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Tutorial for Mac

15.2

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# Installation

You can install Wirecast on any Mac or Windows computer that meets the minimum system requirements.

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## General System Requirements

### Operating System

- Minimum: macOS 10.15 Catalina or higher
- Recommended: macOS Monterey 12

### Processor

- Minimum: Apple M1
- Recommended: Apple Silicon M1 or newer

### Memory

- Minimum: 8GB RAM
- Recommended: Apple Silicon 16 GB unified memory

## Hard Drive

- Minimum: 7200 RPM Hard Drive (HDD) for record to disk
- Recommended: Solid State Drive (SSD)

## Graphics Card

- Minimum: Apple Silicon 8 GB unified memory
- Recommended: Apple Silicon 16 GB unified memory

## Internet Bandwidth

Recommended: Total bitrate needed x 2 = Required upload bandwidth

## Network Ports

You may want to check that the following ports are open for traffic on your network:

- 80 (HTTP/HTTPS)
- 443 (SSL)
- 1935 (RTMP)
- 2935 (RTMPS)
- 3478 (STUN/Rendezvous)
- 5349 (STUN/Rendezvous)
- 5353 (mDNS for NDI sources)
- 5960-59xx NDI port range (One port for each NDI source in use)
- 7272 (Remote Desktop Presenter)
- 49152-65535 (WebRTC Media/Rendezvous, selected at random)

If you are behind a firewall, check with your streaming destination for any sites you may need to whitelist.

## Rendezvous Requirements

Wirecast Rendezvous uses WebRTC technology that can be very resource intensive. For the best Rendezvous experience, we recommend the following hardware:

**Table 1.** Rendezvous Bandwidth Requirements

<b>Rendezvous Bandwidth Requirements</b>	<b>Studio (2 guests + 1 host)</b>	<b>Pro (7 guests + 1 host)</b>
Bandwidth <sup>1</sup>	Add 4 Mbps	Add 5+ Mbps <sup>2</sup>
Processor <sup>1</sup>	5 quad-core <sup>3</sup>	7 quad-core <sup>3</sup>

Based on a single simultaneous stream of 720p30 x264 @ 4.0Mbps.

1. Bandwidth per guest will scale downwards as more are added to maintain reliability.
2. Minimum recommended processor with example stream4. More demanding workflows may require a more capable CPU.

## ISO Recording Requirements

- Solid State Drive or fast RAID array recommended for ISO Recording and Replay functionality.
- Actual data rates will vary depending on quality level selected for ProRes (Mac) or MJPEG recording (Windows), as well as the resolution and frame rate selected.
- For Mac ProRes recording please refer to Apple's ProRes data rate specifications.
- Total expected data rate should be compared to available disk write speed to ensure adequate disk throughput.

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**Note:** Failure to ensure the available disk write speed is greater than the highest expected total data rate may result in frames being dropped from recordings (ISO, Replay, and Record-to-Disk).

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## Recommended Hardware

- Intel Core i5 CPU @ 2.5 Ghz or higher recommended for 720p streaming with x264 @ 30 fps.
- Intel Core i7 CPU @ 3.0Ghz or higher recommended for 1080p streaming with x264 @ 30fps.

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**Note:** 60 FPS streaming will result in increased CPU usage and a high bit rate (4Mbps or higher) for good quality.

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- Minimum 4GB RAM, 2GB free hard disk space. Additional hard disk space required for recording to disk.

## Hardware Accelerated Encoding Requirements

- Intel Quick Sync Video encoding requires an Intel CPU with an Intel® QuickSync Video core.
- NVIDIA NVENC encoding requires an NVidia GPU with Kepler architecture or newer.
- Apple Hardware Accelerated H.264 encoding requires a Mac with an integrated Intel GPU.

This may change in the future, as the Apple API decides what hardware acceleration method is to be used. At the time of this writing, only Quick Sync via an Intel GPU is supported.

## Installation and Removal

You can install Wirecast on any Windows or Mac computer that meets the Wirecast basic system requirements.

### Installing Wirecast

To install Wirecast, follow these steps:

1. Download the installer from the Telestream website:

<https://dynamic.telestream.net/downloads/download-wirecast.asp?prodid=wirecast>.

2. Run the installer (DMG) program.

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**Note:** The Wirecast installer asks whether you want to install the Virtual Microphone feature. If you do (recommended), check the box for this feature and continue the installation. You must have administrative rights to install Virtual Microphone.

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3. Open Wirecast from your downloads folder. Then click and drag the icon into the *Applications* folder. If a version of Wirecast already exists, the installer asks you whether you want to replace the previous version.

### Uninstalling Wirecast

1. To uninstall Wirecast, Choose the Wirecast program icon in *Finder > Applications*, or on your desktop.
2. Place the Wirecast program in the *Trash* folder.

## Purchasing, Activating, and Deactivating Wirecast

You can purchase and activate Wirecast on a computer that is either online or offline.

### Purchasing and Activating Wirecast Online

To purchase and activate Wirecast, do the following:

1. Launch Wirecast.
2. Select *File > Preferences > Licenses*, and click *Purchase*. Purchase Wirecast. Enter your license key into the License Key field. If you previously purchased a copy of Wirecast and want to use that serial number, enter that serial number.
3. Click *Activate*.  
Wirecast validates the serial number and unlocks Wirecast.
4. Close the *Preferences* window.  
Telestream activates your Wirecast program.

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**Note:** You can also purchase a serial number at [www.telestream.net](http://www.telestream.net).

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See [Preferences](#).

## Activating Wirecast Offline

If the computer where Wirecast is installed is not on the Internet, you can use another computer that is online to activate your license and unlock Wirecast.

To activate your license from another computer, follow the steps in the Offline Activation Guide at:

<http://www.telestream.net/telestream-support/wire-cast/training.htm>.

## Deactivating Wirecast

Deactivating a serial number on one computer allows you to re-activate it on another computer. Without an activated license, Wirecast adds water-marking to the video and audio whenever licensed features are used.

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**Note:** You can always reactivate a serial number by re-entering it into the *License Key* field and clicking *Activate*.

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To deactivate Wirecast, do the following:

1. Select *Wirecast > Preferences > Licenses*.
2. Click *Deactivate*.

Wirecast deactivates the serial number and removes it from the *License Key* field.

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**Note:** You can access the *License Reset Tool* at:

<https://www.telestream.net/telestream-support/deactivate-software.htm>

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See [Preferences](#).

## Support Subscriptions and Upgrades

With each purchase of Wirecast – whether it is an upgrade purchase or full license – you receive an Insider Access Support subscription for one year from the date of purchase. You can renew this subscription annually.

You can choose to upgrade from an Insider Access Support subscription to a Premium Access Support subscription at any time, for an additional fee. You can also renew Premium Access Support subscriptions annually.

Your support subscription is tied to your Wirecast license. As long as your license is entered into the software and your Premium Access Support or Insider Access Support subscription is active, you can upgrade to the latest unlocked version of Wirecast for

free. To do this, download and install the latest version of Wirecast. You will automatically have access to all the new features (depending on your license level).

If your support subscription has expired, or you haven't entered your license into the software, you can't upgrade to an unlocked version. The software reverts to demonstration mode. However, you may continue to use the last valid version of the software released during your support-subscription coverage period.

If your support subscription is about to expire (12 months from the date of purchase), Wirecast prompts you to renew it. If you do not renew it before it expires, you may re-subscribe at any time for an additional fee.

See also [Support Subscriptions and Upgrades](#).

## Checking for Wirecast Updates

To check for Wirecast software updates, do the following:

1. Select *Wirecast > Preferences > Software Update*.
2. Click *Check Now*.

Wirecast checks for updates, but does not transmit personal information to Telestream during this action.

See [Preferences](#).

## Demonstration Mode

With no active serial number, Wirecast enters demonstration mode. In demonstration mode, Wirecast watermarks all outputs (both to disk and to networks). The video watermark is a periodic overlay of the Wirecast logo. The audio watermark is a periodic voice-over. If you have a Wirecast serial number and are using a Wirecast Pro feature without a Pro license, Wirecast also watermarks that output.

## Installing a Hardware Controller

You can control many Wirecast functionalities with some external hardware controllers, or Human Interface Devices (HIDs). Wirecast provides control of three MIDI controllers: APC MINI, APC40mk2, Launchpad MK2, and one X-keys controller: XKeys 128.

To install a hardware controller for Wirecast, do the following:

1. Select *Wirecast > Preferences > Controllers*.
2. Select a controller from the drop-down menu.
3. To close the *Preferences* dialog box, click the "x."

See [Preferences](#).

See [Preferences](#).

## Preventing Dropped Frames from Short Latency

You can prevent Wirecast from dropping frames, and optimize Wirecast performance by lengthening latency.

Wirecast adds latency to all incoming sources. Latency is the brief period between receiving live video and displaying it or processing it. Adding latency gives Wirecast time to store the incoming data properly. The *Application Source Latency* preference lets you specify the length of the latency. The lower this value, the less time Wirecast takes between receiving data and using it. If the connection is not fast enough, or the latency is too brief, this might result in dropped video frames (less noticeable) and audio blips (very noticeable). The higher this value, the more time Wirecast has to store data before displaying or processing it. You can set the value for *Application Source Latency*, from 50ms at a minimum to 330ms at a maximum. The default is 300 ms.

In order to prevent dropping frames from short latency, do the following:

1. Select *FileWirecast > Preferences > Advanced*.
2. Enter a value, in milliseconds, into the *Application Source Latency* field.
3. To close the *Preferences* dialog box, click the "x."

See [Preferences](#).

## The Wirecast Capture Folder

The first time you launch Wirecast, Wirecast detects any media capture drive present in your computer, and creates the folder, *Wirecast Recordings*, on the media capture drive.



# Tutorials

The best way to learn Wirecast is to work quickly through all its main features. These three tutorials introduce Wirecast features, and show how to create and broadcast presentations.

As you work through these tutorials, you become familiar with important Wirecast concepts. The better you understand how to use Wirecast, the better it serves your broadcasting objectives.

Because each tutorial builds on the skills and knowledge you learn in the previous tutorials, take the tutorials in order. Working through all the tutorials takes about thirty minutes.

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**Note:** If you work through the tutorials before activating a Wirecast license, or with Wirecast in demonstration mode, Wirecast periodically superimposes a logo watermark over the video, and a voice-over watermark over the audio.

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**Note:** For licensing information, select *Wirecast > Preferences > License*. Click *Purchase*, or, contact Telestream at: [desktopsales@telestream.net](mailto:desktopsales@telestream.net).

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## Topics

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## Tutorial 1: Basic Concepts

This tutorial guides you through creating and streaming a presentation.

### Tutorial Prep

To prepare for this tutorial, do the following:

1. Select *Help > Create Document for Tutorial*.
2. Select *Switch > Smooth*.

3. Select *Switch > AutoLive*.
4. De-select *Switch > Live/Preview Swap*.
5. Select *Layout > Show Live Only*.

Wirecast displays the *Live Broadcast Area*, and the *Go* button with the red *AutoLive* LED turned on. You change all of these options during the tutorial.

## The Wirecast Default Layout

To familiarize yourself with the main windows, controls, and menus of Wirecast, see [The Default Layout](#).

## What Is a Shot?

Wirecast uses the concept of a “shot” to construct presentations. A shot contains one or more media sources or files, along with settings for the sources and files. A shot contains at least one media file, such as a photo or a video clip. However, a shot can contain a number of sources and files, such as a live camera, a title, and background music. A shot can even include a whole playlist of clips.

You can assemble most of the files and sources for your broadcast in shots, before you start broadcasting. Also, you can edit a shot and change its settings.

See [Tutorial 2: Editing Shots](#).

## Switching Between Shots

Individual shots are displayed in the *Layers*. The *Transition Controls* are located just below the *Live Broadcast Area* where the two default transitions are shown: *Cut* and *Smooth*.

Replacing a shot in the *Live Broadcast Area* with a shot in the *Preview Area* is called “taking a shot live.”

See [Layers](#) and [Final Mix Audio Panel](#).

1. With the second *Transition Controls* button labeled *Smooth* and highlighted, click the *Ripples* shot in the third layer.  
The *Ripples* image fades in on the *Live Broadcast Area*. The *Smooth* fade action occurred when you clicked on *Ripples*. This is because the *Smooth* fade is the transition selected.
2. Click a shot labeled *Clear Layer*.  
The *Ripples* image fades to black. The *Clear Layer* shot enables you to display black video.

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**Note:** Wirecast doesn’t support a true dissolve transition. The *Smooth* fade transition is the transition closest to a dissolve.

If you switch from shot “A” to a shot that contains shot “A,” the *Smooth* fade interpolates the difference between the two shots and animates the changes. This

makes a shot element larger or smaller, and changes its position as needed. However, if you switch from shot "A" to an entirely different shot "B," then the *Smooth* transition simply fades between the two shots.

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3. To make the cut your default transition, drag down across the first *Transition Controls* button and select the *Cut* control.

4. Click the *Ripples* shot in the third layer.

The *Ripples* image cuts in on the *Live Broadcast Area*.

When you select *Cut* as the default transition, switching from shot "A" to shot "B" simply cuts from the first shot to the second. When *Smooth* is selected, transitions fade in and out.

## Transitions

To select a different transition, click the small arrow on the right side of any of the *Transition Controls* buttons, or drag the mouse downward to display the menu of transitions. When the list of transitions appears, select a transition to assign to that button.

1. To change the left *Transition Controls* button from *Cut* to *Bands*, click the *Cut* button and drag downward until the menu appears. Select *Bands* from the menu. The left *Transition Controls* button is now labeled *Bands*.

2. Now click back and forth between the *River* and *Ripples* shots using *Bands*.

You can use these keyboard shortcuts for the two default transition buttons: Command+1 and Command+2.

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**Note:** Wirecast displays as many as three *Transition Controls* buttons. To set the number of transition buttons that Wirecast displays, select *Preferences > General*.

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See [The Default Layout](#) and [Final Mix Audio Panel](#).

## Transition Speed

To determine how fast a transition occurs, do the following:

1. Select *Switch > Transition Speed*.
2. Choose a transition speed, from *Slowest* to *Fastest*.

## Layers

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**Note:** Before you start this section, select *Smooth* as your default transition.

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You can display several shots in the *Preview Area* and *Live Broadcast Area* at the same time by placing them in layers, one above another.

To broadcast a layered shot, do the following:

1. Select the *Logo* shot in layer 2.
2. Select the *River* shot in layer 3.

The *Live Broadcast Area* displays a layered shot containing both images.

See [Layers](#).

## Auto Live

So far in this tutorial, Wirecast has been running in *AutoLive* mode. Wirecast sends any shot you select in a layer automatically to the *Live Broadcast Area*. This mode is very useful for those users who want to set up all of their shots at once and then single-click shots as they run their presentation.

The disadvantage of this single-click method is that you can't preview the shot before taking it live.

### Turning AutoLive Off

A red LED, next to the *Go* button is lit when you are in *AutoLive* mode.

See [Final Mix Audio Panel](#).

1. For this tutorial, turn off *AutoLive*. Select *Switch*, and deselect *AutoLive*.

A dialog box informs you that *AutoLive* is off.

2. Click *OK* in the dialog box to continue.
3. Click the *Ripples* shot.

Notice that Wirecast doesn't send *Ripples* to the *Live Broadcast Area*. That is because *AutoLive* is turned off.

4. Now, click the *Ripples* shot, and then click the *Go* button.

Wirecast sends the *Ripples* shot to the *Live Broadcast Area*.

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**Note:** When *AutoLive* is off, you must click the *Go* button (or press Command+G) to display the selected shot in the *Live Broadcast Area*.

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### Multiple Changes

A benefit of having *AutoLive* off is that you can make several changes to your shot first, and then have all changes sent to the *Live Broadcast Area* at the same time.

Do the following:

1. Verify that *AutoLive* is off.
2. Click *Sample Title* in Layer 1.
3. Click *Clear Layer Shot* in Layer 2, and then click the *Ripples* Shot in Layer 3.

4. Click the *Go* button (or Command+G)

Wirecast takes the *Ripples* and *Sample Title* shots live at the same time.

## Preview

One problem you may have noticed is that you can't see the changes you are making before broadcasting them. To solve this problem, Wirecast enables you to see a preview of what you broadcast.

1. Select *Layout > Show Live and Preview*.

Wirecast displays the *Preview Area* to the left of the *Live Broadcast Area*. The *Preview Area* uses a green LED to identify it. The *Live Broadcast Area* uses a red LED to identify it. Wirecast also displays green and red LEDs to identify which shots are associated with the *Preview* or *Live* areas.

2. Click the *River* shot on Layer 3.

Wirecast displays the *River* shot in the *Preview Area*. When shots are selected they display a green or red LED to indicate selection for *Preview Area* or *Live Broadcast Area*.

3. To send the *River* shot to the *Live Broadcast Area*, click the *Go* button.

4. To remove the title from the *River* shot in the *Preview Area*, click the *Clear Layer* shot in Layer 1.

5. Turn on the *Live/Preview Swap* option by selecting *Switch > Live/Preview Swap* (check mark displayed). Notice that the *Go* button displays a double-arrow, indicating that the *Live/Preview Swap* option is on.

See the *Go* button on the screenshot in [The Default Layout](#).

6. Select the *Ripples* shot and click the *Go* button to send the *Ripples* shot to the *Live Broadcast Area*.

Notice that the *Ripples* and *River* shots have swapped areas. Also, the shot LEDs have changed color. The green shot LEDs indicate shots included in the *Preview Area* and the red LEDs indicate the shots included in the *Live Broadcast Area*. You can view the shot that is live in the *Live Broadcast Area* as you prepare your next shot in the *Preview Area*.

## Tutorial 2: Editing Shots

The first tutorial explained various ways in which you can use existing shots. However, you can also create and edit shots during a broadcast. This tutorial demonstrates how to edit your shots.

1. To edit a shot, double-click its icon in a layer.

Wirecast opens the *Shot Editor* panel. The *Shot Editor* has six tabs: *Shot Layers*, *Shot Layer Properties*, *Audio*, *Chroma Key Properties*, *Smooth Transition Properties*, and *Additional Source Properties*.

See [The Shot Editor Window](#).

2. Practice editing a shot using the various options in the *Shot Editor Window* tabs.

## Tutorial 3: Broadcasting

This tutorial demonstrates how to set up and broadcast your Wirecast presentations. You can broadcast to a specific computer (Unicast), multiple viewers (Multicast), or even record your broadcast to disk.

There are two main components for broadcasting your presentation (or saving it to disk): encoding and selecting a destination.

First, decide how to encode your broadcast. Encoding is the type of compression used (JPEG, MPEG4, etc.). Wirecast comes configured with many common encoding options.

See [The Encoder Presets Window](#) for details.

You must select a destination for the broadcast. You can send the broadcast to a server or save it to disk.

## Streaming

1. To start streaming, click the *Output Settings* button.  
See the *Output Settings* button on the screenshot in [The Default Layout](#).  
Wirecast opens the *Select an Output Destination* dialog.
2. Select a destination, and click *OK*.
3. Select the output settings desired, and click *OK*.

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**Note:** In the Control/Status bar, the *Output Settings* icon blinks until a connection is made. Once you are connected the *Output Settings* icon turns green. If you can't connect, Wirecast displays an error message.  
See [Control/Status Bar](#).

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**Note:** While streaming, the streaming status is displayed at the top of the default layout. Connection strength is indicated by how many bars are displayed in the *Output Settings* icon. Fewer bars indicates a weaker (slower) connection. If you are streaming to Facebook, additional statuses are displayed on the right side of the status bar.  
See [Streaming Status Colors](#).

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4. Click the *Record* button.  
See the *Record* button on the screenshot in [The Default Layout](#).
5. To stop streaming or stop recording, click *Record* again.

# Windows, Controls, and Menus

You create broadcasts through the various windows, controls, and menus of Wirecast.

## Topics

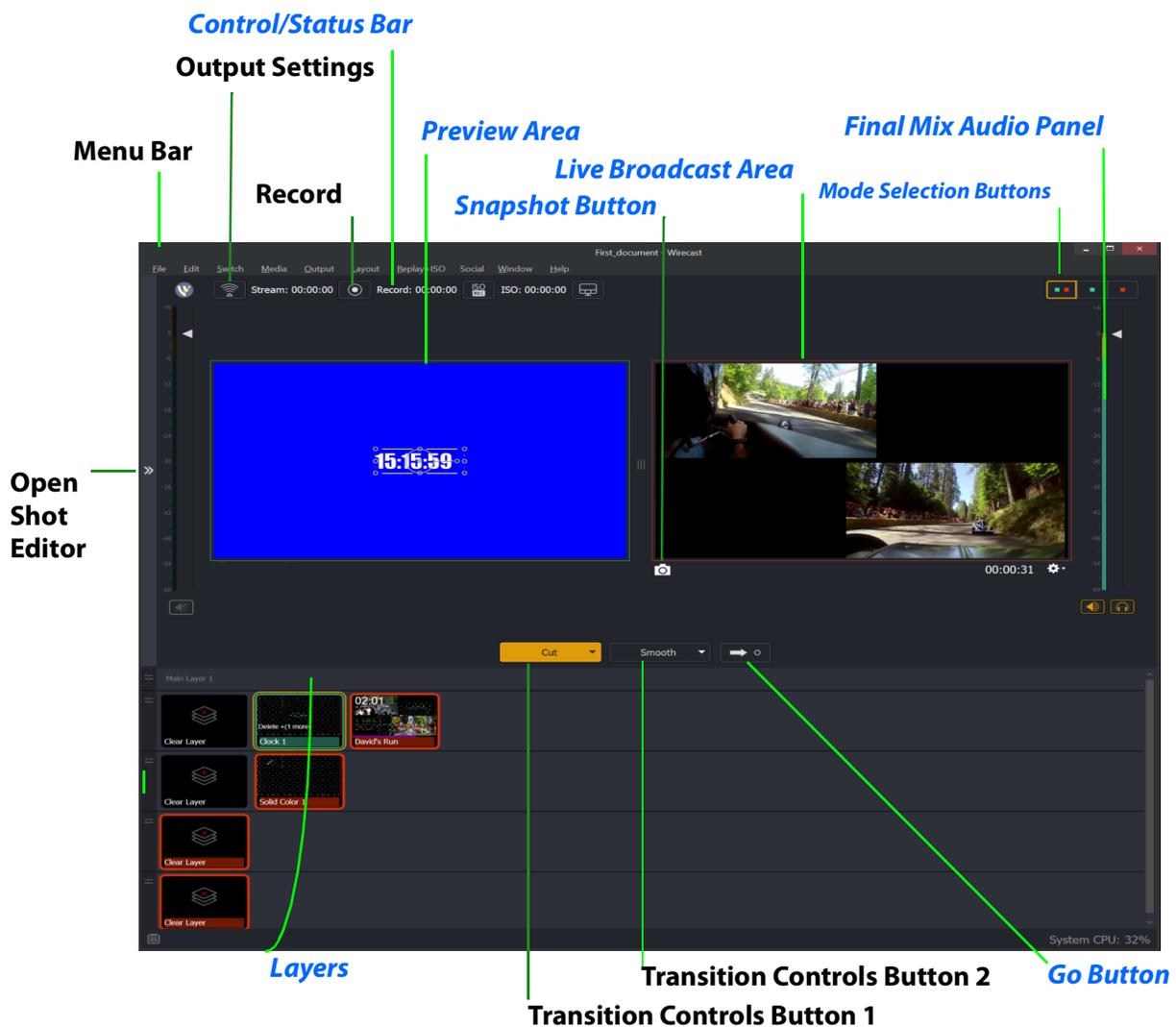
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## The Default Layout

When you create a new document, Wirecast displays the document in the default layout. The main elements of the Wirecast layout are labeled in the following screen shot, and are described below.

**Figure 1.** The Default Wirecast Layout



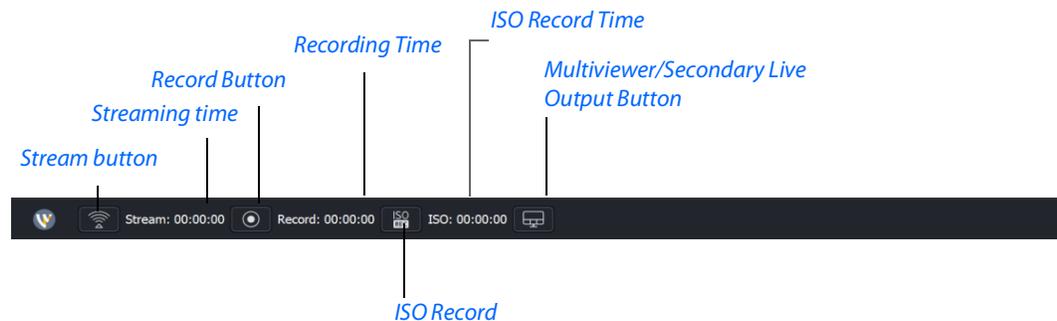
### Control/Status Bar

Control buttons and status information are displayed at the top of the default layout. Wirecast displays the following controls and statistics:

### Stream button

When clicked, Wirecast begins streaming.

**Figure 2.** The Control/Status Bar



### Streaming time

Total cumulative time the document has been streamed. This value does not reset when you start/stop the broadcast. If you save portions of the broadcast to disk, Wirecast still displays the total cumulative time.

### Record Button

Click to begin recording.

### Recording Time

This displays how long you have been recording. This value does not reset when you start/stop the broadcast. It is cumulative.

### ISO Record

Click to begin ISO recording.

### ISO Record Time

Displays the ISO recording time.

### Multiviewer/Secondary Live Output Button

Opens the configuration window if you haven't already configured your displays. Once you've configured your displays, this button places the windows on your displays as configured.

### Display Buttons

These three buttons enable you to choose to display the *Preview Area*, the *Live Broadcast Area*, or both in a divided display.

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**Note:** To avoid decrease in video quality, Wirecast should not be used at CPU usage above 80%. See the Telestream Website for suggested configurations. You can also view streaming statistics by selecting *Output > Show Statistics*.

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## Transition Buttons

Wirecast displays up to four transition buttons: up to three *Transition Controls* buttons, and the *Go* button. You can assign transitions to the *Transition Controls* buttons. Typically, use *Cut* as the standard first transition control, and *Smooth* as the standard second transition control. Clicking the *Go* button executes the selected transition control.

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**Note:** *Preferences > General* enables you to determine the number of Transition Controls buttons Wirecast displays (between 0 and 3).

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### Changing Transitions

Click the *Cut* button to make it the current transition type.

You can also select one of the two buttons by pressing Command+1 or 2 keys for the two transition types displayed.

If you click the down-arrow on the right side of any of the transition buttons, you can select a new transition to assign to that button.

### Go Button

When clicked, Wirecast executes the transition selected, broadcasts the shot selected, and displays it in the *Live Broadcast Area*.

If *AutoLive* is enabled, the *Go* button appears with a red dot. When *AutoLive* is enabled, simply selecting a shot—without clicking the *Go* button, broadcasts the shot.

With *AutoLive* enabled, clicking the *Go* button updates the live shot with any changes you have made to it with the *Shot Editor*. If you have made no changes to the live shot, clicking the *Go* button does nothing when Wirecast is in *AutoLive* mode.

With *AutoLive* disabled, you can make several changes to your broadcast without your viewers seeing the change. This is most useful when an engineer runs your broadcast.

See [Single-Click Switching with AutoLive](#) and [AutoLive](#).

See [Selecting and Customizing Encoder Presets](#) and [Specifying the Transitions for the Transition Buttons](#).

## Mode Selection Buttons

### Button containing green and red dots

When clicked, Wirecast displays both the *Preview Area* and the *Live Broadcast Area*.

### Button containing green dot

When clicked, Wirecast displays the *Preview Area*.

### Button containing red dot

When clicked, Wirecast displays the *Live Broadcast Area*.

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**Note:** These three buttons work the same as three of the options in the *Layout Menu*. See [Layout Menu](#).

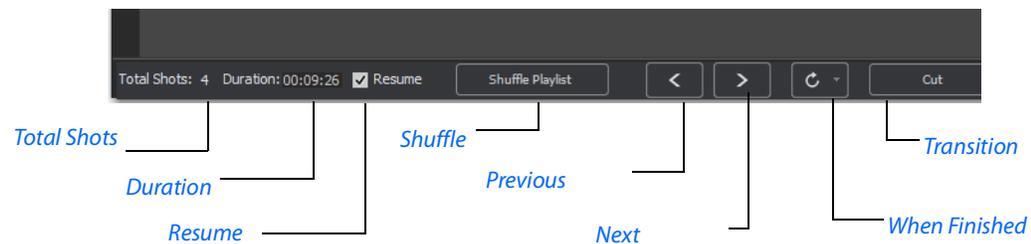
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## Playlist Controls

Wirecast provides basic playback controls for playlists. The controls are located at the bottom of the *Playlist* tab window and in the *Source Properties* tab for a selected playlist. You can transition to the previous or next shot in the list, set playlist behavior, shuffle the playlist order, and more.

See [Source Properties Tab](#).

**Figure 3.** Playlist Controls



### Total Shots

Displays the total number of shots in the playlist.

### Duration

Displays the duration of the playlist.

### Resume

When checked, if you exit the playlist, when you return the playlist will resume playing at the location (same shot) as when you exited.

### Shuffle

Click to shuffle the order of the playlist shots.

### Previous

Transitions to the previous shot in the playlist if the playlist is currently live.

### Next

Transitions to the next shot in the playlist if the playlist is currently live.

### When Finished

Sets the behavior of the playlist when the last shot in the list has been played. A check mark indicates what menu item (behavior) is selected.

- *Loop* transitions back to the first shot, endlessly.
- *Hold* stays on the last shot. If the last shot is a clip, the last frame in the clip is displayed. If the last shot is a live shot, the live source stays active. If the last shot in a Playlist is a video clip Shot, it will obey the rules set for the video clip in the Media Properties Inspector tab under *Source Properties*. However, it will hold the Playlist on that last Shot if *Set Playlist Behavior* is set to “Hold”. Therefore, if you want to see the last video in the Playlist pause on the last frame, you must set *When Finished* to “Hold” under Source Properties, in addition to setting the playlist behavior to “Hold”. If you set *When Finished* to “Loop”, under Source Properties, the last video in the Playlist will continue to loop.
- *Available Shots* transitions to another shot on the same layer. All available shots are listed as menu selections. (In the example shown, the only available shot is “Logo”.)
- *Previous Live Shot* transitions back to the shot that was live before the playlist began playing.
- *Current Preview* transitions the contents of Preview to the *Live Broadcast Area*.

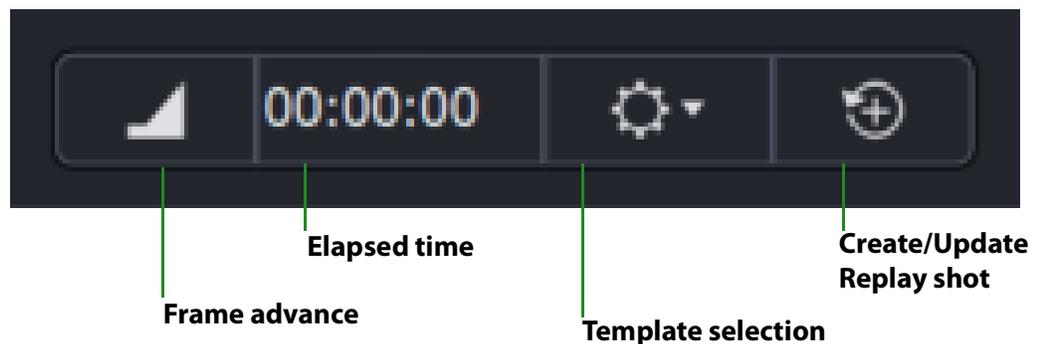
### Transition

Sets the transition to use when switching between shots.

## Replay Controls

When you select *Replay + ISO > Start All*, Wirecast displays the Replay controls, as shown here:

**Figure 4.** Replay Controls



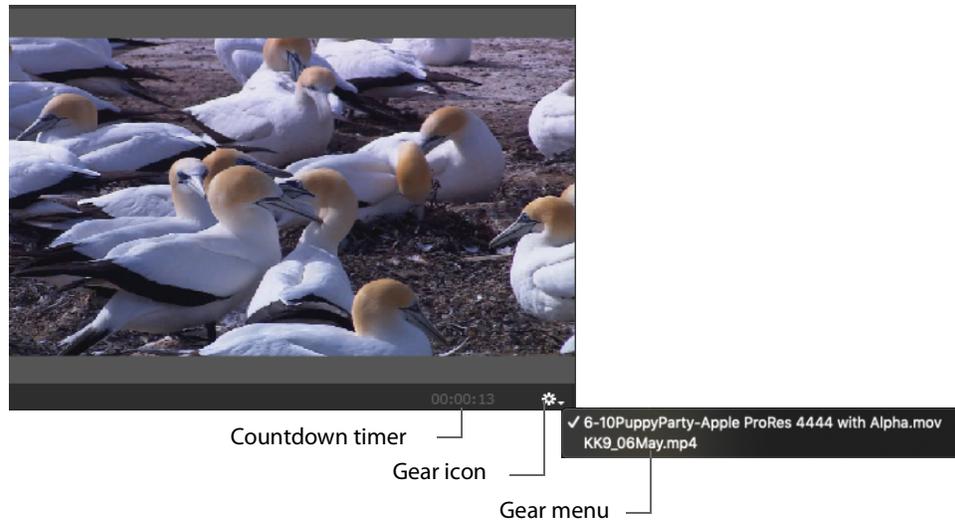
See [Creating a Replay Shot from a Layer](#).

## Playlist Countdown Timer Display

Wirecast displays a countdown timer below the *Preview Area* or *Live Broadcast Area* whenever you play a video shot or playlist. If you play multiple video shots, click the gear menu icon and select the shot to associate with the countdown timer.

See [Selecting and Customizing Encoder Presets](#).

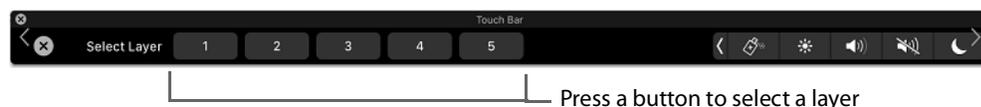
**Figure 5.** The Playlist Countdown Timer



## Touch Bar (MacBook Pro only)

**Note:** Touch bar shot switching is only available when using a MacBook Pro equipped with a Touch Bar.

The Touch Bar switcher will appear every time a Wirecast document is the front-most window. If another window is front-most, the Touch Bar will be removed. Press a layer button to select any of the five shot layers.



The Touch Bar displays one layer at a time. The layer selection button display the layer number. You can change layers by pressing this button. The shot buttons correspond to every shot on the selected layer. The Go button is identical the one in the Wirecast default layout. When you change the Live/Preview Swap state, the Go button will update to reflect the new mode. If Auto-live is enabled, the Go button will be removed from the Touch Bar.



All buttons have a fixed width and their title will clip if longer than the default space allowed. This guarantees you to always have a fixed-size touch target. The shot buttons will display a *green* LED if they are currently in the Preview window, and they will display *red* if in the Live Broadcast window. If the LED is not lit, the shot is in neither window. This mirrors the behavior of the shot list in the main Wirecast user interface. If there are more shot buttons than horizontal space allows, the shot area in the Touch Bar becomes scrollable.

## Preview Area

Displays the selected shot as it would appear when broadcast, without broadcasting the shot. When the shot in the *Preview Area* is selected, Wirecast outlines the preview with a control frame for resizing and rotating the shot.

See [Viewing the Preview Area](#), [Viewing a Shot in the Preview Area](#), and [Resizing or Rotating a Shot](#).

## Live Broadcast Area

The *Live Broadcast Area* shows the un-encoded shot currently being encoded and broadcast. Also, you can play, pause, or scrub clips displayed in the *Live Broadcast Area* while they are broadcast.

See [Switching with Preview](#) and [Single-Click Switching with AutoLive](#).

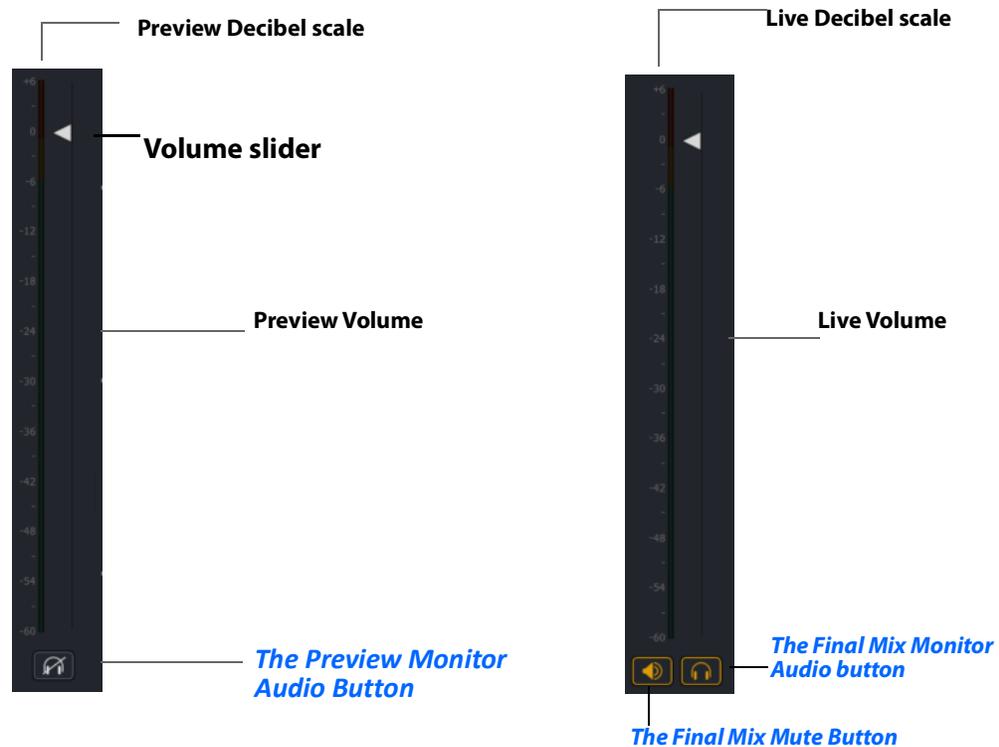
## Snapshot Button

When clicked, Wirecast takes a snapshot of the *Live Broadcast Area* at canvas resolution, and saves the snapshot as a PNG file in the designated snapshot folder.

See [Live Snapshots Folder](#).

## Final Mix Audio Panel

The *Final Mix Audio* panel enables you to control the output volume level, mute audio output, and mute the line-out feed for Preview and Live windows. The Preview and Live Volume controls enable you to adjust the audio volume for Preview and Live separately.

**Figure 6.** Final Mix Audio Panel

## The Preview Monitor Audio Button

When clicked, Wirecast mutes or un-mutes Preview playback on your computer speakers or headphones.

The *Monitor Preview Audio* button and the *Monitor Final Mix Audio* buttons control whether you hear the output audio through your headphones or computer speakers. These do not affect what your viewers can hear. You can monitor Preview or Final, but not both at the same time. You can mute both.

If you do not want to broadcast audio, modify the encoder presets to not process audio through the encoder.

See [Encoder Presets](#).

## The Final Mix Monitor Audio button

When clicked, Wirecast mutes or un-mutes final mix playback on your computer speakers or headphones.

The *Monitor Preview Audio* button and the *Monitor Final Mix Audio* buttons control whether you hear the output audio through your headphones or computer speakers. These do not affect what your viewers can hear. You can monitor *Preview* or *Final*, but not both at the same time. You can mute both.

If you do not want to broadcast audio, modify the encoder presets to not process audio through the encoder.

See [Encoder Presets](#).

---

**Note:** All Wirecast audio meters use a consistent dBFS scale. Whether you're viewing Multiviewer audio bars or the Advanced Audio Meter, the readings use the same scale. Level indicators turn yellow when they hit -6dB and red when they move above -1dB. All indicators show when audio is clipping by turning yellow or red.

---

See [Controlling or Muting the Final Mix Audio Level](#) and [Displaying or Hiding the Final Mix Audio Panel](#).

## The Final Mix Mute Button

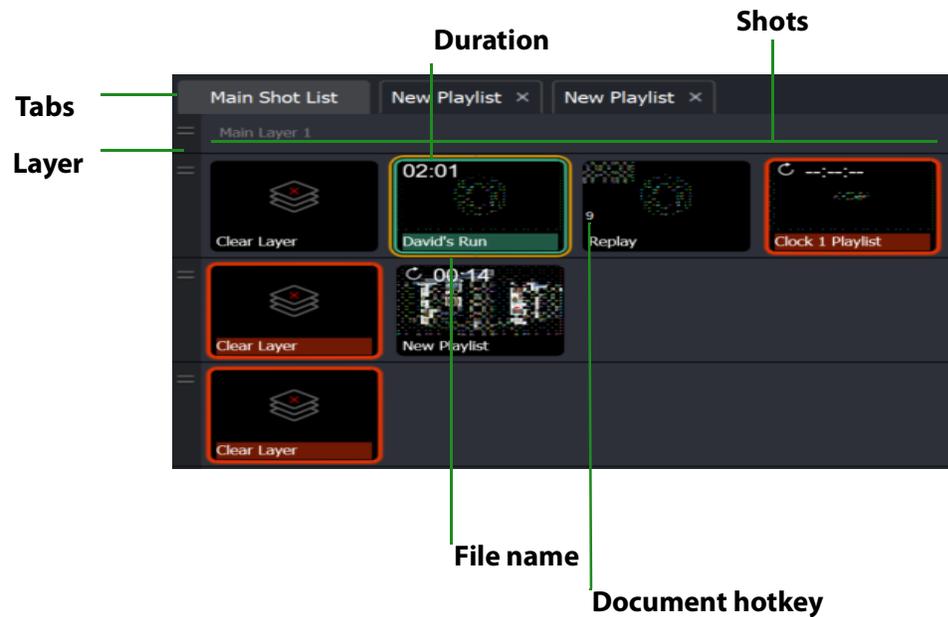
When clicked, Wirecast mutes or un-mutes the final mix output.

The *Final Mix Mute* button controls what your viewers hear. You can quickly mute all your audio output with this button. This is great for quickly muting audio on your regular broadcast. When you mute the final mix audio, the encoder still generates audio, but the output gets muted for all program audio (except ISO-recorded sources). If, alternatively, you do not want to broadcast audio at all, it's better to modify the encoder presets to not process audio through the encoder, which will save system resources.

See [Encoder Presets](#).

# Layers

**Figure 7.** Layers



The horizontal bars towards the bottom of the screen are the layers. You can make more layers visible. Also, you can add, modify, and play shots from the layers.

By default, Wirecast displays five layers. Each layer can contain multiple shots. A red LED indicates that a shot is Live.

Wirecast allows you to put shots on any of the layers. Layering shots enables Wirecast to superimpose them, from the lowest layer to the highest, to form a single composite visual image during broadcast.

By default, Wirecast displays five layers. Each layer contains shots that can be selected by clicking a shot. A red LED indicates that a shot is selected. When a shot is selected it is displayed in the *Live Broadcast Area*. If you select multiple shots (by selecting a shot on more than one layer) Wirecast displays all of them in the *Live Broadcast Area*.

Wirecast displays Layer 1 at the top, Layer 5 at the bottom, and the other layers, in order, between them. The order of layers determines the order of superimposition in the *Live Broadcast Area*. If you place a video shot on Layer 5 and a title on Layer 1, Wirecast superimposes the title over the video.

See also [Viewing a Layer in a Layer Window](#).

## Add Shot Window

The *Add Shot* window provides a way to add sources, such as live sources, file sources, the Remote Desktop Presenter program, shot graphics, shot audio, and shot templates. Click the Plus Button (+) to open the *Add Shot* menu.

When Wirecast displays the *Add Shot* menu, select a shot category, select the type of shot to add. Modify the shot if desired and allowed. To add a shot to a layer, click the *Add “+”* button in a layer.

To add a source to the *Favorites* menu, select the source and click the star icon. Wirecast changes the color of the star to white and adds the source to the *Favorites* menu.

## Video Capture

### System Device

Select a system device.

See [NDI Devices in the Shot Layer Properties Tab](#).

## Audio Capture

### System Device

Select a system device.

See [NDI Devices in the Shot Layer Properties Tab](#).

### System Audio Capture

Select an audio capture device.

**Source Name** Displays the name of the source. To change the source name, enter a new one.

**Audio Delay** Enter the amount of time (in seconds, as short as 1 ms) to delay the audio signal to sync it up with a video source.

**Monitor** Click the *Monitor* icon to cause audio to play through your monitor output. The icon is gold when selected (turned on). If unselected, audio will not play through the monitor output for this source. Selected is the default.

## Media Files

### Browse Disk

Select to navigate to a media file.

### Stock Media Library

Select to display the Stock Media Library window.

A media file is a video clip or a picture. To open a media file source, select *Media Files* from the source menu in the shot window, and then navigate to your file. You can also click the *Add Media File* button at the bottom of the Add Shot window.

Media files have the following settings:

#### Source Name

Displays the name of the source. To change the source name, enter a new one.

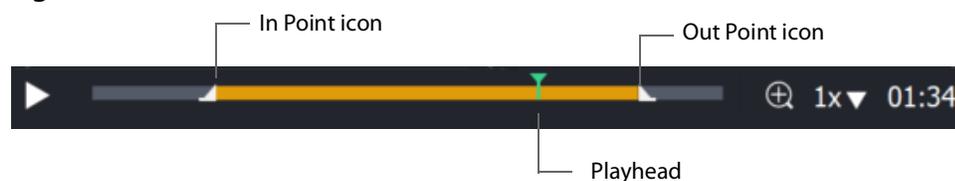
#### In Point

Click *Jump* to move the play head to the In Point in the media file. Set the In Point either by dragging the In Point icon to the desired beginning position on the play bar, or by entering a value into the In Point field.

#### Out Point

Click *Jump* to move the play head to the Out Point in the media file. Set the Out Point either by dragging the Out Point icon to the desired end position on the play bar, or by entering a value into the Out Point field. The green triangle shows the current location of the Play Head.

**Figure 8.** In Point and Out Point Icons



#### When Finished

Select what happens when the media finishes playing. *Loop* causes the media to begin playing again. *Hold* causes the media to stop and hold the last frame in the *Live Broadcast Area*. *Remove* causes the media to be removed from the *Live Broadcast Area* when it finishes playing.

#### Begin playing when media becomes Live

When checked, the media begins playing as soon as it is made Live.

#### Remember position even when not Live

When checked, the media will always start playing where ever it was playing when it was stopped, even if it was removed from the *Live Broadcast Area* and made Live again. When unchecked, the media will start from the beginning every time it is taken Live.

#### Set Default

Click to set the media display to default settings.

#### Live Playback

Changes are live. When you select this option and your shot is live, Wirecast displays any action you take in the *Preview Area*--such as playing, pausing or scrubbing--in the *Live Broadcast Area*, and broadcasts the action live.

---

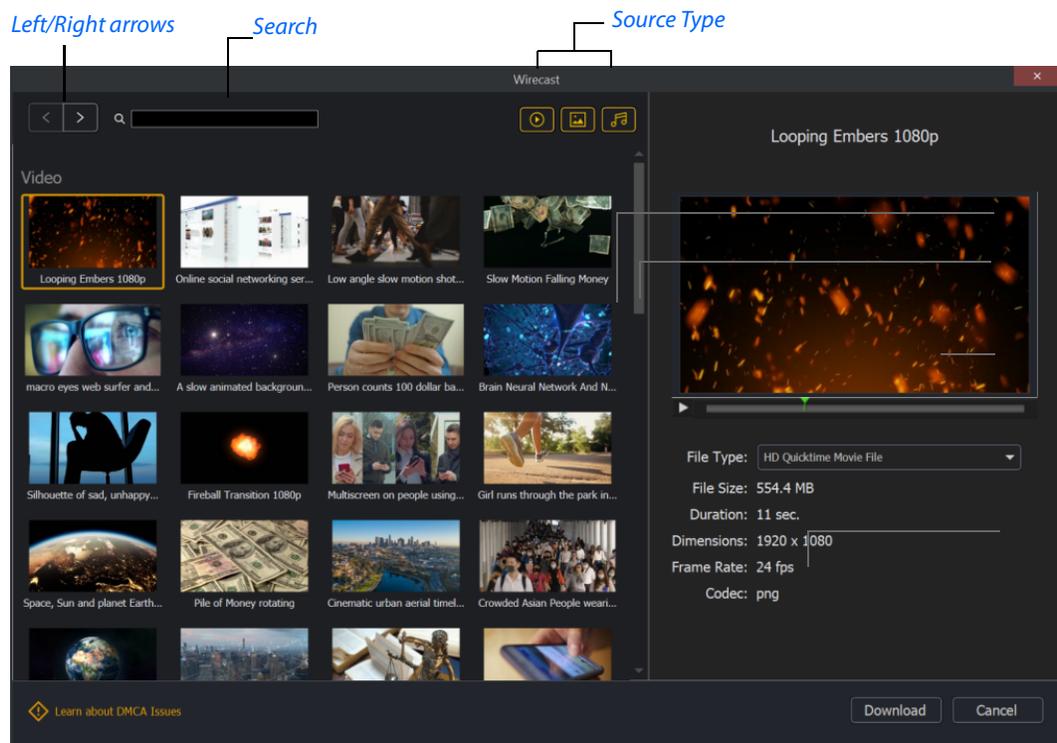
**Note:** If you use this feature to pause or scrub media in the live broadcast, it's usually best to uncheck *Begin playing when media becomes live*.

---

## Stock Media Library

When clicked, *Stock Media Library* opens the *Stock Media Library* window.

**Figure 9.** Stock Media Library Window



### Source Type

You can toggle on/off any type of media to include in the display: Video, Images, and Audio.

### Search

Enter key words to display just the media files including these words. The display is updated as you enter words.

### Left/Right arrows

Click the arrows to move to the next or previous set of Stock Media files.

**Play button**

Click to begin playing the selected media file.

**File marker**

Move the marker to view the media file quickly.

**Download button**

Click to download the selected media file into a shot.

See [Adding Media Files from the Stock Media Library to a Shot](#).

## Network

**iOS Cam**

Select an IOS Camera device, or an iOS camera through the Wirecast Go iOS app.

**Rendezvous**

Select to create a new Rendezvous session, or select to reconnect to a previously created session.

**Web Page**

Creates a new web page shot.

See [Web Page Properties](#).

**Web Stream**

Creates a new Web Stream shot.

See [Web Stream Properties](#).

**NDI(R) Source**

Select any NDI-capable devices on your network.

### Web Page Properties

*Web Page* shows a web source defined by a web address (URL). To open a web page source, select *Web Page* from the source menu in the shot window. *Web Page Properties* have the following settings:

**Name**

Displays the name of the source. To change the source name, enter a new one.

**Audio Delay**

Enter the amount of time (in seconds, as short as 1 ms) to delay audio.

**Video Delay**

Enter the amount of time (in seconds, as short as 1 ms) to delay video.

**URL**

Displays the web address (URL) of the source. To change the address, enter a new one.

### **Width/Height**

Displays the width and height of the display source. To change the width or height, enter a new value.

### **Go Back/Go Forward**

If you have enabled *Interaction* on your web page, these buttons allow you to go back or go forward just as you would in a browser.

### **Transparent Background**

Check to make the background transparent in your shot.

### **Shutdown when inactive**

Check to turn off the audio and disable it from the shot when playing videos.

### **Override CSS**

Enter Cascading Style Sheet code to override the default code for this web display.

### **Interaction**

Allows you to choose how you want to interact with your web page in the *Preview* window. Choices are *Never*, *Always*, or *On Double-click*.

### **Monitor**

Click the *Monitor* icon to cause audio to play through your monitor output. The icon is gold when selected (turned on). If unselected, audio will not play through the monitor output for this source. *Selected* is the default.

## **Web Stream Properties**

The *Web Stream* option allows RTMP, RTSP, MMS, or HTTP streams to be taken directly into Wirecast. This is useful for incorporating remote IP Cameras or other network streams into a broadcast. Sources are automatically detected and are also identified by *IP Camera Profile*. To open a Web Stream source, select *Web Stream* from the source menu in the shot window.

*Web Stream Properties* has the following settings.

### **Name**

Displays the name of the source. To change the name, enter a new one.

### **Audio Delay**

Enter the amount of time (in seconds, as short as 1 ms) to delay audio.

### **Video Delay**

Enter the amount of time (in seconds, as short as 1 ms) to delay video.

### **URI**

Enter the address of your input stream. (For example: *rtsp://127.0.0.1:8080/my\_stream.sdp*, or *http://10.0.0.1/my\_stream*, or *rtmp://hades.telestream.net:1935/live/myStream*).

**Username**

Enter your username for your URI stream.

**Password**

Enter your password for your URI stream.

**Buffer**

Enter a buffer time in seconds.

**Reconnect**

Click to reconnect the web stream source.

**Apply**

Click the *Apply* button to update any changes.

**Timestamps**

Select *Provided by source*, or *Provided by Wirecast*. This setting allows you to use timestamps embedded in the source, or use timestamps generated by Wirecast. Timestamps are used to synchronize devices. Many sources don't provide completely accurate timestamps, resulting in sources out of sync with each other (i.e. audio and video not syncing).

Select *Provided by Wirecast* to ignore the timestamps coming from the source, and instead generate new timestamps. However, the risk is that if the system is under a heavy load, the generated timestamps could be impacted, and end up arriving late. The default setting is *Provided by source*.

See [Wirecast: Timestamps Option](#).

**Deinterlacing**

Select *None*, or *Blend Fields*.

**Dynamic Range**

Select *Default*, *Full* or *Limited*.

**Monitor**

Click the *Monitor* icon to cause audio to play through your monitor output. The icon is gold when selected (turned on). If unselected, audio will not play through the monitor output for this source. Selected is the default.

## Screen Capture

**Remote Desktop Presenter**

Creates a new Remote Desktop Presenter shot.

See [Remote Desktop Presenter Properties](#).

**Screen Capture**

Creates a new screen capture shot of any monitor or window on your computer. You can also capture your iPhone or iPad in Wirecast by connecting your device using an

Apple certified lightening cable, and then adding it as a source by selecting *Screen Capture* from the Source menu.

See [Screen Capture Properties](#).

---

**Note:** When in screen-capture mode, some apps take control of your mouse and make the cursor invisible. To reduce the capture window size and regain use of your mouse, press command + Tab.

---

## Remote Desktop Presenter Properties

The *Remote Desktop Presenter* (RDTP) is a utility application that enables Wirecast to broadcast the desktop of any computer running the Telestream Desktop Presenter program. To open a Remote Desktop Presenter source, select *Remote Desktop Presenter* from the source menu in the shot window.

*Remote Desktop Presenter* is normally auto-detected by Wirecast and is automatically added to the list of sources. However, if a RDTP is not detected, or if you want to add one in a remote location you can manually add it by selecting *New Remote Desktop Presenter* from the *Source* menu in the default layout.

*Remote Desktop Presenter Properties* has the following settings.

### Source Name

Displays the name of the source. To change the source name, enter a new one.

### Audio Delay

Enter the amount of time (in seconds, as short as 1 ms) to delay audio.

### IP Address

Enter an IP address of the target computer.

### Apply

Click the *Apply* button to update any changes.

### Monitor

Click the *Monitor* icon to cause audio to play through your monitor output. The icon is gold when selected (turned on). If unselected, audio will not play through the monitor output for this source. *Selected* is the default.

## Screen Capture Properties

A screen capture displays any monitor or window on your computer. To open a screen capture source, select *Screen Capture* from the source menu in the shot window. Screen captures have the following settings:

**Name** Displays the name of the source. To change the source name, enter a new one.

**Audio Delay** Enter the amount of time (in seconds, as short as 1 ms) to delay audio.

**Video Delay** Enter the amount of time (in seconds, as short as 1 ms) to delay video.

**Capture Video** Check to enable *Capture Type*, *Show Cursor*, and *fps* settings (described below).

**Capture Type** Select *Monitor* (captures your entire monitor), *Window* (captures the currently selected window), or *Game* (captures the game currently played on your PC). If you select *Game*, you can also configure how your game is captured by selecting options offered under *Select Window/Monitor* (described below).

**Anti Cheat Support** Enables anti-cheating support for game capture.

**Show Cursor** Check to show the cursor in your streaming. Uncheck to hide it.

**fps** Select the FPS, from 10 to 60 frames per second as the capture rate. An FPS of 60 is the best frame rate, but it requires greater streaming bandwidth.

**Capture System Audio** Check to capture system audio when streaming. Uncheck to mute the audio.

- **Select Window/Monitor** Click the *Configure* button to display the *Select Window* dialog.

**Choose Audio Device** Click the *Configure* button to display the *Select Audio Device* dialog, then select an audio device from the drop-down menu.

---

**Note:** Some apps, when screen captured, take control of your mouse and the cursor is not displayed. You can, at any time, press command + Tab keys to reduce the capture window size and enable you to use your mouse.

---

**Dynamic Range** Select dynamic range setting: *Default*, *Full* or *Limited*.

**Monitor** Click the *Monitor* icon to cause audio to play through your monitor output. The icon is gold when selected (turned on). If unselected, audio will not play through the monitor output for this source. *Selected* is the default.

See [Screen Capture](#).

## Overlays

### Clock

Creates a shot that displays time.

See [Clock Properties](#).

### Image Carousel

Creates a new image carousel shot that shows a sequence of images.

See [Image Carousel Properties](#).

### QR Code Generator

Creates a QR code display to present to your viewers in a live broadcast.

See [QR Code Generator Properties](#).

### Scoreboard

Creates a new scoreboard shot.

See [Scoreboard Properties](#).

### Social Media Title

Opens a selector for *Social Media Titles*.

See [The Comment Moderation Window](#), and [Social Media Shots](#).

### Text

Creates a new text shot.

See [Text Shot Properties](#).

### Title

Opens a dialog for adding titles and lower thirds. In the dialog, you can see the available title designs in a continually growing library of title designs. You can search for a title and filter your search using various criteria. You can preview the intro and outro animation, and you see how the title fits on the screen.

You can revise titles in your project in the *Title Properties* tab.

If your project contains titles made with earlier versions of Wirecast, those legacy titles continue to appear in your project. To access the legacy titles, click the three dots in the upper-right corner of the *Add Source* dialog, and choose *Display Deprecated Sources*.

Wirecast displays the names of animated titles with *Title...* at the beginning. Wirecast displays the names of legacy titles with *Title (legacy)* at the beginning.

See [Titles \(Animated\) Properties](#).

## Text Shot Properties

*Text* displays a text phrase. To open a text source, select *Text* from the source menu in the shot window. *Text Properties* have the following settings.

### Name

Displays the name of the source. To change the *Source Name*, enter a new one.

### Width/Height

Displays the width and height of the display source. To change the width or height, enter a new value.

### Mode

Select the source of your text: *Text* (directly entered) or *File* (navigate to a text file), or *RSS* (ticker tape RSS feed).

If you select *Text*, enter your text in the text box below the source selector.

If you select *File*, enter a file name in the File Path box displayed, or click the navigation button (three dots) and find your text file. The text from your file will be automatically displayed. The file has to contain UTF-8 encoded text in order for it to be rendered correctly. Only the first 64KB of the text file will be loaded and displayed. You can also

check *Keep reading text file continuously* to keep the text display in your broadcast up to date with file changes.

If you select *RSS*, enter a URL in the URL box displayed.

**Text**

Enter text to display.

**File**

Click the (...) icon to navigate to the file containing text to display.

**RSS URL**

Enter the RSS URL where the text to be displayed is located.

**Update frequency**

Enter the number of seconds between updates.

**Keep reading text file**

Check to keep reading the text file for changes.

**Font**

Select the desired font used for your messages. If you select *Web Font*, a *Web Font* field will display below. You can also select any of the fonts installed on your computer.

**Face**

Select the font style from the list of combination of bold and italic.

**Size**

Enter the font size. Click the gear icon to select the type of font size: small, medium, large, etc.

**Justify**

Enables you to justify the text along the left, center, or right side of the display.

**Align**

Enables you to align the text at the top, middle, or bottom of the display.

**Color**

Click the box to open the color selection panel. Select a new text color from the palette.

**Wrap**

Select wrap mode from the drop-down menu: *Word Wrap* or *Break Wrap*.

**Scroll**

Enter a scroll mode: *Non Stop* or *If it Does Not Fit*.

**Background**

Select *Solid*, *Linear Gradient* (line), or *Radial Gradient* (circle). Click in the color box to open the color palette and select a background color. Click the second color box to select the gradient color. For *Linear Gradient*, adjust the slider to set the angle of the gradient display.

### **Shadow**

Check to activate the text shadow slider controls. Click the color box to open the color palette.

### **Angle**

Move the *Angle* slider to adjust the direction (0 to 360 degrees) the shadow text is offset from the actual text.

### **Offset**

Move the slider to adjust the distance the shadow text is offset away from the actual text.

### **Blur**

Move the *Blur* slider to adjust the amount of blur in the shadow text.

## **Titles (Animated) Properties**

A title is text displayed in a banner window. Wirecast offers a wide variety of animated lower thirds and titles. To open a title source, select *Title...* from the *Add Source* menu.

Animated titles have the following settings:

### **Left/Right arrows**

Click to view the previous page, or next page, of titles.

### **Search**

Enter name of title desired.

### **Filters**

Click to open options for filtering your view of the titles.

### **Scale to Fit/Show Preview**

Click to view either the title scaled to the whole screen or placed in its live position.

### **Tags**

Displays identifying tags for the title.

### **Lines of Text**

Displays the number of lines of text in the title.

### **Custom Colors**

Displays the number of custom colors in the title.

### **Intro Duration**

Displays the length of the intro animation.

### **Animate Intro**

Click to preview either the intro animation.

### **Outro Duration**

Displays the length of the outro animation.

### Animate Outro

Click to preview the outro animation.

---

**Note:** Some title styles have customization sections for Subhead 1 and Subhead 2.

---

### Title (legacy) Properties

---

**Note:** To access legacy titles, in the *Add Shot* dialog, click the three vertical dots at the top right corner of the box. Then select *Show Deprecated Sources*.

---

Legacy titles have the following settings:

#### Name

Displays the name of the source. To change the Source Name, enter a new one.

#### Width/Height

Displays the width and height of the display source. To change the width or height, enter a new value.

#### Mode

Select the source of your text: *Text* (directly entered) or *File* (navigate to a text file), or *RSS* (ticker tape RSS feed).

If you select *Text*, enter your text in the text box below the source selector.

If you select *File*, enter a file name in the *File Path* box displayed, or click the navigation button (three dots) and find your text file. The text from your file will be automatically displayed. The file has to contain UTF-8 encoded text in order for it to be rendered correctly. Only the first 64KB of the text file will be loaded and displayed. You can also check the Keep reading text file continuously to keep the text display in your broadcast up to date with file changes.

If you select *RSS*, enter a URL in the URL box displayed.

#### Text

Enter text to display.

#### File

Click the "..." icon to navigate to the file containing text to display.

#### RSS URL

Enter the RSS URL where the text to be displayed is located.

#### Update frequency

Enter the number of seconds between updates.

#### Font

Select the desired font used for your messages. If you select *Web Font*, a *Web Font* field will display below. You can also select any of the fonts installed on your computer.

### **Face**

Select the font style from the list of combination of bold and italic.

### **Size**

Enter the font size. Click the gear icon to select the size of font.

### **Style**

Select any combination of Bold, Italic, All Caps, by toggling each button.

### **Justify**

Enables you to justify the text along the left, center, or right side of the display.

### **Align**

Enables you to align the text at the top, middle, or bottom of the display.

### **Color**

Click the box to open the color selection panel. Select a new text color from the palette.

### **Wrap**

Select wrap mode from the drop-down menu: *Word Wrap* or *Break Wrap*.

### **On Change**

Select transition type: Fade, Drop In, Drop Out, and Slide. Enter the length (in seconds) of the transition time.

### **Scroll**

Enter a scroll mode: *Non Stop* or *If it Does Not Fit*.

### **Direction**

Select the direction of the scrolling: *Top to Bottom*, *Bottom to Top*, *Left to Right*, or *Right to Left*.

### **Speed**

Enter the speed (in pixels per second) that you want your message to scroll through the display.

### **Auto Reverse**

When checked, the display reverses the scrolling direction when it reaches the top or bottom of the list.

### **Background**

Select *Solid*, *Linear Gradient* (line), or *Radial Gradient* (circle). Click in the color box to open the color palette and select a background color. Click the second color box to select the gradient color. For *Linear Gradient*, adjust the slider to set the angle of the gradient display.

### **Shadow**

Check to activate the text shadow slider controls. Click the color box to open the color palette.

**Angle**

Move the *Angle* slider to adjust the direction (0 to 360 degrees) the shadow text is offset from the actual text.

**Offset**

Move the slider to adjust the distance the shadow text is offset away from the actual text.

**Blur**

Move the *Blur* slider to adjust the amount of blur in the shadow text.

**Twitter Feed (legacy) Properties**

Twitter Feed displays a list of Twitter messages.

---

**Note:** To access legacy Twitter feed posts, in the *Add Shot* dialog, click the three vertical dots at the top right corner of the box. Then select *Show Deprecated Sources*.

---

*Twitter Feed Properties* has the following settings:

**Name**

Displays the name of the source. To change the source name, enter a new one.

**Width/Height**

Displays the width and height of the display source. To change the width or height, enter a new value.

**Mode**

Select the source of your text: *Text* (directly entered) or *File* (navigate to a text file), or *RSS* (ticker tape RSS feed).

If you select *Text*, enter your text in the text box below the source selector.

If you select *File*, enter a file name in the *File Path* box displayed, or click the navigation button (three dots) and find your text file. The text from your file will be automatically displayed. The file has to contain UTF-8 encoded text in order for it to be rendered correctly. Only the first 64KB of the text file will be loaded and displayed. You can also check the *Keep reading text file continuously* to keep the text display in your broadcast up to date with file changes.

If you select *RSS*, enter a URL in the URL box displayed.

**Text**

Enter text to display.

**File**

Click the "..." icon to navigate to the file containing text to display.

**RSS URL**

Enter the RSS URL where the text to be displayed is located.

### **Update frequency**

Enter the number of seconds between updates.

### **Font**

Select the desired font used for your messages. If you select *Web Font*, Wirecast displays a *Web Font* field below. You can also select any of the fonts installed on your computer.

### **Face**

Select the font style from the list of combination of bold and italic.

### **Size**

Enter the font size. Click the gear icon to select the size of font.

### **Justify**

Enables you to justify the text along the left, center, or right side of the display.

### **Align**

Enables you to align the text at the top, middle, or bottom of the display.

### **Color**

Click the box to open the color selection panel. Select a new text color from the palette.

### **Wrap**

Select wrap mode from the drop-down menu: *Word Wrap* or *Break Wrap*.

### **Scroll**

Enter a scroll mode: *Non Stop* or *If it Does Not Fit*.

### **Background**

Select *Solid*, *Linear Gradient* (line), or *Radial Gradient* (circle). Click in the color box to open the color palette and select a background color. Click the second color box to select the gradient color. For *Linear Gradient*, adjust the slider to set the angle of the gradient display.

### **Shadow**

Check to activate the text shadow slider controls. Click the color box to open the color palette.

### **Angle**

Move the *Angle* slider to adjust the direction (0 to 360 degrees) the shadow text is offset from the actual text.

### **Offset**

Move the slider to adjust the distance the shadow text is offset away from the actual text.

### **Blur**

Move the Blur slider to adjust the amount of blur in the shadow text.

## Scoreboard Properties

PRO

Scoreboards allow you to add a scoreboard graphic to your broadcast that can be dynamically updated. Multiple scoreboards can be added. Unlike most other elements in Wirecast, changes to the scoreboard go live instantly without requiring a transition. Once the scoreboard is live, the preview image is exactly as it is seen in your broadcast. To open a scoreboard source, select *Scoreboard* from the source menu in the shot window.

*Scoreboards Properties* has the following settings.

### Source Name

Displays the name of the source. To change the *Source Name*, enter a new one.

### Scoreboard

Select how the scoreboard will look using two drop-down menus. The upper menu selects the scoreboard style: *Pipe*, *Shade*, *Corner*, etc. The lower menu selects how the display fields are laid out: *Basic*, *Right Stats*, or *Bottom*.

### Home/Visitor/Score

The *Home*, *Visitor*, and *Score* fields contain the home and visitor team names and their current score. The three icons to the right of these fields control the text alignment, font size, and font color. Click on each icon to open its control window.

### BG Color

Sets the background color for the *Home* or *Visitor* field display. Click the color icon to open the control window.

### +1, +2, +3

Click these score increment buttons to increase the *Home* or *Visitor* score display.

### Field 1-4

Displays information inside the scoreboard depending on the layout chosen using the scoreboard menus. The three icons to the right of these fields control the text alignment, font size, and font color. Click on each icon to open its control window.

### Use a Custom Image

Check to enable the *Choose* button.

### Choose

Click to navigate to the location of your custom image.

### Reset

Click to remove a custom image.

---

**Note:** Because Wirecast updates the scoreboards dynamically, It is recommended that you fill in the additional information fields while using a layout that hides them.

Then, change to a layout that reveals those fields when ready, otherwise your viewers see you typing in those fields live.

---

There are four keyboard shortcuts associated with the scoreboard.

**Table 2.** Scoreboard

=	Increments Home score
-	Decrements Home score
]	Increments Visitor score
[	Decrements Visitor score

In order for these keyboard shortcuts to be active, the scoreboard must be displayed in the *Live Broadcast Area* and the Wirecast default layout must be in focus (selected as the active window).

See [Application Shortcuts and Document Hotkeys](#).

## Clock Properties

A clock shot displays time. *Clock Properties* has the following settings.

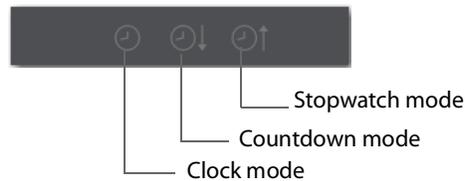
### Name

Displays the name of the source. To change the source name, enter a new one.

### Clock Modes

Select *Clock*, *Countdown*, or *Stopwatch*.

**Figure 10.** Clock Modes



### Clock Mode:

**Date** Select a date display format.

**Time** Select a time display format.

### Countdown Mode:

**Mode** Select *Countdown from* or *Countdown to*.

**Start Time**

Enter the time value from which to start counting.

**Start/Stop/Resume and Reset**

Click *Start* to start the counter. When counting, click *Stop* to stop the counter. When stopped, click *Resume* to start counting again, or click *Reset* to rest the counter.

**Automatically Start**

When checked, the counter will start when the shot is taken live.

**Format**

Select one of the time-display formats from the drop-down menu.

**Start, Stop, Reset**

Click *Start* to begin counting down. Click *Stop* to end counting down. Click *Reset* to reset clock to Timer value.

**At Zero**

Select either *Stop at 00:00* or *Start count up clock*.

**Stopwatch Mode:****Start, Stop, Reset**

Click *Start* to begin counting. Click *Stop* to end counting. Click *Reset* to reset stopwatch to zero.

**Display Format**

Select time elements to display: Hours, Minutes, Seconds, and Fractional Seconds.

**Font**

Select font from drop-down menu.

**Face**

Select face from drop-down menu.

**Size**

Click the gear icon to select the font size from the menu.

**Background**

Select *Solid*, ***Linear Gradient*** (line), or *Radial Gradient* (circle). Click in the color box to open the color palette and select a background color. Click the second color box to select the gradient color. For *Linear Gradient*, adjust the slider to set the angle of the gradient display.

**Shadow**

Check to activate the text shadow slider controls. Click the color box to open the color palette.

**Angle**

Move the Angle slider to adjust the direction (0 to 360 degrees) the shadow text is offset from the actual text.

### **Offset**

Move the slider to adjust the distance the shadow text is offset away from the actual text.

### **Blur**

Move the Blur slider to adjust the amount of blur in the shadow text.

## **Image Carousel Properties**

An image carousel shot shows a sequence of images. *Image Carousel Properties* has the following settings:

### **Name**

Displays the name of the source. To change the source name, enter a new one.

### **Width/Height**

Displays the width and height of the display source. To change the width or height, enter a new value.

### **Change Every**

Sets how often the images are changed, in seconds.

### **Fade-In Time**

Sets how long it takes for each image to fade in, in seconds. Enter zero for instantaneous display of images.

### **Shuffle Images**

Check to shuffle the display order of the images. When unchecked, images are displayed as they are ordered in the image list.

### **Add/Delete/Move Images**

Click the plus (+) button to find and add images. Select an image on the list and click the minus (-) button to delete it. You can move images up and down the list by selecting an image and clicking the up or down arrow.

## **QR Code Generator Properties**

*QR Code Generation* has the following settings:

### **Source Name**

Displays the name of the source. To change the source name, enter a new one.

### **Video Delay**

Enter the amount of time (in seconds, as short as 1 ms) to delay video.

### **Content**

Enter the message you want to be embedded in the QR code displayed in your broadcast.

### Deinterlacing

Select *None*, or *Blend Fields*.

## Backgrounds

### Web Page

Creates a new web page shot.

See [Web Page Properties](#).

### Solid Color

Creates a new solid color shot.

See [Solid Color Properties](#).

## Solid Color Properties

*Solid Color* displays a solid color background. To open a solid color source, select *Solid Color* from the source menu in the shot window. *Solid Color Properties* has the following settings:

### Name

Displays the name of the source. To change the *Source Name*, enter a new one.

### Width/Height

Displays the width and height of the display source. To change the width or height, enter a new value.

### Background

Select *Solid*, *Linear Gradient* (line), or *Radial Gradient* (circle). Click in the color box to open the color palette and select a background color. Click the second color box to select the gradient color. For *Linear Gradient*, adjust the slider to set the angle of the gradient display.

## Templates

### Shot Template

Select *Templates* from the *Add Shot* menu.

When Wirecast displays the *Templates* window, select a template.

Wirecast displays the new template shot in the *Shot Editor*.

- Placeholder Shot

See [Assigning Media to Placeholders](#).

- Virtual Set Properties

PRO

A *Virtual Set* is a pre-built source set, complete with graphics, that simulates a news-anchor set. For example, you can select a virtual set that displays three layers of decor with two live sources. You can use virtual sets as they are, or you can customize them to meet your needs.

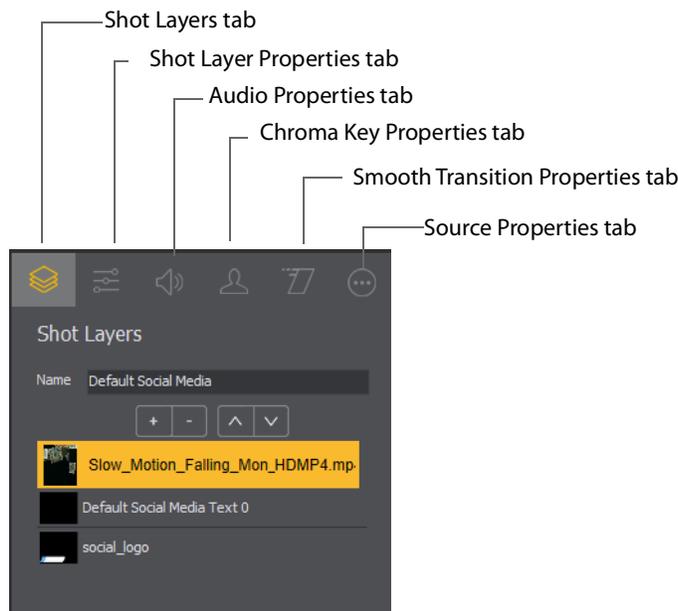
Virtual Sets has the following setting.

- **Source Name** Displays the name of the source. To change the source name, enter a new one.

## The Shot Editor Window

The shot editor has six tabs: *Shot Layers*, *Shot Layer Properties*, *Audio*, *Chroma Key Properties*, *Smooth Transition Properties*, and *Source Properties*.

**Figure 11.** The Shot Editor Window



### Shot Layers

Enables you to add and delete sources and to change the display order (layering within the shot).

### Shot Layer Properties

Enables you to change the size, position, and other properties of a shot.

### Audio

Enables you to set and monitor the audio level.

### Chroma Key Properties

Enables you to configure the source chroma key settings. Each source in a shot can have its own chroma key settings.

### Smooth Transition Properties Tab

Enables you to set transition properties.

### Source Properties (...) Tab

Enables you to set properties for a source in your shot.

---

**Note:** The title of the *Source Properties* tab changes with the type of shot selected. For example, when you select a playlist shot, the title of the *Source Properties* tab becomes *Playlist Properties*.

---

## Shot Layers Tab

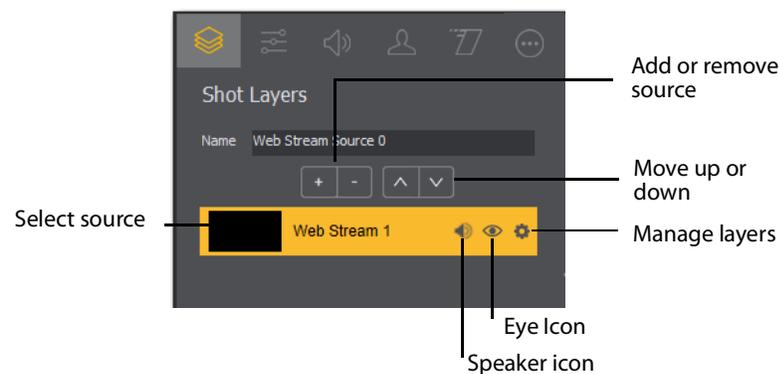
The *Shot Layers* tab lists all of the layers in the shot.

---

**Note:** Source icons appear only when you hover over them.

---

**Figure 12.** The Shot Layers Tab



See [Adding, Deleting, or Rearranging Layers in a Shot](#).

## Replay Layer

PRO

The replay layer is a placeholder layer that can be added to any shot for the purpose of creating a replay template shot. Once the shot is selected in *Replay Settings*, it can be used as a template for any created replay shot.

See [Creating a Replay Shot from a Layer](#).

## Shot Layers Properties Tab

The *Shot Layer Properties* tab enables you to make adjustments to the sources in your shot. The various controls on the *Shot Layer Properties* tab are described below.

### Position

Displays the position of the selected source in your shot. Position “0 0” represents the middle of the shot area. To move a source, enter new location values.

### Size

Displays the size of the selected source in your shot. To resize a source, enter new size values.

### Gear button

When clicked, Wirecast lets you select how to size the bounding box: by pixels or by percentage.

### Scale Jog Wheel

When the jog wheel is dragged left or right, Wirecast changes the scale of the bounding box.

### Scale to Fit Button

When clicked, Wirecast expands the source to its maximum size on the canvas. This might distort the display of the source depending on the option selected in *Fill*.

See [Fill](#).

### Reset Position Button

When clicked, Wirecast restores the source to its original scale and rotation.

### Fill

The *Fill* drop-down menu offers these ways to fill the bounding box with the image:

- *Lock Aspect Ratio* fills the bounding box until one side hits an edge. Respects the aspect ratio, and doesn't crop the image.
- *Lock and Fill Width* fills the bounding box to its width. Respects the aspect ratio. If the bounding box height is less than the image height, the top and bottom of the image are obscured. If the bounding box height is greater than the height of the image, Wirecast displays the image letterboxed.
- *Lock and Fill Height* fills the bounding box to its height. Respects the aspect ratio. If the bounding box width is less than the image width, the sides of the image are obscured. If the width of the bounding box width is greater than the width of the image, Wirecast displays the image pillar-boxed.
- *Stretch to Fill* fills the bounding box. Does not respect aspect ratio. If the image dimensions don't match the bounding box dimensions, the image is distorted.

---

**Note:** The *Fill* feature is not active in Clock, Text, Solid, QR Code or Web Page shots. In these shots the image automatically stretches to fill the bounding box.

---

### X Y Z Rotation

Slide the X (Horizontal), Y (Vertical), or Z (Straight-through) axis sliders to rotate the source. (See *Reset*, under [Crop](#).)

### Opacity

Slide the *Opacity* slider to adjust the degree of transparency of your image.

### Reflection

Slide the *Reflection* slider to adjust the degree of reflection below your image.

### Border

The border controls enable you to add a border around a video layer, and to control the parameters of the border.

---

**Note:** When a smooth transition is applied, Wirecast interpolates the values of the border group over the transition period.

Wirecast applies the matte before applying any border, feathering, corner radius, or cropping. Then, Wirecast applies any cropping.

Finally, Wirecast applies the border, feathering, and corner radius parameters.

---

Descriptions of the border controls follow.

- *Width* The *Width* slider controls the thickness of the border, in pixels. Wirecast places the border around the rectangle of the layer. The border doesn't follow the edges of an input in an alpha channel, such as content in a chroma key.
- *Align Type* lets you determine where to align the border: with *Inner* the border cuts into the content, with *Center* the border sits across the center of the layer bounds, and, with *Outer*, the border sits outside the bounds.
- *Color* sets the color of the border with a standard color picker. The default is white, which provides the greatest contrast with the black background.
- *Corner Radius* specifies the radius of the corners from 0% to 100%. The corner mask hides the corners of the layer. This control works independently from the *Width* slider. You can apply the corner mask to any layer, regardless whether a border width has been specified.
- *Feather* specifies the amount of feathering, from 0% to 100%. Feathering provides an alpha ramp around the edges of the layer. This control works independently from *Width* and *Corner Radius*. Feathering smooths edges. You can use feathering to generate a vignette effect on a layer.
- *Matte* A matte is a mask over a shot. Select a matte by clicking the down-arrow on the *Matte* menu. The default is *No Matte*. You can also use any media file as a *custom* matte. To do this, create a new shot of the media file you want to use as a matte. This file now appears in the *Matte* drop-down menu where you can select it.

### Crop

Clicking the *Crop* triangle opens the cropping adjustment pane. Slide the *Left*, *Right*, *Top*, and *Bottom* sliders to crop your source image.

-  *Gear* button When clicked, Wirecast opens a menu of adjustment increments, allowing you to adjust the crop parameters either by a number of pixels or by percentage.
- *Reset* When clicked Wirecast resets the crop controls to their default settings.

### Color

When clicked Wirecast opens the color adjustment pane. Slide the color controls to adjust the color.

- *Reset* When clicked, Wirecast resets the color controls to their default settings.

### Drop Shadow

Click the *Drop Shadow* triangle to open the *Drop Shadow* adjustment pane. Check the checkbox to enable the controls.

- *Color* Click in the color field to open the color palette. Select a shadow color and luminance by sliding the vertical and horizontal sliders. Click outside the color edit box to close the palette.
- *Angle* Move the Angle slider to adjust the direction (0 to 360 degrees) the shadow text is offset from the actual text.
- *Offset* Move the slider to adjust the distance the shadow text is offset away from the actual text.
- *Opacity* Slide the Opacity slider to adjust the degree of transparency of your source.
- *Blur Size* Move the slider to adjust the amount of blur in the drop shadow.
- *Use As Defaults* Click to set the current drop shadow configuration as the default setting. All future enabled drop shadows will be set this by default. Clicking this button does not retroactively update previously created shots. Drop shadow settings on individual shots still can be changed.
- *Reset* Click to restore the drop shadow settings back to the default values. You can also restore the drop shadow settings to Wirecast application defaults by holding the Shift key down and clicking *Reset*.

### PTZ

Click the PTZ triangle to open the PTZ control panel.

- *Preset* Check the *Preset* box to select a PTZ preset.
-  *Up-arrow and down-arrow buttons* Click the up and down arrows to find a PTZ preset to recall.
-  *Right-pointing arrow button* Click the right-pointing arrow button to apply the PTZ preset.
- *Show PTZ Controller* Click to display the PTZ Controller panel.

See [The PTZ Controller Panel](#) and [How to Scale a Shot](#).

## PTZ Control in the Shot Layer Properties Tab

You can select PTZ Controller presets associated with a shot layer video source from the *Shot Layer Properties* tab of the Preview Inspector. You configure PTZ Control Presets in the PTZ Controller Panel.

To expand the PTZ control panel, click the PTZ triangle. To enable preset recall, check the *Enable* box. To select a preset, enter a preset number or click the up/down arrow buttons. Click the *Go* button (right pointing arrow) to cause the associated PTZ camera to recall that preset.

Once you have configured a shot layer with a PTZ Preset, sending that shot to preview recalls the preset for the camera. If multiple shots share the same video source with different PTZ Presets configured, the shot which is currently live takes precedence over subsequent PTZ Preset recall actions, until you drop the shot from the live feed.

When you enable *Preset*, clicking *Show PTZ Controller* opens the PTZ Controller panel. See [Shot Layers Properties Tab](#).

## NDI Devices in the Shot Layer Properties Tab

If you have selected an NDI source, the *NDI Source Properties* tab will display. In addition to the controls above, an NDI source has the following controls:

### Video Delay

Enter the amount of time (in seconds, as short as 1 ms) to delay video.

### Bandwidth

Select the bandwidth to use: *Highest* (max quality), *Lowest* (max efficiency), or *Audio Only* (video bandwidth not applicable).

### GPU Decoding

When checked, incoming sources will use your GPU to process the incoming source.

### Timestamps

Select *Provided by source*, or *Provided by Wirecast*. This setting allows you to use timestamps embedded in the source, or use timestamps generated by Wirecast. Timestamps are used to synchronize devices. Many sources don't provide completely accurate timestamps, resulting in sources out of sync with each other (i.e. audio and video not syncing).

Select *Provided by Wirecast* to ignore the timestamps coming from the source, and instead generate new timestamps. However, the risk is that if the system is under a heavy load, the generated timestamps could be impacted, and end up arriving late. The default setting is *Provided by source*.

### Deinterlacing

Select *None*, or *Blend Fields*.

### Dynamic Range

Select *Default*, *Full* or *Limited*.

### Monitor

Check the *Monitor* check box to cause audio to play through your monitor output. If the check box is unchecked, audio will not play through the monitor output for this source. *Checked* is the default.

---

**Note:** NDI networking requires that your network has port 5353 open for mDNS device discovery, as well as one port per video channel (starting from port 5960 and onward) transmitted by an NDI source, plus one additional port for messaging.

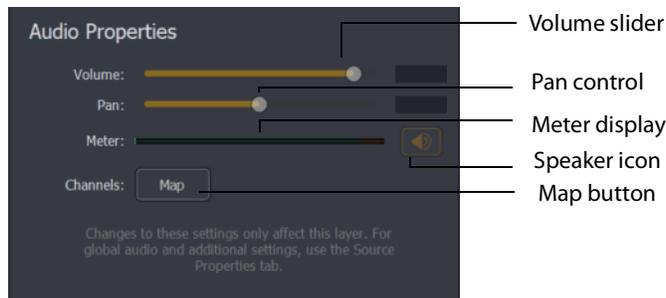
---

See [PTZ Cameras and Controls](#).

## Audio Properties Tab

The *Audio Properties* tab enables you to control and monitor audio. You can set the audio level, mute and monitor the audio, and map channel outputs.

**Figure 13.** The Audio Properties Tab



### Volume

Adjust the slider to set the audio volume level.

### Pan

Adjust the slider to pan between left and right audio.

### Meter

Monitors the audio level. You can also mute the audio by clicking the audio icon.

### Speaker Icon

Click to mute the audio output. Icon turns gray when muted. Click the icon again to un-mute the audio.

### Channels

Select left (L) or right (R) for each channel. Adjust volume slider for each.

### Apply to All

Click to apply the current settings to every instance of the selected source. If you have any shot specific configurations in other shots, they will be changed to match what was configured when you click this button. This action cannot be undone!

### Set as Default

Click to take the current settings and set them as the default configuration. Any time this source is added to a shot in the future, it will be created with this configuration.

### Reset

Click to reset the default settings. This is useful if you have made changes to the default custom settings, but want the defaults set back to the factory default settings. Factory defaults are: Chan 1 = Left; Chan 2 = Right; additional channels are unassigned.

### Map

Click to open the audio mapping window. Check a square to map an audio channel to an audio track. Any audio can be tracked to any or all tracks. However, you will typically assign a group of channels to one track and other groups to other tracks.

If you have created a shot using a 16 input device, the mapping window will display all 16 channels.

---

**Note:** Although SDI supports 16 discrete audio channels, Wirecast Pro video out currently only supports two channels.

---

The audio track that is actually used is selected from the *Audio Track Selection* menu in the *Output Settings* window. You can select only one track. However, if you are recording, you can select multiple audio tracks.

## Chroma Key Properties Tab

Chroma key enables you to replace all areas of a selected color with a background image. For example, you can replace the green in a traditional background green screen with an image. The image appears in the background instead of the color green.

The *Chroma Key Properties* tab enables you to turn on/off chroma keying and to make chroma key adjustments. Check the *Use* box and+ select the type of use: *Chroma*, *Luma*, or *Color Key*.

### Use

Check to turn on chroma keying. Uncheck to turn it off. Select the type of use: *Chroma*, *Luma*, or *Color Key*.

### Color

Click the color square to open the *Color Pallet*. Select a color to use as the chroma key color and click *OK*. Click the dropper icon to use your mouse to select a chroma key color from your screen. Hover over the a desired color in the selected source, and click the left mouse button to select that color. All adjustments will be made using the selected color as the key.

### **Key Threshold**

Move the slider to adjust how far away from your chosen chroma color you want to enable keying. The farther right you move the slider the more variation to the color it accepts.

### **Black Clip**

The *Black Clip* slider allows you to define what is considered “black”. When slider is fully left, you have a very thin definition of what black is. The farther to the right you go, you start adding more cases of what we consider “black”. In chroma key, rarely do you want to bump the far left side to the right.

### **White Clip**

The *White Clip* slider allows you to define what is considered “white”. Slide both all the way to the right, for a very thin definition of white. The more you increase the range, the more you add to what you consider to be full intensity brightness. In chroma key, rarely do you want to bump the far right side to the left.

### **Spill Suppression:**

This slider says: anything that is near green, bump it away from green. Move this slider to help take away the green reflection it locates on an edge. This will take everything that's green, and take away its greenness.

### **Solidify:**

This slider says: if all the pixels around me seem to be part of the key, then bump up my probability of being part of the key. This tends to “solidify” your key. Move the slider to the right to bump up the alpha values for pixels surrounded by high alpha values. One disadvantage is that the hair on a subject may appear more “blocked” in nature.

### **Edge Coloring**

Move the slider to adjust the level of edge coloring which pull colors from inside of keyed object to get rid of halo on an image.

### **Display**

Select display: result of keying, white-alpha channel, or black-alpha channel. This can be helpful to get key parameters set correctly.

### **Luma Key**

This lets you key based on its brightness (or Luma value). You have an icon with a white background - and you want to get rid of the white background.

### **Color Key**

This lets you set the image alpha based on the distance from a given color in the RGB space. This is useful for images (logos) that have non-black and non-white backgrounds. If the BG is black or white use Luma Key. If it's a plate from a greenscreen/bluescreen then use *Chroma Key*. Otherwise, try *Color Key*.

### **Alpha Clip**

This lets you choose what distance from the key color should be considered “foreground.” Anything over a given distance from the key color is “foreground”

otherwise it's "background." A range is used so there is a smooth transition from foreground to background.

## Smooth Transition Properties Tab

The *Smooth Transition Properties* tab provides control over how objects (image, movie, title, etc.) are added or removed in the *Live Broadcast Area*. Wirecast performs motion only during a Smooth transition. If you are using any other transition, the motion settings are ignored.

There are two types of motion. When an object is added to your broadcast it is called *Build In*; When it is removed it is called *Build Out*. Motion only occurs when an object enters or leaves the *Live Broadcast Area*. For example, if you have two shots, each with a foreground and the media in the foreground is the same, then a Smooth transition is performed between the foregrounds. However, no motion is performed. Or, if a logo is positioned in the top left corner in an existing shot, and it is in the bottom right corner in a new shot, when you make the new shot Live the logo smoothly transitions from the top left corner to the bottom right corner. But the Build In and Build Out settings are ignored.

However, if you have two shots with a Foreground, but the media in each is different, the Build Out is performed for the existing shot, and the Build In is performed for the new shot.

### Direction Menus

These provide selections of where the Build In comes from (top, bottom, right, etc.) when it is added, and where the Build Out goes when it is removed.

### Fade In / Fade Out

Checking these checkboxes causes an object to be added or removed gradually. If unchecked, the object is instantly added or removed, much like a cut transition.

### Spin In / Spin Out

Checking these checkboxes causes an object to be added or removed in a spinning fashion.

### Scale In / Scale Out

Checking these checkboxes causes an object to be added or removed in a scaled fashion.

### Apply To All

Click this button to make the Transition Settings the same for all sources in a shot. This is useful if you want to make all of your motion the same for all of the elements in the shot.

### Set As Default

Click this button to make these Transition Settings the default settings for all new shots. These default settings will be applied in all future WC documents.

## Source Properties Tab

The *Source Properties* tab provides control over clip properties and behaviors. When a playlist is selected, the *Source Properties* tab also provides playlist controls.

See also [Playlist Controls](#) and [Playlist Properties Tab](#).

### Name

Clip filename, editable.

### In Point/Jump

Enter the timecode for the in-point desired. Click *Jump* to bring the playhead to the in-point.

### Out Point/Jump

Enter the timecode for the out-point desired. Click *Jump* to bring the playhead to the out-point.

### When Finished:

Options in the drop-down menu determine Wirecast behavior when the live clip is done playing, as follows:

**Table 3. When Finished**

<b>Loop</b>	<b>Hold</b>	<b>Remove</b>
<p><b>With no options checked</b></p> <p>Wirecast replays the clip from its beginning.</p>	<p><b>With no options checked</b></p> <p>Wirecast holds on the last frame. If it's an audio-only clip, Wirecast holds on silence.</p>	<p><b>With no options checked</b></p> <p>Wirecast drops the clip from the live playback window.</p>
<p><b>With <i>Begin playing when media becomes Live</i> checked</b></p> <p>When the clip goes live, Wirecast plays the clip from the clip beginning.</p>	<p><b>With <i>Begin playing when media becomes Live</i> checked</b></p> <p>When the clip goes live, Wirecast plays the clip from the clip beginning, and holds on the last frame.</p>	<p><b>With <i>Begin playing when media becomes Live</i> checked</b></p> <p>When the clip goes live, Wirecast plays the clip from the clip beginning to the end, then drops the clip from the live playback window.</p>
<p><b>With <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i> checked</b></p> <p>When the clip goes live, Wirecast plays the clip, starting after the last frame previously played.</p>	<p><b>With <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i> checked</b></p> <p>When the clip goes live, Wirecast plays the clip, starting after the last frame previously played, and holds on the last frame. Wirecast doesn't restart the clip until you uncheck this option.</p>	<p><b>With <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i> checked</b></p> <p>When the clip goes live, Wirecast plays the clip, starting after the last frame previously played, to the end. Then Wirecast drops the clip from the live playback window.</p>

**Table 3. When Finished**

Loop	Hold	Remove
<p><b>With <i>Begin playing when media becomes Live</i>, <i>Remember position even when not Live</i>, and <i>Live Playback: Changes are live checked</i></b></p> <hr/> <p><b>Note:</b> When you check <i>Live Playback: Changes are live</i>, it is usually best to uncheck <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i>.</p>	<p><b>With <i>Begin playing when media becomes Live</i>, <i>Remember position even when not Live</i>, and <i>Live Playback: Changes are live checked</i></b></p> <hr/> <p><b>Note:</b> When you check <i>Live Playback: Changes are live</i>, it is usually best to uncheck <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i>.</p>	<p><b>With <i>Begin playing when media becomes Live</i>, <i>Remember position even when not Live</i>, and <i>Live Playback: Changes are live checked</i></b></p> <hr/> <p><b>Note:</b> When you check <i>Live Playback: Changes are live</i>, it is usually best to uncheck <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i>.</p>
<p><b>With <i>Begin playing when media becomes Live</i>, and <i>Live Playback: Changes are live checked</i></b></p> <hr/> <p><b>Note:</b> When you check <i>Live Playback: Changes are live</i>, it is usually best to uncheck <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i>.</p>	<p><b>With <i>Begin playing when media becomes Live</i>, and <i>Live Playback: Changes are live checked</i></b></p> <hr/> <p><b>Note:</b> When you check <i>Live Playback: Changes are live</i>, it is usually best to uncheck <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i>.</p>	<p><b>With <i>Begin playing when media becomes Live</i>, and <i>Live Playback: Changes are live checked</i></b></p> <hr/> <p><b>Note:</b> When you check <i>Live Playback: Changes are live</i>, it is usually best to uncheck <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i>.</p>
<p><b>With <i>Remember position even when not Live checked</i></b></p> <p>When the clip goes live, click Play. Wirecast plays the clip, starting after the last frame previously played.</p>	<p><b>With <i>Remember position even when not Live checked</i></b></p> <p>When the clip goes live, click Play. Wirecast plays the clip, starting after the last frame previously played, holds on the last frame, and doesn't restart until you uncheck this option.</p>	<p><b>With <i>Remember position even when not Live checked</i></b></p> <p>When the clip goes live, click Play. Wirecast plays the clip, starting after the last frame previously played, to the end. Then Wirecast drops the clip from the live playback window.</p>

**Table 3. When Finished**

Loop	Hold	Remove
<p><b>With Remember position even when not Live, and Live Playback: Changes are live checked</b></p> <hr/> <p><b>Note:</b> When you check <i>Live Playback: Changes are live</i>, it is usually best to uncheck <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i>.</p>	<p><b>With Remember position even when not Live, and Live Playback: Changes are live checked</b></p> <hr/> <p><b>Note:</b> When you check <i>Live Playback: Changes are live</i>, it is usually best to uncheck <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i>.</p>	<p><b>With Remember position even when not Live, and Live Playback: Changes are live checked</b></p> <hr/> <p><b>Note:</b> When you check <i>Live Playback: Changes are live</i>, it is usually best to uncheck <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i>.</p>
<p><b>With Live Playback: Changes are live checked</b></p> <p>When checked, Wirecast lets you control the playback with the tools in the Preview window.</p> <hr/> <p><b>Note:</b> When you check <i>Live Playback: Changes are live</i>, it is usually best to uncheck <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i>.</p>	<p><b>With Live Playback: Changes are live checked</b></p> <p>When checked, Wirecast lets you control the playback with the tools in the Preview window.</p> <hr/> <p><b>Note:</b> When you check <i>Live Playback: Changes are live</i>, it is usually best to uncheck <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i>.</p>	<p><b>With Live Playback: Changes are live checked</b></p> <p>When checked, Wirecast lets you control the playback with the tools in the Preview window.</p> <hr/> <p><b>Note:</b> When you check <i>Live Playback: Changes are live</i>, it is usually best to uncheck <i>Begin playing when media becomes Live</i> and <i>Remember position even when not Live</i>.</p>

**Set as Default**

Click to make the current source properties the default source properties.

## Playlist Properties Tab

The *Playlist Properties* tab contains the following settings for playlist shots:

**Name**

An editable field for the name of the playlist.

**When Finished**

Sets the behavior of the playlist when the last shot in the list has been played. A check mark indicates what menu item (behavior) is selected.

- *Loop* transitions back to the first shot, endlessly.

- *Hold* stays on the last shot. If the last shot is a clip, the last frame in the clip is displayed. If the last shot is a live shot, the live source stays active. If the last shot in a Playlist is a video clip Shot, it will obey the rules set for the video clip in the Media Properties Inspector tab under *Source Properties*. However, it will hold the Playlist on that last Shot if *Set Playlist Behavior* is set to “Hold”. Therefore, if you want to see the last video in the Playlist pause on the last frame, you must set *When Finished* to “Hold” under Source Properties, in addition to setting the playlist behavior to “Hold”. If you set *When Finished* to “Loop”, under Source Properties, the last video in the Playlist will continue to loop.
- *Available Shots* transitions to another shot on the same layer. All available shots are listed as menu selections. (In the example shown, the only available shot is “Logo”.)
- *Previous Live Shot* transitions back to the shot that was live before the playlist began playing.
- *Current Preview* transitions the contents of Preview to the *Live Broadcast Area*.

**Transition**

Sets the transition to use when switching between shots.

**Remember position when not live**

When selected, Wirecast remembers the start frame for the playlist when the playlist isn't live.

**Previous**

Transitions to the previous shot in the playlist if the playlist is currently live.

**Next**

Transitions to the next shot in the playlist if the playlist is currently live.

**Shuffle**

Click to shuffle the order of the playlist shots.

**Total Shots**

Displays the total number of shots in the playlist.

**Duration**

Displays the duration of the playlist.

See also [Source Properties Tab](#).

## The Shot Menu

You can change almost all the attributes of a shot through the shot menu. To open the shot menu for a shot, right-click on the desired shot in a layer.

Wirecast displays the shot menu.

**Change Source** Select *Change Source* to change the video source of your shot. Upon selection, a menu of sources will display enabling you to make a selection.

**Change Audio** Select *Change Audio* to change the audio source of your shot. Upon selection, a menu of audio sources will display enabling you to make a selection.

**Keyboard Shortcut** You can create a keyboard shortcut for opening the shot. To do this, select *Keyboard Shortcut from the shot menu*. Then, select a menu number to associate with that shot.

Wirecast checks that menu item and adds the keyboard shortcut number in the shot icon.

To take a shot using the assigned hotkey, press the number key assigned to that shot.

You can assign multiple shots to the same menu number as long as they are on different layers. When you use the assigned hotkey all the shots assigned to it will be taken. Selecting a checked menu item will uncheck it and unassign the shot.

Select *Unmap All Keys* to remove all hotkey assignments.

---

**Note:** See also [Creating a Document Hotkey](#).

---

**Edit Shot** You can edit a shot by clicking the double arrows (located on the left side of the *Preview Area*) to the right, revealing the shot editing panel. You can also edit a shot by double-clicking on it, by right-clicking it and selecting *Edit Shot*, by selecting *Edit Shot* from the *Edit* menu, or by selecting it and pressing the *Command+E* keys.

**Rename Shot** You can rename a shot by right-clicking it and selecting *Rename Shot*, or by selecting *Rename Shot* from the *Edit* menu. You can also rename a shot by selecting it and pressing the *Command+R* keys.

**Duplicate Shot** You can duplicate a shot by right-clicking it and selecting *Duplicate Shot*, or by selecting *Duplicate Shot* from the *Edit* menu. You can also duplicate a shot by selecting it and pressing the *Command+D* keys.

**Duplicate Shot Options** Check a source to create a new instance of it when duplicating the shot containing it. Multiple selection is allowed.

**Delete Shot** You can delete a shot by right-clicking it and selecting *Delete Shot*, or by selecting *Delete Shot* from the *Edit* menu. You can also delete a shot by selecting it and pressing the *Command+Backspace* keys.

**Save Shot as Template** You can configure any shot with a Placeholder and save it as a *Template Shot*. When the dialog box displays, enter a template name and click *OK*.

**Lock Shot Icon** Click to take a snapshot of your live shot icon thumbnail and save it as a static image for your shot. This can help users identify each shot with a snapshot image that's meaningful for them. For example, if you have a PTZ camera with multiple shots configured for different camera positions, you can display a customized snapshot of each camera angle as the icon for each shot. This provides quick identification during production. Once a shot icon is locked, the *Gear* menu item will turn into *Unlock Shot Icon*.

**Refresh Shot Icon** Click to refresh the shot icon after any changes made.

# The Preferences Dialog Box

You can customize Wirecast functionality with the settings in the Preferences dialog box.

See [Customizing Wirecast with Preferences](#).

## General Preferences

You can customize whether Wirecast shows the landing page and last document on startup, the number of transition buttons shown, and other defaults, through the *General* preferences.

### **Open last document on startup**

When checked, the last document you used is opened when Wirecast starts up.

### **Show landing page on startup**

When checked, the Welcome screen is displayed when Wirecast starts up.

### **Show Number of Viewers**

When checked, enables the viewership indicator while streaming.

### **Send diagnostic and usage information**

When checked, causes diagnostic and usage information to be sent to Telestream anonymously.

### **Hide Unlicensed Features**

When checked, Wirecast hides unlicensed Pro features from display in the menus.

### **Transition Buttons**

The value selected from the drop-down menu determines the number of transition controls buttons Wirecast displays in the default layout.

### **Maximum Reconnect Attempts**

The number entered into this field determines the number of times Wirecast tries to reconnect to a host provider. The default is three.

### **Audio Playback**

The device selected from the drop-down menu determines the device Wirecast uses for monitoring audio playback.

### **Stock Media Download Folder**

This field displays the full path of the folder where Wirecast stores stock media downloads. Clicking the *Browse* button lets you select a different folder for stock media downloads.

### Live Snapshots Folder

This field displays the full path of the folder where Wirecast stores your snapshots of the *Live Action Area*. Clicking the *Browse* button lets you select a different folder for snapshots.

See [Snapshot Button](#).

## Canvas Preferences

Canvas preferences let you set options for your document canvas, including the default size and the display rate used for video rendering.

### Canvas Size for New Documents

The preference selected from the drop-down menu determines the default canvas size for new documents.

---

**Note:** To optimize the quality of the video that Wirecast broadcasts, set the canvas size to match, as closely as possible, the resolution of the desired output.

---

### Lock Aspect Ratio When Resizing Layers

When checked, maintains aspect ratio when resizing layers.

### Enable Snapping to other layers

When checked, turns on snapping to selected layers.

### Enable Snapping to canvas

When checked, turns on snapping to the canvas.

### Show Z Rotation controls

When checked, Wirecast displays the Z Rotation controls.

### Video Display Rate

The preference selected from the drop-down menu determines the frame rate displayed on the canvas.

---

**Note:** To optimize resources, set this as closely as possible to the framerate of the desired output. The framerate you set is the framerate that Shot ISO and Multiviewer use automatically.

---

## Shot Display Preferences

Shot Display preferences enable you to change settings related to your shots and the Main Shot Display.

### Theme

The preference selected from the drop-down menu determines how Wirecast displays the shot window.

- Default: Displays shot icons normally.
- Lighter: Displays the Main Shot Display area with a lighter background.
- XKeys: Displays shot icons with shot titles highlighted.
- XKeys - Layer Backgrounds: Displays shot icons with colored backgrounds.

### Display hotkeys using

When clicked, Wirecast opens a drop-down menu displaying the following options:

#### Key Combination

When checked, Wirecast displays the key combination on the shot.

#### Hotkey Name

When checked, Wirecast displays the hotkey name on the shot. **Live GPU Accelerated Icons**

The preference selected determines the framerate at which Wirecast displays the active icons.

---

**Note:** Higher framerates place greater demands on your CPU. This could diminish Wirecast performance.

---

### Live Audio Meters

When checked Wirecast enables live audio meters.

### When Dragging Multiple Files From ExplorerFolder

The preference selected determines what Wirecast does when you drag multiple files from a folder into Wirecast. Depending on your selection, Wirecast either creates a playlist containing the multiple files, or Wirecast creates multiple shots that are not part of a playlist.

### Shot Selection Icons

Each layer contains one or more shot-selection icons.

The shot icons can be made to display any live activity in the source it represents, such as cameras or streaming.

See [Creating a Shot](#) and [Shot Display Preferences](#).

## Licenses Preferences

Licenses preferences enable you to register and license Wirecast.

### License Key

This field displays the serial number that you have received for Wirecast.

---

**Note:** The serial number is composed of numbers and upper case letters (excluding upper case letter O), but it never contains quotation marks. When you receive a serial number, it may be enclosed in quotation marks (e.g., "123-456-789").

---

### **Purchase**

When clicked, the *Purchase* button launches the purchasing dialog.

### **Deactivate**

When clicked, the *Deactivate* button deactivates the serial number.

## Update Preferences

Software update preferences enable you to obtain Wirecast updates.

### **Automatically check for updates**

When checked, Wirecast checks for updates on the Telestream Website each time Wirecast is launched. No personal information is transferred to Telestream during this action.

### **Check Now**

When clicked, *Wirecast* immediately checks for updates on the Telestream Website ([www.telestream.net](http://www.telestream.net)). Wirecast does not transmit personal information to Telestream during this action.

See [Checking for Wirecast Updates](#).

## Shortcuts Preferences

Shortcut preferences enable you to view and create application shortcuts and document hotkeys. An application shortcut is a combination of keys that executes a menu or mouse command. A document hotkey is a combination of keys that executes a document-specific command.

See [Finding an Application Shortcut](#) and [Finding a Document Hotkey](#).

The *Shortcuts* tab of the *Preferences* dialog contains the following elements:

### **List of Keyboard Shortcuts**

The *Keyboard Shortcuts* window displays a list of existing keyboard shortcuts.

#### **“+” Button**

When clicked, this button creates a new line item, in the list of shortcuts, that you can edit to create a keyboard shortcut.

#### **“-” Button**

When clicked, this button deletes the line item and keyboard shortcut selected in the list of keyboard shortcuts.

**Name**

Text entered into this field names the keyboard shortcut selected in the list of keyboard shortcuts.

**Key Binding field (unlabeled)**

Wirecast makes the key combinations entered into this field keyboard shortcuts.

**Global checkbox**

When checked, Wirecast makes the key combinations entered into this field global.

See also [Creating a Document Hotkey](#).

## Controllers Preferences

Controllers preferences enable you to adjust MIDI and X-keys controller settings for Wirecast.

**Controller**

The controller selected from the drop-down menu controls Wirecast.

See [Installing a Hardware Controller](#).

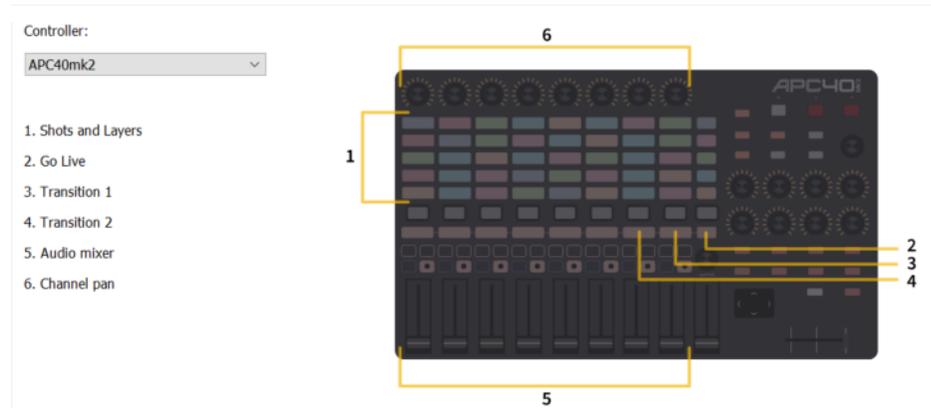
### MIDI Control Assignments

Each MIDI controller has up to six controls assigned to it. The locations of each of these controls are shown below for the three midi controllers supported.

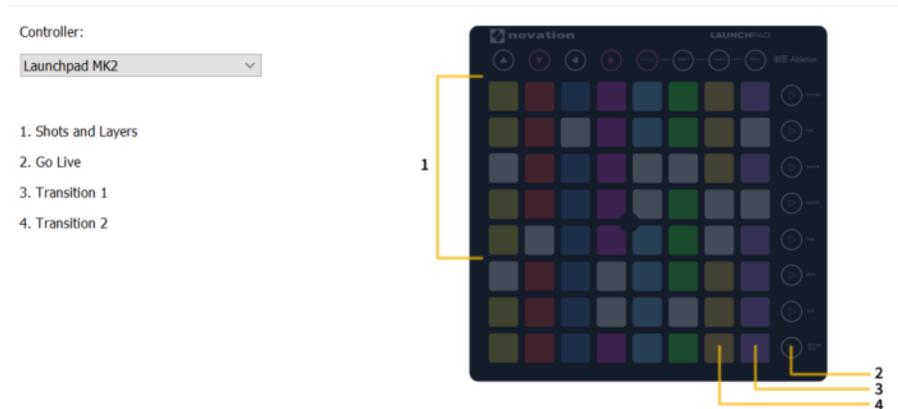
The locations of *APC MINI* controls are shown below:



The locations of *APC40mk2* controls are shown below:



The locations of *Launchpad MK2* controls are shown below:



Each MIDI controller has up to six controls assigned to it. The locations of each of these controls are shown below for the three midi controllers supported.

## MIDI Control Descriptions

### Shot Layers

The matrix of buttons on the MIDI controller (five rows of eight buttons) automatically correspond to the five layers in the Wirecast shot list window. Up to eight shots in each layer are controlled by the MIDI controller buttons. Shots are automatically assigned to MIDI controller buttons as they are created. If fewer than eight shots exist on a layer, the corresponding buttons (to the right) are inactive.

### Go Live

Pressing this MIDI controller button is the same as clicking the *Go Live* button in the Wirecast default layout.

**Transition 1**

Pressing this MIDI controller button is the same as clicking the *Left Transition* button in the default layout.

**Transition 2**

Pressing this MIDI controller button is the same as clicking the *Left Transition* button in the default layout.

**Audio Mixer Volumes**

Sliding these MIDI controls adjusts up to eight volume controls in the Wirecast Audio Panel. Each MIDI slider corresponds (left to right) to a volume control in the Audio Panel. Volume controls are automatically assigned to MIDI controller sliders as they are created. If less than eight volume controls exist in the Audio Panel, the corresponding MIDI sliders (to the right) are inactive.

**Channel Pan**

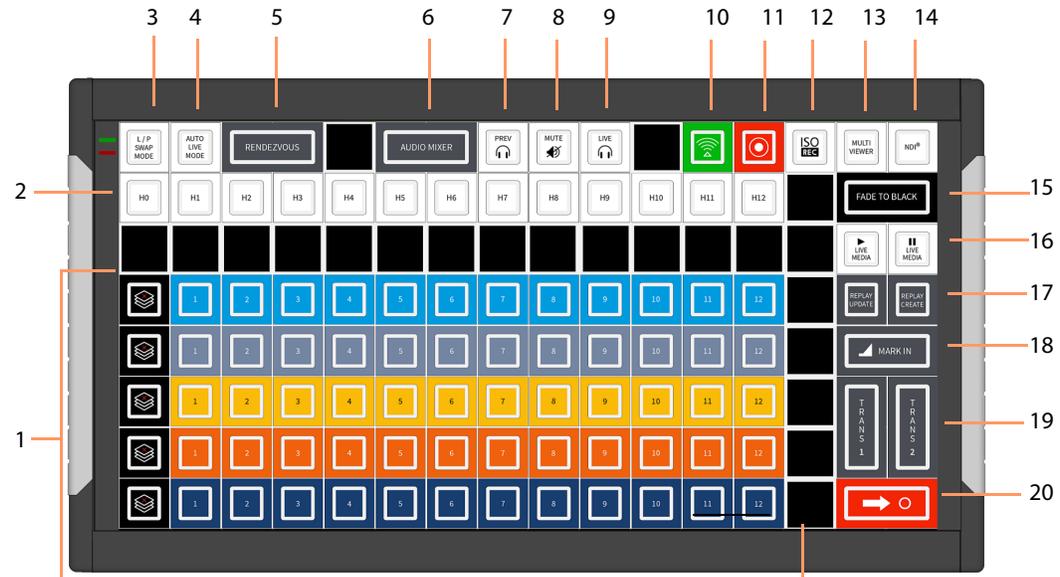
Each Channel Pan control on a MIDI device corresponds with a Channel Pan control for a track in the Audio Mixer Panel, for as many as eight channels.

Wirecast automatically assigns Channel Pan controls to MIDI controls as they are created. If fewer than eight Channel Pan controls exist in the Audio Panel, the corresponding MIDI controls remain inactive.



## X-keys Control Assignments

The X-keys controller has multiple controls assigned to it. All of the assigned controls are shown below.



## General Key Operations

- Key lamps turn red when a function is on, and turn blue when off (except for keys that do not have dual states, like the Keyboard Shortcuts).
  - Function lamps turn red when a function is on, and turn blue when off (except for keys that do not have dual states, like the Keyboard Shortcuts).
  - Shot switching key lamps turn Blue when shot is in Preview and Red when in Live. Otherwise they are off.
- The Wirecast software and the X-keys panel stay in sync when keys are pressed or changes are made in Wirecast.
- Some keys are interactive. In such a case, pressing one key affects the status of another (like the PREV and LIVE keys).

## Key Descriptions

### Five Layers keys

Controls the first twelve shots (plus the Clear Layer shot) on each of the five layers.

### Keyboard Shortcuts

The twelve keys represent the twelve Keyboard Shortcuts that have been assigned in Wirecast. Pressing a key executes the matching numbered Keyboard Shortcut (1 through 13). The key lamps momentarily turn red, then turn back to blue.

**Live/Preview Swap Mode**

Toggles the Live/Preview Swap mode. When in this mode, the Live and Preview shots are swapped.

**Auto Live Mode**

Toggles the Live Auto mode. When in this mode, selected shots are displayed in the Live Output window immediately.

**Rendezvous**

Toggles (show/hide) the display of the Rendezvous window.

**Audio Mixer**

Toggles (show/hide) the display of the Audio Mixer window.

**Preview Monitor Audio**

Toggles the Preview monitor audio (what you hear locally) on and off. (It is mutually exclusive with Live Monitor audio).

**Mute Live Streaming audio**

Toggles the Live Streaming audio (what your viewers hear) on and off.

**Live Monitor Audio**

Toggles the Live monitor audio (what you hear locally) on and off. (It is mutually exclusive with Preview Monitor audio).

**Streaming**

Toggles streaming on and off.

**Recording**

Toggles recording on and off.

**ISO Recording**

Toggles ISO recording on and off.

**Multi Viewer**

Enables all displays. Pressing this key is the same as selecting *Output > Multi-Viewer Output > Enable All Displays*.

**NDI**

Enables/Disables NDI output.

**Fade to Black**

Pressing this key acts as a “master transition-to-black”. The transition used is the one currently selected. It is very helpful when needed to make the Live Output black in an emergency. If Wirecast is in Live/Preview Swap mode, the live shot is moved to Preview and the pre-fade condition can be restored by pressing the *Go* key.

**Live Media Play and Pause**

Press the Play button to play a selected media file, and press the Pause key to pause it. These keys are interactive. Pressing one changes the lamp status of the other.

### Replay Create and Update

These keys execute *Replay+ISO > Create All Replay Shots*, and *Replay+ISO > Update All Replay Shots*.

### Mark In

Pressing this key executes *Replay+ISO > Program Replay > Replay Mark In*.

### Transitions 1 and 2

These keys select Transition 1 or Transition 2 so that when the Go key is pressed, the selected transition will occur.

### Go

Press this button to send the shot from the *Preview Area* to the *Live Broadcast Area*, by way of the transition selected. If Wirecast is in the Live/Preview mode, the Live output shot will be moved to the *Preview Area* when you click the Go button.

## Advanced Preferences

Advanced preferences enable you to adjust advanced settings for Wirecast.

### Disable Vertical Sync

Check the box when running Wirecast minimized, when the Wirecast user interface is covered by another application, or when Wirecast is covered by a full-screen game.

### Video Adapter

Select the desired video adapter from the drop-down menu.

### Render Engine

Select the desired render engine from the drop-down menu. The options are as follows:

- *Automatic* This is the default setting. When this option is selected, Wirecast selects the best render engine based on the available hardware.

---

**Note:** Wirecast automatically sets the render engine to Direct3D 11 when it detects AMD hardware. Also, Wirecast automatically sets the render engine to Direct3D 11 when Direct3D 12 is not available.

---

- *Direct3D 12* Select this option to make Direct3D 12 the default render engine.
- *Direct3D 11* Select this option to make Direct3D 11 the default render engine

### Disable Vertical Sync

When checked, Wirecast receives frames as fast as possible, for example, during video game play. This is especially useful when the application window is minimized or covered by another application.

### Video Adapter

The preference selected from the drop-down menu determines the video adapter Wirecast uses for rendering and compositing. If you are using a discrete GPU, select the same GPU on which your application is running.

---

**Note:** *Video Adapter* defaults to the first discrete card that is discovered by Wirecast. If you have multiple GPUs, it is best to configure Wirecast to use the same card as used for your application (for optimal performance), otherwise Wirecast uses a slower capture path. Also, best performance is achieved by setting the Video Adapter to use the NVidia card.

---

### Web Stream

Check to enable automatic discovery of ONVIF cameras.

### Microphone

Check to automatically detect feedback and force the display of a warning message.

### Missing Media

Check to automatically reconnect live shots when Wirecast loses communications with a source.

### Application Source Latency

The value entered into this field determines Wirecast latency period, in microseconds. When you update this value, Wirecast applies it as soon as the preference is committed. You don't need to restart Wirecast to see the change.

The minimum value for this preference is 50ms (2 frames @ 30fps). The maximum value is 330ms (10 frames @30fps). The default is 100ms (3 frames @ 30fps).

---

**Note:** Wirecast applies application source latency to all sources, while the audio delay and video delay values in Source Properties determine the delay for individual sources.

---

### Language

The drop-down menu allows you to select any supported language for the Wirecast user interface. The default is *System Default*, which is the language of the operating system on which Wirecast is installed.

See [Choosing the Wirecast Language](#).

### Missing Media Image

The preference selected determines how Wirecast indicates a missing graphic.

- When *Default* is selected, Wirecast presents a red question mark in place of the missing graphic.
- When *Transparent* is selected, Wirecast makes no replacement of the missing graphic.
- When *Custom* is selected, Wirecast lets you browse to a graphic to replace the missing graphic.
- *Browse* button: click to browse to a media image.

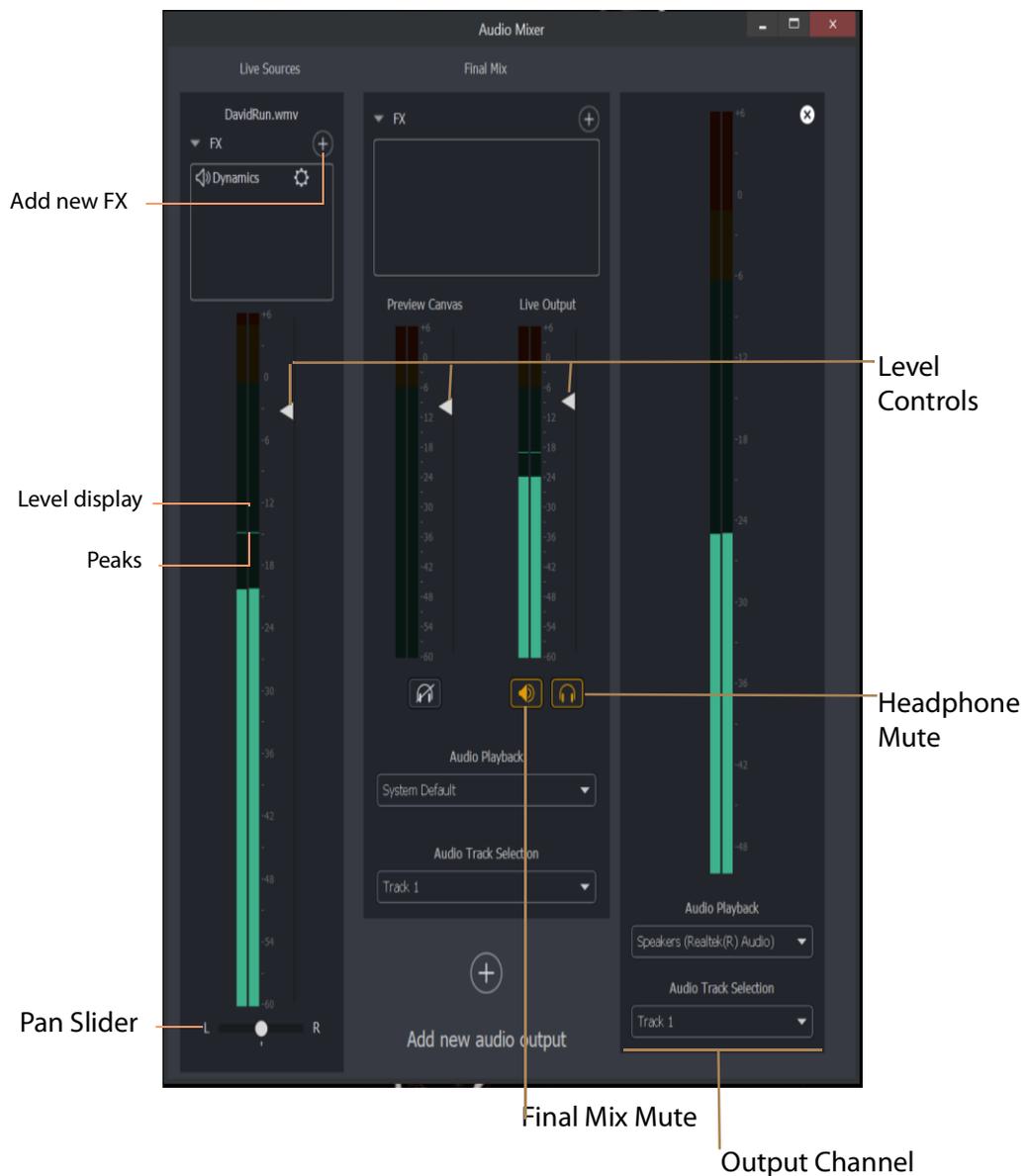
## The Audio Mixer Window

The *Audio Mixer* enables you to monitor and control all of the audio sources from a single control panel. This section describes in detail how to use the *Audio Mixer*.

The *Audio Mixer* separates your audio by hardware and shot. The *Live Sources* pane shows all hardware audio sources that are live in your streaming event. This includes microphones, audio input feeds, cameras, capture cards, and Web streams. The remaining audio controls are associated with specific shots.

See [Displaying or Hiding the Final Mix Audio Panel](#).

**Figure 14.** The Audio Mixer Window



The *Headphone Mute* buttons toggle the source audio when monitoring Preview or Live output. Muting headphones doesn't remove the audio from the output stream or recording. Channel Selection enables you to select left source only, right source only, or stereo (left and right).

## **FX**

Click the down-arrow to display the audio effects pane.

### **Add New FX (+)**

Click the plus (+) icon to select an audio effect from the drop-down menu. You can select more than one effect or plugin.

### **Level Controls**

Adjust the audio levels.

### **Level Display**

Displays the levels (left and right) of the live audio outputs.

### **Live Output Audio Level Control**

Adjusts the audio level of the Final Mix audio output.

### **Final Mix Pane**

Displays the levels (left and right) of the Final Mix audio outputs.

### **Final Mix Mute**

Mutes the Final Mix audio output.

### **Headphone Mute**

Toggles the monitor audio output in the headphones without effecting the Final Mix audio output.

### **Audio Playback Selection**

Click the down arrow to select an audio playback device from the drop-down menu.

### **Audio Track Selection**

Click the down arrow to select an audio track from the drop-down menu. For information about the assignment of audio channels to audio tracks see [The Multi-Track Input Mapper](#).

---

**Note:** Although SDI supports 16 discrete audio channels, Wirecast Pro video out currently supports only two channels.

---

## **The Add FX (+) Drop-Down Menu**

The Add FX (+) drop-down menu lists available sound effects, as follows:

### **De-ess**

Thresh sets the threshold of de-essing. Freq selects the frequency at which de-essing will be applied to the audio. HF Drive adjusts the high frequency aspect of de-essing.

### **Delay**

L and R Delay adjusts how much delay on each channel. Feedback is how much delay is used. Fb Tone is a frequency setting of highs and lows to be delayed. FX Mix is how much delay will be added to audio output. Output sets the delay output level.

### **DubDelay**

Opens the *DubDelay* dialog which allows you to set the parameters of DubDelay.

### **Dynamics**

Thresh sets the threshold of engaging compression. Ratio sets the compression ratio. Output sets the compression level. Attack sets the manner in which compression is applied. Release sets how compression is released. Limiter sets a max output level on the audio. Gate controls (*Thresh, Attack, and Release*) sets the noise gate that cuts off noise at the set level. Mix adjusts how much compression is applied to the audio.

### **EQ**

Low, medium, and high adjusts low, mid, and high frequency components in the audio.

### **Limiter**

Thresh sets the minimum threshold of limiting in the audio. Output sets the amount of limiting used in the audio. Release sets the manner in which limiting is released as the audio decreases. Attack sets the manner in which limiting is applied. Knee adjusts the frequency and shape of point where limiting begins.

### **Loudness**

Loudness adjusts the amount of loudness (raising high and low frequencies) in the audio. Output adjusts how much loudness is applied to the audio.

### **Multiband**

Listen selects which part of the frequency spectrum to hear: low, mid, high, or all (output). L<>M adjusts the cutoff frequency in the low to mid range (87 to 1020 Hz). M<>H adjusts the cutoff frequency in the mid to high range (111 to 19606 Hz). L, M, and H Comp adjusts the compression for low, mid, and high frequencies. L, M, and H Out adjusts the output for low, mid, and high frequencies. Attack sets the manner in which compression is applied. Release sets the manner in which compression is released. Stereo adjusts how the left and right channels are separated (width) from 0 to 200%. Process selects stereo or mono mode.

### **Noise Reduction**

Amount sets the amount that noise reduction is applied.

## **The Output Settings Window**

The *Output Settings* window enables you to customize the settings for a destination.

### **Destination List**

Wirecast lists the last-used destinations in the left-side pane of the *Output Settings* window.

**Add Button**

When clicked, the *Add* button opens the *Select an Output Destination* dialog, enabling you to add destinations to the destination list.

**Remove Button**

When clicked, the *Remove* button opens the *Select an Output Destination* dialog, enabling you to remove destinations from the destination list.

**Name**

This is an editable field for the name of the output setting. By default, Wirecast names the setting for the destination selected.

**Destination**

This drop-down menu lists all the visible existing destinations. Each destination has its own broadcast technology preset, for example RTMP, or Windows Media.

See [Multicast and Unicast Destination Settings](#).

**More Button**

This button opens a menu listing all existing destinations, with check boxes for making each destinations visible in the *Destinations* drop-down menu.

**First Gear Icon**

This drop-down menu lists actions available for the destination selected.

**Encoding**

This drop-down menu lists the available encoding presets. Each destination preset has its own encoding presets. The encoding presets define the codec, aspect ratio, and frame rate for each destination. Wirecast provides many encoding presets.

**Second Gear Icon**

This drop-down menu enables you to view the details for the preset selected, create a new preset, or filter the presets listed for the destination selected.

**Audio Track Selection**

This drop-down menu lists the audio tracks available for the destination selected.

**Map Button**

This button opens the *Multi-Track Input Mapper* for the destination and track selected.

See [The Multi-Track Input Mapper](#).

**Address**

This editable field contains the network address for the destination selected.

**Port**

This editable field contains the port address for the destination selected.

**Passphrase**

This editable field contains the passphrase for the destination selected.

### Location

This field displays the host location for the destination selected.

See [Destinations](#) and [The Encoder Presets Window](#).

## Multicast and Unicast Destination Settings

You can select *Multicast* or *Unicast* from the *Destination* drop-down menu in the *Output Settings* dialog. *Multicast* lets you broadcast to multiple computers simultaneously. *Unicast* lets you broadcast to a specific computer.

During multicast, the broadcasting computer identifies each data stream individually. This enables recipients to choose between the available multicast streams.

The multicast protocol uses separate unique identifiers for video and for audio. These are not TCP/IP addresses, though they might look like TCP/IP addresses.

See [The Output Settings Window](#).

## The Multi-Track Input Mapper

PRO

The *Multi-Track Input Mapper* window enables you to determine the output audio channel destination for each of the audio tracks in a Wirecast document.

### Source

Wirecast displays the filename of the audio source in the *Source* field.

### Channel

Wirecast displays the output audio channels available in the *Channel* fields.

### Track (1-8)

Wirecast displays checkboxes for each of the available audio tracks in the *Track* columns.

See [Map, Mapping Audio Tracks to Output Audio Channels](#), and [Mapping Audio Mixes to Playback Devices](#).

## The Encoder Presets Window

The Encoder Presets window enables you to select a default encoder preset for your output, and to create your own custom presets.

### Encoder Preset

This drop-down menu lists all default and custom encoder presets available.

### Video Encoding

When checked, Wirecast enables you to customize the video encoding settings shown in the Video Encoding pane.

---

**Note:** You should match the output to the canvas size as closely as possible to preserve video resolution and quality. For example, a 800x600 source results in significant loss of quality if an aspect ratio of 640x480 is selected for the output. Choosing an output of 720x576, which is much closer in size, helps preserve video quality.

---

## Profile

Many encoder presets enable you to select one of three profiles: *Baseline*, *Main*, or *High*.

**Baseline Profile (BP)** Baseline profile is primarily for low-cost applications that require additional data loss robustness. This profile is used in some video conferencing and mobile applications. It includes all features supported in the Constrained Baseline Profile, plus three additional features used for loss robustness (or for other purposes such as low-delay multi-point video stream compositing). The importance of this profile has faded somewhat since the definition of the Constrained Baseline Profile in 2009. All Constrained Baseline Profile bitstreams are also considered to be Baseline Profile bitstreams, since these two profiles share the same profile identifier code value.

**Main Profile (MP)** The Main profile is used for standard-definition digital TV broadcasts that use the MPEG-4 format as defined in the DVB standard. It is not, however, used for high-definition television broadcasts, since the importance of this profile faded when the High Profile was developed in 2004 for that application.

**High Profile (HiP)** The High profile is the primary profile used for broadcast and disc storage applications, particularly for high-definition television applications. For example, this profile is used by the Blu-ray Disc storage format and the DVB HDTV broadcast service.

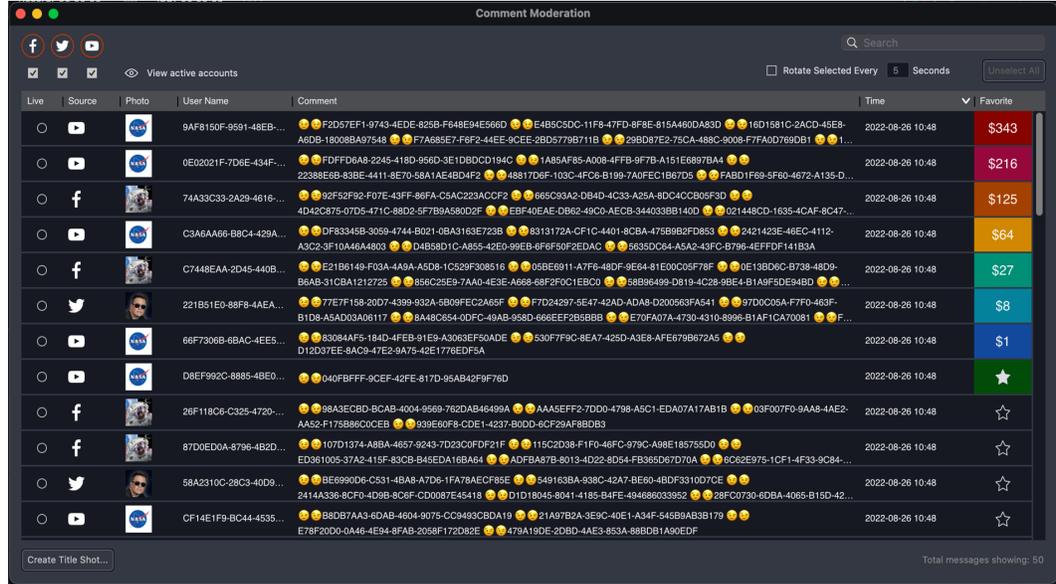
## Audio Encoding (AAC)

When checked, Wirecast enables you to customize the AAC audio encoding settings shown in the Audio Encoding pane.

See [Encoder Presets](#) and [Encoder Presets](#).

# The Comment Moderation Window

Figure 15. The Comment Moderation Window, *View comments* pane



Descriptions of the controls in the *Comment Moderation* window follow.

## Facebook, Twitter and YouTube logos

The colored ring around a logo indicates the status of the Wirecast connection to that platform, as follows:

### Red

Not reading comments

---

**Note:** Until you start live streaming, Facebook and YouTube icons remain red.

---

### Green

Connected and reading comments

### Green with a yellow exclamation warning

Connected, but with a potential issue.

### Turn off/on comments

Click the checkbox under any of the three platforms to turn off reading comments for that entire platform.

---

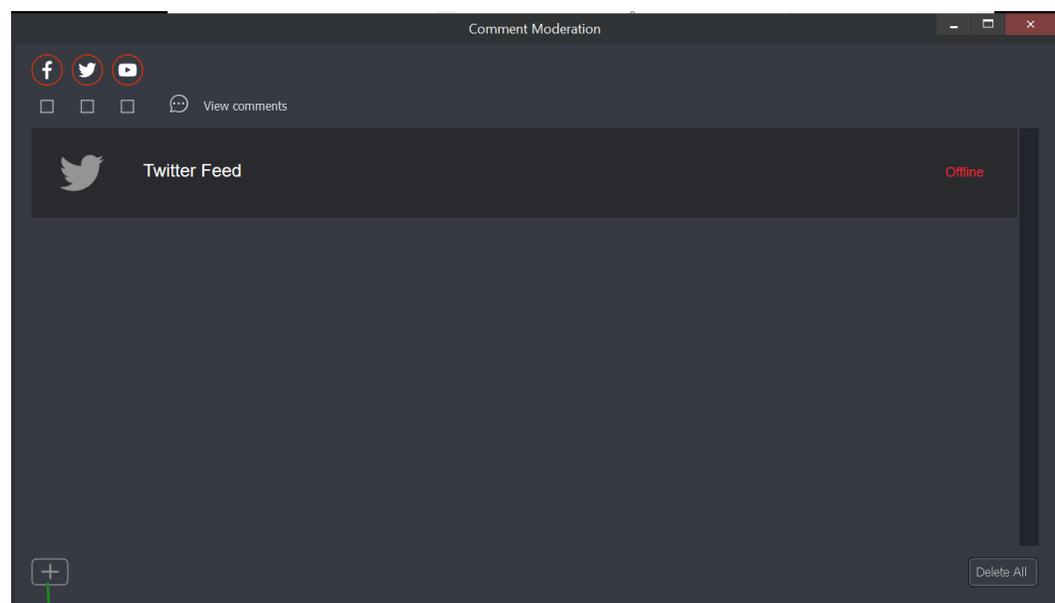
**Note:** If you have more than one stream going to a platform (e.g. Facebook profile and Facebook group), this control turns off comments to all of the streams on that platform. There is not currently a way to turn off comments from individual streams to the same platform.

---

### View Active Accounts

Click this to see which accounts you have authenticated, and what their status is. This opens the *Active Accounts* pane on the *Comment Moderation* dialog.

**Figure 16.** The Active Accounts Pane



Add Facebook or YouTube Feed

- For Twitter:
  - If the Account is authenticated and reading comments, the message will say *Reading Comments*
  - If the Account is Authenticated, but you have unchecked it from the main Moderation window, it will say *Offline*
- For Facebook or YouTube:
  - If the Account is Authenticated but you have not yet started streaming, or you have unchecked it from the main Moderation window it will say *Offline*
  - If the account is authenticated and you are streaming, the message will say *Reading Comments*
- *View Comments* When clicked, Wirecast opens the *View comments* pane.

- *Add Facebook or YouTube Feed* When clicked, Wirecast opens the *Select destination* pane.

## Search

Lets you search the text within comments

## Rotate Selected Every XX Seconds

Check this option and all comments selected will rotate into the selected title and displayed. Click *Unselect All* to deselect any comments you have selected.

## Comment panel

Comments appear as they come in from each selected platform. An asterisk "\*" indicates the column can be sorted.

- **Live** The comments that are selected to rotate, if *Rotate Every* is selected, or the comment that is currently selected for live display
- **Source** The platform the comment came from
- **Photo** The photo of the commenter
- **User Name** The name of the commenter
- **Comment** The comment
- **Time** The time the comment was made on the platform
- **Favorite** To mark a comment as a favorite, click the star icon in the *Favorite* column for the comment.

---

**Note:** Colored rectangles showing amount paid appear in the *Favorite* column for super-chat comments.

---

When you click the *Favorite* header, Wirecast sorts the comments with super-chat comments at the top, followed by favorite comments, followed by the rest of the comments.

- See [Social Media Shots](#), [Moderating Social Media Comments](#), and [Moderating Facebook or YouTube Comments for a Streaming Computer or RTMP Server](#).

# The PTZ Controller Panel

In this panel you can create a preset group of settings for each camera listed in the *Camera* drop-down menu. You can associate multiple presets for each camera. Also, you can switch between devices in the *Camera* drop-down menu.

## Camera

This drop-down list shows cameras available to Wirecast. Selecting a camera updates the PTZ Controller window to display the preset VISCA and PTZ configuration for that camera. Once you establish a connection to a valid VISCA device, the PTZ Controller panel shows the camera's current Pan/Tilt orientation. Changing the *Camera* source changes all the settings in the panel accordingly.

---

**Note:** A PTZ camera's VISCA configuration is discrete from the video feed. You can associate any available video source with any manually-entered VISCA device information. This accommodates a workflow where the camera's video feed is being captured via a Capture Card.

---

### Protocol

Select a PTZ protocol from the drop-down menu.

### IP Address

Enter the IP address of a valid VISCA-over-IP source on the network. This IP address is configured in your camera's network settings.

### Port

Enter the IP port for the VISCA connection of the camera. This IP port is configured in your camera's network settings.

### VISCA Address

Select the correct VISCA Address of the camera. This VISCA Address is configured in your camera's VISCA settings.

### Status / Reconnect Button

Displays the current VISCA connection status ("connected" or "invalid source") of your camera. Click the Reconnect button to force a reconnection.

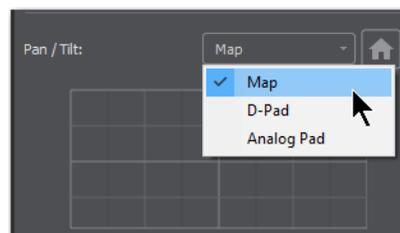
### Home Button

Click the House icon to reorient the PTZ camera to its default position (default centered, no zoom).

### Pan/Tilt

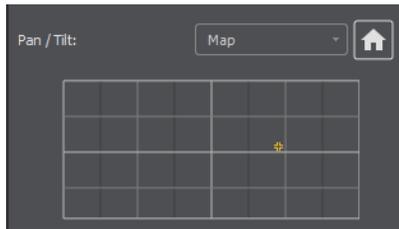
Select the desired pan/tilt control method (Map, D Pad, or Analog Pad) from this drop-down menu.

**Figure 17.** The Pan/Tilt Control



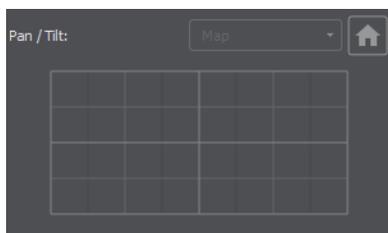
- Map – displays an X/Y plane with a yellow cross-hair representing the current Pan/Tilt orientation of the camera

**Figure 18.** The Pan/Tilt Control Map



- D-Pad – Pan the camera by clicking the left and right arrows, and tilt the camera by clicking the up and down arrows.

**Figure 19.** The D-Pad



- Analog Pad – Click in the analog circle to reposition the camera pan and tilt.

**Figure 20.** The Analog Pad



## Zoom

Move the slider to adjust the zoom factor of your camera.

---

**Note:** When the PTZ Controller panel is the selected window, you can press the arrow keys on the keyboard to adjust the Pan (left and right arrow keys) and Tilt (up and down arrow keys) of the camera. Alternatively the W, A, S, and D keys can also be used (W = Up, A = Left, S = Down, D = Right)

---

## Focus

Click the "+" Plus and "-" Minus buttons to adjust the focus of the camera. The yellow button in the center toggles auto-focus on and off. Any manual adjustments made to the focus will automatically disable the auto-focus.

## Exposure

Select the exposure mode from the Exposure drop-down menu.

- **Shutter** Move the slider to adjust the shutter of the camera. You can only adjust the Shutter when Exposure mode is not in auto-focus.
- **Iris** Move the slider to adjust the iris of the camera. You can only adjust the Iris when Exposure mode is not in auto-focus.

---

**Note:** Refer to PTZOptics documentation for more details about each mode.

---

## White Balance

Select the white balance mode from the *White Balance* drop-down menu.

---

**Note:** Refer to PTZOptics documentation for more details about each White Balance mode.

---

## One Shot

When the White Balance mode is set to *One Shot*, click this button to adjust the White Balance one time only.

## Red Gain/Blue Gain

When not in auto-focus mode, you can use these sliders to adjust the red and blue gain of the video signal to compensate for white balance issues.

## Presets

Enter a preset number and click *Save* to save current Pan, Tilt, and Zoom configurations of camera. To recall a preset, select a preset number by clicking the arrow buttons, then click the *Recall* button.

---

**Note:** If you have Wirecast in the *AutoLive* mode, you must click the *Live* button to switch between presets on the same PTZ camera. This is a built-in safeguard against unintentionally moving the camera while in *Live* mode.

---

See [Configuring The PTZ Controller](#), [Opening the PTZ Controller Panel](#), and [Controlling a PTZ Camera](#).

# Menus and Application Keyboard Shortcuts

You can launch most Wirecast features from the items in the Wirecast menu bar. When a menu item is clicked, Wirecast opens a drop-down menu of features related to that menu item.

Also, you can launch most Wirecast features with application keyboard shortcuts. Application keyboard shortcuts are key combinations assigned to the Wirecast menu commands.

---

**Note:** To view a complete list of the default application keyboard shortcuts, see [Finding an Application Shortcut](#).

---

## Wirecast Menu

---

**Note:** To view a complete list of the default application keyboard shortcuts, see [Finding an Application Shortcut](#).

---

### About Wirecast

Displays the version you are running.

### Preferences

Opens the *Preferences* dialog. If the *Preferences* dialog already is open, it becomes the active window.

See [The Preferences Dialog Box, Customizing Wirecast with Preferences](#), and [Resetting Preferences](#).

### Services

Presents the Macintosh Services available.

### Hide Wirecast

Hides all of the windows.

### Hide Others

Hides all non-application windows.

### Show All

Shows all non-application windows.

### Quit Wirecast

Closes all documents and exits. If the broadcast is playing, you are asked to stop the broadcast first. If a document has not been saved, you are asked to save it.

### Always On Top

When checked, the Wirecast window remains active as the topmost open window on your system.

# Edit Menu

---

**Note:** To view a complete list of the default application keyboard shortcuts, see [Finding an Application Shortcut](#).

---

## Undo

Reverses your last change in Wirecast. Undo is only available in some windows (such as the *Preview Area*). Wirecast offers an unlimited number of undo actions (within computer memory limitations). Undo information is stored on a per-window basis. Also, if you close a window then reopen it, your undo information is lost.

## Redo

Reverses your last undo action. Redo is only available in some windows (such as the *Preview Area*). Wirecast offers an unlimited number of redo actions (within your computer's memory limitations). Redo information is stored on a per-window basis. Also, if you close a window then reopen it, your redo information is lost.

## Cut

Cuts selected text.

## Copy

Copies selected text to clipboard.

## Paste

Pastes selected text from clipboard to location of cursor.

## Paste as new Consolidated Shot

Pastes selected shots into one *consolidated shot*. A *consolidated shot* is a shot created from multiple sources.

## Select All

Selects all text in the active window.

## Edit Shot

Opens the Shot Editor. You can also double-click a shot, or right-click and select Edit Shot, to open the Shot Editor.

See [The Shot Editor Window](#).

## Rename Shot

Enables you to rename a shot. You can also right-click a shot and select Rename Shot.

## Duplicate Shot

Duplicates the currently selected shot. You can also right-click a shot and select Duplicate Shot.

## Duplicate Shot Options

Check a source to create a new instance of it when duplicating the shot containing it. Multiple selection is allowed.

### Delete Shot

Deletes the currently selected shot. You can also right-click a shot and select Delete Shot.

### Move To Layer

Moves a shot to the selected layer. When shots are created, they are assigned to a specific layer. They exist on that layer until they are moved or deleted. You can also click and drag a shot to another layer.

## Switch Menu

---

**Note:** To view a complete list of the default application keyboard shortcuts, see [Finding an Application Shortcut](#).

---

### Go

Performs a transition (same action as clicking the Go button).

### Transitions

Wirecast has up to three transition controls buttons that can be assigned any transitions (cut, smooth, etc.) that Wirecast supports. The Switch menu lists the currently assigned transitions by name. You can also select the Left, the Middle, and the Right transitions by pressing the control key and either the 1 or 2 key. Right-click on either transition to open the operation menu. Select how the transition will operate: *Ease In*, *Ease In/Out*, *Ease Out*, *Linear*, or *I*.

To select which transitions appear in this menu, see [Final Mix Audio Panel](#).

### Transition Speed

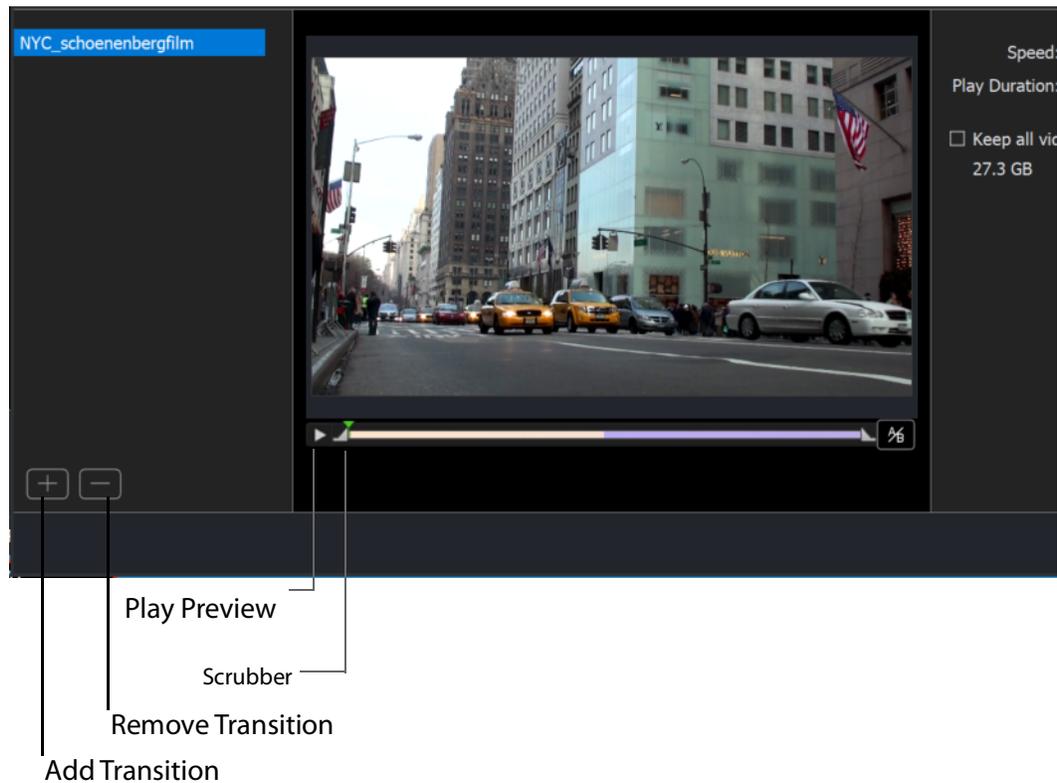
Enables you to select one of five transition speeds ranging from Slowest to Fastest.

### Manage Stinger Transitions

When clicked, *Manage Stinger Transitions* opens the *Manage Stinger Transitions* dialog. This enables you to import and use custom transitions that employ transparent backgrounds. These transitions are typically created using applications such as *Adobe After Effects*, *Apple Motion* or *ScreenFlow*.

See [Importing Stinger Transitions](#).

**Figure 21.** Add Transition and Remove Transition Controls



### AutoLive

Toggles (turns on and off) the AutoLive feature.

You may want to single-click a shot to make it become live. Alternatively, you may want to make several changes to a shot before making it live. You can use either method in Wirecast.

When enabled, the AutoLive feature lets you broadcast any shot with a single click. When AutoLive is enabled, Wirecast disables the Go button. Clicking a shot in a layer automatically places the shot in the *Live Broadcast Area*.

See [Single-Click Switching with AutoLive](#) and [Go Button](#).

### Live/Preview Swap

Toggles (turns on and off) the Live/Preview Swap feature. When on, the Live Broadcast and Preview windows trade panes (swap) when the Go button is clicked.

### Layer Visibility

Click to open the menu and select a layer to hide or show in your shot. A check mark displays when the layer is visible. The shot icon becomes gray when not visible. You can toggle on and off the viability of each layer by pressing the *Alt+1* through *Alt+5* keys.

### Disable PTZ Preset Recall

Enables/Disables PTZ preset recall.

See [The PTZ Controller Panel](#).

---

**Note:** When you transition to a shot containing an animated title, Wirecast first executes the transition, and then performs the opening animation for the title. When you clear the title from the shot, Wirecast first performs the closing animation for the title, and then executes the transition for the end of the shot.

---

## Media Menu

---

**Note:** To view a complete list of the default application keyboard shortcuts, see [Finding an Application Shortcut](#).

---

### Start Playing All Movies

Starts playing any movies that are not currently playing.

### Pause All Movies

Pauses all movies that are currently playing.

### Shuffle Playlist

Randomly rearranges the order of media in the playlist.

### Assign Placeholder

Opens the Assign Placeholder menu.

### Reset Placeholder

Opens the Reset Placeholder menu.

### Show Asset Manager

Displays devices that can be configured. Some devices (cameras, etc.) may be configurable. For example, you can configure an iSight camera to manually change its focus, contrast, brightness, etc. Other devices have multiple inputs you can choose (AlchemyTV Card, etc.).

See [Remapping Media Locations](#).

---

**Note:** The Configure Devices menu selection is present only if a device is connected to Wirecast. The configuration user interface is provided by the device maker. It is

beyond the scope of this document to describe all of the features available for all devices. See the documentation provided with your device on how to configure it.

---

## Output Menu

---

**Note:** To view a complete list of the default application keyboard shortcuts, see [Finding an Application Shortcut](#).

---

### **Output Settings**

Opens the Output Settings window.

### **Start/Stop Broadcasting**

Starts (or stops) broadcasting to the network. You can also click the *Stream* button on the *Record/Status Bar* in the default layout.

### **Start/Stop Recording**

Starts (or stops) recording to disk. If you have not yet configured the Output Settings for this document, you are prompted to do so. You can also click the Record button on the Window Bar in the default layout.

### **Show Recordings**

Opens all the folders of all the file directories in the Output Settings.

### **Multi-Viewer Output**

Enables you to setup and use a Multi-Viewer display on and or all monitors. You can configure your displays, enable all displays, select a display to be active, or show (or hide) all displays when the application is in the background.

See [External Display Outputs](#) and [Multiviewer/Secondary Live Output Button](#).

### **Configure Displays**

Select *Configure Displays* to open the configuration window.

Setup your Multi-Viewer by choosing a *Monitor* which determines where the Multi-Viewer will display. Also select the Mode: Multi-viewer, Live Output, or Disabled (neither).

Select a *Layout* which determines how the Multi-Viewer will be displayed. The layout choices are: one, two, or four slots. In the *Pro* version ten or seventeen slots can also be selected. Each panel slot can then be mapped to any source: Preview, Live or any existing Shot in your document. Click inside a panel to select a source. Each Monitor is configured separately using the Configuration window. So, when you select a different monitor, the configuration panel (slots) also change. Additionally, all the monitors are automatically numbered. Clicking the *Identify Displays* button causes each of the monitors to display its number on it.

You can also control how each panel is labeled by making a selection from the *Labels* menu:

### **Draw Labels Below each Slot**

Displays the label below each shot in each panel.

### **Superimpose Labels Over Each Shot**

Displays the label over each shot in each panel.

### **Do Not Draw Labels**

No labels are displayed.

Click on any slot panel to open the source menus, then select a source from the list to display it in the slot. Click Identify Display to cause the display number on each display to be shown.

### **Enable/Disable All Displays**

Select to hide or display all of your configured Multi-Viewed monitors.

### **Select a Display**

Select one of your configured Multi-Viewed monitors to hide or display. Shown below is a typically configured monitor with four slots. Audio meters are provided in each view.

### **Hide All Displays When App is in the Background**

When selected, all Multi-Viewer Displays are hidden if Wirecast itself is put into the background or minimized. Turning this option off allows the Multi-Viewer outputs to stay on if Wirecast is put in the background or minimized

---

**Note:** Multi-Viewer displays can also be disabled by clicking on the Multi-Viewer display itself (on its target monitor), and then pressing the Escape (*Esc*) key.

---

### **Secondary Display Live Output**

**PRO**

Sends the live program to a secondary device. For example, you can send a live program feed to another screen or to a capture card in an external device. If the external device has an UVC HDMI capture card, you can capture the live output from Wirecast for use in the applications--such as Zoom or Teams--on the other device.

You can use Secondary Display Live Output as an alternative to Virtual Camera/Mic.

You can map audio tracks, as well as video, to the secondary display.

See [External Display Outputs](#) and [Multiviewer/Secondary Live Output Button](#).

### **Virtual Camera Out**

Enables you to present the output of Wirecast as if it were a camera (a virtual camera), allowing it to be automatically detected by other applications when they are launched. Outputs only the Live Program feed.

### **Active Broadcast**

Once you have logged into your YouTube or Twitch account and you start streaming, you can select *Active Broadcast* to display the YouTube broadcast window in a browser.

### Control Room (YouTube only)

Once you have logged into your YouTube account, you can select *Control Room* to display the YouTube control room window in a browser.

---

**Note:** *Active Broadcast* is enabled only for Twitter-Live Broadcast and YouTube., *Control Room* and *VOD of Last Broadcast* are enabled only when you are logged into YouTube.

---

### Facebook (Facebook Live Only)

Select *Active Broadcast* to display your Facebook Live event.

#### Twitter

Opens menu to monitor your Twitter broadcast.

- **Active Broadcast** Once you have logged into your Twitter account and you start streaming, you can select *Active Broadcast* to display the your broadcast window in a browser.
- **Producer Dashboard** Once you have logged into your Twitter account, you can select *Producer Dashboard* to display the Twitter dashboard window in a browser. In the dashboard you can start your broadcast by clicking the *Go Live* button.

To stop your broadcast click the *Stop Stream* button.

- **Toggle Broadcast** Click to toggle between *Go Live* and *Stop Broadcast* on the Producer Dashboard.

### Canvas Size

Sets the canvas size resolution used when broadcasting a Wirecast document.

---

**Note:** You should match the output to the canvas size as close as possible to preserve video resolution and quality. For example, a 800x600 source results in significant loss of quality if a resolution of 640x480 is selected. Using 720x576, which is much closer in size, helps preserve video quality.

---

### Show Statistics

Displays the statistics window for your broadcast. You can select (for display): Bitrate, RTMP Queue Size, Framerate, System CPU Usage, and System Memory Usage.

PRO

### NDI Output

Sends the output of the Live Program feed. Select the output resolution for your NDI output. You can also select a link that will take you to *NDI.NewTek.com* for additional information.

---

**Note:** Although SDI supports 16 discrete audio channels, Wirecast Pro video out currently only supports two channels.

---

### Blackmagic Cards

---

**Note:** If you are updating to Wirecast 14 (or a previous version) and have multiple capture cards that are different models, when you open a saved document that contains sources from the capture cards, one of the inputs may fail to upgrade (and will show their saved source.) To remedy this re-add the missing source back into the document, then open the Asset Manager and assign that newly added source to back into its saved shot.

---

You can use Blackmagic cards to send live feeds directly into editing, effects and broadcast design systems. In order to use this feature, install a Blackmagic card with associated drivers, then restart Wirecast. The Blackmagic card will then be listed in the Output menu.

Under the Output menu, select a Blackmagic card, and then select an HD setting for its output. If your card has multiple outputs, you can select more than one and all will output simultaneously at independent resolutions and Frame rates.

To begin outputting, select *Start Output* and choose a setting.

You can stop the Blackmagic card output by selecting *Stop Output*. If you have multiple outputs selected, they will all stop outputting.

---

**Note:** Some Blackmagic cards do allow input and output simultaneously, but need to be configured in the Blackmagic software.

---

## Layout Menu

---

**Note:** To view a complete list of the default application keyboard shortcuts, see [Finding an Application Shortcut](#).

---

To optimize the user interface for each document, you can configure the Wirecast layout.

Wirecast enables you to select which functions are displayed in the default layout. These functions are added or removed from the default layout using the Layout menu.

### Final Mix

When checked, displays the *Final Mix Audio* controls. *Final Mix Audio* controls are located on the left and right sides of the default layout.

**Show Live and Preview**

When checked, displays the Live and Preview windows, and allows you to select between displaying the *Preview Area* only, the *Live Broadcast Area* only, or both.

**Show Preview Only**

Displays the *Preview Area* only.

**Show Live Only**

Displays the *Live Broadcast Area* only.

---

**Note:** The three controls above work the same as the Mode Control buttons at the top-right of the default layout. See [Layers](#).

---

**Zoom Layers In**

Increases the size of *all* the layer icons.

**Zoom Layers Out**

Decreases the size of *all* the layer icons.

**Zoom Layers To**

Sets the size of *all* the layer icons to: 50%, 100%, or 200%.

---

**Note:** You can also change *each* layer size by clicking and dragging the divider line between layers. Additionally, you can change the size of *all* layers by holding the command key while clicking and dragging the divider line between layers.

---

**Go to Layer**

Displays the selected layer. You can also press command + Shift keys with the T, F, N, B, or A keys to select a layer. Each of these letter keys represents a layer name: Title, Foreground, Normal, Background, and Audio.

## Replay + ISO Menu

PRO

---

**Note:** To view a complete list of the default application keyboard shortcuts, see [Finding an Application Shortcut](#).

---

**Start All**

Activates the Create Replay Shot system. When activated, the menu item becomes *Deactivate*. Click *Deactivate* to deactivate the Create Replay Shot system.

**Activate**

Activates the Create Replay Shot system. When activated, the menu item becomes *Deactivate*. Click *Deactivate* to deactivate the Create Replay Shot system.

### Configure ISO Outputs

Once ISO outputs are created, all ISO outputs are listed in this menu. To configure an ISO output, click *Configure*, then click the *Add ISO* button.

---

**Note:** You can create ISO recordings of any source or shot in your document.

---

### Replay Mark All

Allows you to tighten up your Replay Shot capture. Select *Replay Mark In* to mark the beginning point of your Replay Shot capture.

### Create All Replay Shots

Select *Create* to create additional Replay shots.

### Update All Replay Shots

If no replay shot exists, selecting *Update* creates a new Replay shot. There after, selecting *Update* updates the first Replay shot created.

### Configure

Displays the Replay Shot settings window.

For more information about Replay Shots see [Replay + ISO Menu](#).

ISO enables you can set up ISO recording and do Replays from the same menu. To use Replay and ISO functionality, select the Replay + ISO menu.

### Start All

Activates all configured ISO shots and/or the Program Replay. When activated, the menu item becomes *Stop All*. Click *Stop All* to deactivate the Create Replay Shot system.

### Program Replay

Allows you to Stop, Mark In, Create, or Update a relay shot.

PRO

### Replay Mark All

Allows you to tighten up your Replay Shot capture. Select *Replay Mark In* to mark the beginning point of your Replay Shot capture.

PRO

### Create All Replay Shots

Select *Create* to create additional Replay shots.

PRO

### Update All Replay Shots

If no replay shot exists, selecting *Update* creates a new Replay shot. There after, selecting *Update* updates the first Replay shot created.

PRO

**Configure**

Displays the Replay Shot settings window.

Once ISO outputs are created, all ISO outputs are listed in this menu. To configure an ISO output, click *Configure*, then click the *Add ISO* button.

See [Configuring Replay + ISO](#).

## Social Menu

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**Note:** To view a complete list of the default application keyboard shortcuts, see [Finding an Application Shortcut](#).

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Two social media options are provided: Facebook and Twitter. Facebook enables you to receive polling data from viewers. Twitter enables you to add Twitter messages to your broadcast along with filtering the messages displayed.

## Facebook

The *Social > Facebook* menu contains the *Create New Poll* option as well as a list of any previously-created polls.

See [Creating a Facebook Poll in Wirecast](#) and [Selecting a Facebook Poll](#).

## Twitter

**Message Feed**

Brings up your Twitter feed.

**Create Shot**

Creates a shot with a social media title in Main Layer 1.

**Settings**

Brings up the Social Media Settings dialog.

**Authenticate**

Click to authenticate your account with Twitter. Enter your pin when the PIN field displays.

**Feed Type**

Select a Feed Type: Home Timeline, User Timeline, Favorites, Search. If you select Search, the Search String field becomes active.

**Search String**

Enter a search string. (Active only when Search is selected in Feed Type above.)

## Comments

Opens a dialog listing comments about the broadcast that are posted to Facebook, Twitter, or YouTube.

## Window Menu

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**Note:** To view a complete list of the default application keyboard shortcuts, see [Finding an Application Shortcut](#).

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### Welcome to Wirecast

Displays the *Welcome* screen.

### Encoder Presets

Opens the *Encoder Presets* window.

See [Encoder Presets](#) and [The Encoder Presets Window](#).

### Audio Mixer

Opens the *Audio Mixer* window.

See [The Audio Mixer Window](#).

### Audio Plugin Explorer

Opens the *Audio Plugin Explorer* dialog box.

See [The Audio Mixer Window](#).

### PTZ Controller

PRO

Opens the *PTZ Controller Panel*.

*Wirecast Pro* allows you to remotely control cameras with built-in pan, tilt and zoom (PTZ) features using the built-in PTZ Controller window. This feature currently works with PTZOptics and Lumens cameras that support VISCA over IP control, as well as NDI PTZ protocol controls.

See [The PTZ Controller Panel](#).

### USB Devices

Opens a list of all USB devices.

### Rendezvous Dashboard

Opens the *Rendezvous Dashboard*. Click *Start Session* to use.

See [Rendezvous](#).

## PRO

**Rendezvous Audio Mixer**

Displays the *Advanced Rendezvous Audio Mixer* window, which includes the following controls:

- **Output from [document]** Select document source from the pull-down menu.
- **Channel** Output level indicators for each channel.
- **Include In Mix** When checked, this audio source is included in your Rendezvous session.
- **Audio Level (Sliders)** Move the sliders to adjust the audio level.

See [Opening the Advanced Rendezvous Audio Mixer](#).

**Download Manager**

Opens the Stock Media download monitor window. Whenever you add a Stock Media Library file, the downloading progress is displayed. You can cancel a download by clicking on the X icon. To navigate to the location of a downloaded file, click the spyglass icon.

**Notifications**

Opens the notifications window. This window displays last “important” log messages and other application health messages.

**New Layer Window**

Opens a new *Main Layer* window for the layer selected.

**Document Windows**

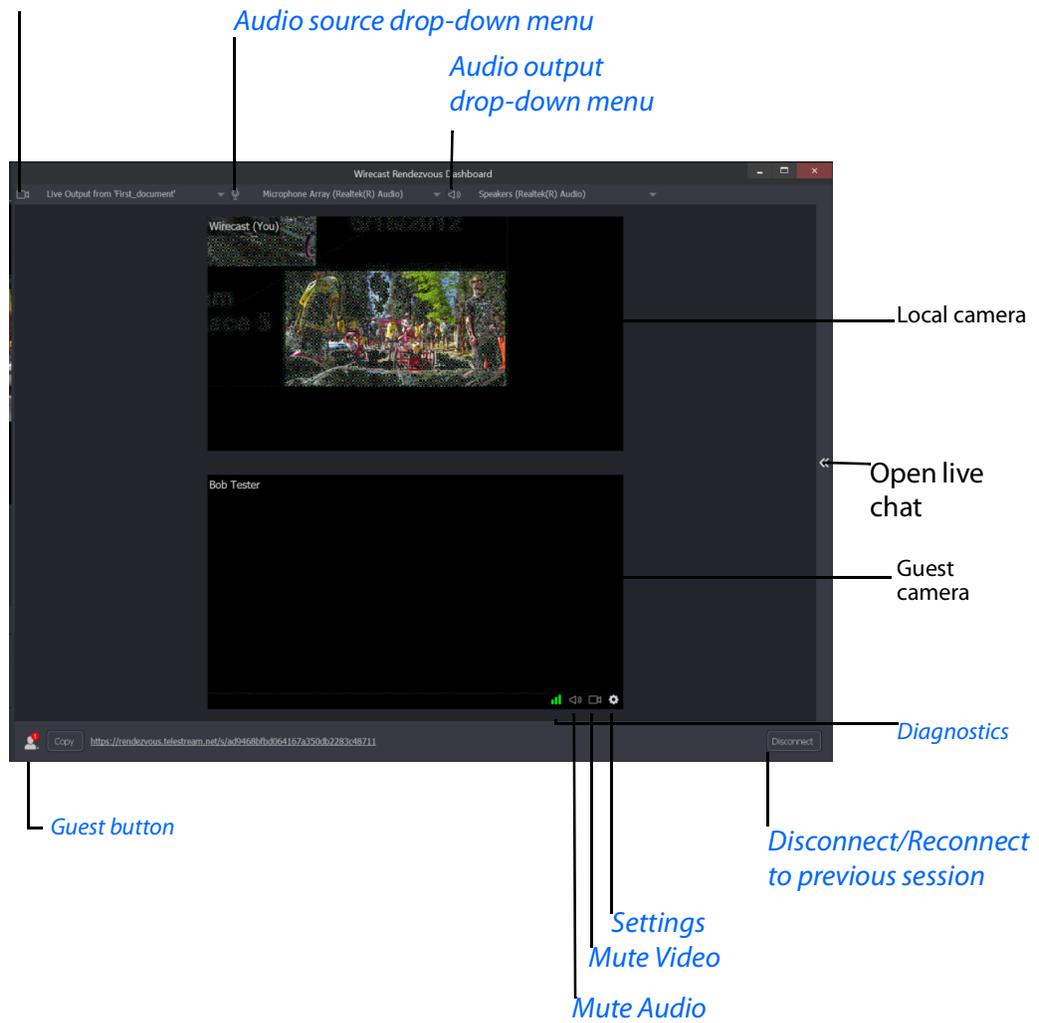
All open document windows are listed at the bottom of this menu.

**The Rendezvous Dashboard**

Descriptions of the controls in the Rendezvous Dashboard follow.

See [Starting a Rendezvous Session](#).

**Figure 22.** Guest Shot in Rendezvous Dashboard  
*Video source drop-down menu*



Control	Description
Video source drop-down menu	Displays available video sources.
Audio source drop-down menu	Displays available audio sources. The Advanced menu item opens the Advanced Rendezvous Audio Mixer. See <a href="#">Rendezvous Audio Mixer</a> .
Audio output drop-down menu	Displays available audio output sources, such as speakers.

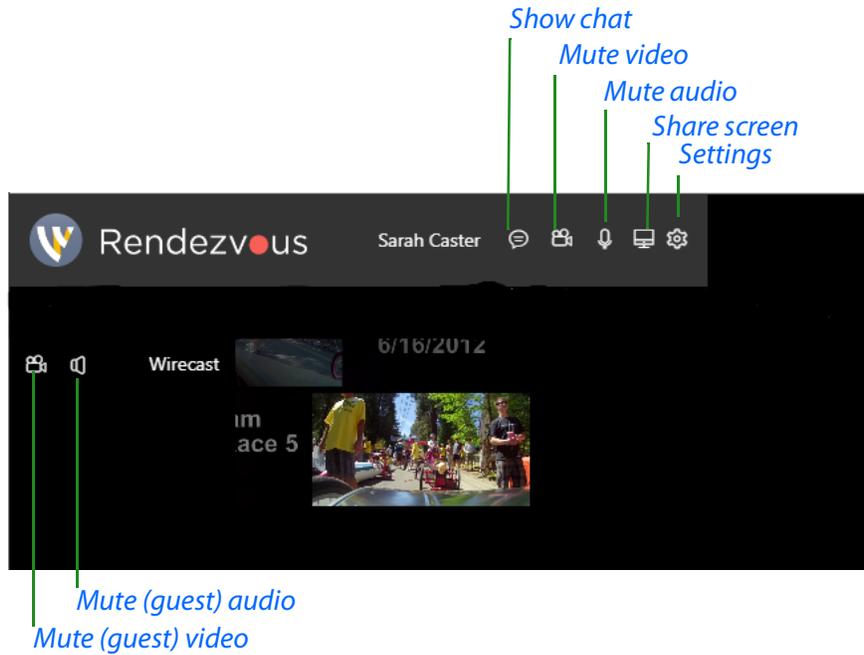
Control	Description
Start Session button	When clicked, Wirecast starts a Rendezvous session.
Disconnect/Reconnect to previous session button	When clicked, Wirecast disconnects or re-opens the previous Rendezvous session.
Diagnostics	Displays bitrate, audio, and video data for the guest stream
Guest button <ul style="list-style-type: none"> <li>• Guest name</li> <li>• “P” icon</li> </ul>	When clicked, Wirecast adds the guest to the Rendezvous session, and to the Rendezvous Dashboard. Wirecast displays a “P” icon to the right of a user’s name when the connection is “proxied” through the Wirecast TURN infrastructure, and traffic flows through Wirecast proxy servers. Data flows through Wirecast servers only if Wirecast can’t connect to the user’s server directly. This happens, typically, where there are restrictive firewalls. Otherwise, the traffic flows peer-to-peer, and there is no need to worry about Wirecast server capacity. See also <a href="#">Wirecast Network Ports and Proxy Servers</a> .
Mute Video	When clicked, Wirecast turns off guest video.
Mute Audio	When clicked, Wirecast mutes guest audio.
Settings	When clicked, Wirecast opens a menu from which you can select: <ul style="list-style-type: none"> <li>• Assign Placeholder</li> <li>• Toggle Network Statistics</li> <li>• Disconnect (guest) from Rendezvous session</li> </ul>

## The Rendezvous Guest Window

Descriptions of the controls in the Rendezvous guest window follow.

See [Joining a Rendezvous Session as a Guest](#).

**Figure 23.** Rendezvous Guest Window in Browser



Control	Description
Show chat	Opens the chat panel.
Mute video	Mutes Rendezvous video
Mute audio	Mutes Rendezvous audio
Share screen	Shares the guest screen to Rendezvous.
Settings	Opens settings for microphone, camera, and other options.
Mute (guest) video	Mutes Rendezvous guest video
Mute (guest) audio	Mutes Rendezvous guest audio

# Help Menu

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**Note:** To view a complete list of the default application keyboard shortcuts, see [Finding an Application Shortcut](#).

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## Wirecast Help

Opens the online version of the User Guide.

## Open Wirecast PDF User Guide

Opens the PDF version of the User Guide.

## Open Tutorial HTML

Opens the Wirecast Tutorial in your browser. To follow the tutorial, you'll need to Create a Document for the Tutorial as well.

## Create Document for Tutorial

Creates a new Wirecast Document which contains the media necessary for following the Tutorial.

## Buy/Upgrade

Opens *Buy Upgrade* in the *Preferences* dialog. This window allows you to purchase licenses and to activate or deactivate them.

## Provide Feedback

Opens the Telestream Website feedback page where you can enter any feedback you may have about our product or company.

## Send Support Information

Opens a Support Assistant dialog window. To create a new support ticket, select *Create a support ticket*. The information is sent to the Telestream support team for evaluation. If you have been previously issued a case number, select *Link with existing support case #* and enter your case number. You can also select *Do not receive follow-up from Telestream*. This enables you to send support information to Telestream without receiving a response. Click *Save Report* to save the information to a file on your computer. Click *Send Report* to send the information to Telestream.

For troubleshooting purposes, you can reset your preferences to the defaults by clicking the *Reset Preferences* button. This will reset your preferences and create a backup of your current preferences, in case TS Support needs it.

For troubleshooting without resetting preferences, you can also open Wirecast in "Safe" mode using *Shift + Control + Open*.

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**Note:** You must click *Send Report* to create a ticket. If you click *Save Report*, a ticket will not be created.

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## Visit Telestream LLC Website

Opens the Telestream Website home page.

**Visit Wirecast / Desktop Presenter download page**

Opens the Telestream Website download page for Desktop Presenter.

**Acknowledgments**

Opens an on-line help to Acknowledgments.

**About Wirecast**

Opens a dialog box that gives the Wirecast version number and copyright information.