



Wirecast 16.0.1 Release Notes

System Requirements

	Minimum	Recommended	
Operating System	Windows 10 1809 or higher,	Windows 10 22H2,	
	Windows 11 21H2, macOS Ventura 13 or higher	macOS Sonoma 14	
Processor	Intel® 6th Generation¹ or newer	Intel® 7th Generation¹ or newer	
	CPU ² – or AMD Ryzen™ 1000	CPU – or AMD Ryzen™ 3000	
	Series or newer CPU ² ; Apple M1 or	Series or newer; Apple M1 or	
	newer	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,	Dedicated Nvidia GeForce, 4GB+	
	DirectX 11 capable; Apple Silicon:	video memory, DirectX 12	
	8 GB of unified memory	capable; Apple Silicon: 16 GB of unified memory	
Internet bandwidth:	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),		
	8789 (Internal Services),		
	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.		

¹How to check the generation of your Intel processor

Languages Supported:

English
 German
 Italian
 Brazilian Portuguese
 Korean
 Czech
 Spanish
 Swedish

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

³Insufficient for advanced Multiviewer workflows.





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 <u>TestMy.net/upload</u>.
- 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)
Bandwidth ⁴	Add 4 Mbps	Add 5+ Mbps ⁵
Processor ⁴	i5 quad-core ⁶	i7 quad-core ⁶

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

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.

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.





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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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.

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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:

- 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.

