



Recommended

Release Notes

Minimum

System Requirements

	Milliani	Recommended
Operating System	Windows 7, 10, macOS High Sierra, macOS Mojave	Windows 10, macOS High Sierra
Processor	i5 dual-core @ 2.3GHz ¹	i7 quad-core @ 2.8GHz+
Memory	4GB RAM	16GB+ RAM
Hard Drive	2GB ² , 7200 RPM for record to disk	500GB+, Solid State OS Drive
Graphics Card	Intel HD³, DirectX 11 capable	Nvidia GeForce or AMD Radeon, 1GB+ video memory
Internet Connectivity	Open HTTP/HTTPS port 80, RTMP port 1935, port 7272 for Remote Desktop Presenter	If behind a firewall, check with your CDN for any sites to whitelist

¹ May be insufficient for 1080p+ or 60 fps workflows ² Additional hard disk space required for record to disk. ³ Insufficient for advanced Multi-Viewer workflows.

Languages Supported:

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

An internet connection is recommended for Wirecast 12 license activation. A Wirecast 12 license will automatically update at no cost after download for Wirecast 8, 9, 10 and 11 users if standard maintenance and support is current.

ATTN: Wirecast 9 and later versions have dropped support of HDV licenses/cameras.

~ Please click here for additional information ~

NewBlueFX Titler Live Express & Present – Includes over 60 title templates for lower-thirds and overlays (Mac & Windows).

- Purchase of Wirecast 12 Studio includes a free copy of <u>NewBlueFX Titler Live Express</u>.
- Purchase of Wirecast 12 Pro includes a free copy of <u>NewBlueFX Titler Live Present</u>.

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 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 <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 (/ guests + 1 host)	
Bandwidth⁴	Add 4 Mbps	Add 5+ Mbps ⁵	
Processor⁴	i5 quad-core ⁶	i7 quad-core ⁶	

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

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.

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 (Mac) or MJPEG recording (Windows), as well as the resolution and frame rate selected.
 - For Mac ProRes recording please refer to <u>Apple's ProRes data rate specifications</u>.
 - 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
- 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).





Best Practices (cont.)

Hardware accelerated encoding requirements:

- Intel Quick Sync Video encoding requires an Intel CPU with an Intel® QuickSync Video core. <u>List of Intel CPUs supporting QuickSync</u>
- 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 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.

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12.1.1 - Fixes

- Fixed Microsoft Stream destination filter rejects valid custom domains
- Fixed QR Code does not work
- Fixed Rare crash with certain Blackmagic devices on macOS
- Fixed Removed CEF from YouTube destination authentication workflow
- Fixed Rendezvous Guest stops receiving video after changing the camera or microphone
- Fixed Rendezvous Guest tally lights do not work
- Fixed RSS Feeds do not work
- Fixed Unable to change active shot with AppleScript

12.1 - New Features

NEW - Wirecast One

- New tier of Wirecast now available!
- Wirecast One is the most affordable way to get your first streams up and running while harnessing the power and ease of use Wirecast is known for. With a single camera input and easy streaming to your preferred destination, Wirecast One covers all the basics for your first stream and is powerful enough for your 1000th!
- Wirecast One can be used by beginner streamers all the way up to the veterans of live video, but it is perfect for streaming to social media websites like Facebook or Twitter, and all your live streams from casual events to the most professional productions.
- For a comprehensive comparison of One, Studio, and Pro, please visit our Buy page.

NEW - LinkedIn Live

- Attention: LinkedIn Live is currently invite only, via LinkedIn.
 - Link to LinkedIn application process can be found within Wirecast Output Settings with LinkedIn Live chosen as the destination.
 - Alternatively, you can apply directly by clicking <u>here</u>.
- With LinkedIn's new Live offering, you can now stream directly to your LinkedIn network.
 - o Your LinkedIn network will receive an alert when you go live.

NEW - Facebook Donation Button for Verified Pages

• Now, Wirecast users with a verified page can enable the donation button for viewers of the stream.





- In Wirecast, simply go to the advanced section of the Facebook Live output settings, log in with credentials to a verified Facebook page, check "Show Donation Button", and enter the Facebook Charity ID.
 - o For more details regarding Facebook Donation eligibility, read here.

12.1 - Improvements

- Improvement Add "Remind me later" option to the Wirecast Support Renewal nag page
- Improvement Implement preference for disabling unlicensed functionality

12.1 - Fixes

- Fixed 404 returned when requesting help from the Encoder Presets window
- Fixed Add Patios for LinkedIn Live Broadcast has ended alert message
- Fixed Adding a VLC NDI source to the document causes a crash on Windows
- Fixed Alpha issues with TL4 via NDI in WC12
- Fixed Always allow change user option in Facebook log-in
- Fixed Audio artifacts in Blackmagic and Magewell sources
- Fixed Build In / Build Out elements don't move proportionally
- Fixed Cannot select Cut or Smooth from transitions dropdown menu after update
- Fixed Check mark icon does not show for options within the Matte drop down menu
- Fixed Clicking "Crosspost Settings" crashes Wirecast
- Fixed Entering a place prevents FB destination from recognizing verified pages
- Fixed Frozen video and synchronization problems when connecting to NDI sources in secondary documents
- Fixed Localization Mac OS: Stock Media Library download button cut off in localized versions
- Fixed Localization Windows OS: Stock Media Library cancel button cut off in localized versions
- Fixed Localization: "Primary Sound Driver" does not display properly.
- Fixed Memory leak/crash over time, ingesting 10 IP web streams
- Fixed Missing space on the Software Update Tab in Preferences





- Fixed NDI Sources remain in the add Source Dialog after being disconnected
- Fixed NDI buffer delay
- Fixed RTMPS output via Microsoft Azure destination does not work
- Fixed Removing an AVCapture source from the Rendezvous mix causes the audio to be removed from the Live Output mix if it is also in the Live Canvas
- Fixed Stock Media Library: Placeholder text shows when trying to select a folder to download
 Stock Media files to
- Fixed Titler Live NDI Shot events do not work
- Fixed Trademark not present beside "Wirecast" when licensed
- Fixed Two browser tabs are spawned when selecting "MIDI forum" from Preferences
- Fixed Unable to use 3D Plane transition in Wirecast 12.
- Fixed Web stream URI and Username input boxes appear as if they are the same input box
- Fixed Webstream HLS source video freezes after several hours
- Fixed Windows: Rendezvous Audio Mixer shows a blank drop down menu until an option is selected
- Fixed Wirecast Crashed when selecting a youtube event
- Fixed Wirecast EULA showing odd characters in section 2.6
- Fixed Wirecast Preferences do not save when computer language is set to Russian
- Fixed Wirecast crashed when editing changes in audio mixer

12.0.1 - Fixes

• Fixed – Dib.dll missing error when upgrading from Wirecast 11.1.2 to Wirecast 12.0 in specific circumstances.

12.0 - New Features

NEW - Stock Media Library

- Now included with every active support subscription, the new Stock Media Library adds a growing database of over 500,000 unique, high quality media assets to your projects.
- A new custom-built portal gives you direct access to transitions, motion backgrounds, royaltyfree backing tracks, and videos from right within Wirecast.
- Select the new Media Files category in the Add Source dialog and choose Stock Media Library.

NEW - Stinger (Custom Transitions) Playback Speed Controls

 Spice up your stinger transitions using the new Stock Media Library, which contains transition files.





• New speed controls allow you to adjust the timing of your stinger transitions, and an additional transition bank gives you more options for live production.

NEW - Rendezvous Audio Mixing

- In the Rendezvous dashboard, you can now create a custom audio mix to be sent to your Rendezvous guests.
- Studio license level will allow you to select the devices to mix.
- Pro license levels will grant you the ability to select individual channels from audio devices to be mixed.

NEW - QR Code Generator Source

- Want to give your audience quick access to a custom link within your stream? Just create a QR
 code that your audience can scan! Copy your link into the new QR Code Generator and
 Wirecast will create a scannable image to broadcast to your fans.
- Select the Overlays category in the Add Source dialog and choose QR Code Generator.

<u>12.0 – Improvements</u>

- Improvement Add ability to configure the number of transition banks in the Preferences
- Improvement Add ability to continuously read a text file in the Text Source Properties
- Improvement Allow users to configure the playback speed of Stinger Transitions
- Improvement Display the Facebook Page of Scheduled events in the Facebook Destination Output Settings
- Improvement Enable NVENC High Profile in Encoder settings
- Improvement Expose all options in Facebook Live Polls
- Improvement Update CEF to version 3578
- Improvement Update to NDI SDK v.3.8

12.0 - Fixes

- Fixed Add better error messaging when the GPU does not support Direct X 11
- Fixed Adding a Direct Show audio device to the document causes duplicate sources to appear in the Rendezvous Dashboard
- Fixed After attempting to activate an old license, any subsequent invalid license activation attempts show an incorrect error message
- Fixed Audio from Multi-Channel Sources is not heard in the Rendezvous call when sending the Live Output audio track
- Fixed Build-In/Build-Out elements don't move proportionally
- Fixed Certain stinger transitions can appear doubled and stretched





- Fixed Change Audio right-click menu text is hard to read text
- Fixed Change the wording for missing Stinger Transitions
- Fixed Changing the playback speed of a stinger transition pauses it without updating the pause/play button
- Fixed Clicking X in the Add Source Dialog adds any selected sources to the document on Windows
- Fixed Clock System Fonts missing font picker dialog
- Fixed Crash when adding a Stinger Transition on Windows 7 with an AMD GPU
- Fixed Facebook Scheduled events list fails to be read properly in some cases
- Fixed Fixed bad alignment in Teradek StreamReader Properties page
- Fixed Hang when selecting a Stinger Transition then immediately using the transition
- Fixed IP camera frame glitch
- Fixed Midi controller volume slider control skips from 99% to 101%
- Fixed NDI detection is disabled when disabling IP Camera discovery
- Fixed Opening a new document during a stream caused Wirecast to Crash after disconnecting from a Rendezvous Session
- Fixed Periscope Destination Schedules Event and Tweets even if Destination is Disabled
- Fixed PTZ IP Port field does not update after switching to a PTZ profile that uses a required IP port
- Fixed Random crash during a Rendezvous Session
- Fixed Random crash when a document has disconnected sources
- Fixed Random hang when switching sources
- Fixed Rare hang that can occur on Windows
- Fixed Remove Facebook donation button from Profiles (not supported by Facebook)
- Fixed Remove Shutdown when not live from Clock and Solid Color sources
- Fixed Security Warning Preventing Facebook Live Authentication on certain 4G networks
- Fixed Streaming to Ustream causes a hang on macOS Mojave
- Fixed Switching Destinations from Facebook User Code While Authenticating Disables OK Button
- Fixed Telestream Cloud Restream output out of sync when started after another output
- Fixed Unable to capture video from Osprey 900 series capture cards
- Fixed Unable to create a Scheduled YouTube Event
- Fixed Unable to delete Scheduled Events on Profiles
- Fixed Unable to stream to certain RTMP servers on macOS Mojave
- Fixed Unable to use ScreenFlow screen record with record PC audio selected while running Rendezvous Session
- Fixed Virtual Mic audio distortion in Zoom
- Fixed –Unable to remove Live Output from the Rendezvous mix





Known Issues

- MacOS Adding more than one PTZOptics NDI connection to a single machine (regardless of the connecting application) can cause a crash in the application that is the second to connect.
 - Workaround 1 Disable Multicast
 - Go to the PTZOptics camera admin webpage.
 - Go to the Network Section.
 - Disable Multicast
 - Reboot the camera using the System page.
 - o Workaround 2 Use RTSP instead of NDI
 - Use the newly rewritten WebStream plugin in Wirecast to connect to the RTSP stream.
 - The URL for this stream can be found in your PTZOptics camera's documentation or admin webpage.
- Windows 7 Certain 4K/UHD H.264 video files in the Stock Media Library are not supported.
- Animated PNG movies from the Stock Media Library can experience poor playback or dropped frames
- Setting the audio output device to 44.1 KHz or 96 KHz can cause audio noise to occur in the monitor. Does not affect the broadcast or recorded output.