading of portions of the file to other users. This helps the efficiency of the Gnutella network, by easing the "freeloader" problem, but may surprise users who wish to restrict their activities to downloading only.

70. Similarly, the default Saving and Sharing options in LimeWire appear designed to reduce freeloading. If the default settings are selected, then there is one Save and Share folder, and "Share finished downloads" is set to ON. As such, downloaded files are immediately shared. The LimeWire user interface does contain an indicator of how many files are being shared. It is, however, in the lower left-hand corner, a small green ball with a number inside it. To discover what the number in the ball signifies, a user must place the cursor over the ball to produce the tool tip: e.g., "You are sharing 6 Files." As a result, users may be unaware that they are uploading as well as downloading files on the network.

71. Another way Lime Wire LLC controls freeloading is provided via the Options screen under the category Advanced | Preferencing. A screenshot is shown in Figure 16. The phrase in the window says, "You can limit who is able to connect to you based on the number of files they share." The user may then enter a number, with the number 1 being the default. Finally, there is a slider labeled "Allow Freeloaders," whose scale goes from Rarely to Always. In this way, a LimeWire user can further guarantee that his shared files will not likely be downloaded by someone who is not him/herself actively sharing files.

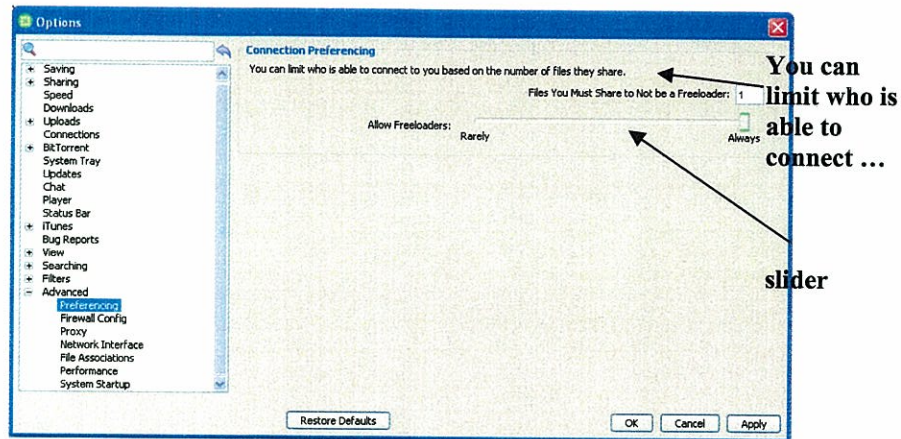


Figure 16: Options | Advanced | Preferencing Window Used to Control Freeloaders

v. What's New

72. The What's New feature facilitates quickly locating and downloading unauthorized content newly available on the network. In Figure 8 referenced above, for example, there are 183 search results. The majority appear to be for music by popular singers not generally known to authorize their works for free distribution on the Gnutella network. A scan further on in the search result list shows many more files not generally known to be authorized for free distribution. Thus, this form of search facilitates the locating of unauthorized works.

vi. Searching Generally Optimized for Finding Popular Files

73. The fact that search results are organized according to the number of sources available also facilitates locating and downloading popular content. For example, in Figure 12 above, notice that the first entry has 126 sources, meaning that downloading this file will result in faster downloads.

74. Not only does LimeWire organize its results according to the most popular, Lime Wire LLC designs its searching algorithms to first look for the most popular files. The innovation of dynamic querying is a mechanism whereby LimeWire first tests if

there are many copies of the file for which the user is searching. This is done using a test probe. If the test is satisfied, then no additional searching is necessary, as a sufficient number of results will be returned with a minimum amount of effort.

B. *Lime Wire LLC introduced features that counter anti-piracy efforts*

75. LimeWire also contains a number of features that circumvent or reduce the effectiveness of certain anti-piracy techniques. For example, LimeWire contains a number of different methods to allow users to block access to/from certain IP addresses, which can be used to block the computers of anti-piracy vendors. IP addresses can be blocked in a number of different ways.

i. PeerGuardian

76. Historically, Lime Wire LLC has advised users to install and use a program known as “PeerGuardian.” Although this entry has now been removed from Lime Wire LLC’s technical glossary, Lime Wire LLC has previously had an entry for the PeerGuardian application in the glossary, noting that it “is a cloaking application that attempts to block certain parties, such as the RIAA, from seeing what is on a user’s hard drive.”²⁶ PeerGuardian is a well-known application that works by preventing computers operating from certain IP addresses from accessing a P2P user’s computer, as well as preventing users from accessing these computers.

77. Although the explicit PeerGuardian reference has been removed from Lime Wire LLC’s technical glossary, LimeWire can mimic PeerGuardian functionality in a

²⁶ See LimeWire Technical Glossary, LW DE 006607-8.

number of different ways, thereby allowing users to ban communication with computers of a given IP address.

78. The first way is to enter the IP address of a host you wish to block by highlighting a search result, right click the mouse (on Microsoft Windows), and select the menu item Block Host. This will automatically add the IP address of the item into the Filter Hosts list.

ii. Hostiles.txt

79. Another way for LimeWire users to ban communication with specific IP addresses is to import a list of IP addresses in a file named "hostiles.txt." This list was originally developed and used by the P2P program BearShare. On startup, LimeWire looks for a file named "hostiles.txt" in a particular folder in the user's computer. This file is known to contain a list of IP addresses that includes machines that spam the Gnutella network.²⁷ The file contains a list of IP ranges and addresses.²⁸

²⁷ For a discussion of hostiles.txt see <http://www.gnutellaforums.com/open-discussion/53973-technutopia-fullsize-hostiles-list-bearshare-limewire.html>.

²⁸ A sample hostiles.txt file can be found posted at http://www3.telus.net/Aaron_Walkhouse/Hostiles.zip. Aaron Walkhouse was a moderator on both the Gnutella and LimeWire Forums who originated the list for Bearshare. BearShare defined both the filename and technical format by which the addresses and ranges should be listed. The file hostiles.txt is accessed in LimeWire: <https://www.limewire.org/fisheye/browse/limecvs/core/com/limegroup/gnutella/filters/IPFilter.java> (v 1.30) and the data is used in several places, e.g. see HostileFilter.java: <https://www.limewire.org/fisheye/browse/limecvs/core/com/limegroup/gnutella/filters/HostileFilter.java> (v 1.9). Walkhouse also makes a link to the file available on the Gnutella Forums at <http://www.gnutellaforums.com/tips-tricks/67733-technutopia-fullsize-hostiles-list-bearshare-limewire.html>.