

Wirecast 16.4.1 Release Notes

System Requirements

	Minimum	Recommended
Operating System	Windows 10 1809 or higher, Windows 11 21H2, macOS Ventura 13 or higher	Windows 10 22H2, macOS Sequoia 15
Processor	Intel® 6th Generation ¹ or newer CPU ² – or AMD Ryzen™ 1000 Series or newer CPU ² ; 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 bandwidth:	Recommended: Total bitrate needed x 2 = recommended upload bandwidth	
Network ports	<p>You may want to check that the following ports are open for traffic on your network:</p> <p>53 (DNS), 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), 8789 (Internal Services), 49152-65535 (WebRTC Media/Rendezvous – selected at random).</p> <p>If you are behind a firewall, check with your streaming destination for any sites you may need to whitelist.</p>	

¹[How to check the generation of your Intel processor](#)

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

³Insufficient for advanced Multiviewer workflows.

Languages Supported:

- | | | | |
|-----------|------------------------|----------|-----------|
| • English | • Brazilian Portuguese | • Korean | • French |
| • German | • Chinese (Simplified) | • Czech | • Spanish |
| • Italian | • Japanese | • Dutch | • Swedish |

Add-ons:

- **Remote Desktop Presenter** - Please use the Remote Desktop Presenter version 2.0.8, available as a separate download from Telestream: www.telestream.net/dtp

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 bitrate 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](https://testmy.net/upload).
- Additional tasks that can consume upload bandwidth on the network should also 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)
Bandwidth⁴	Add 4 Mbps	Add 5+ Mbps ⁵
Processor⁴	i5 quad-core ⁶	i7 quad-core ⁶

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

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

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

See our [Rendezvous Best Practices Guide](#) for more information.

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 [Apple's ProRes data rate specifications](#).
- Total expected data rate should be compared to available disk write speed to ensure adequate disk throughput.

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.

Best Practices (cont.)

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*.
**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.*

High frame-rate streaming (60fps):

- High frame-rate streaming will result in increased CPU usage and require a higher bitrate (4Mbps or higher) for a quality encode.
- Simply switching to a higher framerate 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.

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Wirecast 16.4.1

Bug Fixes:

- **WC-1151/1130/1125:** Fixed issues with connecting to destinations that require Adobe authentication. This fixes connecting to ChurchStreaming.tv, AWS and Wowza servers that require Adobe authentication among others.
- **WC-1138:** Fixed several crashes with certain audio devices that use unsupported sample rates on macOS. The minimum supported sample rate is 8 kHz, and the maximum is 192 kHz for System Devices.
- **WC-1136:** Fixed hold behavior when playing media files.
- **WC-934:** Fixed issue with single frame of black video during a media file loop or transitioning between different media files.

Wirecast 16.4.0

Features and Improvements:

- **Wirecast Speech to Text Captions:** Hardware-accelerated speech-to-text captions seamlessly embed real-time captions into RTMP streams and MP4 Recordings, delivering accessible content for live and on-demand audiences.

Bug Fixes:

- **WC-1068:** Fixed a rare crash at startup.
- **WC-1049:** Remove use of "Not Configured" as the default destination name.
- **WC-1046:** Fixed cannot connect to Teams using RTMPS.
- **WC-951:** Fixed a rare crash on Windows.
- **WC-939:** Show a better error message when the user cannot stream to a Facebook page due to restrictions.
- **WC-206:** Improve playback of SRT sources when timestamps are out of order.

Wirecast 16.3.1

Bug Fixes:

- **WC-1042:** Fixed audio distortions with certain audio sources on Windows.
- **WC-1026:** Fixed an issue with Multistream where destinations were reporting a disconnection when there was no disconnection.
- **WC-1020:** Give better error messages when a user attempts to use Multistream and there are too many active sessions with the account.
- **WC-1017:** Add Multistream status button to server timeout page in Output Settings.
- **WC-1000:** Enable LinkedIn destination with Multistream.
- **WC-793:** Fixed translations missing for Multistream service.
- **WC-787:** Fixed Multicast/Unicast outputs.

Wirecast 16.3.0

Features and Improvements:

- **Wirecast Cloud Multistream (Beta):** Stream to multiple destinations while only using the resources of one stream! Currently supporting 2 destinations.
- **Facebook API v19 Update**
- **NDI SDK 6.0 Update**
- **WC-167:** Improved SRT source logging when the peer rejects the connection. For example, give a specific error when the peer rejects the password.

Bug Fixes:

- **WC-972:** Fixed a rare crash when adding media files to a document.
- **WC-844:** Fixed Rendezvous audio output selector applies wrong selection.
- **WC-727:** Fixed rendering issue with certain custom scoreboard PNG sources.
- **WC-726:** Fixed Facebook Business pages do not appear in the Pages drop-down list.
- **WC-662:** Move macOS EULA into application.
- **WC-508:** Fixed UI issues in Video Filters.

Wirecast 16.2.3

Bug Fixes:

- **WC-936/WC-857:** Fixed a crash that can occur when a Rendezvous guest that is not in the Session disconnects.
- **WC-908:** Fixed an issue where users were not able to schedule an event with the LinkedIn destination.
- **WC-906:** Optimized how Wirecast interacts with Youtube to increase stability during busy periods of Wirecast usage.

Wirecast 16.2.2

Features and Improvements:

- **Zoom Webinar Support:** Live stream and record your Zoom Webinars. Added support to join a Zoom Webinar without logging into an account which requires a Panelist link.

Bug Fixes:

- **WC-846:** Fixed an issue that caused Wirecast Gear customers to be unable to use the Gear specific source with a subscription license.
- **WC-824:** Improve error message when Zoom rejects the connection to the meeting.
- **WC-661:** Do not attempt to join a Zoom meeting if the user inputs an invalid invite link.

Wirecast 16.2.1

Bug Fixes:

- **WC-807:** Fixed unable to login to Facebook when the user is an administrator of a group.
- **WC-806:** Updated NDI SDK to version 5.6.1.
- **WC-775:** Fixed an issue where wirecastd.exe processes would not stop after Wirecast was quit.

- **WC-773:** Fixed an issue where NDI sources would not recover if the source process crashed.
- **WC-760:** Fixed an issue where the Rendezvous Live Output would stop functioning for remote guests.
- **WC-755:** Fixed a rare crash when adding Rendezvous guests.
- **WC-737:** Fixed a crash when unplugging certain USB devices on Windows.
- **WC-707:** Fixed a crash when streaming to LinkedIn if Wirecast could not connect to the LinkedIn REST API.

Wirecast 16.2.0

Features and Improvements:

- **Background Removal Video Filter:** Introducing AI-powered background removal! Whether you prefer to blur your background for added privacy or completely remove it to immerse yourself in a virtual environment, simply apply the background removal filter.

Bug Fixes:

- **WC-660:** Fixed unable to join Zoom meeting.
- **WC-582:** - To prevent unintended shortcut usage, the "Enter" and "Spacebar" keys have been removed as hardcoded shortcuts due to their common usage in text fields.
- **WC-552/WC-551:** Fixed a couple of issues with Stinger transitions.
- **WC-539:** Fixed an issue that caused all rendering to stop if the system clock was changed while a clock source was running.
- **WC-552/WC-551:** Fixed a couple of issues with Stinger transitions.
- **WC-528:** Fixed a rare crash when starting a stream.
- **WC-517:** Fixed tags and categories don't work with YouTube events.
- **WC-410:** Fixed webcams don't recover when physically unplugging and plugging them back.
- **WC-324:** Wirecast GO sources no longer try to reconnect indefinitely when the document first loads. The user needs to manually connect to these sources now.
- **WC-134:** Fixed OBSBOT Tiny 2 4K webcam virtual camera source does not work.

Wirecast 16.1.0

Features and Improvements:

- **Virtual PTZ Video Filter:** Introducing the AI-powered PTZ virtual camera that effortlessly maintains focus on you by intelligently tracking your face during every movement. Seamlessly enhance your broadcast by applying the virtual PTZ filter, allowing you to stay perfectly framed in your shot without any hands-on adjustments.

Bug Fixes:

- **WC-519:** Fixed a bug that caused VST3 plugins to be unable to load on M1 macs.
- **WC-518:** Fixed a rare crash when starting an ISO recording.
- **WC-479:** Fixed a bug that caused the RTMP connection state to indicate an issue when there was no issue.
- **WC-452:** Fixed a bug where rarely device discovery would not work.
- **WC-408:** Fixed a bug where if the network latency is greater than 22 seconds, reconnection attempts took much longer than before.

- **WC-321:** Removed One-Time Events from Vimeo destination and fixed error messages. Vimeo removed support for this feature.

Wirecast 16.0.3

Bug Fixes:

- **WC-398:** Fixed a problem that could cause “flickering” when the document had video filters with the D3D12 Rendering Engine.
- **WC-391:** Fixed the Virtual Camera/Microphone installer prompts the user to install Rosetta on macOS.
- **WC-387:** Fixed an issue where certain devices did not render at full frame rate supported by the device.
- **WC-366:** Improve maximum activation message in the Welcome Window and provide link to reset tool.
- **WC-425:** Fixed a rare crash when opening the Stock Media Library window.

Wirecast 16.0.2

Features and Improvements:

- **Zoom App Store:** Login to your Zoom account with Wirecast to bring in multiple HD Callers. You can now find Wirecast in the Zoom App Store.

Bug Fixes:

- **WC-374:** Streamlined subscription upgrade workflow for users with an existing serial license.
- **WC-372:** Fixed a crash on macOS with certain sources.
- **WC-363:** Fixed shortcuts for Clock Source.

Wirecast 16.0.1

Bug Fixes:

- **WC-353:** Fixed a crash on exit on macOS.
- **WC-352:** Fixed a crash on launch on Windows.
- **WC-350:** Fixed an issue that caused the Welcome Window to never load on slower Intel machines.
- **WC-348:** Removed the license tab from Preferences when using a subscription.

Wirecast 16.0.0

Features and Improvements:

- **Virtual Assistant:** Our new Virtual Assistant is here to help answer any questions. Simply type your questions in the chat and let the assistant show you the way.
- **Zoom Integration:** We have integrated Zoom into Wirecast. Now you can have the production power of Wirecast for your Zoom call.
- **Video Filters:** Have fun with your stream by adding a couple of our new video filters.

- **SRT Source:** Deliver the best quality and low latency video with SRT Source now in Wirecast.
- **Hardware accelerated NVENC encoder for SRT output:** Users will now be able to leverage the NVENC encoder for SRT output to decrease CPU usage and enjoy a smoother streaming experience.

Tech updates:

- Update Virtual Camera on macOS to use new system extension API. This should improve compatibility with apps on macOS only. Users must allow this in System Settings.
- Stream Delay rework. See WIRE-19132/WIRE-17635.
- Update NDI SDK to 5.5.4.

Bug Fixes:

Many more bug fixes included. Too many to list here!

- **WIRE-21710:** Fixed a rare crash with the Multiviewer on Windows.
- **WIRE-21583:** Fixed an audio issue with the Web Page source.
- **WIRE-21552:** Fixed a border issue with MS-Teams NDI sources.
- **WIRE-21474:** Fixed an issue where the Blackmagic output would not start the first time after the machine was power cycled.
- **WIRE-21001:** Fixed a hang when closing a document with a Remote Desktop Presenter source.
- **WIRE-20873:** Fixed a crash when running Wirecast in certain locales on Windows.
- **WIRE-20376:** Fixed stinger transitions don't render properly on Windows with D3D11 rendering engine.
- **WIRE-20312:** Fixed shot icons pixelated with certain Intel GPUs with the D3D12 rendering engine.
- **WIRE-19714:** Fixed using a Matte on a Chroma Key layer causes the layer to become transparent.
- **WIRE-19499:** Fixed a problem when sending two layers containing the exact same video file live simultaneously.
- **WIRE-18453:** Fixed inaccurate Facebook viewership count.
- **WIRE-18351:** Fixed an issue where NDI sources could randomly freeze.
- **WIRE-18301:** Fixed several problems with RTMP connections to YouTube.
- **WIRE-16023:** Fixed animations in Web Page sources aren't rendering at max frame rate.
- **WIRE-13782:** Fixed an issue with the Output Statistics RAM metric.
- **WIRE-7455:** Fixed stream delay only works when audio encoding is enabled.

