

## Release Notes

### **System Requirements**

	<b>Minimum</b>	<b>Recommended</b>
<b>Operating System</b>	Windows 7, Windows 10 1803 or higher, macOS Mojave, macOS Catalina	Windows 10 1903, macOS Mojave
<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

### **Upgrade Information:**

- An internet connection is recommended for Wirecast 13 license activation. A Wirecast 13 license will automatically update at no cost after download for Wirecast 8, 9, 10, 11 and 12 users if standard maintenance and support is current.
- View [full upgrade information](#)

### **Add-ons:**

- **NewBlueFX Titler Live Express & Present** – Includes over 60 title templates for lower-thirds and overlays (Mac & Windows).
  - Wirecast 13 Studio includes a free copy of [NewBlueFX Titler Live Express](#).
  - Wirecast 13 Pro includes a free copy of [NewBlueFX Titler Live Present](#).
  - View our webpage for [additional NewBlueFX Titler Live solutions available for purchase](#).
- **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)
- **PLEASE NOTE: Wirecast 9 and later versions have dropped support of HDV licenses/cameras.** [Please click here for additional information.](#)

## **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:

	<b>Studio (2 guests + 1 host)</b>	<b>Pro (7 guests + 1 host)</b>
<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](#).
  - 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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## Wirecast 13.0.2

- **New & Improved:**
  - *WIRE-16316* – Now you can set your LinkedIn Live broadcasts to be visible only to your first-degree connections. Like if you don't want your boss's boss to see your live stream. Now you can do that.
  - *WIRE-14718* – We now correctly enable Wirecast Live captions in a YouTube event when setting that event to auto start.
- **Fixes**
  - *WIRE-16512*– If you tried to use Osprey 825e capture cards with Wirecast 13, you may have noticed they weren't working very well, or at all. Try again – we think you'll be pleasantly surprised...
  - *WIRE-16505*– Sometimes good intentions backfire. A fix we made in 13.0.1 caused a crash when trying to load a saved Wirecast document with chroma key. It's better now.
  - *WIRE-16500*– Fixed an issue where changes made to Color Space or Dynamic Range for a video source were not, in the strictest of terms, accurate. (At all.)
  - *WIRE-14923*– Fixed an error that caused audio to sometimes not play through the monitor unless the Mix Minus button was toggled, which one would not naturally think to do.
  - *WIRE-14637*– Fixed a miscellaneous issue with a miscellaneous solution for streaming with Wirecast Restreaming to certain destinations.

## Wirecast 13.0.1

- **Fixes**
  - *WIRE-16454*– On Windows, smooth transitions between two shots that contain the same source is working again, after briefly trying to break free and take over the world.
  - *WIRE-16445*– Main Shot Layers now remember their sizes when a saved document is reopened. A little Ginkgo Biloba did the trick.
  - *WIRE-16442*– Also fixed was Wirecast's ability to remember the Controller selected in Preferences.
  - *WIRE-16440*– Recorded audio from Rendezvous guests was sometimes having dropouts or was garbled. Yo..cn ..ear..t.agn now.
  - *WIRE-16479*– When an input format changes to a Magewell capture card, the audio will no longer stop working from that device.
  - *WIRE-16432*– The YouTube's Create Event Menu now correctly shows the dark mode color scheme. Handy for when you actually want to see the text.
  - *WIRE-16425*– Sources from BlackMagic capture cards that don't support automatic format detection were not being found when upgrading to version 13. We found them and helped them get back to where they belong. They're fine. A little shaken, but basically fine.
  - *WIRE-16240*– Sometimes certain areas of the app would appear in English when they shouldn't. We've fixed that bit of linguistic imperialism.
  - *WIRE-15656*– Fixed a crash when clicking the Output Menu when a BlackMagic Decklink 8K Pro capture card was installed.

- *WIRE-15461* – Now, when you use Desktop Presenter and check the capture audio box the playback should be clear without being choppy or skipping.

## Wirecast 13

- **New & Improved:**

- **WIRE-15060 – Main Shot Bin overhaul** – We’ve done a complete refurbishment of our Main Shot Bin (that’s the layered area where you add all your shots.) We’re excited about a lot of under-the-hood improvements that reduced our code bloat, which you’ll have to trust us on. But what you will see is:
  - **Greatly improved responsiveness** when selecting and reordering shots, resizing windows and scrolling. It’s now smooth like buttah.
  - **GPU accelerated live icons** so you can see live previews of all your live shots, without hosing your system CPU.
  - **Refreshed and decluttered user interface** – like Feng Shui, but for software.
  - **A bunch of other small but daring** improvements like being able to reorder your master layers and more layer resizing options ... oh, the power!
  - **WIRE-16006 - Speaking of resizing layers:** We’ve added a “Zoom Layers To” menu under ‘Layout’ so you can set all your master layers in one fell swoop. AND now you can resize all your layers at the same time by holding down the Shift or Alt (Win) or Shift, Option or Command (Mac) keys. PLUS! Extra added bonus: If you double click a layer divider, your layer will resize to its default height. Boom.
  - **WIRE-12584** – You can now also drag & drop a shot by clicking anywhere in the shot, not just on the title.
- **WIRE-15939/WIRE-159940 – BlackMagic Designs and Direct Show source process separation**– We have been working hard to improve the resiliency of Wirecast when dealing with sources. We have updated our code for sources, which for us makes it easier to maintain and support future source updates. You won’t see a lot of obvious changes yet in usability – but this helps us set the stage for future improvements.
- **WIRE-15590 – More efficiency** - We're now allowing Blackmagic, DirectShow and Magewell sources to be more efficient – giving them access to GPU-accessible buffers for better performance.
- **WIRE-15588 – Added support for MJPEG video in DirectShow sources**
- **WIRE-16368 – Stream to Facebook and other places simultaneously:** Facebook recently changed their policy that allows you to stream to multiple destinations when also streaming to Facebook. We have enabled that in our application. So, stream away, anywhere!
- **WIRE-16394/WIRE-16261 – Facebook 1080p streaming:** Now you can stream 1080p and up to 60fps to Facebook.
- **WIRE-15870 – Integrated Facebook Speed Test** - New option in Facebook output settings "Optimize Connection" initiates a Facebook Speed Test to Facebook’s various regional ingestion servers to determine the best choice.
  - **WIRE-16200** – And we now warn busy users that the Facebook Speed Test can take several minutes.

- **WIRE-14429 – PTZ control over NDI** - This should allow all NDI PTZ cameras supporting movement controls over NDI to be fully usable in Wirecast. We have not tested every possible NDI PTZ device, but due to the standardization of NDI, all should work.
- **WIRE-15624 / WIRE-16114** – We also added support for PTZOptics PT12X-ZCam, for which we added a message in the PTZ Control Window that this device does not support pan/tilt controls. (It only zooms).
- **WIRE-16001 – MacOS Dark Mode** - We're going dark. Or at least you can choose to now.
- **WIRE-15989 – Larger user camera in Rendezvous** - When entering the Rendezvous landing page (to enter the username), now the camera appears in the middle of the page so the user can see themselves more clearly than the small view in the top-right corner. Once the Rendezvous session starts, the camera jumps back to the top-right hand corner.
- **WIRE-15976 – LinkedIn Live Error Tracking** - We improved the error tracking when streaming to LinkedIn Live.
- **WIRE-15968 – Preference Pane additions** - We've added more options to the preference pane to give you even more decisions to make, including the look of your shot display, turning GPU Accelerated Live Icons to "Highest Framerate", "Reduced Framerate" or "Disabled", and other settings that give you ultimate omnipotence (at least within your own Wirecast document).
- **WIRE-15876 – Streamlined Buy link** - Clicking on the 'Buy/Upgrade' item under 'Help' now opens the web store directly instead of taking you on a leisurely walk-about through another page or two. We're saving you time.
- **WIRE-15933 – Warm and fuzzy analytics invite** - We made our analytics opt-in pop-up warmer and fuzzier. We really hope you'll help us by opting in to analytics!
- **WIRE-16123** – You probably don't care, but we've enlarged the Welcome Window to make room for in-app videos to play in that window.
- **WIRE-15922** – During the trial period, it is now easier for you to find and press a purchase button.
  
- **Fixes**
  - **WIRE-16380** – We fixed an error when attempting to authenticate to Twitch, caused by a change in the Twitch API.
  - **WIRE-16364** – Fixed an issue that caused audio underflow/popping sounds when using certain Elgato capture cards.
  - **WIRE-16361** – We made an adjustment to the way Wirecast responds to changes in properties – one result being that now when you stop and restart the clock widget, it will resume where you left off, instead of restarting at the beginning.
  - **WIRE-16347** – Jetstream aka Streamzilla now shows up in Mac Output Settings without error.
  - **WIRE-16328** – When you replace a shot with another source, it will not automatically display at a ridiculously large size.
  - **WIRE-16305** – Now when you click on the "Enter full screen" button on the video in the Welcome Screen, it will actually display full screen.
  - **WIRE-16283/WIRE-16175/WIRE-16029/WIRE-15892** - Fixed an issue where files were flickering when added as a Web Stream source
  - **WIRE-16279** – A minor display issue – our cute little Cloud icon was being cut off when enabling Restream and Captions. Now it's not.

- *WIRE-16271* – Fixed an issue where most SD video (720x480) from Blackmagic and other devices were coming in with improper scaling.
- *WIRE-16270* – We have more carefully isolated our media handling from other processes to help prevent crashes.
- *WIRE-16250* – Fixing some long-standing ‘jank’ where audio mute buttons would display on video-only sources and video mute buttons on audio-only sources. Just more housecleaning.
- *WIRE-16241* – Continuing with some housecleaning – We’ve done some additional clean up in the source settings tab of the Shot Inspector so it will only display the appropriate controls for audio-only and video-only sources
- *WIRE-16235* – The ISO filename no longer reverts to default after choosing a destination.
- *WIRE-16227* – We had some over-zealous capitalization on some messages we displayed. They are now proper English. The grammar police can rest easy.
- *WIRE-16217* – We added back the menu bar, which would mysteriously disappear when you opened the Advanced Rendezvous Audio Mixer on Mac.
- *WIRE-16214* – We spent way too much time debating whether it’s OK to display the copyright symbol as (C). No. And then we fixed it.
- *WIRE-16213* – Eradicated an egregious bug that would cause Wirecast to slow down or eventually hang when the audio properties panel was open. That was a doozy.
- *WIRE-16209* – Fixed a memory leak that occurred while looping Chroma Keyed video.
- *WIRE-16201* – Fixed a hang that happened if you took the very specific action to add a playlist shot, move it and then click at the top of Wirecast.
- *WIRE-16196* – Now when you modify the Source Properties of Blackmagic devices while ISO recording, your Preferences for the device will not become corrupt.
- *WIRE-16172* – We removed some unnecessary permissions for areas of Facebook that we weren’t actually using, and that have now been deprecated by Facebook anyway.
- *WIRE-16157* – Fixed an error that occurred on Windows when starting a Program Replay with a canvas size of 854x480.
- *WIRE-16156* – Related to the bug above – we fixed an indefinite hang that would occur on Windows when initiating Replay in conjunction with another Output while using an 854 x 480 Canvas.
- *WIRE-16142* – Now, on Mac, reducing your window size will not cause the Preview/Program windows to disappear.
- *WIRE-16125* – Fixed the Image Carousel – which is also fixed in 12.2.1, by the way.
- *WIRE-16119* – Grammarians rejoice! We’ve made more minor language changes to standardize the naming of items under the 'Window' menu.
- *WIRE-16111* – Fixed an odd bug that would cause an indefinite hang in certain documents when you hover the mouse over the Preview Window.
- *WIRE-16088* – Fixed a bug that didn’t let you assign a hotkey to a shot that's been duplicated.
- *WIRE-16082* – Instead of immediately starting camera / audio devices on startup, which wastes resources, we now wait until we actually need to use them to start them up.
- *WIRE-16079* – Fixed an annoying issue where dragging in unsupported media created a temporary shot which overlapped the clear layer icons.

- *WIRE-16074* – Squashed a crash that happens when opening a document from Explorer/Finder, completing the analytics dialog, then opening and closing the preferences.
- *WIRE-16058* – Fixed a licensing issue that, when deactivating a license and then immediately clicking Purchase, would open the Web Store instead of the more appropriate Product Catalog page.
- *WIRE-16057* – Almost not worth mentioning, because most people will never see this, but we re-aligned a logo on a page that comes up when a Wirecast Pro user clicks purchase. (All in the name of making every aspect of Wirecast supremely excellent.)
- *WIRE-16050* – When you upgrade from Wirecast One, your master layers will also upgrade accordingly. This wasn't happening, which could cause you to think you hadn't upgraded.
- *WIRE-16049* – Fixed a bug where setting audio channel to both L and R made you think you had to upgrade to Wirecast Pro. Sorry.
- *WIRE-16041* – Fixed numerous minor layout issues in media source properties panel.
- *WIRE-16027* – When you upgrade from Wirecast One, you'll now be able to access Wirecast Studio or Pro help and User Guides.
- *WIRE-16026* – Now, you can't reorder a shot on a layer to be before the special Clear Layer shot.
- *WIRE-16014* – When you create a Twitter shot, it will no longer automatically be added to Layer 3. You now can choose.
- *WIRE-16004* – Fixed a rare crash that could occur when quitting and not saving a document.
- *WIRE-15993* – We re-enabled UI keyboard navigation on Mac, so you can again tab between controls.
- *WIRE-15992* – NDI and Webstream sources will now display at full refresh rate in the multi-viewer.
- *WIRE-15985* – Updated the XKeys 128 Controller SDK, so that it works correctly on macOS Catalina.
- *WIRE-15978* – We prevented multiple calls to Facebook when it is the most recently selected destination, to reduce load time of the Output Settings dialog box.
- *WIRE-15920* – Changing the opacity and subsequently hiding and showing the layer in the Shot Layers tab no longer reverts the opacity back to 100%. Opacity now stays the same as whatever it was set to previously...as it should.
- *WIRE-15908* – Fixed an issue on Windows where mattes were not being applied to NDI or Webstream sources.
- *WIRE-15879* – MacOS 10.15 is requiring applications to be "notarized". Part of this update is to enable "hardened runtime" which adds additional protections to the application. We have done this.
- *WIRE-15867* – Added an error message to indicate when an Elgato device is in use by another app or fails to start.
- *WIRE-15855* – Increased wait time and publish attempts for LinkedIn Live broadcasts, which could fail due to the latency introduced when using it with Wirecast Live Captions or Wirecast Restream.
- *WIRE-15853* – Now when you click on the info button to learn about our usage data policies, it takes you to an actual page - not a 404 error.

- *WIRE-15782* – The preview video no longer freezes when you open source properties, so you can see changes being made live, which is of course the purpose of the preview window.
- *WIRE-15780* – Fixed an issue that caused signal degradation for NDI Sources with Live Icons enabled.
- *WIRE-15758* – Fixed an embarrassing oversight that caused a coder-level label to display when setting Exposure Levels settings in PTZ Controls.
- *WIRE-15755* – Fixed issue that would cause "Use backup server" and "Automatically Start Event" to become unavailable in certain cases, when streaming to YouTube.
- *WIRE-15735* – Fixed a bug that would cause audio to not be restored when reconnecting to NDI Sources on Windows.
- *WIRE-15715* – Fixed an issue streaming RTMP to specific URLs on macOS Mojave.
- *WIRE-15644* – Fixed some more odd license behavior when you select "Buy Wirecast" then close the purchase window on macOS.
- *WIRE-15643* – Fixed an indefinite hang that occurred on Windows, when using a machine with a dual GPU setup and changing the graphics adapter then clicking restart.
- *WIRE-15603* – An issue was fixed by Facebook that was causing an inability to switch to live from preview when using the Facebook Live – with User Code destination.
- *WIRE-15567* – We changed the default encoder to x264 for Livestream.com.
- *WIRE-15512* – Fixed a variety of scaling issues that occurred primarily when NDI or BlackMagic sources were added.
- *WIRE-15395* – When Mac users tried to use Rendezvous with a Studio or Trial license, we did not serve up the proper pop-up window to explain next steps. We do that now.
- *WIRE-15386* – Fixed a rare crash on Windows. Yah – that.
- *WIRE-15358* – Improved the handling of alpha PNG files to more efficiently decode these files when played in Wirecast.
- *WIRE-15340* – For users on Windows 10 Creator Studio with DirectX12 installed, our installer doesn't fail for you now.
- *WIRE-15265* – We now don't put dark text on a dark background in the name of selected shot in the Shot Layers panel on macOS. #easiertoread.
- *WIRE-15007* – Fixed an issue where .wcst documents could not be opened if they contained Cyrillic characters.
- *WIRE-14905* – You can no longer change the default encoder presets by creating a new encoder preset with the same name.
- *WIRE-14781* – Selecting a shot with the touch bar caused shot properties sliders/buttons/etc. to be greyed-out and unusable unless you tapped on that shot again in the touch bar. This was not intended. So, we fixed that.
- *WIRE-14404* – We're happy to report, we have significantly improved the way in which Wirecast plays ProRes 4444 clips on Windows. We're seeing 2-3x less CPU usage, depending on the file.
- *WIRE-14228* – Removed some old DX9c code – just cleaning up.
- *WIRE-13872* - Ricoh Theta V video was coming in upside down. Now it's not.
- *WIRE-13828* – YouTube viewer statistics now will continue to update after streaming for more than an hour.

- *WIRE-13792* – Fixed a long-standing issue that would result in missing media errors when trying to copy a shot from one document to another, if both documents are open at the same time.

#### **Additional Notes**

- *WIRE-15638* - The time has come to drop support for older DV cameras, since we don't test them anymore and they are difficult to even find nowadays. Consider official support for these dropped.
- *WIRE-15214* - Windows 7 users: Note that Wirecast 13 will be the last release that supports Win7. You'll see a message about this in app but consider yourself warned.
- *WIRE-16014* - We removed the ability to create a Twitter shot directly from the top nav bar. Don't worry, you can still do it from the Add Source (+) button in the Shot Bin area.

#### **Known Issues**

- *WIRE-16400* – On Windows 7, system devices that deliver planar YUV display green video. The workaround for these devices is to set the color space to RGB.
- *WIRE-16085* - If you are updating to Wirecast 13 and have multiple capture cards that are different models, when you open a saved document that contains sources from the capture cards, one of the inputs may fail to upgrade (and will show their saved source.) To remedy this re-add the missing source back into the document, then open the Asset Manager and assign that newly added source to back into its saved shot.

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*This release is dedicated to the memory of our dear colleague, Antara Bhowmick.*

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