Source-Connect® Pro 3.5 User Guide

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1. Introducing Source-Connect

Source-Connect Pro 3.5 is a standalone application for Mac OSX 10.4 – 10.6 that supports high-quality recording and monitoring of audio signals over the internet and allows for input and output directly into your DAW of choice.

About Source-Connect
Source-Connect provides professional studio access to the encoding and decoding of high quality, real-time audio streaming from within your editing environment, along with Remote Transport Sync (RTS), for remote synchronization of recording sessions.

To reduce the channel bandwidth requirements while maintaining low delay and high quality communications, Source-Connect uses a state-of-the-art AAC codec developed by Fraunhofer IIS. Source-Connect Pro now also includes the Apt-X Extended algorithm from APT.

In addition to streaming and RTS capabilities, Source-Connect also provides Contacts management and Instant Messaging features. You can add or remove contacts and edit your personal settings and profile by logging in to your account on the Source-Connect website.

What's new in Source-Connect Pro 3.5?

Source-Connect Pro 3.5 is now a fully standalone application and as such will operate with all DAWs on the support platforms.

For an overview of the new features in Source-Connect 3.5 see:
http://www.source-elements.com/source-connect/3.5

For a general overview of the Source-Connect versions and features see:
http://www.source-elements.com/source-connect/features

2. Installation

2.1: System requirements

Supported Host Versions and Hardware

Currently only support for Mac OSX 10.4 (Tiger), 10.5 (Leopard) and 10.6 (Snow Leopard) is available.

Source-Connect Pro supports all core-audio drivers as of the writing of this manual.

Minimum recommended configurations:

Minimum support is available for:

1ghz G4, 2GB RAM, OSX 10.4 or higher.

We recommend a G5 or higher and 2GB ram or more for best performance.

The Mac Pro computers known as 'Nehalem' and 'Westmere' do not always support correctly locking to an external clock source. This can be problematic when connecting via an optical/digital method to external hardware such as the Digi192. Please contact support for other options.

Source-Connect supported sample-rates:
Source-Connect currently only supports 44.1khz and 48khz.

Source-Connect supported bit-rates:
Source-Connect supports 16bit and 24bit sessions.

Compatibility
Source-Connect 3.5.1 is compatible to connect with version 2.9 for Pro Tools 6, and all 3.0 versions and up.

2.2: Network configuration
To establish an audio session between two studios, direct peer-to-peer communication is required between two hosts each running Source-Connect. Internet communication occurs over the UDP protocol, which is a low level and very fast Internet Protocol. It is therefore required that your firewall and/or router is configured properly to enable such communication.

For most operations you will open UDP 6000-6001 in your firewall and/or port forward these ports to your computer's IP address.

Please review the online Network Guide for specific details on getting your Network configured for Source-Connect:

http://source-elements.com/networkguide

Bandwidth:

Source-Connect requires an Internet connection with bandwidth of **at least** 300 kbps in both directions. You may need to configure your firewall and/or router if you are inside a network or have an active firewall. Corporate firewalls and routers may be able to provide QoS services to increase your application bandwidth. Please refer to our detailed network-specific information if you have difficulty connecting successfully.

You can get an idea of your bandwidth via Internet Speed test sites, such as http://www.speakeasy.net/speedtest . However, please note that a report from a site in California does not mean that you will be getting the same bandwidth when connecting to a peer in, say, Australia.

Additional firewall information:

Source-Connect will make outgoing requests from any available TCP port to ports 80 and 5222 on our server (www.source-elements.com). All TCP ports should be allowed to make outgoing connections to and from the firewall. Most networks allow these connections by default.

For additional information on configuring your network, please refer to:

http://source-elements.com/networkguide

You will find here an illustrated step-by-step guide on configuring your network, along with Advanced documentation for IT administrators.

For detailed assistance please contact Support.

2.3: Downloading and Installing Source-Connect

All Source Elements software is obtained by download directly from your account on the website.

To get access to the Downloads page you will need:

1. A physical iLok dongle
2. A valid evaluation or purchased license for Source-Connect

For more information on the iLok:
http://source-elements.com/iLok

If you requested an evaluation license, or purchased a license you should have also created a new Source Elements account at the same time. Use this account to login to your account and download the software.

If you did not receive an account please contact Support.

Installing Source-Connect

You should now have downloaded the correct software for your iLok license.

Launch the installer and follow the instructions. Newer versions of Source-Connect will install over existing installations.

Installing InterLok Extensions:

You must have the InterLok Extensions installed to allow Source-Connect to recognise your iLok. InterLok extensions are installed with the Installer Application. The installer will not overwrite extensions which are more recent, and will only upgrade older versions. You may need to restart the computer if this is the first time you have installed the InterLok Extensions.

Installing ReWire

Some systems will have a previous installation of ReWire, and the permissions will be such that Source-Connect cannot install the required components. If you encounter a failed installation issue, it is likely due to this. To install Source-Connect you can choose to either not include ReWire in the install process via unselecting it from the 'Custom' panel of the installer, or remove any previous ReWire components from your system. Remove the following folder:

/Library/Application Support/Propllerheads Software

And Source-Connect will be able to complete the installation. Note that if you have existing ReWire components for other programs, for example Melodyne or Reason, you should backup, rather than delete, this folder and restore when required.

Uninstalling on Mac OSX

To uninstall Source-Connect, open the Installer image and run the Uninstaller package. This will not remove your settings and Q Manager folder. To manually remove all your stored Source-Connect and Q Manager data delete this folder:

/Library/Application Support/SourceElements

3. Setup and Settings

3.1: Basics

The following is a quick guide, which does not include working with Auto-Restore, Auto-Replace or Remote Transport Sync. See the section 7 in this guide for information on working with these technologies.

Basic steps in using Source-Connect are as follows:

1. Launch the Source-Connect application.

2. Log in with your username and password.

3. Setup your audio session parameters. Parameters that can be set are bitrate, resilience and buffer size. You may also need to specify a port. If in doubt, use the default settings.

4. Set up your audio I/O. See the documentation specific to your DAW from our support page or contact our support team for assistance. An tutorial for setting up Pro Tools HD can be found here, for example:

   http://sourceelements.com/source-connect/3.5

5. Select an online contact in your Contacts list and press 'Connect' in the Status (top) panel. This will connect both studios with a real-time streaming-audio session. Instant Messaging will be activated between the connected partners, and if the sample rate and channels are the same (e.g. 48khz mono), RTS (Remote Transport Sync) will also be enabled. During the session, you send compressed audio data to each other over the Internet. Be advised that if either user does not have sufficient bandwidth or has excess packet loss there is a possibility of an audible dropout. To minimize dropouts, see the support documentation online. You can also work with the Q Manager to ensure full-quality recording is achieved.

6. Disconnect. This will end your audio session with the remote studio.

7. Log out.

3.2 Audio Input and Output

To record in a host such as Pro Tools or Logic, you will need to route the signal to and from Source-Connect to your DAW. For best practice we suggest using the optical port on your Mac Pro / G5 etc.

For some hosts such as Logic and Nuendo, you should be able to work with sending and receiving an audio signal via an internal CoreAudio routing mecanism, such as SoundFlower or Jack.

See the documentation for your DAW on the main Source-Connect Pro support page, or contact our support team for assistance.

3.3: Getting Around

Source-Connect consists of multiple tabs. Simply click on the Tab title in the center section of Source-Connect to show that tab. You can collapse Source-Connect to it's minimum size by clicking on the open tab header.

3.4: About Source-Connect

The About Box provides information on which version of Source-Connect you have installed. To view the About box, go to the Apple menubar, click on Source-Connect and then 'About Source-Connect Pro':

Opening the About Box:
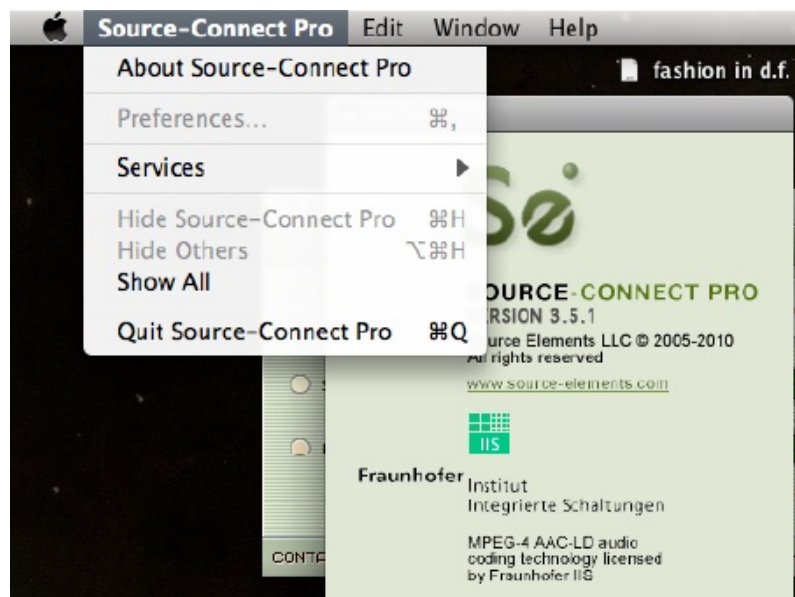
3.5: Source-Connect Pro: Setting session parameters – Overview

To modify your settings, select the Settings tab.

Audio I/O
You will set your Audio I/O settings here, including whether to send and receive in Mono or Stereo, and the sample rate of 44.1khz or 48khz.

Network Settings
Ultimately the actual capability of your network connection will determine the consistency of your sending and receiving reception. However you can optimize the quality of reception with the bitrate, buffer and resilience settings you choose to use.

See next page for a screenshot of the Settings panel.
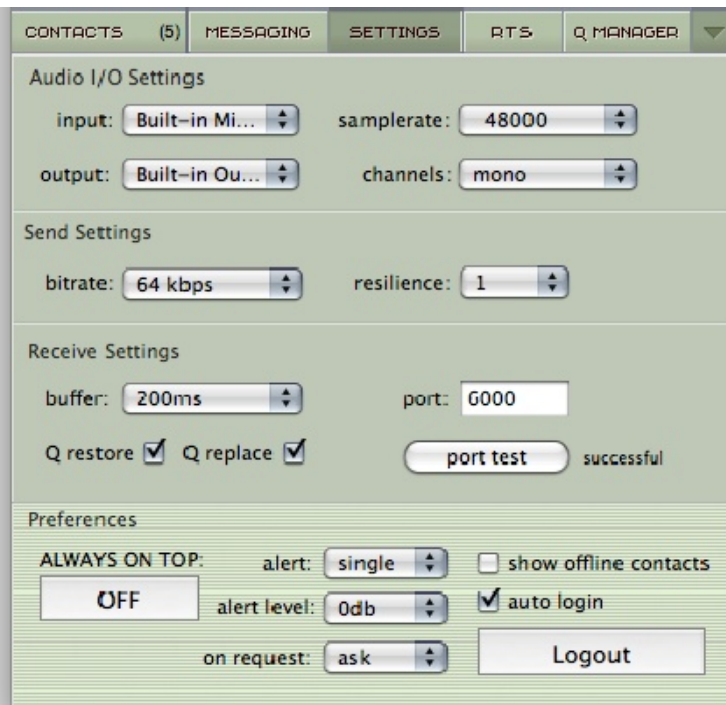
The following network parameters can be specified:

- **Send Settings** (Bitrate and Resilience)
- **Receive Settings** (Port, Buffer, Restore and Replace)

See the following section for more information on these settings. You can also test and view the status of the specific UDP ports via the Port Test button.

General Preferences
You can choose to have Source-Connect as a floating window. This is useful when you are working in Pro Tools for example, and want to monitor the connection. This option helps to make Source-Connect 'feel' like a plug-in.

You also have several alert options:

- **Alert repeat: single, repeat (until connection time-out), or none**
- **Alert level: 0db to -25db**
- **On request: ask, accept last or accept all**

The 'on request->accept last' will automatically allow the last connection partner to reconnect. This can be helpful during debugging or sessions that may be having network difficulties. 'Accept all' is useful if you are not be in front the computer to accept the connection request.

3.6.1: Setting session parameters – Bitrate

These settings affect the audio stream that you will be sending.

Note that you cannot change these settings while you are connected to a remote user. To change your settings you must first disconnect, make your changes, and then reconnect.

IMPORTANT: With sessions at 48khz, sending bitrates below 64kbps mono and 128kbps stereo will require sample-rate conversion as we cannot transfer the lower bitrates at the native sample-rate. If you are working with RTS or Restore or Replace and your session is at 48khz sample-rate you must work with at least 64kbps mono or 128kbps stereo minimum.
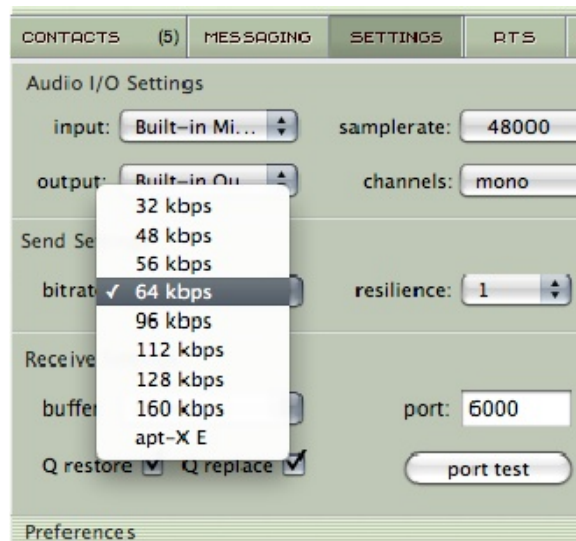
Source-Connect Pro bitrates:

Mono: AAC 32, 48, 56, 64, 56, 96, 112, 128, 160 kbps, apt-X 192 kbps

Stereo: AAC 64, 56, 112, 128, 192, 224, 256, 320 kbps apt-X 384 kbps

The higher the bit rate, the higher the quality of the stream at sending side. However, higher bit rates require more resources as they increase the network load. For example, using a bitrate of 64kbps (kilobits) will require approximately 20KB (KiloBytes) of data per second on your actual network, which corresponds to about 200k in required network speed.

In an ideal world, you should be able to achieve a rate equal to your purchased speed (divided by 8 (to get bytes), less 10% (TCP/IP and general Internet overhead). It is unlikely you will ever see that speed however, due to issues including network congestion or overloading on your local network, ISP level, or backbone, and extended hop counts. Generally, therefore, we recommend a minimum of 300kbps up and down to achieve a reasonable stream at 64kbps.

For higher bitrate transfers you will need more resources – with business cable (1.5mb up/down) or a T1 you may find you are able to transfer multiple streams of 320kbps stereo!

3.6.2: Setting session parameters - Resilience

In general a resilience setting of '1' should be used.
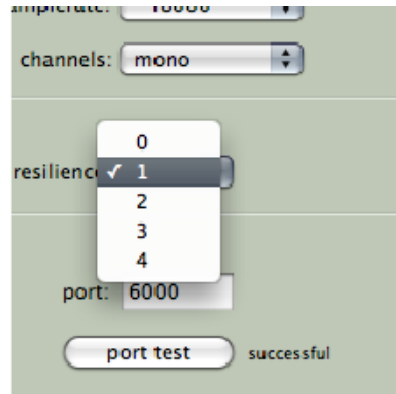
Resilience determines how the stream will be sent (and ultimately how it will be received). Which resilience setting you will use depends on several factors: Network bandwidth, your upload speed and your remote user's download speed will influence this setting. With higher resilience settings, more forward error correction data is sent.

Higher resilience settings than '1' are generally more effective over very high speed connections. A resilience setting of '0' is not recommended unless you are on the same LAN or you have a dedicated network with no other traffic inteference.

3.6.3: Setting session parameters - Port

Source-Connect requires a set of UDP ports to be available to establish a connection.
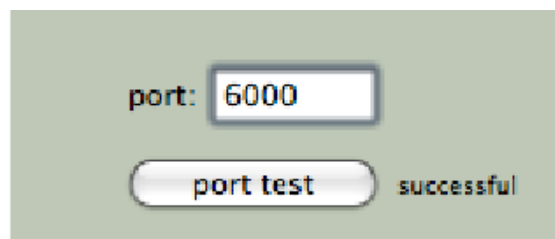
This should be a number between 1024 - 65534. For proper operation, 3 successive UDP ports should be opened in your firewall and/or mapped in your router (where the first port is the number you specify in the Port field in the Settings panel). For example, if you wish to use port 6000, ports 6000 and 6001 should be opened and mapped to your computer's internal IP address.

Verify the port status with the Port Test button. It should return 'successful'. Please see the online Network Guide for more information on the Port Test:

http://source-elements.com/networkguide

3.6.4: Setting session parameters – Buffer

The higher the buffer value, the higher the possibility of avoiding audible packet loss. On the other hand, a higher buffer value means a longer communication delay. If you are on a T1 or higher connection (both remote plug-ins) you may find that reducing the buffer size offers lower delay with the same quality experience. If you or your remote connection are on cable or DSL, a higher buffer is recommended.
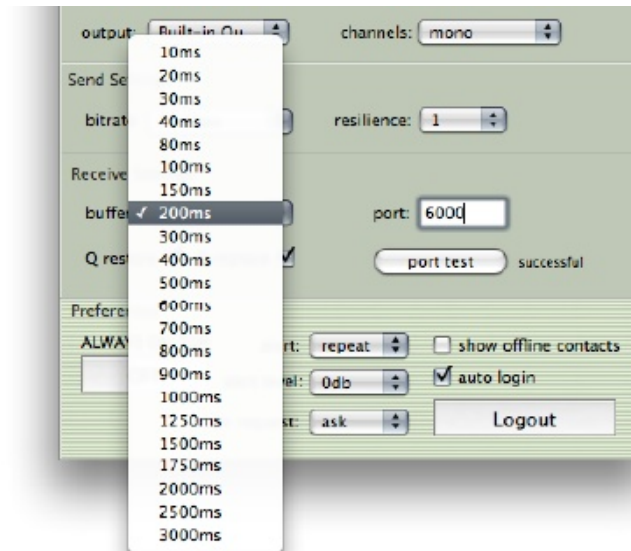
A value of at least 200ms is recommended, as values lower than this disable additional recovery algorithms designed to avoid packet loss.

Additionally, the ideal setting for our recovery algorithms to work is to set the buffer to at least double the ping time between you and your connected user. If your latency increases too much you can set a higher buffer on the side of the connection that needs to receive the highest quality stream.

3.6.5: Setting session parameters – Recommended defaults

Setting the bitrate at 96kbps, resilience of 1 and a receiver buffer of 200ms is the ideal setting for most voice situations as it requires the least resources, consumes less bandwidth and provides excellent audio quality. Lower bitrates provide easier transmission in less-than-ideal network situations.

We recommend understanding your network resources as much as possible, as this allows you to achieve optimal results.

3.6.6: Autologin

When Autologin is checked, you are automatically logged in with your existing settings intact upon initializing Source-Connect. Each time you open a session with Source- Connect enabled, and Autologin checked, you will be automatically logged in and be ready to connect.

3.6.7: Alert

Not staring at your monitor? Source-Connect will let you know with an brief aural alert when someone is requesting a connection. To have the alert repeat for 3 0 seconds, select 'Repeat'. It will stop once any connection request made to you times out. If you prefer to switch this off, simply select the option 'None' in your Settings panel.
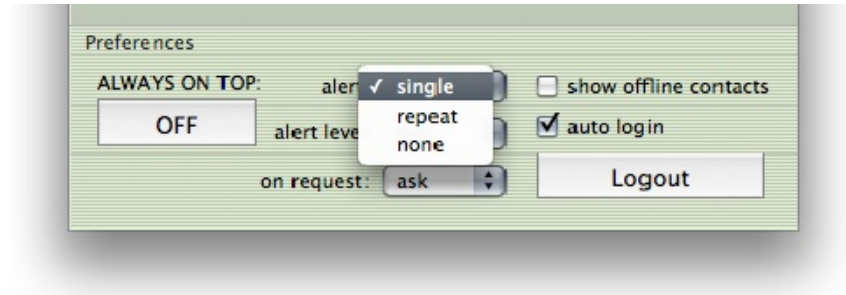
3.6.8: Show offline contacts

If you find your Contacts list has become rather long, you can make it more manageable by unselecting the 'Show offline contacts' checkbox. This will now only show any of your Contacts who are logged in and can make it much easier to find the Contact you are looking for when starting a session. See the next section for more about managing Contacts.

4. Your Profile and Contacts

4.1: Configuring your Profile

Your Contacts list and profile is managed on the Source-Connect website under your Account, which you can access by pressing the 'Go to online account' in the Login panel, or logging in to your account directly online. You can choose what information to display (or not to display). Your basic profile information is available to your Contacts via the Source-Connect software and, depending on the level of privacy you choose, may be viewable to all other users of Source-Connect.

See the Account and Profile pages for available options:

http://source-elements.com/account

4.2: Managing your Contacts list online

To add a new Contact, simply search or browse for the contact you wish to add and click on the 'Add contact' button:

http://source-elements.com/contacts

IMPORTANT: Newly added Contacts may not be immediately visible in your list while you are logged in to the Source-Connect plug-in. If you have added a new Contact, or know that a Contact has added you, please log out, and log back in to refresh the list. The website will let you know if you need to do this once you add a new Contact.

5. Using Source-Connect

5.1: Logging in

To login, enter your username and password and press the "Log in" button. If your login is successful, the Status panel will change its view: it will now show that you are able to establish an audio session.

5.2 Establishing a session

Upon logging in, the Contacts panel will list the users you have chosen to display in your Contacts list. Detailed user information is shown in the section at the left of the panel, and can be viewed by selecting a user from the list and pressing the "View profile" button.
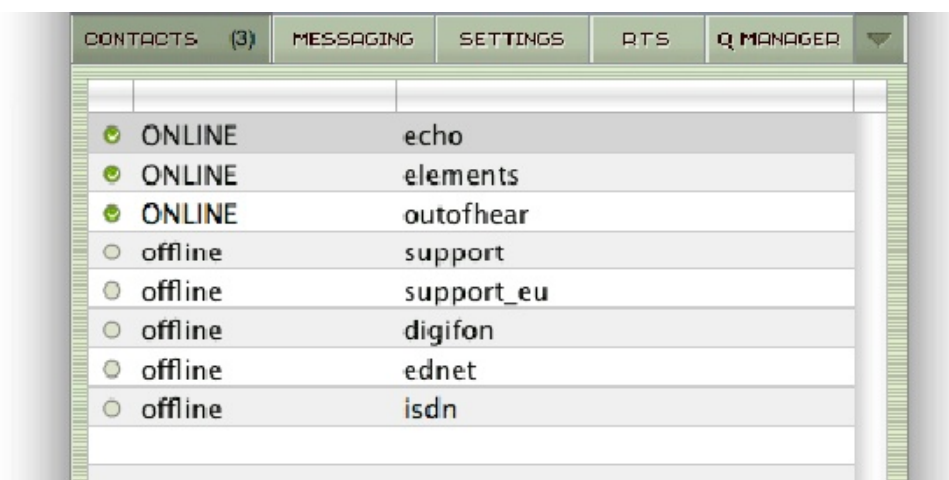
Before connecting to a user and establishing an audio session, it is always recommended that you check your settings.

To initiate an audio session, select the user in the Contacts panel with whom the session is to be established. It is only possible to connect to users who have Online status: that is, the users who are online and not already engaged in a session. Upon selecting a user in the list, press the 'View profile' button. You will see that their name, email address and any personal details they may have provided appear in the left part of the Contacts panel. This can help you to confirm that you are actually connecting to the user you want.

To connect:

Select the user you wish to connect with in the Contacts list and press the 'Connect' button in the Status panel to request a connection.
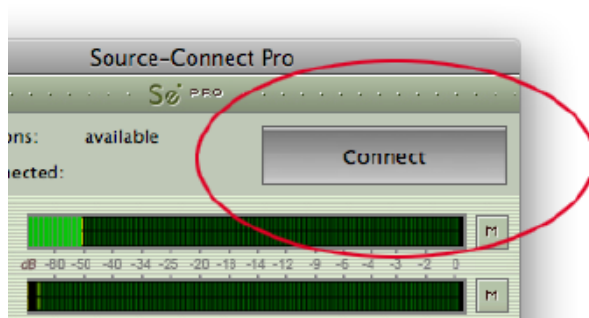
If the remote user agrees to the dialog that appears immediately on their screen, the session is established. If both users' port settings are correctly set and the audio settings are appropriate for your respective bandwidths, sending and receiving will begin.
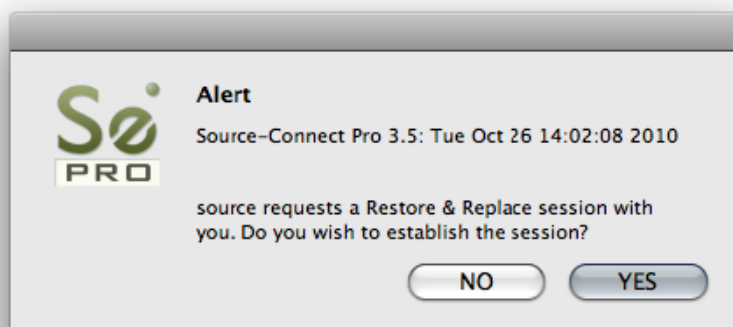
Audio activity is displayed in the signal meter. Otherwise (if the remote user disagrees or the request times out), the session is not established and a corresponding alert message is displayed.

Failed connection:

If you do not see a blinking 'sending' or 'receiving' light at the top of the plug-in it means that there is a problem with the network. Please review the Network Guide for information on how to resolve this:

http://source-elements.com/networkguide

5.3 Network timeouts

Request timeout: 30 seconds
This is the time required to reply to the confirmation dialog when establishing audio session. If you make a request, and see that your user stays listed as 'busy', you know that they are online, but are away from their computer. You can cancel your request at any time by pressing disconnect.

Streaming timeout
If the audio session is established but no audio data is received your 'receiving' blinker light will stop blinking to let you know that the network is not sending you any audio. If this happens during your session, try disconnecting and reconnecting with a lower bitrate and resilience setting.

Source-Connect session timeout
Source-Connect keeps your connection alive indefinitely, until you either log out, close your Pro Tools session or disconnect your network. In some cases you may receive a dialogue 'Connection reset by peer': this means you were unexpectedly disconnected – usually because your network was no longer responding. Go ahead and reconnect. If the problem persists it is due to insufficient bandwidth resources.

Automatic reconnection in case of Network failure
Source-Connect will also recognize if the connection has been lost with the Source-Connect servers. If this is the case, it will not disconnect your session automatically, but continue to assume that your Contact partner is still available. Once the server connection is restored you will see an Instant Message stating this. This is a new feature designed to help in cases where network anomalies stop you from making a server connection, but you may still have peer-to-peer network service and you can continue with your audio session.

5.4 Session status

When the session is successfully established, the current session properties are shown in the Status panel. You are informed of the bitrate quality and sample rate that is being sent and received, and whether you are sample-rate converting.
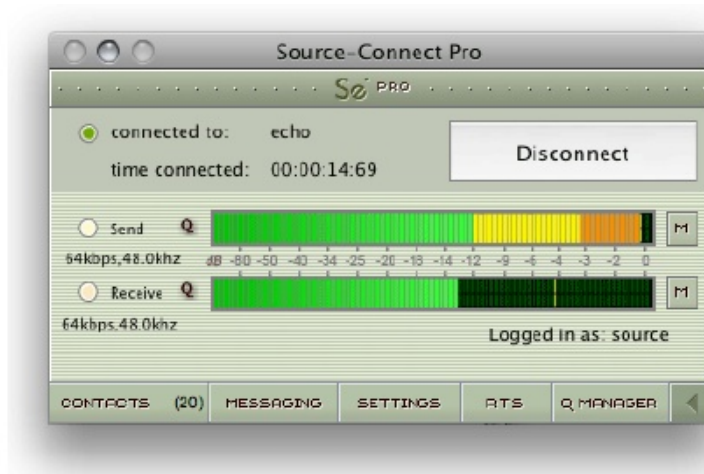
Session properties:

Sending light: If the connection is successful your sending light will blink.
If you do not have a sending light blinking but you do have a receive light, it is likely to be an audio application/hardware problem. Try restarting and verify your host settings.

Receive light: If the connection is successful your receiving light will blink.
If you do not have a receiving light blinking it is likely to be a firewall or other network problem. You should verify that the Connection Test is successful on both sides. See the online Network Guide for more information.

Sample-rate: The sample-rate that Source-Connect is receiving
The sample-rate listed below the sending and receiving status indicate the sample-rate that the codec within Source-Connect is working at and not necessarily the same as the sample-rate that the host application is set at. If they are different Source-Connect will indicate that it is sample-rate converting.

NOTE: Sample-rate converting is not compatible with Auto-Restore and Auto-Replace or with Remote Transport Sync.

'Q' icon on sending meter: The other side has 'Restore' or 'Replace' checked in their Settings panel and is capable of requesting Restore and Replace processes. When you are sending Q processes Source-Connect will cache the entire session to your hard-drive. You can delete this cache via the Q Manager.

'Q' icon on receiving meter: You have 'Restore' or 'Replace' checked in your Settings panel and are capable of requesting Restore and Replace processes.

Q Manager - IMPORTANT:
If the Q icon has a red slash through it means that the Q Manager is not correctly configured. Please review the section on Auto-Restore and Replace.

5.5 Instant Messaging

During an audio session it is often useful to exchange instant messages with remote user, for example if you are not able to send or receive a signal for any reason, or you do not wish to interrupt the audio signal with a message to the other side.

To send a message, type in the lower textbox at the bottom of Instant Messaging panel and enter your message. Press either enter or return key or click the Send button. Sent and received messages appear in the text display panel above.

Focus:

Note that after sending an message, the keyboard focus will be in the messaging panel. You will need to apple+Tab back to your audio host or click back with the mouse.

5.6 Remote Transport Sync (RTS)

RTS is an integrated method of synchronizing remotely connected Pro Tools transports. Purpose-built for ADR, over-dubbing and remote monitoring RTS makes distance collaboration easier and more efficient than it's ever been. Source-Connect 3.5.1 implements several new features and now includes support for Tempo maps.

The following is a very brief overview. For specific instructions and screenshots, **please see the comprehensive Remote Transport Sync FAQ:**

http://source-elements.com/support/rts

How to enable RTS:

1. Create a new mono Audio track.
2. From the Inserts->RTAS-> Instruments menu, instantiate 'Se ReWire'.
3. When you establish a session over Source-Connect the SEND and RECEIVE buttons will now be enabled in the RTS panel.

Using RTS

To use RTS, one user must be in SEND mode and the other in RECEIVE. The RECEIVE user has no transport controls – effectively they are now slaved to the SEND user who has 2 possible types of operation: ADR mode or Mix/review mode.

Source-Connect Pro has both ADR or Mix/review modes.
Source-Connect Standard can only send and receive ADR modes.

Please review the Remote Transport Sync FAQ for details on ADR or Mix/review modes and running an RTS session.

http://source-elements.com/support/rts

5.7 Closing a Source-Connect session

A Source-Connect session can be disconnected by pressing the Disconnect button in Status panel, by logging out, or quitting Source-Connect.

5.8 Logging out of Source-Connect

Logging out can be performed manually by pressing the Log out button in the Settings panel. Once you are logged out, you can log in again at any time and with any valid Source-Connect account.

5.9 Privacy

Once you have established a connection and you are sending and receiving audio, you are sending data directly to and only from your remote user. Instant Messages are not captured or stored on our servers.

For a comprehensive outline of our Privacy policy, please read:

http://source-elements.com/privacy

6. VPN Mode

6.1 About Source-Connect Pro and VPN mode

Source-Connect operates as a peer-to-peer type application over the UDP protocol, and this can cause connectivity problems when attempting to establish a two-way data connection in an unconfigured network. Factors such as firewalls and multi-layer subnets will generally make it difficult to walk into a venue and be confident of establishing a two-way Source-Connect session. Additionally, certain environments have strict security policies, so allowing firewall and network configurations are not possible.

As a solution, Source-Connect Pro can operate in VPN mode. This solves 2 problems: connectivity confidence, and security and privacy.

VPN mode and connectivity confidence
VPN connections operate over the TCP protocol and can function even within strict networks and proxy servers because it is possible to tunnel over HTTP. If a suitable VPN solution is implemented, all the end-user requires is a software client that they need to run when they wish to connect. Access can be strictly managed with unique, time- critical passwords. Cisco, for example, has such a VPN solution available where the client software is freely distributable and operates transparently. Or, solutions utilising IPSEC may be suitable, which can be activated with built-in Mac OSX software for example.

VPN Security / Privacy
Where security and privacy are concerns, the best solution is one where you have complete control over the security methods. When Source-Connect Pro is in VPN mode it is configured to disallow connections to external IP addresses, so you can be confident that your network is secure.

6.2 Activating VPN mode:

When launching Source-Connect, instead of logging in with your username and password, press the 'VPN mode' button on the left of the login panel.
Source-Connect will now open in VPN mode.

When VPN mode is activated, your own private IP address is available under the 'this address' menu. To connect to a user on your private network, simply enter their IP address and port in the 'connect to' section. Once you know a user's address and port, you can save and name this as a setting with the standard Pro Tools plug-in settings. When your settings are correctly entered, simply connect as you would in Source-Connect. The remote user will be asked if they wish to connect. Upon accepting the request your session now begins.

6.3 Using VPN mode

1. First, ensure that your VPN network is running then login into 'VPN Mode' instead of logging in with your username. You should see that your VPN IP address is available via the drop down menu in the Contacts panel. Generally, you can check that your VPN is active and your connection partner is available by entering the IP address of who you are connecting to and running the 'ping' test. If you can't ping that computer, you may not be able to connect via Source-Connect VPN. Some networks may not support the 'Ping' test so check with your IT administration where possible.

2. If you are on an active VPN you should be ready to make and accept a connection. If VPN mode cannot find a valid private IP address you will receive a dialog informing you of this. Please quit Source-Connect and check your Internet Connection if this occurs.

3. Once you are ready to connect, you will see your IP address listed in the 'My IP address and port' menu. If you have more than one IP listed, select the IP address that corresponds to the network interface you intend to use. At least one side of the connection needs to communicate their IP address to the other connecting computer. You should also let them know what port you are using (if it is not the default 6000).

4. To connect to another user, simply type in their IP address in the 'connect to' section. Note that this can only be a private IP address. This is to ensure complete security on your part, so you are confident knowing VPN mode will never send traffic to an unauthorized network.

5. If you are on a complex network, for example you are on different subnets, you may need to administer your common router so it knows to connect you. For information on managing your network, contact your IT personnel or get in touch with us at support.

6. When you are ready to connect press the 'CONNECT' button in the Status panel. If the network is properly configured, you will be immediately connected and your session will run like a normal Source-Connect session.

For technical support, you are welcome contact us. Please note, however, that when working with private networks we are unable to offer assistance directly on Source-Connect without being given access credentials to your VPN.

6.4 VPN mode and Hamachi
Source-Connect Pro supports the free **LogMeIn Hamachi**® VPN application. This allows you to make a secure connection over most firewalled networks without requiring any previous setup. A full guide on using Hamachi is available here:

http://source-elements.com/hamachi

7. The Q Manager: Auto-Restore and Replace

This section provides a complete overview on using Source-Connect 3.5.1 and 3.2 Pro with Restore and Replace. With Source-Connect 3.5 and 3.2, a new version of the Q Manager is installed, providing easier and faster Restore and Replace operations, plus several additional back-up options.

This section is divided into 12 parts:

This section starts with a step-by-step guide to using Auto-Restore and Auto-Replace. It is important that you understand what settings need to be verified. This is briefly covered in section 7.1: Ultra-QuickStart Guide, so **please review section 7.3. Launch and Configure the Q Manager for recording** if your recording needs are outside of the scope of the QuickStart guide.

The online Q Manager Help guide is also available directly from on the Q Manager setup panel and will take you to the comprehensive Q Manager guide online. You can refer to this guide whenever needed for quick help.

If you have any questions on working with the Q Manager and Auto-Restore and Auto-Replace please contact Support.

7.1 Ultra-QuickStart Guide

This section is provided for the most common case uses.

1. Launch Source-Connect Pro

2. The Q manager will login automatically. Check that your FTP service is active. If you get an FTP error see the FTP error section of this manual or contact Support.

3. Set your audio files folder / session folder in the Q Manager Setup panel. This is the folder where you will record your actual files to.

4. Connect with Source-Connect to your connection partner and check that you have a Q icon on the Receive status, next to the blinking Receive light.

5. Record a test file – it should show up immediately in your Q Requests. If it says Restored, select and choose Replace Now from options menu.

If it progresses and comes back saying Replaced, you're good to go!

7.2. 'Lifecycle' of a recording

This section is a step-by-step guide to using Source-Connect Pro for Auto-Restore and Auto-Replace. It shows how the Q Manager works by describing the 'lifecycle' of a file recorded in Pro Tools and the subsequent restore and final replace process.

1. Enable Restore and Replace in your Source-Connect Pro settings

To request Restore data you must have the 'Q restore' checkbox checked in the Source-Connect Pro Settings panel. To request Replace data you must have the 'Q Replace' checkbox checked. You can use either or if you need, or disable both if you are just monitoring the connection.
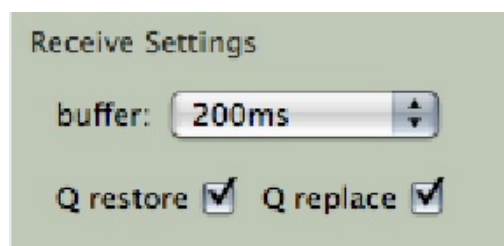
2. **Request a Source-Connect session**

When you request a Source-Connect session with Restore or Replace checked, your connection partner will be show a dialog indicating that you wish to receive Restore or Replace data.
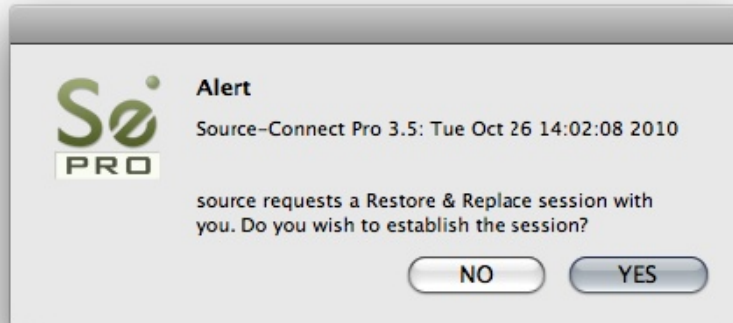
3. **Ready to record**

If your partner accepts you have now established a Source-Connect session with Restore and Replace enabled. You should now see a Q icon to the left of the Receiving meter, indicating that you can receive Restore and Replace data. If your connection partner also has Source-Connect Pro and has the Restore/Replace boxes checked you will see a Q by your Sending meter also.
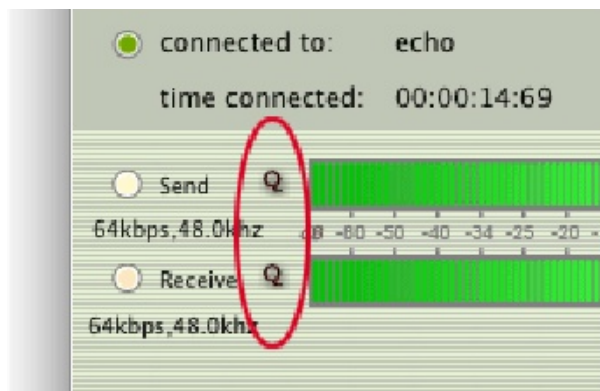
4. Recording an audio file

In this example we are sending a sine-tone signal via the Signal Generator plug-in to be recorded, and for the purposes of demonstration we are causing a significant number of dropped packets. You can see on the waveform in the timeline when the recording is significantly degraded:

IMPORTANT: As noted previously in this document it is **necessary** to ensure that your recorded signal is **passed directly** to your record track, with no volume changes or other plug-in processes in between Source-Connect and the record track. This ensures that the Q Manager will able to fully restore and replace your recordings.

5. Restoring the audio file in the background

Once you stop recording the Q Manager will start the restore process. You can continue recording multiple files as the restore process does not interrupt your session in any way. If you have the 'Send status notifications to Source-Connect IM' option enabled in the Advanced settings of the Q Manager, you will see the result of the process in your Source-Connect Instant Message window as files are processed:

6. Taking a look at the restored file

Since we have recorded a sine-tone signal, it is simple to see visually how the restore process works. Select the filename in the Pro Tools bin and choose 'Recalculate waveform overviews'. We can now compare the files before and after the restore process visually:

Before and after the restore process:
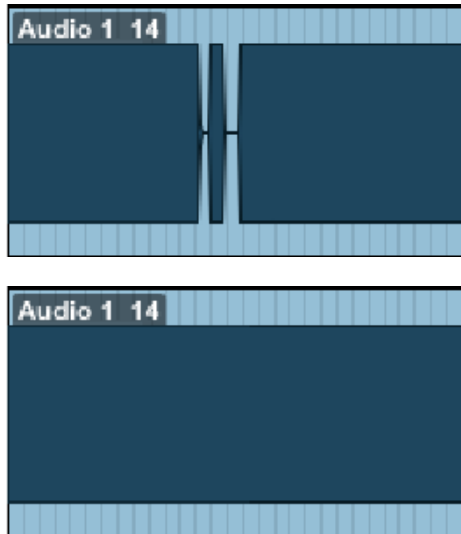
We can now see (and hear on playback) that we have a completely restored audio file with perfect playback.

7. Replacing the file with full resolution PCM data

It is not necessary to restore your audio files if you only need the replace process. However, if your files are currently being restored you'll need to wait until this process completes before activating the replace process.

To activate the replace process there are two options: manually per file or all available files at once.

Replace now
To process files individually, highlight that file in the Q Requests panel and select 'Replace now':
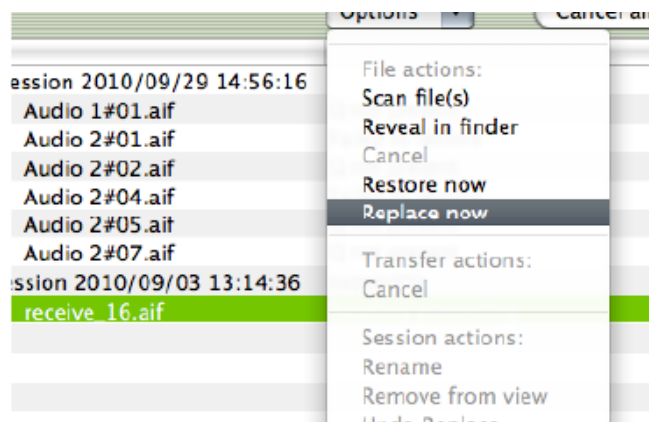
Start Replace process

To process all available files in the Q Requests menu, select the 'Start Replace process' from the Q Menubar dropdown menu:
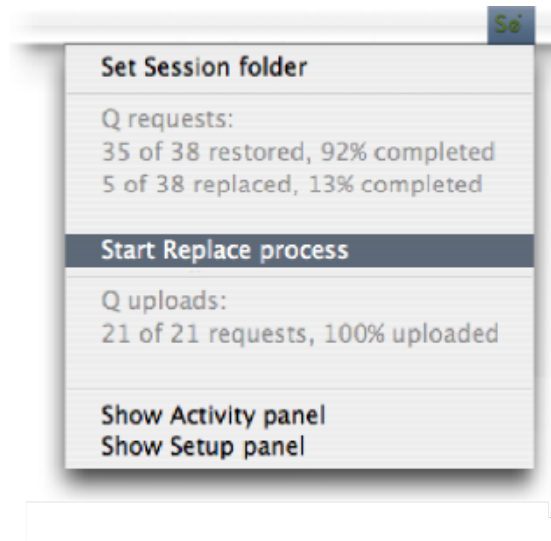
You will see an Instant Message (if IM notifications are enabled) to let you know that the Replace process has completed and the status of the file in the Q Requests panel will be 'Replaced'. Depending on the size of your files and the available bandwidth between you and your connection partner, this process will take some time, and longer than the restore process. Click on the arrow next to the filename to show the current progress. If the file is very large you will see a percentage of the progress.
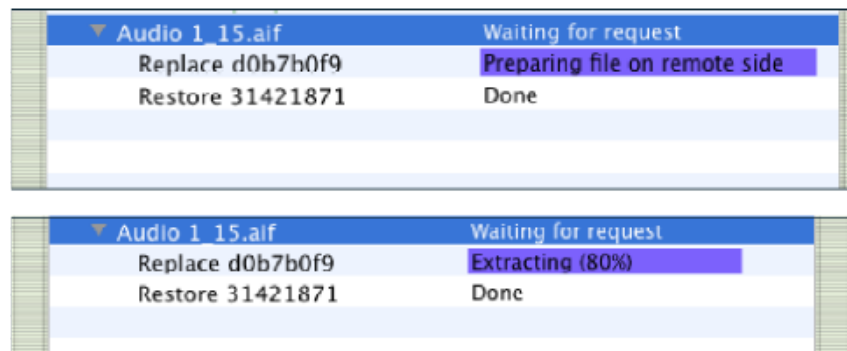
Once the process is complete you now have the full resolution PCM files in your edit.
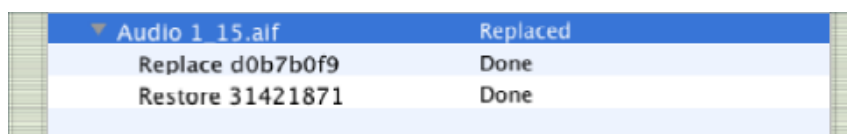
8. **Detecting whether your audio files are ready for Restore and Replace**

It is possible that because of your audio I/O routing, the Q signal is not being detected in your recorded Source-Connect audio – even though you have the Q icon displayed. Often this is because the I/O you are sending audio through is also used with other input sources. To verify whether this is the case, or if you have set the wrong Audio Files folder in the Q Manager you can try manually scanning a file. If the file status comes back 'Q not present' it means that it was either not recorded from Source-Connect, or the aux you used was not a clean aux. We recommend creating a brand new aux channel in the I/O settings of Pro Tools and testing your record again.

To manually scan a file choose Scan file(s) from the Requests options menu:
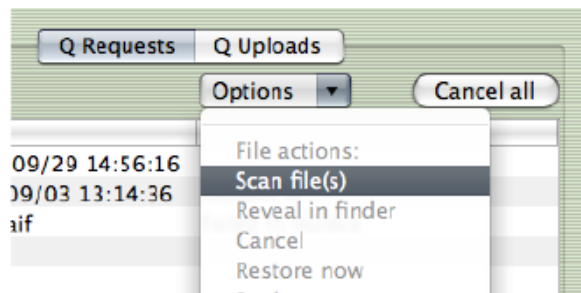
7.3 Launch and configure the Q Manager for recording

Launching Source-Connect and the Q Manager

When you launch Source-Connect, the Q Manager will also launch. By default, the Q Manager will login with the Source-Connect username and password that is entered in Source-Connect. If you logout and login to Source-Connect with another account, the Q Manager will also be logged in to that account.

Setting your Session Record directory

Generally, the only step you will need to take is to set your Session folder directory. This is the actual folder where you record your audio files, e.g. the 'Audio Files' folder in Pro Tools and Logic.
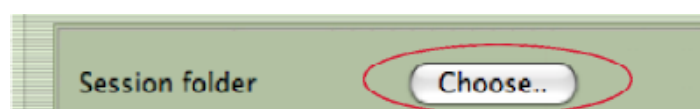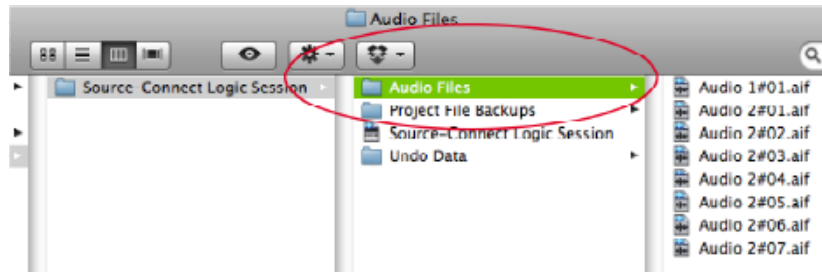
7.4 Login Mode

The Q Manager is designed to automatically login to your Source-Connect account you are currently working with for ease of use. However under some situations you may need to modify your Login settings.
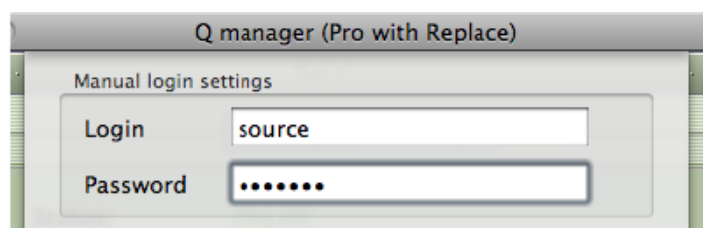
Login Mode: Auto

Under Auto Mode, the Q Manager will login to the Source-Connect currently used. If you logout of Source-Connect and login to another account, the Q Manager will also login to this new account. When using Auto mode, take care you are not using an account that may also be used in another computer, if you have multiple rooms. It is important that the same Q Manager account is logged in to the same computer that the original Source-Connect session was recorded on, due to the local data storage.

Login Mode: Manual

You can set a permanent account to be used by the Q Manager. When launched it will only login to this account and not switch when Source-Connect may use a different account. This is useful, for example, in a large studio where you don't have a fixed account per computer. You can use as many Q Manager accounts as you have multi-connect accounts (See your Profile on the Source-Connect website or ask Support).

The Q Manager will try to login to your Source-Connect when you click the Save button.

Login Mode: VPN Mode

When using VPN Mode in Source-Connect, you must have the Q Manager in VPN
Mode also, as it uses a different protocol to communicate with your remote Source-
Connect connection partner. If you are in Auto Login Mode, the Q Manager will
automatically switch to VPN Mode if you are in VPN Mode in Source-Connect. If you
are set to Manual mode, you will need to manually switch to VPN Mode.

7.5 FTP settings

The Q Manager only transfers audio and Q data via the FTP protocol. This requires
that you have an active FTP account to request Q data from your connection partner.
The FTP account you use should not be a highly secure account: in order to transmit
data to each other this account information will be communicated to the other side.
While Source-Connect and the Q Manager do this silently, it may be possible for the
other side to 'listen' and detect your FTP login information.
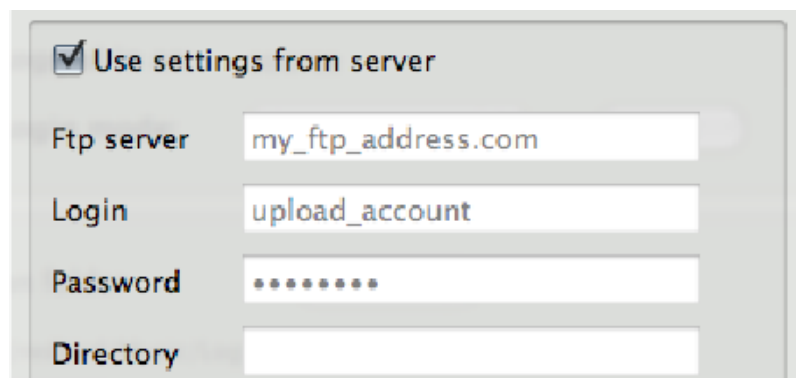
Because the Q Manager communicates your FTP login, only the side requesting data
will transmit the FTP login information to be used. It is not important that the other
side has a valid FTP account. The same is for Source-Connect Standard – because
Standard cannot request Restore or Replace data it does not have any FTP login
information stored to use. So, if you are the side requesting Restore and Replace,
your FTP account will be used for those data transfers.

Setting your FTP account

You can set your FTP account via your Profile on the Source Elements website:

http://source-elements.com/profile/?network

Or manually via the Q Manager login settings.

Testing your FTP account

The Q Manager will validate your FTP account by sending a test file on each login or
on changing your login settings. The test file will need to be written and downloaded
from your FTP site. This means your FTP account much have read and write
permission. You can also set a specific FTP path if you need to do so.

7.6 Using Auto-Restore and Auto-Replace: Details

1. To enable Auto-Restore and Auto-Replace recording on your end, make sure 'restore' and 'replace' is checked in the Settings panel. If your remote contact wishes to record with Auto-Restore/Replace enabled, they should also enable these settings. It is not necessary to both sides to enable restore, only the side which will be recording. Also, you don't need to enable Restore if you just want Replace.

2. Connect to your remote contact over Source-Connect. If Auto-Restore and/or Replace is enabled, you will see a 'Q' icon on your receiving meter, meaning that you can record and receive Auto-Restore and Replace data. **Note:** sample-rate converting or stereo to mono converting is not supported, and the apt-X® codec is only available for Auto-Replace operations.

3. Record the original signal received from Source-Connect.
    IMPORTANT: If you pass the Source-Connect signal through any filters, reverbs or any other kind of signal processing including changes in volume the file will NOT be restored or replaced. We recommend you use bussing to send the signal from Source-Connect to your record track. Source-Connect Pro fully supports mono and stereo recordings.

4. If any dropped packets occurred during your recording, the Q Manager will repair your recorded file in the background and send an Instant Message to the IM window of Source-Connect with the status of the file process.

    If you don't need to receive an IM message for each file processed, you can disable this option in the Advanced settings of the Q Manager.

Activating Auto-Replace

If the 'replace' option was enabled in Source-Connect, you will be able to easily replace the encoded and decoded recorded audio with the original PCM audio from your remote contact. There are two ways you can replace recorded audio files: per file individually, or all available files at once.

Manual Auto-Replace

To activate the Auto-Replace process for a single recorded file, simply select the audio file you wish to replace in the Q Requests menu of the Activity panel and select 'Replace Now' from the drop-down menu. The time required to replace the file with the original PCM depends on the size of the file, the available bandwidth, and whether you have selected the 'Only limit transfer speed during Source-Connect session' (recommended). We recommend that you wait until your session is complete before activating the Auto-Replace process, as the process will be much faster and will utilize all your bandwidth without disrupting your Source-Connect session.
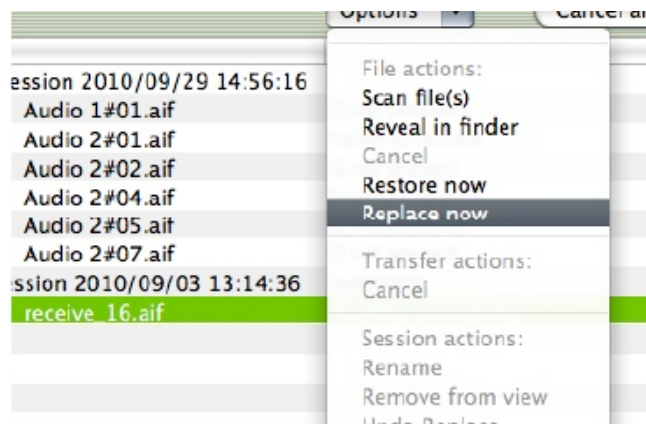
Auto-Replace all

To Auto-Replace all available files at once, select the 'Start Replace process' from the MenuBar drop-down menu. All available recorded files will be processed, and if your remote contact has not paused transfers, deleted that particular Q Uploads session, or shut down the machine or the Source-Connect Q Manager, you can activate the Auto-Replace process at any time after your session, whether it is an hour later or a week.
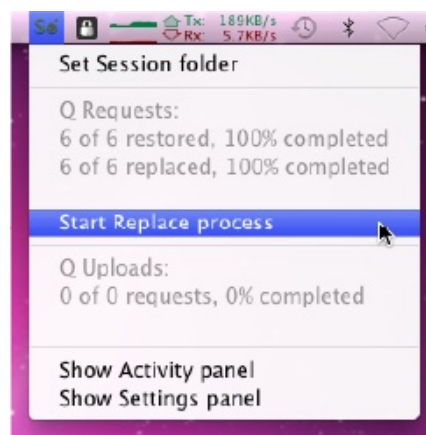
7.7. What is Auto-Restore and Auto-Replace?

With traditional long-distance recording, whether with Source-Connect, ISDN or any network-based transmission, the send signal is subject to various issues which may cause dropped packets and therefore 'glitches' in your recorded audio. Previously the only method to ensure a fully complete recording was to ensure your connection partner was also recording locally, so you could transfer this audio after your session and manually replace it in your edit.

Source-Connect with Q is the only available automated method to ensure that your recordings are perfect every time, with our Auto-Restore functionality. Additionally, with Auto-Replace you can request the original PCM audio and replace the compressed AAC or apt-X® recording without requiring any additional effort.

How does it work?

First, an overview of how audio is transferred and recorded over packet-based transmission lines.
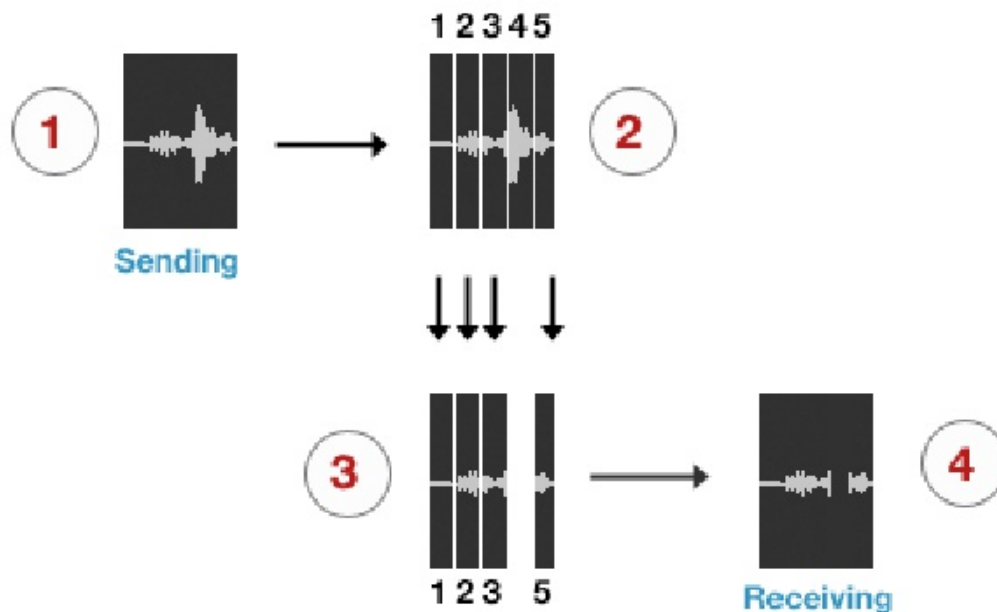
1.   The audio signal is sent through Source-Connect, and is split into packets.
2.   These packets are sent sequentially to your connected partner over the internet.
3.   If a network error occurs, a packet may not arrive in time.
4.   If this occurs you will hear a minor glitch in the received audio signal.

Source-Connect has built-in error correction modes to try and resolve these dropped packet issues in realtime, however under certain circumstances a packet may not be retrieved in time to recover the signal before it is recorded.

Auto-Restore resolves this problem by working in the background in non-realtime and restoring your recorded audio files.
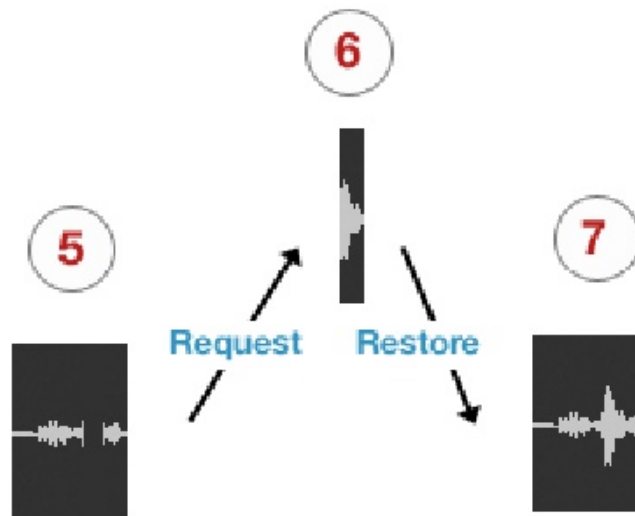
5.   The audio file is scanned when recording completes.
6.   If any missing packets are detected they are requested from your connected
     partner, who has stored them during the connection.
7.   Your file is restored and is now available for flawless playback.

Auto-Replace

Auto-Replace works in a similar way, except the packets which are requested from
your connected partner are of the original PCM data which was sent into the Source-
Connect plug-in, and instead of only requesting those packets which did not arrive
in time, all packets are requested. A complete replacement of the decoded AAC
audio is then made with the full resolution PCM audio. An important distinction
between Replace and Restore, is that Replace operations can take longer to transfer
due to PCM being uncompressed data. Generally we would recommend you activate
the Replace process once your session is complete.

7.8. Comprehensive Q Manager interface overview

This section is a complete overview of all available options and their functions.

Settings panel
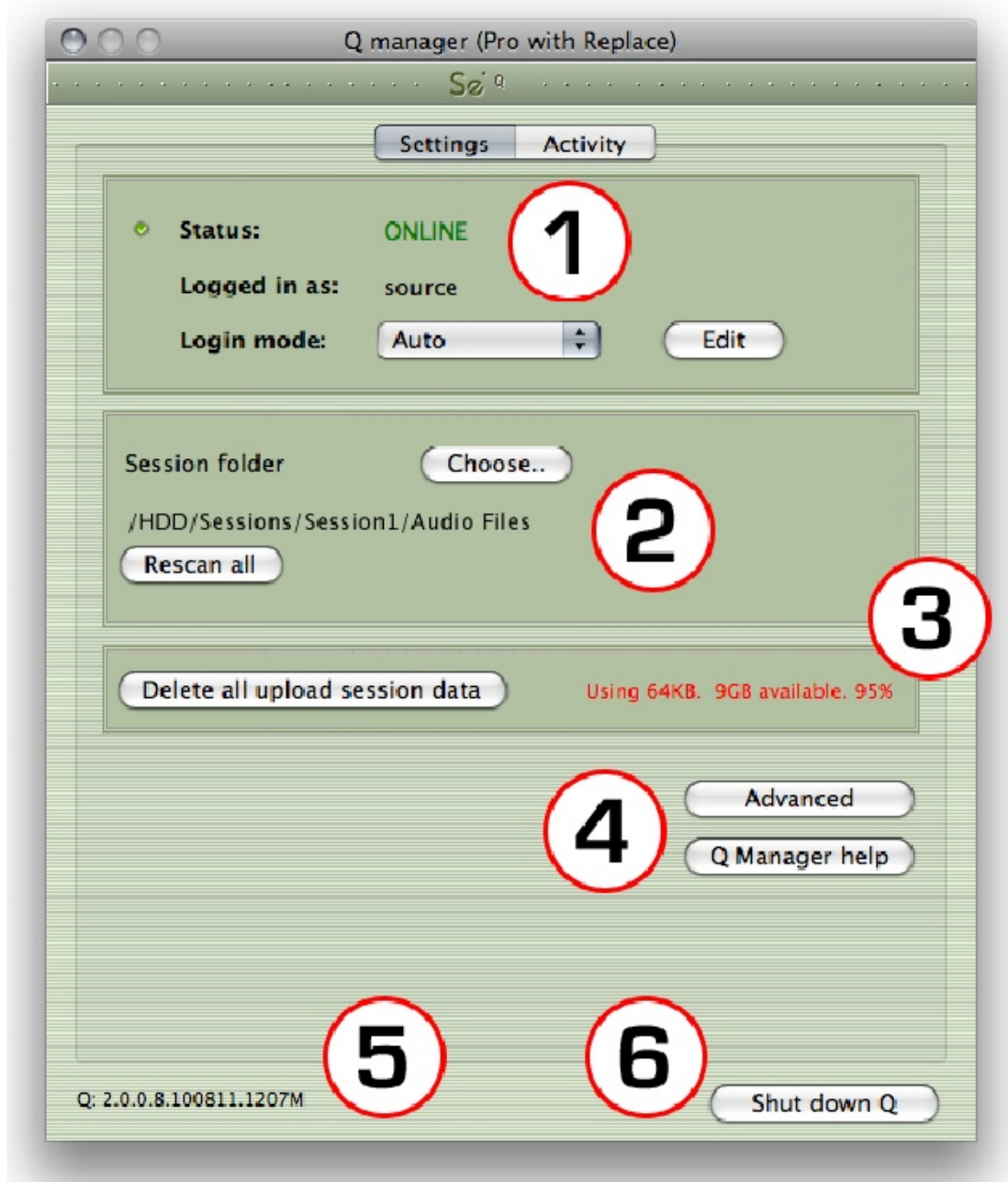
1. Status and Login

Choose which Login mode to use. If your login details are correct you will see that the Q Manager successfully logs in with Status: Online. The Q Manager will take 5-30 seconds to login, depending on the availability of your FTP service.

2. Session folder

Your Session folder is very important – you must select the folder you are going to be recording into or the Q Manager will not be able to detect the files to be processed. Choose the Audio Files folder of your Pro Tools session. You can either click the Choose button and find your Audio Files folder in the dialog that pops up, or you can drag the folder from your Finder window.

Once you have chosen your Session folder, any newly recorded files will be processed automatically by the Q Manager. If you have existing files that you would like processed, press Rescan All and see your Activity – Requests panel for details.

This option is useful for when you have existing files in your Audio Files folder which require processing. For example, you may not have restored or replaced your Source-Connect recorded files, or there may have been an error which required a reboot, for example.

Rescan all files can also be used to reload a session which contains multiple files for which processing has been delayed for some reason, for example you are using FTP mode and you wish to Replace all files at the end of the day in a batch.

3. Delete all upload session data

Each time that you establish a session where your connection partner has selected Restore and/or Replace, Source-Connect will immediately begin storing all session data in compressed and/or PCM form. This can quickly fill a harddrive: at the rate of 56MB per hour for Restore and 700MB per hour for Replace.

The Q Manager helps you keep track of your hard drive availability by letting you know when you have less than 20% available.

You can choose to delete this stored upload data at any time, and once you have deleted this data your connection partner will not be able to request any Restore or Replace processes. Please ensure that your connection partner has received everything they need before you delete this data.

If you choose to delete your session data while connected, your current session will not be deleted. This can be useful if you find you are running out of drive space and cannot reestablish the session.

4. Advanced

Additional settings are available under Advanced:
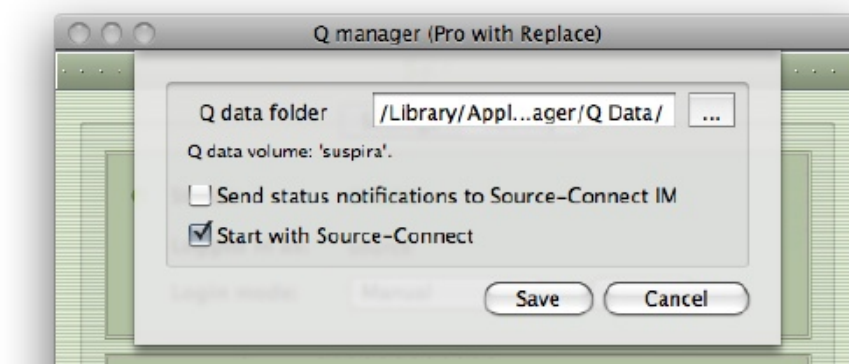
Q data folder

The default location for the Q data folder where all your upload stored data is saved to is:

/Library/Application Support/SourceElements/Q data/

You can choose to store this data in any location, however we strongly suggest that you set this once and leave it. If the Q Manager attempts to send Restore or Replace data to your connection partner, and this folder location has been changed, the process will fail.

Send status notifications to Source-Connect IM

For each available recorded file in your Audio Files folder, the status of the file can be sent as an IM message to your Source-Connect Instant Messaging panel. This can be useful for quickly monitoring the status of your recorded files. Note that this feature requires that you are logging into Source-Connect as the same username as entered in the Q Manager. For example, if you are logged in as 'username' in the Q Manager, you cannot be logged in as 'username*b' in Source-Connect or you will not receive the IM messages. If this is the case, the next time you login as 'username' into Source-Connect your IM messages will be shown to you.

Start with Source-Connect

If this is checked, the Q Manager will always launch automatically with Source-Connect. If you are not intending to use the Q Manager in anyway, for example you use Source-Connect primarily for bridging, you can disable this option.

5. Q Manager version

This shows your installed version of the Q Manager. Source Elements periodically releases updates, so if you are having any issues please contact Support with this information.

6. Shut down Q

Press this to shut down the Q Manager. You can also Quit via the icon on the Dock, or use the File menu.

Once the Q Manager is shut down, any requests made to you from your connection partner will not be communicated and they will receive a process error.

7.9 Invalid Q Manager settings and warnings

If your Q Manager settings are invalid for some reason, you'll be given a dialog warning. Possible warnings are:

- Invalid username or password
- Invalid FTP settings
- Duplicate login, possibly on different machines
- Q Manager is unable to connect to the internet

Invalid username or password
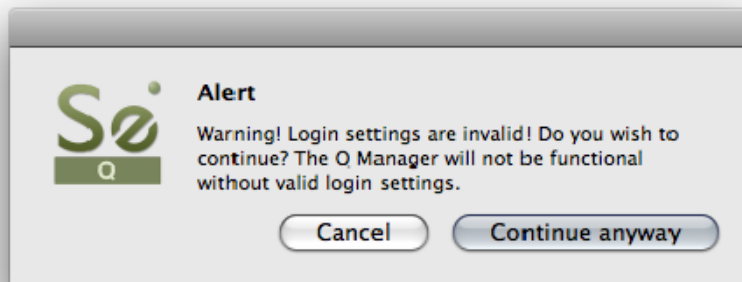
This means that your username and password are incorrectly entered, or your username has not be validated to work with Source-Connect 3.0. If you are sure that your username and password are correct, you can validate your details for 3.0 simply by visiting the Download page on the Source Elements website:

http://source-elements.com/downloads

Then click on the Download page for your Source-Connect version. The username and password that you are logging into Support with will now be validated to work with the Q Manager.

Invalid FTP settings

This means that you entered either none or incorrect FTP settings in your Network Profile. It is important that you have a valid FTP account, or the Q Manager will not login.

Duplicate login on different machines
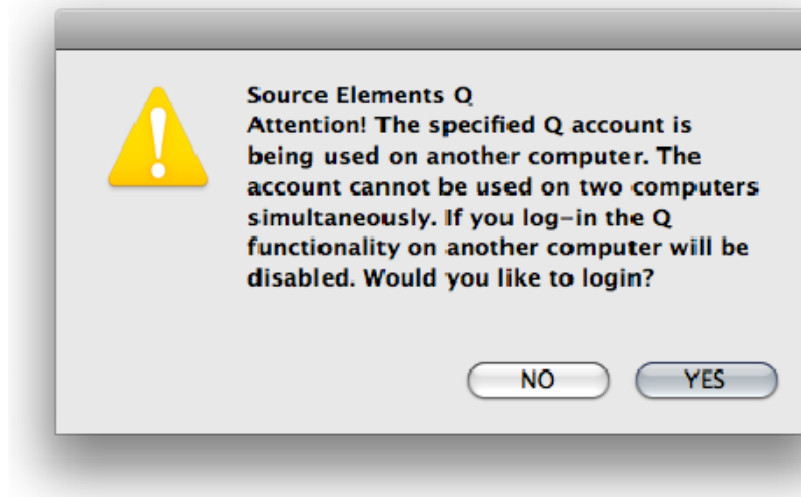
If you see this error, it means that another computer is currently logged in with your username and password. If you choose to continue the other machine will be logged out. It will get this same message, so be aware that if someone else is seeing this you may have an issue of both of you not being able to login. It can also mean that your computer restarted unexpectedly, and the Q Manager did not manually log out, in which case ignore this message and continue with your login.

Q Manager cannot connect to the Internet
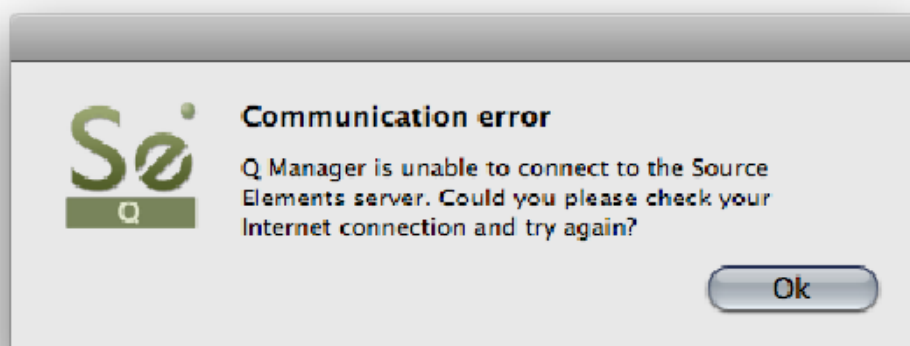
If the Q Manager cannot connect to the internet, perhaps due to a firewall settings or other network configuration issues, the status will be Offline. Check that your internet connection is working, and if you have a built-in firewall you will need to allow access to the Q Manager and Q Daemon.

7.10 Q Activity panel

This panel gives you a full overview of what files are being processed, what the result was, and allows you to fully manage your restore and replace processes.

Introduction: What's going on?
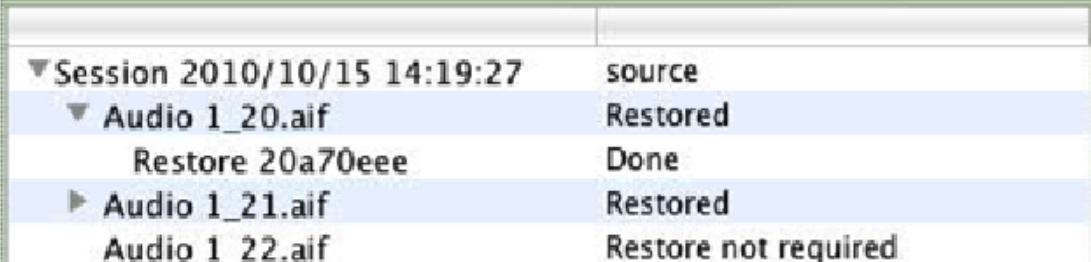
When you record a file in your Audio Files folder, the Q Manager will analyze the file to determine whether it is suitable for processing. If the recorded file was created with Source-Connect and the Q Manager is set to 'listen' to the Audio Files folder that this file was recorded to, the Q Manager will list it immediately after the recording is completed and, if needed and the settings are at the default, a restore process will take place. Depending on the length of the file, the number of dropped packets, and the available bandwidth, the file can be fully restored within a few seconds. All files are subsequently listed in the Activity panel with the corresponding process status.
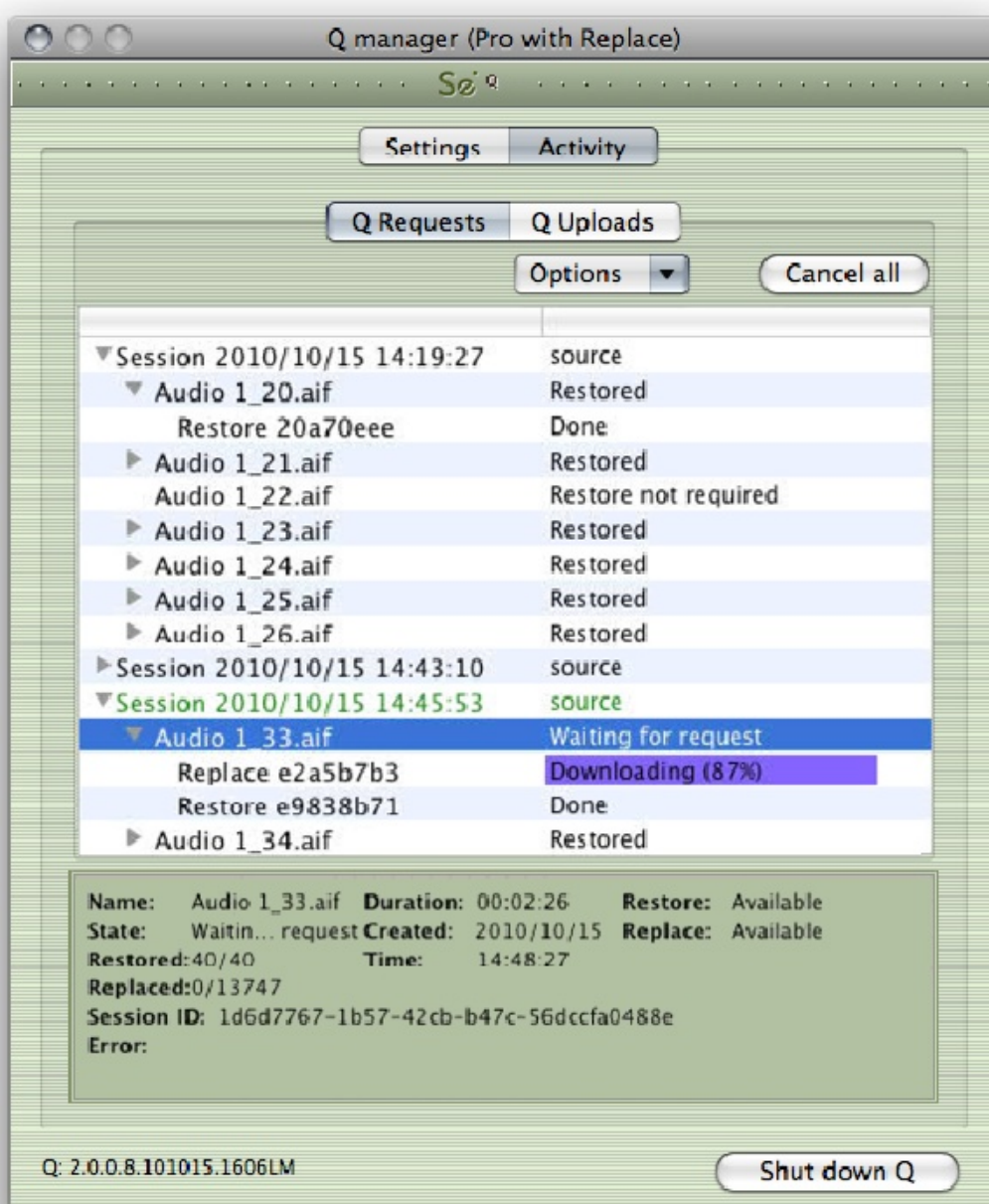
Activity panel: Q Requests

Q Requests Overview

Each time you establish a Source-Connect session, the Q Manager will create a new Session in the 'Q Requests' panel. All files recorded during this particular session will be listed under this session, allowing you to manage your files per connection. A new session is created each time you connect with Source-Connect.

▼ Session 2010/10/15 14:19:27	source
▼ Audio 1_20.aif	Restored
Restore 20a70eee	Done
▶ Audio 1_21.aif	Restored
Audio 1_22.aif	Restore not required

File status:

Next to the filename will be the status of that file. When the Q Manager first detects a file, it is scanned to see if any restore operations are required. If not, the file status will be 'Restore not required'. Otherwise, the file proceeds to be restored, or if you or the other side has transfers paused, the file will remain 'Waiting for requested' until transfers are resumed. Additionally, if you manually scan a file (see next section) and the audio file was not recorded with Source-Connect the status with be 'Q not present'.

File process status:

There are two possible processes for files: **Restore** and/or **Replace**. Each process can be viewed by clicking on the arrow next to the filename. The status will change according to the stage of the process. When a process is complete the status is 'done'.

For each process, a progress bar will show to indicate the process is underway. Depending on the length of the recorded file and the transfer speed between you and the other side, the progress bar can be an indication of how much time the process will take. Note that there are many factors involved and the time required will vary depending on the size, bandwidth and requested process type. Restore processes are generally very fast. For Replace processes a full replacement of the decoded AAC audio is made with the full resolution PCM audio. Thus the transfer of an entire Replace session this may require some time.

Q Requests: Options menu

For each file and session, you have additional options available to you via the Options menu. Depending on what you have highlighted, various options will be available to you.
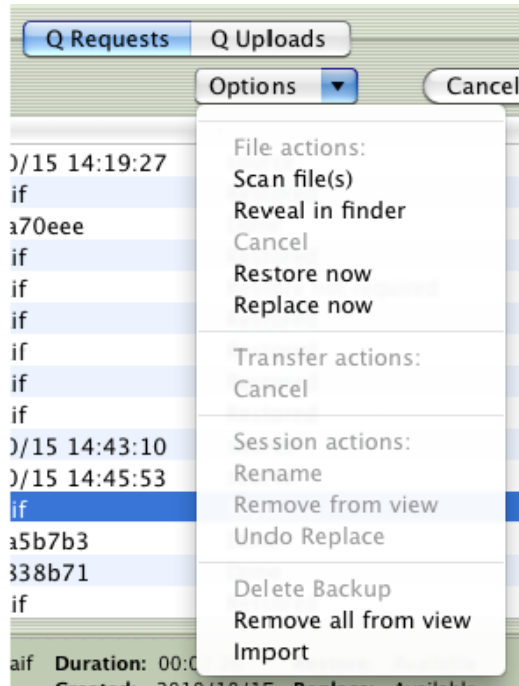
File actions:

Scan file(s)
This option allows you to scan a particular file or files which have not been processed. This can be useful if there has been a system error and certain file processes have not been completed, or if you have a very large number of files from a previous session and only need to process particular files. This option can also be useful when there are certain errors which result in a newly recorded file not showing up in the Requests menu, for example a Pro Tools CPU error may result in new files remaining undetected. Multiple files can be selected in the File dialog by holding down the 'Shift' or 'Command' keys.

Reveal in finder
Reveal the highlighted file in the Mac OSX finder

Cancel
This option is available to use when a file is currently being processed. This option is useful, for example, when you have a very large file which is being processed or a transfer is underway and you prefer to cancel the process. You can restart the process by selecting Restore or Replace now.

Restore now

To start the Restore process on an individual file, highlight the file to be processed and select Restore now. If the file has not been restored already, and the other side has not deleted or moved the corresponding data and is online, your file will be restored.

Replace now

To start the Replace process on an individual file, highlight the file to be processed and select Replace now. If the other side is compatible with the Replace process and has not deleted or moved the corresponding data and is online, your file will be replaced.

Transfer actions:

These options apply to your overall network transfers, not to individual files.

Cancel

Cancel all current Request transfers. Any current file transfers underway will be cancelled. You can restart transfers by using the appropriate Restore or Replace option.

Session actions:

Rename

It is highly recommended that you rename the Session name for easier management. You can do this by highlighting the Session name and selecting 'Rename' from the Q Requests Options menu. You can rename the session at any time.

Remove from view

Over time your Q Requests panel will become full of session data. Once your session is complete and your data transfers are successful, you can remove a session from view. This does not delete existing files or data, it only 'hides' the session.

To show a session again, select the Audio Files folder in the Setup panel with 'Rescan all files' selected and Apply. Your session will show up again in the Requests panel.

Undo Replace

To ensure the integrity of your recorded audio files, the Q Manager allows you the option to undo the Replace process in the event of a corrupted process.
NOTE: This option requires that 'Backup before replace' is checked in the Advanced panel.

Delete Backup

This option deletes the Replace data backup for your highlighted session. Once your session is fully replaced or other processes are completed successfully as required, you can delete the backup to preserve disk space.

Remove all from view

This is the same as 'Remove from view', however it will remove all visible sessions in your Requests panel. This is a great way to quickly clear the panel.

Import

If an FTP transfer has failed, or for any reason you choose to have the remote connection partner manually transfer the Q session, use this menu to import that data file, or you can simply drag the data file onto the Activity panel.

Activity panel: Q Uploads

Q Uploads Overview
If your connected partner is recording and requesting Restore or Replace data, you'll be storing data on your side to enable the Restore and Replace processes. You will see the status of this data storage and any requested transfers in the 'Q Uploads' panel.
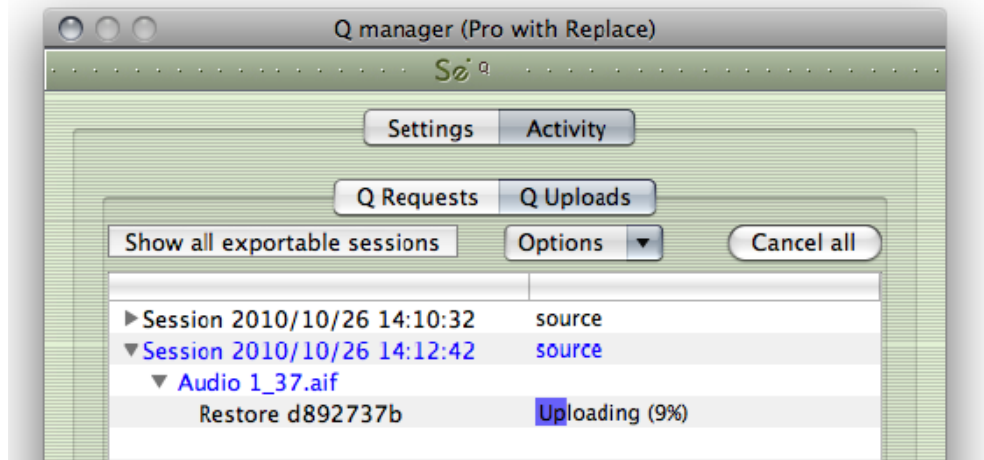

Each upload process will show a progress bar and the current status. The currently active session will be displayed in blue lettering, for easy viewing. When the upload is completed successfully the status will be 'Done'.

The current disk usage is displayed to help you know when you may need to allocate additional resources, or delete the session data from disk (see further in this section).

Q Uploads: Options menu
For session you have additional options available to you via the Options menu.
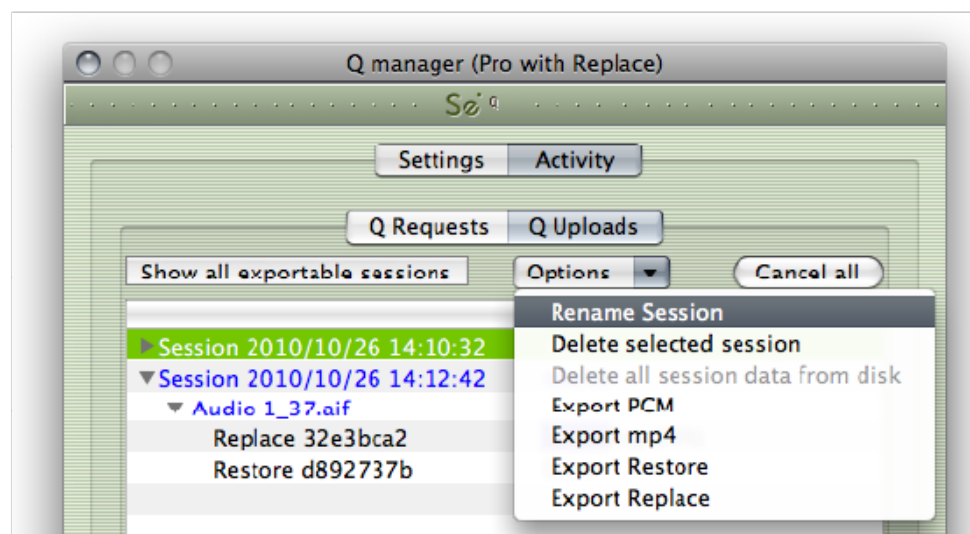
Rename session
For easier session management and later session recognition you can rename the session.

Delete selected session

Once your connected partner has successfully completed all required transfers you can delete the Uploads session to preserve disk space. Note that this option is not undoable. It will mean that your connected partner will no longer be able to request any further restore or replace operations.
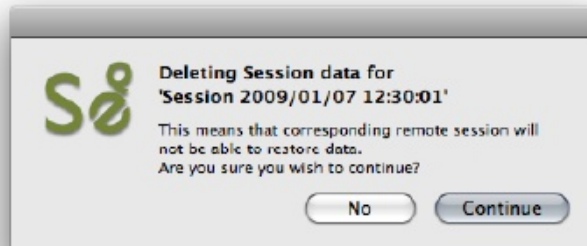

Delete all session data from disk

If you know that your recording partner has successful completed all Restore and Replace processes, you can now delete all session data from disk. This will permanently remove all stored data to date. You will be asked to confirm this action. After deleting all data you will see that the disk usage at the bottom of the panel has gone down to a small number.

This option is not available to you while currently connected via Source-Connect.

The remaining Export options are explained in the following section.

Activity panel: Export session options
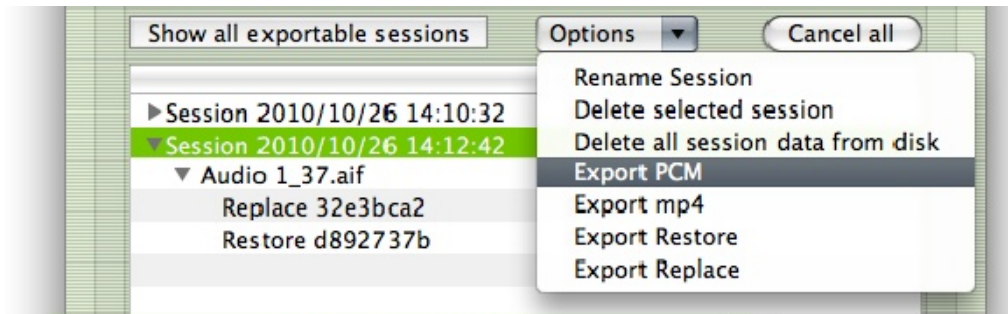
This powerful feature of the Q Manager allows the export of the stored session data from the Sending side. What this means is that if Auto-Restore or Replace fails for any reason, you'll always have a perfect back up of the entire session from the moment you were connected. The session is provided in various formats depending on what method is preferred.

Once there are drop-outs (if any!), the Sending side will see that a Session has been created in the Uploads panel of the Q Manager Activity. Once you disconnect the session is now available to be exported.

These options are available for all Source-Connect Pro users assuming the Q Manager was correctly configured for both sides while during the connection, i.e. there was no red slash in the Q icon in the Source-Connect connection status.

Export MP4

To export the session as an mp4, select the Session name in Q Uploads, and choose 'Export mp4' from the Uploads options menu.
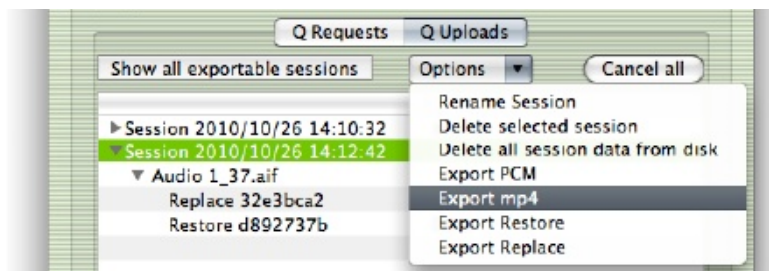
The export helper application will launch, and you will be asked to save the file.
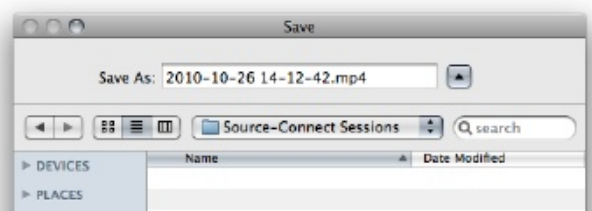
By default the filename is the date and time of the session connection. You can rename the file as required. This file can be played in any MP4 player, such as Quicktime or iTunes, or it can be imported directly into most editors.
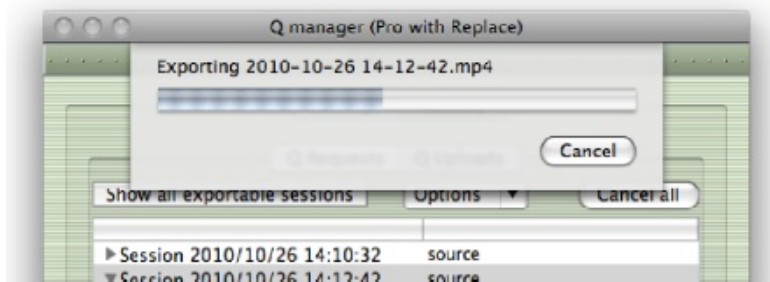

You can choose the cancel the export process by hitting the Abort button.

Once the Export is complete you can now play back your complete session without network dropouts, and email or FTP this to your connection partner.

Export PCM

This option is only available for Source-Connect Pro, if the Receiving side has the Replace option for Source-Connect Pro, and the Replace checkbox was enabled for that connection. The same method applies as for Export MP4 above.
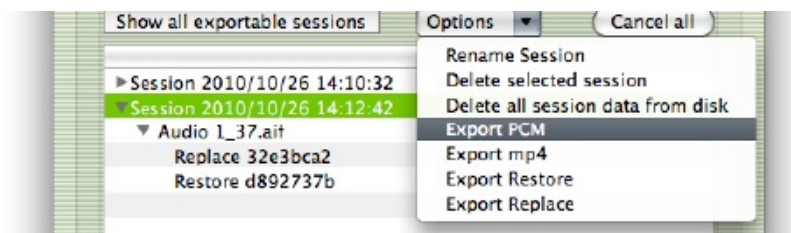

Export Restore and Replace

Export Restore and Replace is highly useful in case of issues of your connection partner not receiving your data due to network errors or FTP failure. Essentially this is a manual process of transferring the Restore and Replace data, instead of automatically having it transferred by the Q Manager on request.

When you are disconnected from your session, select Export Restore or Replace: Restore will export the AAC data and Replace will export the PCM data. The Replace export process will require additional disk space and transfer time.
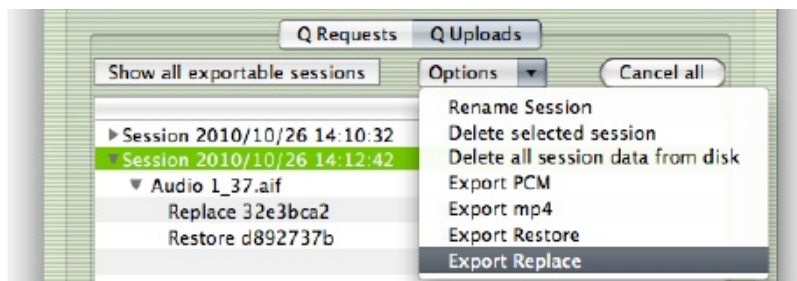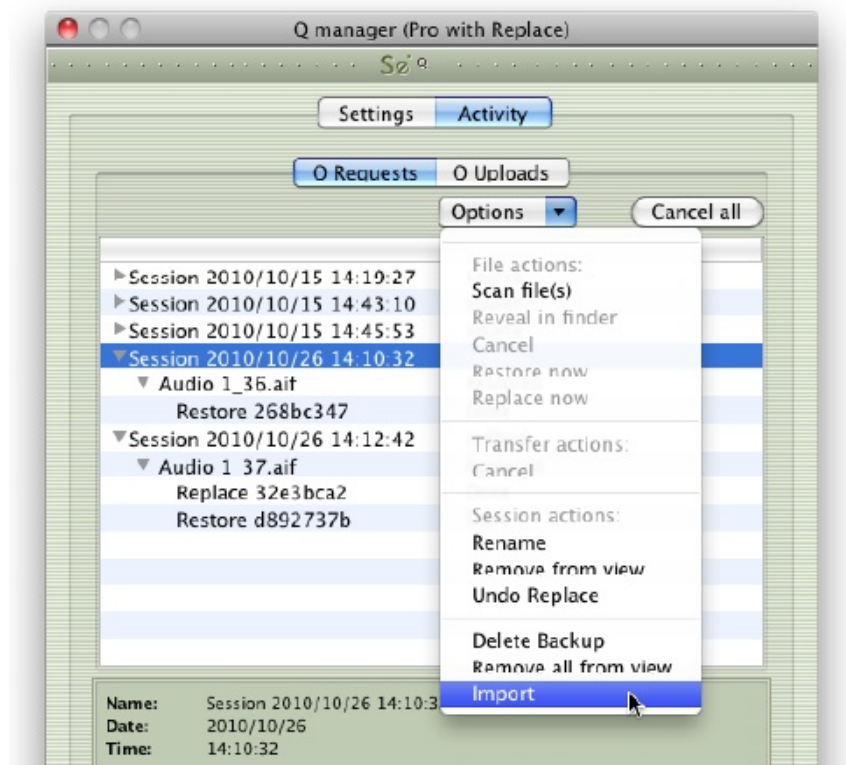
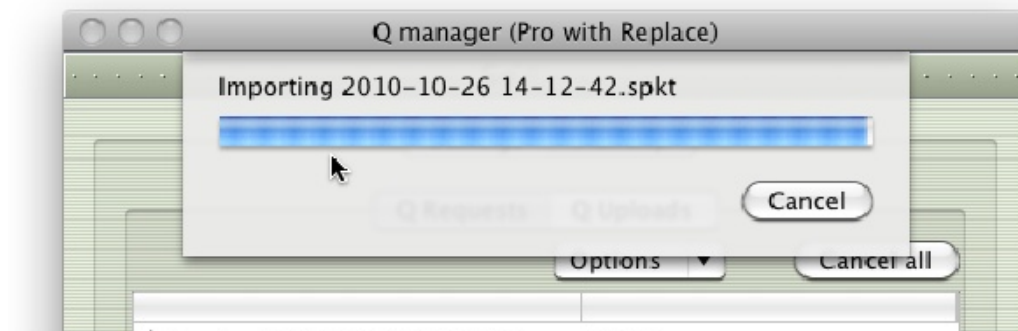You will be prompted to save the data file:
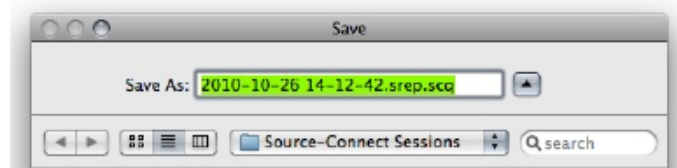
You can now manually transfer this data file to your remote connection partner, by email or FTP for example.

Your connection partner will receive this data file and import it by using either the Import option on the Q Requests menu, or dropping the file onto the Requests panel.
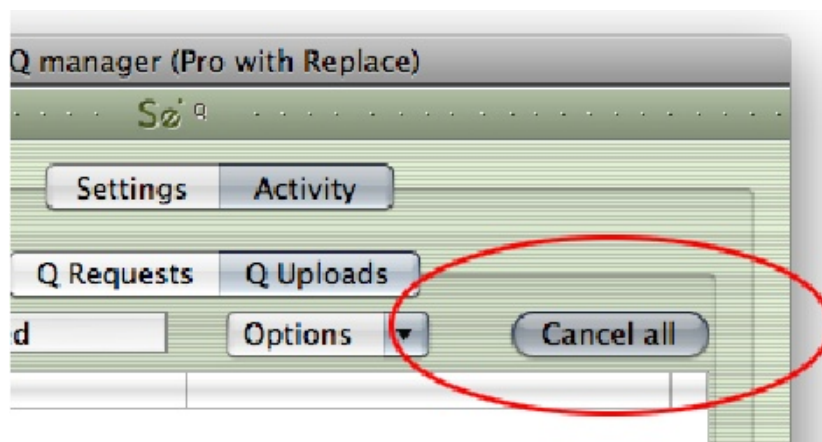

The Q Manager will import the data:

When a Restore or Replace session has been exported and successfully imported, that session will have an green R icon (for Restored) or orange R icon (for Replace). This indicates that all files for the session have been successfully Restored or Replace and no more operations are required for this session.
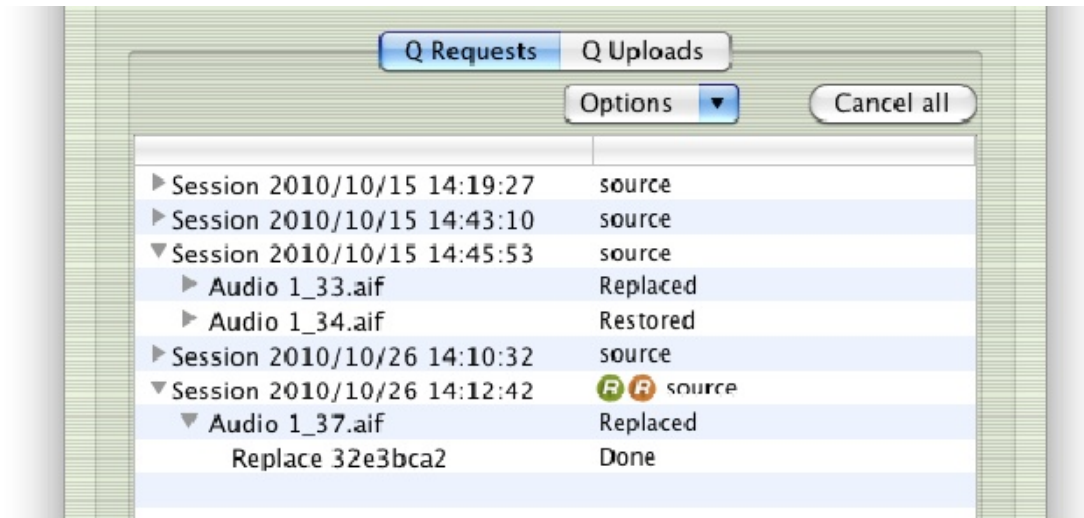

Activity panel: Cancel all

If a transfer is in process and you need to conserve bandwidth or no longer wish for the process to continue, the Cancel All button will pause all transfers currently in process.

You can resume any transfers again at any time, however transfers will be reset so any data that has been uploaded or downloaded will begin again.

Activity: Q Requests Information panel

Information about each session, file and transfer process is available by highlighting a line in the Q Requests panel and viewing the info panel underneath the session list.
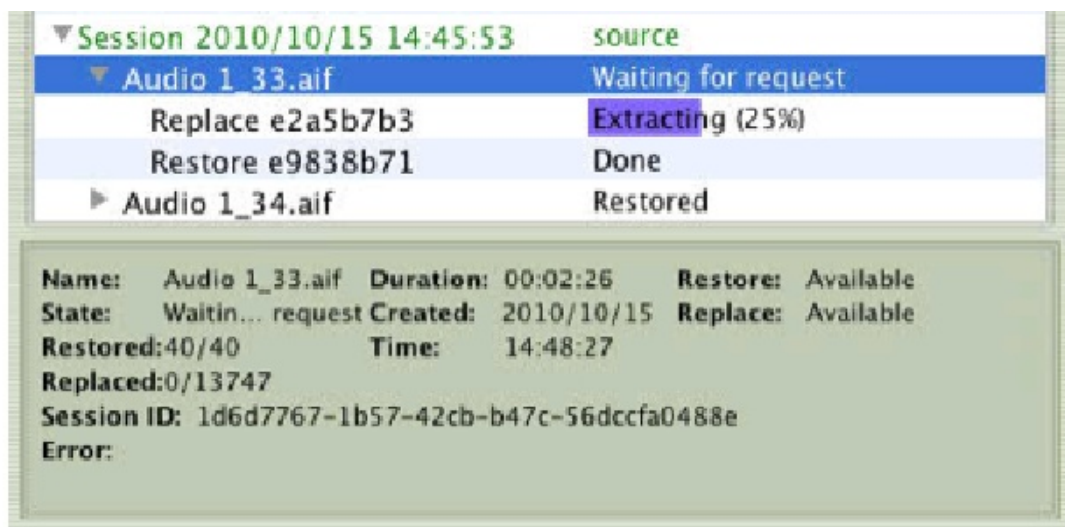
The information available is:

Name: Name of the file
State: Current status of the file
Restored: How many packets (or 'drops') were detected and recovered by the restore process
Replaced: How many replace 'pieces' are to be transferred and processed
Session ID: The session ID used for file management
Error: For successful processes the error number is blank. If an error occurred the number will indicate the nature of the error. See Troubleshooting and Error reporting for more information on finding out what the possible errors are and how to resolve them.

Duration: Duration of the file
Created: Date that the file was recorded
Time: Time that the file was recorded

Restore: Whether the restore process is available to you
**Replace:** Whether the replace process is available to you

Activity: Q Uploads Information panel

Similar information about each session transfer process is available by highlighting a line in the Q Uploads panel and viewing the info panel underneath the session list.

Q Menubar options

The Q Manager has several functions available to you via the Menubar and also provides a quick glance at what processes are active:
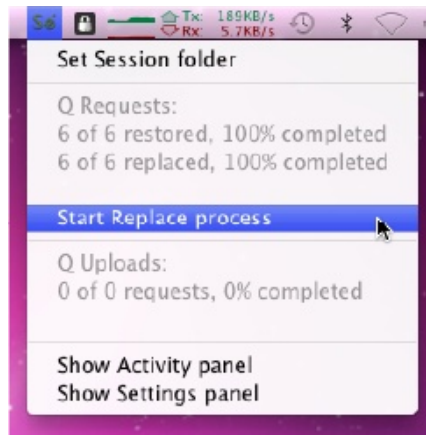
Set session folder
Use this option to quickly change your Audio Files folder between sessions. After you select the folder the Setup panel will show and you'll need to click on Apply to save the new folder setting.

Q Requests
This shows all files available for restore and replace and the total overall percentage processed.

Start Replace process
This option is only available to you via this menu: it will start the replace process for all available files in your Q Requests menu. Note this may take some time if you have a large number of files. Individual or all processes can be cancelled as needed via the Q Requests option menu.

Show Activity / Settings panel
Open the Activity or Settings panel.

Q Manager Menu options

The Q Manager menu offers a 'Clean up' process. Over time your sessions, while being removed from view, may cause your Q Manager database to become very large. Cleaning up your database is recommended once in a while. Simply choose 'Clean up' from your Q Manager menu and any sessions no longer in view in your Activity panel will be permanently removed.

7.11. Troubleshooting

For each file and process there is a status. For successful files the status will be Restored or Replaced depending on the type of process last completed. If you see that the status for a file, or files, is 'Failed to restore' or 'Failed to replace' it means that either you or your connection partner has invalid settings or a component is not properly installed or configured.

There are various reasons as to why a file may fail to replace or restore. To find out the exact reason for a failed process, select the file in the Q Requests panel:

Now, look at the error code message to the very bottom:

For example, this error tells us that the Q Manager was quit before the process could be completed. To resolve this, simply restart the process.

Q Manager errors are rare, and generally mean that the other side is offline, or has moved or deleted the Q data. Contact support with any specific questions, we will be able to provide detailed information on a case-by-case basis.

7.12 Common Q Manager issues

A comprehensive guide is available online:

http://source-elements.com/support/q

The following are common reasons why Auto-Restore and Auto-Replace may fail.

Verify the following:

1. **Check that Q is enabled**. You should have a Q icon to the left of your Source-Connect receiving meter if you are the recording end, and on the Sending meter if you are the sending end. Verify that the Restore and/or Replace checkboxes are checked in the Source-Connect Pro Settings panel before establishing a connection.

2. **It is important that you do not have any audio plug-ins or volume level changes** between the signal from Source-Connect and your record channel. You must have both the Source-Connect aux track and your record track set to 0dB or the Q Manager will not be able to process your files, and you cannot insert any other plug-ins between Source-Connect and your record track.

3. **Pro Tools errors, for example CPU errors, may cause the Q Manager to not detect the file**. If this is the case, reapply the Q Manager with 'Rescan all files' selected or select 'Scan file(s)' from the Q Requests menu in the Activity panel.

4. **Verify your Q Manager settings:**
   • Your username and password should be correctly entered
   • Ensure that you have selected the correct Audio Files folder for your current Pro Tools session
   • Ensure that your FTP settings are correct and accessible to the Q Manager.

5. **Q Manager should be launched:** make sure you can view the Q Manager via the MenuBar icon. *NOTE*: Files which are recorded with Source-Connect when the Q Manager is not launched can be later processed by rescanning the Audio Files directory.

6. **Files should be recorded while Source-Connect session was established.** Files recorded when Source-Connect is not established will not appear for processing in the Q Manager.

7. **Sample-rate converting is not supported.** Verify your connection is not sample-rate converting.

8. **Use of the apt-X codec only allows support for Replace functionality.**

8. Troubleshooting Source-Connect and Known Issues

8.1 Troubleshooting

The Support section of the website provides much more detail on troubleshooting. Most issues are network related, you should follow the Network Guide:

http://source-elements.com/networkguide

A quick overview of common issues follows:

Low audio quality, many artifacts

Try to reduce your bitrate and increase the buffer size. You may also be experiencing hardware issues: for example, check that your hardware matches your session sample-rate and try increasing your hardware playback buffer size.

Audio is clicking on a regular basis:

Because Source-Connect 3.5 is outside of Pro Tools and has a low processor footprint, you should not see any CPU-related recording issues. Most Pro Tools HD issues are related to clock source inconsistencies. Verify that your clock is set correctly, and that the Mac's I/O is set up to sync with the correct clock source.

The clock source settings can be found under the Audio Midi Setup application in Applications->Utilities.

Automatically disconnected, 'Connection reset by peer' dialogue

There may be severe network congestion occurring. This can happen if you are inside a LAN where many other users are downloading and uploading large files. Reduce your bitrate, increase the buffer size and reconnect.

User has suddenly gone offline

In the event of an unexpected disconnect, due to hardware, software or network failure, your remote user may not re-appear until the server has recognised that they have timed-out. This can take up to 60 seconds. To expedite the process of the server recognising that a user has inadvertently logged out, users can log out and log back in.

See the following section on **Known Issues** for additional information.

8.2 Known Issues

Unsupported Pro Tools versions:
The Q Manager with Auto-Restore and Replace is not available for any Pro Tools 6 version.

CPU speed / RAM configurations:

Source-Connect performs best on a minimum of a1ghz G4 with at least 1GB RAM. If your computer is configured lower than this, you may experience difficulty while reading and writing to disk, and your Pro Tools or VST host may tell you that you have insufficient resources. Because USB devices (for example, if you are using an Mbox for your audio I/O) also require additional resources we recommend running Source-Connect on newer machines.

It is not recommended that you connect your audio devices via a USB hub unless the hub is self-powered.

Network bandwidth:

The most common cause of difficulty is insufficient network resources. Assuming your network has sufficient bandwidth the issue may be due to internal congestion, for example an FTP server is running or other people are heavily using the network. A common fix for this is to install a dedicated DSL line, or apply QoS ('Quality of Service') settings on the router.

For further details and tools see the Support section online or contact Support.

8.3 Reporting Issues

To report an issue, please provide the following information:

1. Source-Connect build number (available from the About box)
2. System configuration (Operating system, computer hardware)
3. DAW version and hardware e.g. Pro Tools HD 8.0.1, Digi192
4. Network configuration i.e. LAN, DSL, wireless etc
5. Source-Connect settings: username, bitrate, buffer and port.
6. Bandwidth report, for example from http://speakeasy.net/speedtest
7. Description of what action(s) you were taking when the issue occurred, for example who you were connected to and what the settings were.

Technical Support is available via email, telephone and directly over Source-Connect.

9. Contact Support

Contact Source Elements for technical and general support:

Please use the online support available on our website as the first stop for all technical and other questions. If your question is not answered you may contact us via telephone or email.

Online support:
http://www.source-elements.com/support

Online forum:
http://source-elements.com/forum

Telephone:
Chicago: +1 312 706 5555
London: +44 (0)20 7193 8755
Sydney: +61 (02) 8005 5903

Telephone hours: 6am – 6pm Central Time US (Chicago time).

After hours:
Please leave a message with your name and phone number and we will return your call as soon as possible. If we can't take your call immediately we call back at least the same day, if not earlier. We can also schedule an appointment for a convenient time for you.

Email:

Technical support: support@source-elements.com
Sales: sales@source- elements.com
General: info@source-elements.com

When emailing Support, please provide us with the information required to resolve the issue: for example, your Source-Connect login, computer type, host version, and as much detail about the problem you are having as possible. This will assist us in responding to you with relevant assistance more rapidly.

Mailing address:

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515 N. State St
25th Floor
Chicago, Illinois 60654
United States