Wirecast Reviewer's Guide



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Wirecast® video production and live streaming software..

Professionally broadcast live events, news, sports, concerts, religious services, conferences, meetings, online games, and more with industry-leading production value and quality.

Introduction

This Reviewer's Guide is designed to provide an overview of the features and functions of Wirecast software, highlighting the newest features of the latest versions 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.

Wirecast Overview

Turn your computer into a professional live broadcast studio with Wirecast®. This award-winning live streaming production software gives you everything you need to stream and produce professional-quality video from your Mac or Windows computer to any online streaming destination, including Facebook Live, YouTube Live, Vimeo, LinkedIn, Twitter, Twitch, Sherpa Stream, and many more.

Wirecast supports an unlimited number of input sources ranging from web to professional cameras, local network NDI and IP sources, web and mobile devices, and even remote guests.

Powerful production capabilities make it easy to switch between multiple live camera feeds while dynamically mixing in prerecorded video, audio, graphics, and slides.

Stream, record, or choose from local outputs as well as NDI and IP multi-casting and unicasting on your LAN. Virtual camera and microphone outputs can push to other software like Zoom, Skype, Google Hangouts, Microsoft Teams, and more.

Software Pricing

- Wirecast Studio (\$599 USD)
- Wirecast Pro (\$799 USD)
 - Wirecast Pro Monthly Subscription (billed monthly): \$49/month - Get free upgrades, top-tier support, and save \$500+ in the first year!
 - Wirecast Pro Annual Subscription (billed monthly): \$39/month - Save 20% more than monthly plan!
 - Wirecast Pro Annual Subscription (billed annually): \$420/year (\$35/month equivalent) Save 29% more than monthly plan!

Wirecast lifetime licenses for both Mac and PC include one year of free Insider Access (formerly called Standard Support), which gives users free Wirecast software updates and upgrades for one year, plus free access to the Stock Media Library, and eight hour response time from our our professional support technicians. After the 12-month period ends, users can choose to renew their support contract annually to continue to receive free upgrades and support. If the support contract expires, the user can continue to use Wirecast software, but will no longer receive professional support or software updates.

Annual Insider Access Renewal Rates for Lifetime Licenses:

- Wirecast Studio (\$119 USD)
- Wirecast Pro (\$119 USD)

Annual Premium Access Renewal Rates for Lifetime Licenses:

- Wirecast Studio (\$299 USD)
- Wirecast Pro (\$299 USD)

Wirecast Pro subscriptions come with Premium Access included at no extra cost for the full duration of the subscription.



Key Benefits

Easy to Use

- Get set up and streaming in minutes with an intuitive user interface.
- Only requires a computer, camera, and Internet connection.
- Create polished, professional broadcasts without needing experience.

Professional Production Capability

- Wirecast's unique multilayer system allows live compositing with up to 250 layers and unlimited shots which makes it easy to create and produce very complex, high quality broadcasts.
- Includes professional video features and production automation workflows like instant replay, ISO recording, playlists, shot templates, chroma keying, multi-viewer, and more.

Stream to Unlimited Destinations, Instantly

 Direct integrations with popular streaming services (e.g. Facebook, YouTube, Twitter) for quick and easy setup, with flexibility to stream to any destination you want.

Key Features

Some of the key features and capabilities of the software include:

Capture

- Unlimited Sources: Cameras, microphones, webcams, IP cams, or use our free wireless camera app for iOS.
- NDI Input & Output: Bring any NDI source, like Skype or a PTZ camera, on your network directly into Wirecast. NDI program feed output is also available in Wirecast Pro.
- Built-in Screen Capture: Capture any screen or computer on your network. Perfect for PowerPoint or Keynote presentations, online gaming, tutorials and demos, or broadcasting live interviews using video chat tools like Teams, Skype, or Zoom.
- Remote Conferencing: Wirecast Rendezvous enables up to 8-way peer-to-peer remote conferencing with any Internet-connected computer or smart device. Conduct panel interviews and talk shows, showcase multiple points of view at live events, and share screens from anywhere with just a few clicks.
- Multi-Channel Audio Capture: Ingest up to 16
 audio channels per source. Set up specific shots
 to contain any combination of input channels, fully
 automating what would have previously required
 an additional operator resource.

Produce

- Multiple User-Definable Layers: Wirecast's unique multiple layer support allows live shot compositing with up to 250 layers and unlimited shots.
- Graphics & Animated Titles: Built-in, high-quality, customizable animated title and lower thirds library.
- Social Media Comments: Built-in social media comment moderation window, with overlays for Facebook, YouTube, and Twitter.
- Facebook Polling & Donations: Create and receive polling data from Facebook on your live stream. If you have a Charity ID from Facebook, you can add a Live Donate button to your live stream posts.
- Stock Media Library: Access to over 500,000 unique media assets directly in Wirecast. The Stock Media Library has high-quality videos, music, lower thirds, backgrounds, and more, and is included with an active Wirecast subscription or Access Plan.
- Instant Replay: Record any source into a separate file and use it for multi-angle instant replays in Wirecast Pro.
- Shot Templates & Placeholders: Choose from dozens of pre-configured shot layouts and assign placeholders to save production time.
- Playlists: Queue a list of multiple images, audio, or live feeds to play successively from a single Shot.
- Chroma Key: Transport your production to a new studio or location using Wirecast's high-quality, real-time, GPU-accelerated green screen capabilities.
- Luma Key & Color Key: Useful for keying out graphics with white or black backgrounds or for images that have color backgrounds.
- Live Scoreboards & Clocks: Use the customizable, built-in scoreboards, live clocks, and timer templates to track scores and play time for live action sporting events.
- 3D Virtual Sets: Create a virtual TV studio environment with Wirecast Pro's built-in sets.
- Integration with Control Surfaces: Support for multiple hardware interfaces, including X-Keys controllers and Elgato Stream Deck.
- Professional Audio Tools and Increased Workflow Options:
 - Mix up to 8 independent audio tracks per broadcast and output them to independent destinations. Multi-track audio mixing also enables multilanguage productions. Users route audio sources to discrete tracks for both live productions and recordings.
 - Support for multi-channel audio over low-latency protocols (WASAPI, ASIO, and industry-standard audio APIs) allowing users to connect more professional audio devices and gear to Wirecast.



Stream (and more!)

- Stream to Multiple Destinations and Bitrates Simultaneously: Stream and record to more than one destination at a time. Set up your project to broadcast to social media channels and your website, at various bitrates, all at once.
- Easily-Configured Stream Destinations: API-level integrations with a wide range of output destinations to save time in setting up live streams.
- Stream & Record: Stream and record at the same time. Great for archiving or off-line editing, record MP4 or MOV files to any drive.
- 17-Slot Multiviewer: Monitor up to 17 live sources independently on external monitors.
- Program Feed Output: Take your Wirecast feed out directly to AJA, BlackMacgic, Elgato, and other capture cards. Ideal for sending live feeds directly into editing, effects, and broadcast design systems.
- Virtual Camera & Microphone Output: Video and audio output from Wirecast can be picked up as a source in other devices of software, like Zoom, Skype, Microsoft Teams, and Google Hangouts.
- Secondary Display Live Output: Send a frame-accurate program feed out to a secondary display or monitor for recording, testing, and syndication.
- NDI Output: Wirecast Pro can output its produced live feed over NDI, allowing it to be received by other devices or software on the local network.
- ISO Record: Record each individual source or shot in your document for post-production.
- Multi-Track Audio Recording: Route audio sources to discrete tracks for both live productions and recordings.

For a full list of features, check out the <u>product</u> comparison chart.

New in Wirecast 15

- Major Performance & Efficiency Improvements:
 Wirecast 15 has been overhauled to be much more efficient from both production and playback standpoints. In addition to supporting higher-quality content and higher-resolution sources, Wirecast uses 15% less CPU power and 34% improved GPU efficiency (when used with a Gear 420 unit).
- Updated User Interface Design: The new UI puts important features/information more clearly and directly in front of users. Some updates include improved audio meters to monitor audio levels more closely and new, updated animated titles with social media-specific templates.

- Rendezvous Enhancements: Improvements have been made to Rendezvous to give broadcasters more creative control over how content is captured and presented within the context of broadcasts. Specific improvements include
 - Rendezvous Music Mode: specifically designed to capture high-quality audio from musical instruments for broadcasting concerts, performances, worship services, and more.
 - Layout Options: more flexibility to choose how guest speakers are laid out within a Rendezvous session.
 - Network Diagnostics: hosts can now view each guest's network connectivity and bandwidth, including bitrate and packet loss.
- Producing High-Quality Content: Wirecast allows broadcasters to capture the highest-resolution content and interact with their audience in a controlled manner, in real time, with 4K 60fps support, moderated social media comment titles, and interactable web page sources.

Wirecast System Requirements

	Minimum	Recommended
Operating System	Windows 10 1809 or higher, Windows 11 21H2, macOS Catalina 10.15 or higher	Windows 10 21H2, macOS Monterey 12
Processor	Intel 6th Generation ¹ or newer CPU ² – or AMD Ryzen™ 1000 Series or newer CPU2; Apple M1 or newer	Intel 7th Generation ¹ or newer CPU – or AMD Ryzen™ 3000 Series or newer; Apple M1 or newer
Memory	8GB RAM	16GB+ RAM; Apple silicon: 16 GB of unified memory
Hard Drive	7200 RPM for record to disk	Solid State Drive (SSD)
Graphics Card	Intel HD ³ , 2 GB video memory, DirectX 11 capable; Apple Silicon: 8 GB of unified memory	Dedicated Nvidia GeForce, 4GB+ video memory, DirectX 12 capable; Apple silicon: 16 GB of unified memory
Internet Connectivity	Recommended: Total bitrate needed x 2 = recommended 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, 1 port per 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.

Best Practices

Minimum Required Upload Speed

- It is recommended that an upload speed rate of at least double the selected video bitrate be available, especially for a total target bit-rate of 10Mbps (Megabits per second) or less, or when there are multiple outgoing streams.
- Upload speed can be tested at a website such as TestMy.net/upload.
- Additional tasks that can consume upload bandwidth on the network should be considered when determining how much of the available upload bandwidth can be allocated towards streaming.

Rendezvous

Wirecast Rendezvous uses WebRTC technology that can be very resource intensive. For the best experience, we suggest considering the following table when choosing hardware:

	Studio (2 guests + 1 host)	Pro (7 guests + 1 host)
Band- width ⁴	Add 4 Mbps	Add 5+ Mbps ⁵
Processor ⁴	i5 quad-core6	i7 quad-core ⁶

⁴Based on a single simultaneous stream of 720p30 x264 @ 4.0Mbps.

ISO Recording

- 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 or x264, as well as the resolution and frame rate selected.
 - For ProRes recording please refer to <u>Apple's</u> ProRes data rate specifications.
- Total expected data rate should be compared to available disk write speed to ensure adequate disk throughput.

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).

See our ISO Recording Guide for more information.

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*.

High Frame-Rate Streaming (60fps):

- High frame-rate streaming will result in increased CPU usage and require a higher bit rate (4Mbps or higher) for a quality encode.
- Simply switching to a higher frame-rate without ensuring the CPU and bitrate are sufficient may result in a lower quality encode.

CPU Usage:

- Consider lowering your canvas frame rate and/or streaming resolution to lower CPU usage.
- Maintained system CPU usage greater than 60% will increase the likelihood of dropped frames.



¹ How to check the generation of your Intel processor.

² May be insufficient for 1080p+ or 60 fps workflows.

³Insufficient for advanced Multiviewer workflows.

⁵Bandwidth per guest will scale downwards as more are added to maintain reliability.

⁶Minimum recommended processor with example stream4. More demanding workflows may require a more capable CPU.

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



Additional Product Information, Tutorials And Documentation

https://www.telestream.net/wirecast/resources.htm

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, 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 head-quarters are located in Nevada City, CA.

