



Wirecast®

All-in-one live streaming production software

Ideal for streaming live events: news, sports, online games,
concerts, religious services, meetings, and more

The Telestream Wirecast Product Guide is designed to provide an overview of the features and functions of this innovative software solution to assist in the review process. Please review this document along with the associated Telestream Wirecast User Guide, which provides complete product details.

Telestream provides this guide for informational purposes only; it is not a product specification. The information in this document is subject to change at any time.

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PRODUCT OVERVIEW

Telestream Wirecast® gives you everything you need to stream live video from your desktop to the world. With Wirecast, you can stream multiple live cameras while dynamically mixing in other media such as movies, images, and sounds, and adding production features such as transitions, built-in titles, chroma key, virtual sets, and live scoreboards. Wirecast is ideal for broadcasting professional-looking live internet shows, news, sporting events, online games, concerts, religious services, corporate meetings, lectures and much more.

Capture your content

Capture unlimited number of input devices from live camera feeds, iOS device cameras, computer desktop, web feeds and more.

Produce your show

Add polish and professionalism to your broadcast with live switching, transitions, titles, lower thirds and more.

Stream it live

Use the built in multiformat encoding capabilities and easily stream to online video platforms, integrated streaming services and CDNs.

KEY BENEFITS

The market leading streaming software: Thousands of customers and the world's largest CDNs rely on Wirecast for their live streaming production.

All-in-on software solution: Enables capture, live production and encoding in one easy to use software solution

Cost-effective: Offers all the capabilities of more expensive hardware solutions with the flexibility and affordability of a software application

Reliable and Stable: Backed by a company with more than a decade of video and encoding experience, Wirecast is trusted for our customers' most critical broadcasts.

Partnered with the industry's leading firms:

Integrated with the most popular capture devices and CDNs for seamless source input and live streaming

Integrated multiformat encoding: Powerful, efficient live encoding enables H.264 streaming in Flash, Windows Media and RTP formats

Stream to multiple destinations: Stream live to all the places you want to broadcast – plus record to disk- with just a few clicks

Cross platform: Mac and PC

Affordable prices: \$495 for Wirecast and \$995 for Wirecast Pro

FEATURES

Capture your content

Wirecast supports an unlimited number of camera inputs ranging from

Devices

- Cameras: USB, Thunderbolt, SD/HD, SDI, HDMI
- iOS 8 cameras with [Wirecast Cam](#)
- Microphones: USB, XLR, Unbalanced
- Audio mixers

Capture cards

- PCIe
- Thunderbolt
- USB 3.0
- AJA, Blackmagic Design, Magewell, Matrox, Epiphan [and many more](#)

Web/IP

- Screen capture with Desktop Presenter (local or remote)
- RTMP, MMS, RTSP, HTTP (Pro)
- Web streams (Pro)
- IP cameras (Pro)

Other inputs

- [NewBlue's Titler Live for Wirecast](#)
- [Teradek Cube – 100 & 150 \(HD-SDI\), 200 & 250 \(HDMI\) \(Pro\)](#)
- [Teradek Bond, Teradek Sputnik Server \(Pro\)](#)
- [Sportzcast LiveScore Service \(Pro Windows\)](#)
- [LiveU portable 3G/4G backpack – LU60](#)

Produce your show

Live production features include:

- Live compositing with multiple layers
- Live switching
- Titles
- Lower thirds
- Transitions
- Chroma key
- Picture-In-Picture

- Mix Audio/ Mix/Minus
- Audio & Video delay
- Instant Replay (Pro)
- ISO recording (Pro)
- Playlists
- Twitter feed integration
- Animated 3D titles with [NewBlue Titler Live Express for Wirecast](#) (free with purchase of Wirecast, with upgraded versions starting at \$299)
- Live scoreboards (Pro)
- Integration with [Sportzcast live scoreboards](#) (Pro)
- 3D Virtual sets (Pro)
- Integration with [3D virtual sets from Virtualnetworks](#) (\$329) (Pro)

Live encoding formats & Protocols: x264, H.264, RTMP, RTP, ProRes, MJPEG, WMV

Stream it live

Deliver your live streams to:

- Streaming services & CDNs including Facebook Live (see a [list of destination partners](#))
- Streaming servers
- Record to disc (ProRes, MJPEG)
- Virtual camera and microphone out
- External monitor output
- Program feed out through Blackmagic Design (Pro)

Streaming protocols

- RTMP
- RTP for multi- and unicast
- MMS (Windows)

NEW IN WIRECAST 7.0

Better performance

- **GPU-Accelerated encoding (Studio, Pro)**
 - Take advantage of powerful, cost-efficient hardware encoding capabilities for better performance and lower CPU utilization. (Requires Intel QuickSync, or nVidia NVENC hardware.)
- **Improved CPU utilization (Studio, Pro)**

- Now with more efficient, lower CPU usage, for smoother, high quality streams.
- **Graphical Output Statistics (Studio, Pro)**
 - Graphically shows System CPU usage, memory, framerate and bitrate. Streaming stats include Bitrate, and RTMP Queue size. This is great for seeing the strength of your stream or to diagnose problems.

More powerful, streamlined production capabilities

- **High resolution ISO recording and Replay (Pro only)**
 - Create high-resolution recordings of your individual (isolated) cameras or audio sources. Isolate clean shots that can be used later for editing offline or for live replay during an event. (Note: must have valid license to demo this feature)
- **Updated, streamlined User Interface (Studio, Pro)**
 - Our new streamlined User Interface (UI) enables quicker access to shot editing features and more control over every aspect of your broadcast. This includes a new Shot Editor panel, with control sliders for modifying properties, in-shot toggles for turning off and on video and audio sources; plus an all-inclusive source dropdown; playlist tabs and more.
 - Tab through the shot editor panel to easily access all the properties panels to edit layer properties, adjust audio, add chroma keying, modify source settings and more.
 - Use sliders to change scale, X/Y Rotation, Opacity, and Cropping
 - In-shot visibility toggles for both visual and audio sources
 - Turning sources on and off can be done from the Shot Layer Management tab in the Shot Editor. Instead of adding and deleting sources, you can now toggle them on and off at will. Want a certain audio source muted for a few moments? Want to flash a quick message on stream? No need to build a new shot, just turn your source on or off!
 - Playlist tabs
 - We've moved playlists to a new area with tabs which makes it more accessible and keeps your desktop organized
 - All-inclusive source dropdown
 - Allows you to add in all your sources from one dropdown, from cameras and audio to scoreboards, text, media files and even webstreams.
- **Text (Studio, Pro)**
 - Add text to your broadcast from a variety of sources: typed in text, from a file, or from an RSS feed.
 - Live text: Type in text and display it instantaneously
 - File-based: Text file monitoring allows Wirecast to read data from external .txt file.
 - RSS feed: The RSS feed feature allows you to have a running ticker built into your shots through the text widget.

- **3D Animated Titles (Studio, Pro)**
 - Create beautiful, fully animated titles and graphics with NewBlueFX's [Titler Live Express](#) (a \$99 value), **now free with Wirecast 7**. Choose from over 60 professionally-designed main title and lower third templates then customize the color, font and image to fit your needs. Now it's easier than ever to bring jaw-dropping animated 3D titles to your live streams.
- **Redesigned Audio Mixer (Studio, Pro)**
 - Lets you control every audio source within your document from the specialized audio mixer window. Mix minus, panning, source selection, muting and individual source volume controls are all now beautifully packaged in one spot for easy audio control. This minimizes the need for external hardware and keeps your stream organized.
- **Audio Monitor/Mix Minus (Studio, Pro)**
 - With the new mix minus feature, you can now take out specific audio sources from your output monitoring. This lets you monitor the full stream audio output while turning off the monitoring of your own voice.
- **Audio Playout Device Selection (Studio, Pro)**
 - Choose where you want Wirecast to play out its audio. Select any available system audio device in the Wirecast Preferences to route all Wirecast audio to for more precise monitoring.
- **Hotkey Manager (Studio, Pro)**
 - With our new Global Hotkey Management System, you can now create your own hotkeys for switching, replay or any repetitive task in Wirecast.
- **Color Correction (Studio, Pro)**
 - Adjust the brightness, contrast, gamma, hue and saturation for all of your video and graphic sources.
- **Video Sync (Studio, Pro)**
 - Delay the video and/or audio of an incoming source to maintain sync.
- **Solid Color Generator (Studio, Pro)**
 - Add in a solid color as a source. Great for use as a background, or in lower thirds.
- **Redesigned Screen Capture (Studio, Pro)**
 - Replaces Local Desktop Presenter as an easy way to bring in your computer screen, or application window. Great for adding Keynote or PowerPoint slides into your broadcast.
- **System Audio capture (Studio, Pro)**
 - We have added a new source option...System Audio. This allows you to pull in just the audio produced by your computer. This saves time by bypassing the process of adding a screen capture and removing the video.

TECH SPECS

System Requirements

Supported Operating Systems

- Windows 7 SP1 64-bit, Windows 8.1 64-bit, Windows 10 64-bit
- Mac OS X Yosemite, Mac OS X El Capitan*
- Internet connectivity**, ***
 - Requires internet connectivity with HTTP/HTTPS port 80, and RTMP port 1935 open for streaming, Remote Desktop Presenter requires opening port 7272.
 - For lowest quality (240p) streaming an upload rate of at least 650Kbps is required.
 - 720p streaming requires an upload rate of at least 2500 Kbps.
 - 1080p streaming requires an upload rate of at least 4500 Kbps.
 - Cam requires iOS 8 or later.

Recommended Hardware Specifications****

- Processor Requirements:
 - Intel 'Sandy Bridge' Core i3 for 540p or lower streaming
 - Intel 'Sandy Bridge' Core i5 CPU @ 2.5Ghz or higher recommended for 720p streaming @ 30fps*****
 - Intel 'Sandy Bridge' Core i7 CPU @ 3.0Ghz or higher recommended for 1080p streaming @ 30fps*****
- Graphics Requirements:
 - Intel HD, NVIDIA GeForce, or AMD Radeon class graphics adapter that are both DirectX 9 and DirectX 10 capable.
- Memory Requirements:
 - 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. [List of Intel CPUs supporting QuickSync →](#)
- NVIDIA NVENC encoding requires an nvidia GPU with Kepler architecture or newer. [NVIDIA only maintains a general list of supported GPUs →](#)
- Apple Hardware Accelerated H.264 encoding requires a Mac with an integrated Intel GPU.

General Recommendations:

- 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 OS X) or MJPEG recording (Windows), as well as the resolution and frame rate selected.
- For Mac OS X ProRes recording please refer to Apple's ProRes data rate specifications:
<https://documentation.apple.com/en/finalcutpro/professionalformatsandworkflows/index.html#chapter=10%26section=4%26tasks=true>
- Windows MJPEG Best Quality Guidelines (Megabytes per second):
 - 1080i and 1080p 29.97 and 30 FPS, MJPEG Best Quality – ~25MB/sec
 - 1080p 60 FPS, MJPEG Best Quality – ~50 MB/sec
 - 720p 59.94 and 60 FPS, MJPEG Best Quality - ~20 MB/sec

Notes:

* *Wirecast 7 does not support OS X Mavericks or previous versions of OS*

** *An internet connection is recommended for Wirecast 7.0 activation.*

*** *It is recommended that an upload rate of at least double the desired rate be available.*

**** *Consider lowering your canvas frame rate and/or streaming resolution to lower CPU usage.*

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

FEATURE CHART

Wirecast live streaming production software is available in two product configurations: Wirecast Studio (\$495) and Wirecast Pro (\$995). See the Feature Chart below for a comparison of features and more details at: <http://www.telestream.net/wirecast/compare.htm>

	Wirecast Studio	Wirecast Pro
Capture your sources		
Unlimited number of input sources: Cameras, capture cards, Desktop Presenter, NEW! Twitter feed, Live U portable backpack	✓	✓
Wirecast Cam iOS app – FREE Download the app and use any iPhone (4S or newer) or iPad on your Wifi network as an ingest source into Wirecast.	Download the app	
High resolution ISO recording & Replay: Create hi-res recordings of your individual (isolated) camera or audio sources		✓
Added input sources: Teradek Cube, IP Cameras, Web streams (RTMP, MMS, HTTP), custom scoreboard graphics		✓
NewBlue Titler Live Option Animated 3D titles for Wirecast Titler Live Express included with purchase of Wirecast 7 (\$99 value). Upgrades available starting at \$295	Included (upgrades starting at \$295)	Included (upgrades starting at \$295)
3D sets from Virtualnetworks (\$329) Beautiful 3D sets for Wirecast Pro		option
Firewire HDV Option – \$99 Input support for HDV cameras	\$99 option	✓
Produce your show		
Powerful production tools: Lower thirds, transitions, playlists, chroma key, audio monitor/mix minus, color correction & more	✓	✓
Added Pro-level production tools: Live scoreboards, replay, virtual sets, advanced audio controls		✓
Stream it live		
Encode to multiple formats for streaming and recording: Flash & MainConcept (H.264 & x264), WMV, ProRes, MJPEG	✓	✓
Add a delay to your stream: Delay your streamed broadcasts to add a buffer between your live stream and broadcast	✓	✓
Stream to multiple destinations: Streaming servers, streaming platforms & CDNs (including Facebook Live!), record to disk, Broadcast to external monitors	✓	✓

Virtual Camera and Microphone output: Wirecast video and audio output can be picked up as a source in other devices or software.	✓	✓
Program feed output to Blackmagic Design: Take your Wirecast feed out directly to Blackmagic Design Intensity or DeckLink capture cards.		✓

EXAMPLE WIRECAST APPLICATIONS

Religious Services: Shiloh Ministries

Streaming/production need: Streaming of weekly services and other events
Location: Mercer, PA

Additional Requirements: The solution needed to be:

- Cost-effective
- Easy to set-up
- Simple to operate, even for volunteers with no video experience
- Capable of switching between multiple HD cameras
- Able to control text, graphics, and audio from a single user interface
- Capable of bringing media elements from Internet-based sources into the live show

Setup: Their unique set up included:

- Wirecast Pro software from Telestream
- Desktop Presenter software from Telestream
- Apple Mac Pro tower (12-core with 8 gigs of RAM) for the Wirecast production, and an Apple iMac running Desktop Presenter
- Four Canon Vixia HV40 HDV HD video cameras on tripods
- Blackmagic Design DeckLink Quad SDI video capture and playback card
- Four Blackmagic Design HDMI to SDI converters
- Yamaha audio mixer
- Two 60-inch video monitors mounted atop pillars on either side of the stage
- LED lighting

Verdict: A single technical director (TD) can produce the entire multi-camera live show using Wirecast Pro to switch between the four cameras. The TD can also grab video or stills from Internet sources using Desktop Presenter software on the one Mac, and bring it into the live show being switched using Wirecast Pro on the other Mac. These video elements along with CG text and graphics are usually presented full-screen, split screen, or as picture in picture displays. Shiloh Ministries produces captivating HD video presentations during worship services for display on two-large video monitors at the front of the sanctuary as well as in media players on computer and mobile screens.

Web Broadcaster: Polar Bear International

Streaming/production need: Produce and stream entertaining and educational programs live from the Arctic tundra during the annual polar bear migration. The webcasts take place from Churchill, Manitoba, Canada, from a "Tundra Buggy," a large tourist vehicle that has the ability to move over the tundra and keep viewers out of harm's way.

Location: Montreal, Quebec and Churchill, Manitoba

Additional Requirements:

- Switch between multiple camera angles during the broadcast.
- Add motion graphics, slides and other video sources for a unique and entertaining educational show.
- Stream live from an extremely remote location

Setup: Their unique set up included:

- Several hardwired Sony PTZ cameras fixed to the outside and inside of the Tundra Buggy, with a control deck to adjust the angles and zoom of the cameras.
- Cameras inside the buggy which record several panelists that are part of the broadcast.
- A Canopus ADVC 110 firewire capture device to bring in all the cameras to the computer.
- A Peavey audio mixer tied directly connecting to Sennheiser microphones placed just out of camera frame.
- An Apple MacBook Pro running Wirecast Pro.

To get their broadcast to the internet:

- Wirecast encodes and streams the broadcast through PBI's private long distance (6 mi range) omnidirectional wireless network. This network allows the buggy the freedom to roam with the bears.
- The signal is transmitted an additional 20 miles to town via a wireless backhaul system.
- It then connects to the internet and complete the distribution.

Verdict: All of the video and audio mixing happens inside the buggy. One person can manage the entire show from a small desk with the Wirecast computer, the audio mixer, joystick to control the cameras, and a monitor. To bring the outdoors to life they use Wirecast to switch between the outdoor cameras showing the bear action taking place just feet away, the indoor cameras showing the panelists and pre-recorded content

The "Tundra Connections" program is entering its 8th year. Each season PBI is able to reach tens of thousands of people during their short 4-week schedule. Ultimately with the help of Wirecast, they want every person to understand their actions can make a difference.

DOCUMENTATION & TUTORIALS

Getting Started

[Wirecast Install and Activate Video](#)

User Guides

[Wirecast Mac User Guide](#)

[Wirecast Windows User Guide](#)

GRAPHICS RESOURCE

To access Wirecast logo/s and product images visit <http://www.telestream.net/company/press-kit/press-kit.htm>

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COMPANY OVERVIEW

Telestream® provides world-class live and on-demand digital video tools and workflow solutions that allow consumers and businesses to transform video on the desktop and across the enterprise. Many of the world's most demanding media and entertainment companies such as CBS, BBC, CNN, FOX, CBC, Comcast, Direct TV, Time Warner, MTV, Discovery, and Lifetime, as well as a growing number of users in a broad range of business environments, rely on Telestream products to streamline operations, reach broader audiences and generate more revenue from their media. These companies choose to work with Telestream as they know they will get a trusted and highly skilled technical

partner.

Telestream products span the entire digital media lifecycle, including [video capture](#) and ingest; live and on-demand [encoding](#) and [transcoding](#); playout, delivery, and [live streaming](#); as well as management and automation of the entire [workflow](#). The company also partners closely with the industry's leading digital media companies across the entire digital media lifecycle, from consumer to enterprise. Telestream corporate headquarters are located in Nevada City, California.