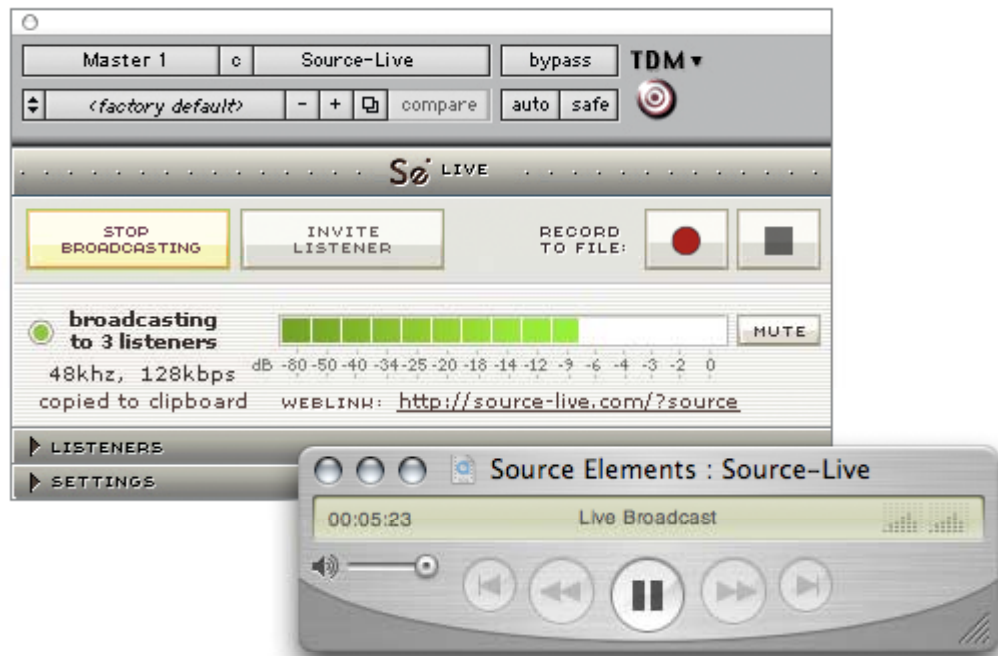


# SOURCE-LIVE v1.0

## Getting Started Guide



### Introducing Source-Live

Source-Live is an HTDM/RTAS plug-in for Digidesign Pro Tools TDM or LE. Source-Live enables users to stream the mono or stereo output of their Pro Tools mix to multiple listeners simultaneously. Pro Tools users simply e-mail listeners a Live-link and the listeners, utilizing common media player software such as Quicktime, immediately connect to the stream in real time from anywhere in the world. Utilizing the most current AAC/mp4 codec, Source-Live provides listeners with true 24 bit audio quality.

Real-time 'listener management' and password protection within the plug-in allows users to control of who's listening in on the session. Source-Live's 'Live-to-File' feature makes generating mp4 files and podcasting a snap. In addition to session monitoring, Source-Live can also be used to stream live events to a streaming server for true internet radio capabilities.

In addition, you can customize your web-based interface on Source-Live.com by adding your studio logo and pictures.



### 2.1: System requirements

#### Supported Pro Tools versions and Hardware

Source-Live supports Pro Tools LE or TDM versions 6.4 or higher, running on the software and hardware configurations required to run Digidesign Pro Tools LE or TDM. As of the writing of this document, this includes Digidesign Pro Tools MIX, Pro Tools LE and Pro Tools HD hardware. Theoretically, Source-Connect may work on any version of Pro Tools from 6.0 and up, however we only offer technical support for 6.4 and above. Please refer to the Digidesign website (see link below) for more information on compatibility with Pro Tools.

#### Minimum recommended configurations:

1ghz G4, 768mb RAM, OSX 10.3

2ghz P4 PC (or equivalent), 512mb RAM, Windows XP

Please note that we cannot provide support for hardware configurations which are not officially supported by Digidesign.

Digidesign compatibility website: <http://www.digidesign.com/compato>

### 2.2: Network configuration

To establish an outside internet link from your Pro Tools machine to the world, you will need to ensure that your firewall and/or router is configured properly to enable connectivity. Internet communication with Source-Live occurs over the TCP protocol.

Source-Live works in perfect conjunction with Source-Live, so you will not need to adjust your existing network settings if you are currently running Source-Live.

#### **Bandwidth:**

Source-Live requires an Internet connection with bandwidth of at least 300 kbps upload. Your download speed does not really affect the capabilities of Source-Live, however it is not recommended that your upstream is higher than your downstream. 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 experiencing the same upload bandwidth when a client in, say, Australia, is listening to you.

#### **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](http://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. As above, if you need to configure your network please see the Source-Connect Support site for more information.

**For detailed information on configuring your network, please refer to:**

[http://www.source-elements.com/public/configure\\_network.php](http://www.source-elements.com/public/configure_network.php)

### 2.3: Installing Source-Live

Launch the installer and follow the instructions. For an overview on using Source-Live, continue reading this Getting Started guide, or for a graphical basics guide see our Introduction: <http://www.source-elements.com/Live/introduction>.

**NOTE:** Newer versions of Source-Live will generally install over older installations, however we do recommend running the uninstaller first.

#### InterLok Extensions:

You must have the InterLok Extensions installed. InterLok extensions are installed with the Installer Application. The installer will not overwrite extensions which are more recent, and will only upgrade older versions.

#### Uninstalling:

To uninstall Source-Live, run the Installer and select 'Uninstall' in the 'Installation Type' section. *Note:* This will not uninstall the InterLok extensions. To uninstall the InterLok extensions visit the PACE website <http://www.paceap.com>.

### 3.1: Basics

Basic steps in using Source-Live are as follows:

1. Instantiate Source-Connect on what ever channel in your Pro Tools session is passing the audio you need to stream. We recommend using your final master fader channel.
2. Log in with your username and password.
3. Setup your audio session parameters. The Parameters that can be set are: bitrate, title, password and optional password protection, server and stream buffer, and maximum listeners. You may also need to specify a port. If in doubt, use the default settings.
4. Check that your Network Test is successful. If it is not, you will need to configure your firewall and/or router to allow incoming TCP connections. **NOTE:** you can always connect via local machine even if your network test is not successful.
5. Press 'Start Broadcast'. Source-Live will initialize and go into broadcast-ready mode. Now your listeners can go to source-live.com and connect to you. All they need is your Source Elements Account username, and if you have selected to password-protect your stream you will also need to provide them with the password entered in the password field..
6. Once your listeners have connected, you can Stop Broadcasting at anytime and they will simply be disconnected. Or, to disconnect individual listeners, you can do this by selecting the number listed in the Listener's panel and pressing Disconnect. You can recognise listeners by their IP address and the order in which they log in.
7. Press 'Stop Broadcasting'. This will end your audio stream with your listeners.
8. Log out.

### 3.2: Initializing Source-Live

To initialize (insert) Source-Live follow these instructions:

**Pro Tools TDM 6.x:**

Open the Inserts -> TDM menu, then choose Other -> Source-Live.

**Pro Tools TDM 7.x:**

Open the Inserts -> RTAS menu, then choose Other -> Source-Live.

**Pro Tools LE:**

Open the Inserts menu, then choose Other -> Source-Live.

### 3.3 Audio Input and Output

The input to Source-Live is determined by the input to the track that Source-Live is on. So, to simply send out a mixed stereo file, put Source-Live on a stereo audio track and play the file. Or, to send out a multi-track mix, put Source-Live on a Master Fader. You can send out any audio configuration you wish, depending on how you wish to use Source-Live. See our download section for more advanced setups and example Pro Tools setup files.

**Note:** It is possible to get a feedback loop due to situations when removing Source-Live from an aux track. It is therefore recommended that you mute the aux track before removing Source-Live.

#### Example Session

For a quick start, download our example session, with the routing and inserts ready to go for a multi-channel mix with talkback:

<http://www.source-elements.com/support/download.php#quick>

### 3.4: Getting Around

Source-Live consists of multiple panels, each of which is individually expandable. To expand or collapse a panel, click on the dark green title bar. The Status panel is always visible.

To collapse or expand all panels at once:

- Option-click or Right-Click on any panel heading

#### About Box

The About Box provides information on which version of Source-Live you have installed. To view the About box, click on the Source Elements logo at the top of Source-Live window. You can close the About box by clicking anywhere in that box.

### 3.5: Setting session parameters – Overview

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

In the Settings panel, the following parameters can be specified. To modify your settings, open the Settings panel (Click on the Settings panel bar).

- 3.5.1 [Bitrate settings](#)
- 3.5.2 [Stream title and optional password](#)
- 3.5.3 [Record-to-File](#)
- 3.5.4 [TCP network ports](#)

You can also manage Advanced Settings. Generally, you will not need to modify these unless you wish to allow more users, stream to an external Darwin server, or are experiencing network problems.

#### **Advanced settings:**

- 3.5.5 [Stream and Server buffer](#)
- 3.5.6 [Maximum listeners](#)
- 3.5.7 [Darwin Streaming Server](#)

We recommend understanding your network resources as much as possible, as this allows you to achieve optimal results. For tools and additional resources see:

#### **Learn how to use the Settings panel**

<http://www.source-elements.com/support/settings.php>

### 3.5.1: Setting session parameters – Bitrate

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

**NOTE:** You cannot change these settings while you are broadcasting. To change your settings you must first stop broadcasting, make your changes, and then start broadcasting again.

#### Available bitrates:

32, 48, 56, 64, 96, 112, 128, 160 kbps mono  
64, 96, 112, 128, 192, 256, 320 kbps stereo

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 13% (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 will find you are able to transfer multiple streams of 256kbps stereo!

### 3.5.2: Setting session parameters –Title and Password

The Title is viewed by your listeners in both your web portal on source-live.com, and by media players if launched in a separate window. There is a maximum of 255 characters for the title, and some characters cannot be used such as '#', '\*'. Source-Live supports international characters.

The optional Password allows you to be sure that you don't have any listen in without your consent. Without a password, anyone who knows your username can connect if you are online and broadcasting. While you can monitor your Listener panel, it is often easier to simply require a password. If you do use the password, make sure you change this regularly or else it will become known. For example, if you have a number of different clients, you can use a different password for each of them to ensure you don't have crossover of listeners over various sessions.

### 3.5.3: Setting session parameters –Record-to-File settings

When using the [Record-to-File](#) feature, it is useful to make sure you know where the files are being recorded to. By default, the mp4 file is named 'record.mp4', and will be recorded to your Desktop.

To change the name of the file recorded to, for example if you wish to record multiple files and don't want to forget which recording was which, click on 'Set' in the Settings panel, and choose where your file is recorded to. Make sure you have enough disk space (though mp4 files are very small and you can record several hours per gigabyte).

When recording multiple files, if you do not change the filename the files will automatically be appended with a number, e.g. record.mp4, record1.mp4, record2.mp4.

### 3.5.4: Setting session parameters –TCP Ports

When connecting to the internet through a firewall or router, at least one TCP port needs to be enabled for TCP port forwarding (on your router) or for approved access (on your firewall). This should be a number usually within 1024 – 65534. For allow full connectivity for all media players, TCP ports base\_port\_number and base\_port\_number+1 should be opened in your firewall and/or mapped in your router (where base\_port\_number 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 computers internal IP address.

**NOTE:** It is possible to run Source-Connect and Source-Live on port 6000, because Source-Connect is UDP and the Source-Live is TCP. Like Source-Connect, if you wish to use multiple instances of Source-Live you will need to specify a second port range e.g. 6002 or you will experience network conflicts.

#### **Summary:**

**You need to forward 2 TCP ports, for example 6000 and 6001, or 10000 and 10002, to your Pro Tools computer.**

For tools and additional resources see:

#### **Configuring your Network:**

[http://www.source-elements.com/public/configure\\_network.php](http://www.source-elements.com/public/configure_network.php)

#### **Router-specific information:**

This website offers very comprehensive and detailed information on configuring your router and firewall.

<http://www.portforward.com/routers.htm>

### 3.5.5: Advanced session parameters – Buffers

The longer the buffer, the higher the possibility of avoiding audible packet loss. On the other hand, a higher buffer value means a lower communication delay. If you are on a T1 or higher connection (both remote plug-ins) you may find that reducing the buffer sizes 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 Server Buffer value of 200ms and Stream Buffer value of 100ms can immediately provide a better connection if you are experiencing packet loss.

### 3.5.6: Advanced session parameters –Maximum listeners

Because you have a finite amount of network bandwidth, we recommend limiting the number of concurrent listeners allowed to provide the optimal experience to your existing listeners. The default setting of 5 is suitable for business cable or T1 connections. The best way to test this setting is through experience. If you need more listeners, try reducing your bitrate and increasing the server/stream buffer values, or you can send a single stream to a Darwin Streaming Server with a dedicated line for true Internet Radio capabilities.

### 3.5.7: Advanced session parameters –Darwin Streaming Server

If you have access to a Darwin server, you can send your Source-Live stream directly to your server. Simply enter the IP address of your server, and select the option to stream to DSS. See your Darwin Streaming Server manual for information on operation specifics.

**NOTE:** You can also directly access Source-Live from DSS by copying the Quicktime movie from your source-live.com portal to your Darwin movie directory. Again, see your DSS manual for more information on this method. Source Elements cannot provide DSS-specific support.

### 3.6: Autologin

When Autologin checked, this allows the user to log in automatically upon initializing Source-Live. Each time you open a session with Source-Live instantiated, and Autologin is checked, you will be automatically logged in and be ready to broadcast. Alternatively, you may wish to use the built-in Pro Tools Settings to save different configurations. (To learn about saving your Pro Tools settings see Section 3.8 below).

### 3.7: Saving your Settings

It is possible to save various Source-Live configurations, so you don't have to manually change your settings for differing connection requirements. To do this, select the settings menu in the Pro Tools specific section of the plug-in (the grey panel at the very top), and choose 'Save Settings'. You will be prompted to name your saved setting.

To have Source-Live remember to use this setting next time you instantiate the plug-in, go to 'Settings Preferences', 'Set Plug-in Default To' and select 'User Setting'. To make sure you can use these settings in other sessions, set 'Save Plug-in Settings To' -> 'Root Settings Folder'.

See your Pro Tools manual for further details on saving your settings.

### 4.1: Customizing your Gateway

General web interface manual. To be updated.

## 4.2: Advanced customization options

### 5.1: Logging in

To login, enter your username and password and press the “Log On” button. If you login is successful, the Status panel will change its view.

[ graphic ]

It will now show that the broadcaster is idle and that you are able to start a streaming session by pressing the “Start Broadcasting” button.

Upon logging in, you need to make sure your Network Test is successful if you wish to allow listeners to connect from external networks. If it is not successful it will be noted with a blinking red light in the status panel. (See 3.5.4 [TCP Network ports](#) for more information).

### 5.2 Starting a broadcast session

To start broadcasting, check that your Network Test is successful, and press the ‘Start Broadcasting’ button. Source-Live will initialize and the status will change to ‘Broadcasting to 0 listeners’. You can now invite listeners and/or [record directly to mp4](#).

**NOTE:** Before starting to broadcast and inviting users, it is always recommended that you check your settings.

### 5.3 Inviting Listeners

Once you are broadcasting and ready to accept listeners, you will see a yellow light in the Status panel. Source-Live offers a unique, easy way to invite listeners via a customizable web interface, the Source-Live Gateway. (See [Customizing your Source-Live Gateway](#)). There are several ways to invite new listeners:

#### 1. 'Invite Listeners' email button

Clicking on the the 'Invite Listeners' button in the Status panel opens your default email program and inserts your direct, unique link in the body of a new message. If you are broadcasting, your listener simply needs to follow this link, and enter your gateway. If you have enabled the password option, you will need to provide your listener with this manually.

#### 2. 'WEBLINK': Copy source-live.com gateway link to clipboard

If you have web-based email, or another method of sending text messages, click on the WEBLINK and your gateway link will be copied to your clipboard.

#### 3. Direct LAN connection

If your listener is inside your local network, they can open Quicktime and enter your direct URL. You will need to know your internal IP address, which can be found in your Network Settings. The URL is formatted as follows:

```
RTSP://[ ip address]:[port]/[username].sdp
```

For example, on a computer with IP address 192.168.1.23, and default port, the URL will be: `rtsp://192.168.1.23:6000/username.sdp`

#### 4. Darwin Streaming Server

For advanced streaming capabilities, for example to stream to hundreds of users simultaneously, we recommend using Darwin Streaming Server. See [Advanced Settings](#) for more information.

### 5.4 Record-to-File: Recording directly to mp4

Source-Live supports recording continuous mp4 files ready for iTunes or any media player with mp4 support. Files are recorded at the bitrate specified in the Settings panel, and at the samplerate and sample bitrate that your Pro Tools session is set up as.

To record to file, you need to be in Broadcast mode. However, because you may not need to simultaneously accept listeners it doesn't matter if your network test fails are you are simply streaming to disk (not over the network).

You can start and stop record at any time during broadcasting, and your files will be recorded to wherever you have set the file destination (See [Record-to-File settings](#)).

If you wish to ensure your record your entire broadcast session, you can enable record prior to broadcast. Recording will begin as soon as you press Start Broadcasting, regardless of whether you are sending audio to Source-Live.

### 5.5 Session status

When the session is successfully established, the current session properties (sample rate and bitrate, session duration, audio volume levels etc.) are shown in the Status and Listeners. The Status panel is also an important source of broadcast status information:

**Red light:** Your network test is not successful, and you will only be able to broadcast to listeners or Darwin Streaming Servers on your internal network.

**Yellow light:** You are ready to invite listeners

**Green light:** You have active listeners

#### **Possible status messages and corresponding status light:**

Default: Server is idle: network successful

Red: Server is idle: network failed

Red: Server is busy

Yellow: Server is starting up

Yellow: Broadcasting to 0 listeners

Green: Broadcasting to [x] listeners

Yellow: Server is shutting down

### 5.6 Ending a broadcast session.

A Listener can be individually disconnected by pressing the Disconnect button in Listeners panel. However, any listener can choose to reconnect. To ensure your next session is private, change your password and restart broadcasting.

A session is closed automatically if you either quit Pro Tools or log out. In the event of a hardware, software or network failure, you are disconnected by the server after 60 seconds. During this time your web interface may not register that you are no longer broadcasting. To expedite this process, logging back in and logging out will reset the server and web interface.

### 5.7 Logging out

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-Live account.

### 5.8 Privacy

Once you have established a connection and are broadcasting audio, you are sending data directly to your listeners. Network information specific to establishing a connection, ie. port and IP data, are not captured or stored on our servers except when required on a per-user basis for technical support. For a comprehensive outline of our Privacy policy, please read <http://www.source-elements.com/privacy>.

### 6.1 Troubleshooting

#### **Interrupted audio on Listener end, many artifacts.**

Try to reduce your bitrate and increase the buffer sizes in the Advanced Settings panel. You may also be experiencing hardware issues: for example, if you are clocking your system with an external clock, check that your hardware clock matches your session samplerate.

#### **Pro Tools CPU or H/W buffer errors**

If you are on a LE system, it is important to increase your hardware buffer size to as high as possible (usually 1024ms), your CPU Usage Limit to at least 85% (99% if you are able). Setting your DAE Playback Buffer to level 8 can also assist. These settings can be found in the Setups menu in Pro Tools, under 'Playback Engine'. On less powerful computers it is important to note that Source-Live requires a large portion of processing power, so you should not run any unnecessary applications or services. You should also limit the instances of any other plug-ins not required for your Source-Live session.

#### **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.

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

### 6.2 Known Issues

**Pro Tools versions:**

Source-Live does not officially support Pro Tools versions below 6.4.

**CPU speed / RAM configurations:**

Source-Live performs best on a TDM-equipped 1ghz G4 with at least 768mb RAM, or 2ghz P4 with 500mb RAM. If your computer is configured lower than this, you may experience difficulty while reading and writing to disk, and Pro Tools may tell you that you have insufficient resources. Because USB devices (for example, if you are using an Mbox) also require additional resources we recommend running Source-Live with Pro Tools LE on newer machines. It is not recommended that you connect your Mbox via a USB hub unless it is self-powered.

**Network bandwidth:**

The most common cause of difficulty is insufficient network resources. If you are on a DSL or Cable line, you may not have sufficient bandwidth to ensure the best experience using Source-Live, notably when connecting long distance and inter-continent. For further details and tools for testing your bandwidth read *Configuring your Network*: [http://www.source-elements.com/public/configure\\_network.php](http://www.source-elements.com/public/configure_network.php).

### 6.3 Reporting Issues

To report an issue, please provide the following information:

1. Source-Live build number (available from the About box)
2. System configuration (Operating system, computer hardware)
3. Pro Tools version and hardware
4. Network configuration ie. LAN, DSL, wireless etc
5. Source-Live settings: username, bitrate, buffer and port.
6. Bandwidth report, for example from <http://www.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 their settings were.

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

## 7. Contact Support

Contact Source Elements for technical and general support:

The main source of support and technical information is the online forum. Please visit the forum before contacting us to see if your question has been answered:

<http://www.source-elements.com/forum>

**Email:**

Technical support: [support@source-mail.com](mailto:support@source-mail.com)

Sales: [sales@source-mail.com](mailto:sales@source-mail.com)

General: [info@source-mail.com](mailto:info@source-mail.com)

**Telephone:**

Chicago: +1 312 706 5555

London: +44 (0)20 7193 3700

Telephone hours: 9am – 5pm PST (California time).

After hours:

Please leave a message with your name and phone number and we will return your call as soon as possible. We can generally schedule an appointment for a convenient time for you.

**Address:**

Source Elements LLC

515 N. State St

25th Floor

Chicago, Illinois 60610

United States