

## Release Notes

### System Requirements

	Minimum	Recommended
<b>Operating System</b>	Windows 7, 10, macOS Sierra, macOS High Sierra	Windows 10, macOS High Sierra
<b>Processor</b>	i5 dual-core @ 2.3GHz <sup>1</sup>	i7 quad-core @ 2.8GHz+
<b>Memory</b>	4GB RAM	16GB+ RAM
<b>Hard Drive</b>	2GB <sup>2</sup> , 7200 RPM for record to disk	500GB+, Solid State OS Drive
<b>Graphics Card</b>	Intel HD <sup>3</sup> , DirectX 11 capable	Nvidia GeForce or AMD Radeon, 1GB+ video memory
<b>Internet Connectivity</b>	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

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

### Languages Supported:

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

**An internet connection is recommended for Wirecast 11.0 license activation. A Wirecast 11.0 license will automatically update at no cost after download for Wirecast 8, 9 and 10 users if standard maintenance and support is current.**

**ATTN: Wirecast 9 and up has 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 9 Studio includes a free copy of NewBlueFX Titler Live Express.
- Purchase of Wirecast 9 Pro includes a free copy of NewBlueFX Titler Live Present.

[www.telestream.net/wirecast/newblue.htm](http://www.telestream.net/wirecast/newblue.htm)

**Remote Desktop Presenter** - Please use the Remote Desktop Presenter version 2.0.8, available as a separate download from Telestream: [www.telestream.net/dtp](http://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 [TestMy.net/upload](http://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)
<b>Bandwidth<sup>4</sup></b>	Add 4 Mbps	Add 5+ Mbps <sup>5</sup>
<b>Processor<sup>4</sup></b>	i5 quad-core <sup>6</sup>	i7 quad-core <sup>6</sup>

<sup>4</sup>Based on a single simultaneous stream of 720p30 x264 @ 4.0Mbps.

<sup>5</sup>Bandwidth per guest will scale downwards as more are added to maintain reliability.

<sup>6</sup>Minimum recommended processor with example stream<sup>4</sup>. 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 [Apple's ProRes data rate specifications](https://documentation.apple.com/en/finalcutpro/professionalformatsandworkflows/index.html).  
 "https://documentation.apple.com/en/finalcutpro/professionalformatsandworkflows/index.html" □HYPERLINK  
 "https://documentation.apple.com/en/finalcutpro/professionalformatsandworkflows/index.html" □HYPERLINK  
 "https://documentation.apple.com/en/finalcutpro/professionalformatsandworkflows/index.html" □HYPERLINK
  - 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.  
[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 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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## **11.0 BETA – New Features**

### **NEW – Rewritten WebStream Plugin**

- Re-engineered WebStream plug-in with much broader format, codec and network transport support. This is hosted in a new out of process architecture that protects Wirecast from any failure in the plug-in. This enables HLS and MPEG-DASH ingest.
- Configurable latency of all WebStream network devices
- Improved discovery of ONVIF devices from the same vendor

### **NEW – Stinger Transitions**

- Stinger Transition support. Through the new stinger transition configuration panel, you can setup movies to use as custom transitions. Support for Apple Animation, ProRes and CineForm alpha channeled QuickTime content.

### **NEW – ‘Smooth Transition’ build in & out properties**

- Added panel for configuring the build in & out animations used when the ‘Smooth’ transition is selected.

### **NEW – Virtual Camera Improvements**

- The virtual camera driver for macOS has been rewritten for faster performance and better compatibility with host applications, including sandboxed apps.
- Added option to horizontally flip the video going to the virtual camera.

### **NEW – MacBook Pro Touchbar Switcher**

- Wondered what the Touchbar was for? Wonder no longer: Wirecast 11 adds a quick shot switcher to the Touchbar.

## **11.0 BETA – Improvements**

- On-going performance work: Wirecast 11 is speedier than ever, with quicker startup times, significantly faster drop shadow on macOS, and lower CPU on rendering. We’ll continue to build on this work with every release.
- PTZ support for VISCA over UDP for PTZ Optics & Lumens cameras\*.  
\*Other brands utilizing VISCA UDP may work but are not officially supported.

- New 'Add Reference' workflow when adding a new shot or layer to control how sources are created
- Support for Facebook Live Donations
- Unlimited pagination for Facebook Live Groups and Pages
- Enabled users with Publish permissions to post to Facebook Groups
- Switched to the v5 API when publishing to Twitch
- Added 'Clear Menu' in the Recent Documents menu
- Improved UI layout of Welcome window
- Enabled copying the license number from Preferences to the clipboard
- Changed the scale of the data-rate statistics to Mb/s if the data-rate goes over 10,000 Kb/s
- Added support for TLS v1.2 for RTMPS on Windows

### **11.0 BETA – Fixes**

- Fixed - macOS only: Virtual Camera does not work in sandbox apps
  - Fixed – macOS only: Virtual Camera does not work in Skype for Business
  - Fixed – Go button red dot is off-center
  - Fixed – Adding a Screen Capture from the Add Source UI duplicates the source and uses excessive resources
  - Fixed – Remove Ustream destination from Telestream Cloud supported destinations
  - Fixed – Unable to use PTZ presets with Matrox capture cards
  - Fixed – macOS only: Adding a matte causes the Live output to turn black
  - Fixed – Newtek NDI Spark Tally lights always indicate a preview state
  - Fixed – Crash when opening certain Wirecast documents with hotkeys
  - Fixed – Windows only: Unable to stream using Windows Media Streaming
  - Fixed – macOS only: Crash when editing an Audio Output device
  - Fixed - macOS only: Small memory leak when opening windows
  - Fixed – macOS only: Recording a Prores MOV file always drops frames at the start
  - Fixed – macOS only: Multi-Track Input Mapper Track Labels are not aligned
  - Fixed – Facebook Live: previously created Groups are no longer retrieved
  - Fixed – Periscope stream resets after 2 hours
  - Fixed - macOS Mojave: Search Text in Add Shot UI is white on white
  - Fixed – XKeys 128 Preview and Live lights do not remain lit for Clear Layers
  - Fixed – Unable to change Shot Source Properties without deselecting the shot
  - Fixed – 18 channel audio input devices were having their audio channels jump around
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