Wirecast 15 Release Notes

System Requirements

	Minimum	Recommended
Operating System	Windows 10 1809 or higher, Windows 11 21H2, macOS Catalina 10.15 or higher	Windows 10 21H2, macOS Monterey 12
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	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), 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.	

[1]*How to check the generation of your Intel processor*
[2]*May be insufficient for 1080p+ or 60 fps workflows.*
[3]*Insufficient for advanced Multiviewer 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 license activation.

- As long as your Wirecast (version 8 or higher) license is entered into the software and your Basic, Standard or Premium support subscription is active, you will be allowed to upgrade to the latest unlocked version of Wirecast for free.
- View [full upgrade information](#)

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
- **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 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.
- 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.
[5] Bandwidth per guest will scale downwards as more are added to maintain reliability.
[6] Minimum recommended processor with example stream[4]. 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 15.0.1

Fixes:
- WIRE-20352: Fixed a crash when pasting a Facebook Live Pairing code.
- WIRE-20343: Updated the End User License Agreement.
- WIRE-20333: Fixed an error when using the Facebook Crosspost feature when the account did not have Business permissions.
- WIRE-20327/WIRE-20311: Fixed Chroma Key with the D3D11 Rendering Engine.
- WIRE-20296: Fixed an issue where opening a saved document with a Wirecast Go source that was not active caused a crash when a manual IP address was used.

Wirecast 15.0

New & Improved:
- **New! Social Media Comment Moderation**
  - Integrate Twitter, Facebook and YouTube comments directly into your broadcast.
  - See all comments from the supported connected platforms come into one Comment Moderation window. Add one of the new Social Media Titles from the add source menu, select a comment, and your comment will automatically display in your social media title. You can rotate selected comments automatically, or manually select your comments. We now also support **YouTube Member Milestone Chat Messages and Twitter Post photos.**
- **New! Major Performance Improvements**
  - We've undertaken a massive project to improve the efficiency of Wirecast on your hardware. (*Benchmarks coming soon!*) A few highlights include more efficient GPU rendering with Direct3D12 on Windows and updated encoding presets for more efficient encoding without sacrificing quality. But there is much more under the hood! We'll be doing benchmarks but would love to hear your anecdotal experience with this (on both Mac and Windows).
- **Improved! File playback performance**
  - Alongside the general performance improvements, we have also specifically improved the performance of file playback.
- **Improved! 4K support**
  - Improved support for 4K60 input, playback and streaming. With all the work we've done improving performance, one of the benefits is greatly improved handling of 4k content.
- **Improved! Web Page Source interaction:**
  - When you add a web page source to your document, you can now select a mode where you can interact with that webpage, as if you were in a browser - from directly in the Wirecast UI
- **New! Refreshed UI**
  - We've updated and refreshed the User Interface. Besides the more pleasing design, we now offer larger, brighter fonts, better tally indicators and more.
- **New! More Rendezvous Improvements:**
  - **More layout options**: We now let users choose either a grid layout for all guests or one-main-guest-others-small layout in their Rendezvous Dashboard

- **Mirror view:** Ability for guests to mirror their self-view by clicking "Flip Video Horizontally"
- **Muted:** Host can see when guest's mic is muted
- **Network Diagnostics:** Rendezvous hosts can now see an icon (either a green, yellow or red signal icon) for each guest, indicating downlink network quality (from guest to Wirecast).
- Additionally, the host can see current network stats in the bottom left corner of each guest's video. Presented stats are received bitrate, round trip time, jitter and packet loss. Stats are refreshed every 5 seconds.

- **New! Rendezvous Music Mode:** Rendezvous guests can turn on Music Mode, which will greatly improve the audio quality when playing musical instruments over Rendezvous
  - Details:
    - Rendezvous guests will have the option to turn on Music Mode in their Rendezvous web app. This will:
      1. Enable stereo audio
      2. Increase the audio bitrate to 256k. (By default, it is mono 32k. When enabling music mode, it will be two channels, 128k each.)
         a. Note: this applies only for Rendezvous guests sending audio to Wirecast. Higher quality audio will not be sent to other guests in session (bandwidth utilization would be significantly higher in such case).
      3. Disable audio processing (echo cancellation and noise reduction)
         - Note: disabling audio processing for normal microphones and just talking can result in poor quality audio - so this should only be used for playing instruments.

- **New! New and Improved Audio Meters**
  - All audio meters now use a consistent dBFS scale across the app. You'll see consistent readings whether you're looking at Multiviewer audio bars or the Advanced audio Meter. Levels turn yellow when they hit -6dB and red anything greater than -1dB. All meters are consistent in showing when audio is clipping (yellow & red)

- **New! More Animated Titles**
  - We continue to build our library of animated titles with several new options in addition to the new social media-specific titles

- **And more!**
  - Improved the low-level clock system in Wirecast. This will improve A/V sync over long periods of time.
  - Improved quality of Screen Capture source on macOS Retina displays.
  - Improved the framerate of Multiviewer on Windows.
  - Improved workflow when deleting a source from the Asset Manager. It will now remove any layers of that source from the document.
  - Improved audio "smoothing" when a discontinuity occurs.
  - WIRE-19882: Added ability to show username and photo on Facebook Group stream
  - WIRE-19875: Improved the placement of the forward/back buttons for interacting with a web page source
  - WIRE-16862: added support for BGRX raster format
  - Updated Technology: NDI 5.1, WebRTC to 4664 (m96), libVLC to 3.0.16
  - WIRE-19736: Created new UHD Presets Encoding Settings in Output Settings

Fixes:
- WIRE-20197: Fixed a crash loading a document with view inside Playlist
- WIRE-20195: In 15 Beta 2 the Deinterlace Blend setting was not saved with document
- WIRE-20194: Fixed a crash related to using the Playlist loop button
- WIRE-20184: Fixed a crash opening a saved document with SourceSDK source
- WIRE-20182: Updated our Support Assistant on Windows to use uses TLSv1.2
- WIRE-20179: Fixed flickering on Scrolling text when shadow was applied
- WIRE-20154: Added new dynamic destination for Striv.tv
- WIRE-20153: Fixed an issue on Windows where the scroll bar could stop functioning in one area while continuing to work in others.
- WIRE-20152: Fixed a crash that could occur in when using Direct3D12 when moving between Shot Bin and Playlist
- WIRE-20151: Fixed a memory leak when moving between Playlist tabs and Main Shot Display
- WIRE-20145: Audio Delay is now saving when you save and reopen a document
- WIRE-20139: Fixed an issue where Support Assistants were not picking up the correct trace logs
- WIRE-20136: Updated to new Twitch API
- WIRE-20131: Fixed an issue where Screen capture would increase CPU even after being removed from a document
- WIRE-20126: Fixed a memory leak in documents with certain sources that are streaming for a longer duration
- WIRE-20123: Fixed an issue where certain sources would freeze when not live
- WIRE-20116: Improved handling of CPU buffers for better performance
- WIRE-20104: Fixed a crash on Windows that could happen when outputting to AJA, Blackmagic or NDI with integrated GPUs
- WIRE-20094: Fixed a memory leak that could happen when deleting a certain type of source
- WIRE-20092: Fixed an issue on Windows where the Welcome screen would not stop loading on first launch
- WIRE-20088: Fixed an issue where a screen capture video would freeze when a Shot ISO recording started
- WIRE-20083: Improved CPU performance with ISO Source Recording on Direct3D12
- WIRE-20082: Fixed a display issue where the Stinger transition window appeared cut off
- WIRE-20081: We now write ISO recording settings to our trace log for better troubleshooting
- WIRE-20070: Updated the audio volume percentage entry field to operates on the same dbFS scale as the other audio meters
- WIRE-20069: Changed the default recordings folder on Wirecast Gear to be the larger D: media drive
- WIRE-20067: Fixed a crash that could occur when loading a document with a disconnected audio source and sending that source live.
- WIRE-20063/ WIRE-20042/ WIRE-20041/WIRE-20040/ WIRE-20039/ WIRE-20038/ WIRE-19835/WIRE-19389/WIRE-19193/WIRE-19173: Localized all new elements in the app
- WIRE-20054: Improved performance by updated the way Webstream sources handle color spaces.
- WIRE-20052: Added Windows Defender Firewall exceptions to allow all inbound connections to Wirecast during installation of Wirecast
- WIRE-20049: Fixed an issue where Live Shot Icons would "flicker" when dragging the Preview/Live splitter bar with certain hardware
- WIRE-20043: Improved handling of media files that only contain a few video frames.
- WIRE-20033: Fixed an issue that would cause H.264 videos to playback with frames out of order when Chroma Key was applied

- WIRE-20025: Fixed a web socket re-connection issue in Rendezvous
- WIRE-20015: Fixed a crash when entering Facebook Sponsor URL
- WIRE-20006: Put in code to detect Haswell CPUs, and automatically use Direct3D11 on that hardware
- WIRE-20005: Fixed a crash when playing a certain mp4 video
- WIRE-19999: Improved rendering when video delay is on
- WIRE-19997: Fixed a crash that could occur when a Rendezvous caller was added on Windows
- WIRE-19988: Minimizing the main document while the Multiviewer is running no longer causes a huge memory increase
- WIRE-19924: Fixed colors in certain media files on Apple M1
- WIRE-19920/WIRE-8478: Added more space between the Preview & Live windows to make resizing easier
- WIRE-19952: Updated NDI SDK to version 5.1
- WIRE-19916: Prevented Debug assertions from appearing when closing a document that had a preview pane hidden.
- WIRE-19915: Media file duration in Wirecast now matches the actual duration of the file.
- WIRE-19912: Fixed some laggy performance when scrubbing through a video in Preview
- WIRE-19891/WIRE-19670: Fixed several issues reported about dropped frames when recording to disk and interacting with the app in a "light" way
- WIRE-19890: Fixed an error that could occur when rapidly selecting/deselecting titles while source properties panel is open
- WIRE-19887: Certain stinger transitions files now again show the proper color on Windows
- WIRE-19884: Changing the canvas size is working again when using Direct3D 12 Rendering on Windows
- WIRE-19883: X and Y Rotation is working again when using Direct3D 12 Rendering on Windows
- WIRE-19880: Fixed an issue that caused secondary display live output to occasionally "glitch" or show torn/previous/black frames
- WIRE-19878: Certain media files no longer display a black frame when looping
- WIRE-19866: Fixed an issue where changing one setting on Social Media titles would mess up other settings
- WIRE-19863: Updated the look of our Missing Media image
- WIRE-19858: Fixed an issue with discoloration of some Social Media Titles
- WIRE-19857: Width slider for Social Media Titles has a slower response time now to avoid a possible crash on Mac
- WIRE-19855: Fixed an indefinite hang when stopping a Blackmagic Output
- WIRE-19854: Fixed a stupid bug that could cause failure to send audio or video out if outputting via BlackMagic, NDI or AJA
- WIRE-19846: Fixed a few Titles whose logo selection fields didn't work
- WIRE-19841: Changed the default selection to "Create support ticket" when sending support information via our in-app Support Assistant
- WIRE-19830: Added a workaround for a bug where Alpha channel did not work for ProRes 4444 files on M1 Pro chips
- WIRE-19827: Fixed an issue where removing sources could cause a lag in responsiveness with other sources of same type
- WIRE-19826: Fixed a crash using certain transitions in specific situations while rendering with Direct3D 12

- WIRE-19812/WIRE-19789/WIRE-19728: Added a new "broken media" image and a user notification if you try to import a file format that is not supported
- WIRE-19810: Fixed an issue in v15 that could cause weird UI states when using Image Carousel on Windows
- WIRE-19806/WIRE-19253: Fixed a hang when opening a document with a System Audio Capture source on certain macOS machines.
- WIRE-19805: Fixed Stinger Transitions in version 15 on Direct3D 12 on Windows
- WIRE-19801: Clear Layer shot no longer incorrectly shows media time and plays music with certain documents.
- WIRE-19800: Fixed an issue where shots could disappear from the Main Shot Display if a drag operation is cancelled.
- WIRE-19777: Fixed an indefinite hang when attempting to start an output to a disconnected thunderbolt device. (Um, don't do that).
- WIRE-19775/WIRE-19538: Fixed a bug where AV Foundation devices would fail to reconnect.
- WIRE-19774: Fixed Facebook device pairing.
- WIRE-19771/WIRE-18450: Fixed a crash when starting an audio only and video only RTMP outputs simultaneously.
- WIRE-19769: Rendezvous Guests can no longer automatically join into new Sessions if they have joined a Session from that browser before.
- WIRE-19749: Added automatic mode for Windows Render Engine Selection in Preferences.
- WIRE-19748: Added a User Log message when a source Task Source crashes.
- WIRE-19741: Fixed NewBlue Titler Live not rendering when using the Titler Live integration, in v15 on Direct3D12 on Windows.
- WIRE-19730: Fixed an issue where using Direct3D12 would render certain colors or formats very badly.
- WIRE-19729: Fixed a hang that could occur on Direct3D12 when toggling BlackMagic and NDI outputs.
- WIRE-19719: Fixed an issue where the first frame of a video would briefly display in Preview each time the source was selected.
- WIRE-19713: User is now able to schedule a YouTube event with quotation marks in the Title.
- WIRE-19707: Fixed an issue that could occur on Wirecast Gear that would cause certain cameras to drop frames when audio was enabled.
- WIRE-19706: Added digital signature for wirecastd.exe on Windows for security.
- WIRE-19703: Added support TLS 1.2 for web sockets on Windows.
- WIRE-19702/WIRE-19010: Upgraded WebRTC to 4664 (m96).
- WIRE-19701: Fixed tally state in Rendezvous when a guest rejoins a session.
- WIRE-19700: Fixed a bug in which resizing the window resulted in blinking black background.
- WIRE-19692: Fixed an issue with Chroma Key dropper not picking up colors.
- WIRE-19685: Changed the label for an audio input on Wirecast Gear video sources.
- WIRE-19678/WIRE-19677: Fixed the Font Picker menu which could stop functioning when there were lots of fonts on the system.
- WIRE-19675: Changed location of the trace log on macOS to the Wirecast Preferences folder.
- WIRE-19674: Fixed an issue in 15 where shot icons would be blank when opening a Playlist or the Main Shot Display
- WIRE-19654: Fixed a rare crash when idling with a Rendezvous Session active with no guests connected.
- WIRE-19646: Added canvas size and video display rate information in trace logs.
- WIRE-19611: Fixed a crash that could occur on Windows when starting outputs while using integrated graphics

- WIRE-19610: Restart prompt now works if the Welcome Window is open on Windows.
- WIRE-19602/WIRE-19601: Fixed several issues related to external layer window naming
- WIRE-19596: Added UHD canvas sizes to Wirecast 15
- WIRE-19595/WIRE-17227/WIRE-16232: Fixed an issue where Screen Capture Source Properties layout is incorrect on HiDPI displays on Windows.
- WIRE-19578: Move Screen Capture Cursor compositing to Metal, which was the last piece of OpenGL code in Wirecast on macOS.
- WIRE-19574: Updated Wirecast Splash Screen on Windows.
- WIRE-19572: Updated minimum OS to macOS Catalina 10.15.0.
- WIRE-19570/WIRE-17985/WIRE-16859: Playlist scrollbar now displays correctly on macOS.
- WIRE-19569: Playlist Shots can now be deleted by key command.
- WIRE-19558: Updated the scrolling icons for playlist tabs
- WIRE-19556: Updated an issue in v15 where input state of Wirecast Gear audio sources was not recalled correctly
- WIRE-19543: Fixed an issue where the v15 Audio meters were bouncing continuously and erroneously when processing a 1kHz tone
- WIRE-19524: Add year to trace log entries.
- WIRE-19484: Fixed an issue where Elgato Face Cam did not appear in the list of Video Sources unless the user enabled duplicate sources.
- WIRE-19475: Fixed an issue where the first I-frame would be dropped when starting multiple RTMP outputs simultaneously.
- WIRE-19472: Fixed a rare crash on quit when a Facetime Camera was selected in the Rendezvous Dashboard.
- WIRE-19467: Secondary Display Output audio will now play when the audio output device uses a sample rate other than 48000 Hz.
- WIRE-19463: Removed Vimeo Monthly Stream Quota. Vimeo has removed this.
- WIRE-19460: Fixed an issue where the Audio Monitor would not playback when opening a saved document that had an audio track selected other than the first track, if the Audio Mixer was closed.
- WIRE-19457: Updated default encoding settings to improve encoding efficiency.
- WIRE-19419: Fixed an issue where unselecting Virtual Camera Flip Horizontally would be reselected when changing the canvas size.
- WIRE-19414: Fixed an issue where cross dissolving with transparent PNG files was not smooth on Windows. Fixed on D3D12 only for now.
- WIRE-19409: Fixed an issue where enabling NDI Output could lead to dropped frames and audio glitches.
- WIRE-19390: Fixed scrollbar in playlists with a lot of shots.
- WIRE-19374: Replacing a layer in a shot now copies its shot layer properties.
- WIRE-19373: We now save the position and size of the Preview/Live windows in the document.
- WIRE-19262: Fixed a cropping issue where cropping one shot layer cropped the drop shadow on another cropped layer.
- WIRE-19260: We now show a dialog when Wirecast's child processes fail to start. This can happen for a variety of reasons including Window's built-in security settings.
- WIRE-19250: Choose file button is no longer missing for logo in French localization.
- WIRE-19224: Loading saved documents with certain legacy Image Carousel sources no longer crashes Wirecast.
- WIRE-19210: Font styling is now properly saved when opening certain legacy documents.

- WIRE-19209: Fixed issue where Wirecast NDI output could be out of sync.
- WIRE-19208: Upgrade libVLC to 3.0.16.
- WIRE-19203: Apple Podcasts app is now appearing in the list of apps in the Screen Capture source.
- WIRE-19183/WIRE-18327: Opening a saved document from Explorer no longer causes the menu bar to be missing from the Main Document window on certain machines.
- WIRE-19176: Fixed a rare crash when clicking OK on the "Cannot Change Canvas Size" alert dialog in the Preferences window.
- WIRE-19145: Fixed an annoying issue where audio sources wouldn't show up as an option in Rendezvous until they were added to your Wirecast document
- WIRE-19120: You can now again select a PTZ Preset for replaced/assigned PTZ shots in Templates.
- WIRE-19113: Fixed a Playlist tab redraw error when resizing the Preview Panel by dragging.
- WIRE-19112: Moved the Replay Shot to the Templates category in the Add Source Dialog.
- WIRE-19104: Adding many media files to the Main/Playlist Shot Bin no longer causes Wirecast to use a lot of memory.
- WIRE-19099: Added an error message to the Wirecast Welcome window when there is no Internet connection.
- WIRE-19098: Fixed an error that could occur when starting a Replay after starting an NVENC encoder.
- WIRE-19097: Fixed missing translations for Assign Placeholder in Shot Layers.
- WIRE-19096/WIRE-19095: Opacity now works with Clock and Text Source on macOS.
- WIRE-19093/WIRE-18975/WIRE-18639/WIRE-18601: Fixed a rare crash when sending a Countdown Clock source Live.
- WIRE-19082: Fixed an issue where Stinger Transition Animations would play when only a Title layer had changed.
- WIRE-19052: Removed Virtual Sets from Backgrounds category (You can still find them in Shot Templates).
- WIRE-19043/WIRE-18893: Added error messages when an RTMP connection stops working due to network or other unknown cause.
- WIRE-19042: Changes to Title Source Property text fields were not saved when switching tabs with focus still on the text field. They are now.
- WIRE-19035: Cleaned up logic that determines whether audio meters are shown in the document. This was reported as a bug, but the user had saved this configuration in their document.
- WIRE-19022: Added output from dxdiag to Windows support logs.
- WIRE-19019: Fixed very rare crash that could occur when showing the Add Source dialog, showing the PTZ Controller window and showing the Multi-Track Audio Mapper.
- WIRE-19018: Improved performance of playlists with 50+ media files.
- WIRE-19008: Improved A/V sync drift between different devices.
- WIRE-19003: Fixed an issue where typing in some input fields could cause a hang when there are thousands of user defined encoder presets.
- WIRE-18989: Screen Capture color values are now accurate on macOS.
- WIRE-18988/WIRE-18424: Fixed Wirecast Gear capture card being unable to connect to certain PTZ Cameras.
- WIRE-18986: We now support translations for Rendezvous Create Session webpage.
- WIRE-18983: Fixed an issue where adding an existing title source from the Add Source dialog would not retain its position.

- WIRE-18980: Fixed text layout in Leonatus Title.
- WIRE-18977: We now save your filter settings in the Title Browser dialog box.
- WIRE-18972: Fixed default color displays of Titles when using the Change button.
- WIRE-18948: Now you can lock shot icon in a playlist.
- WIRE-18944/WIRE-17017/WIRE-10517/WIRE-10343/WIRE-1334: With the improved Audio meters, you'll see Audio meters throughout the document are now consistent.
- WIRE-18911: Wirecast now gives a warning when quitting the document if a Rendezvous Session is active.
- WIRE-18892: Fixed A/V Sync drift that could be seen in Preview but not Live.
- WIRE-18866: Add ability for guests to mirror themselves in Rendezvous.
- WIRE-18810: Fixed an issue where Wirecast could appear to be streaming and become unresponsive when ending some disconnected streams.
- WIRE-18796: ISO recordings are now correctly adding the .mov extension when there is a period in the file name.
- WIRE-18741: The text entry field is now automatically selected when adding a new Text source.
- WIRE-18719: We disabled the Disable Automatic Downsize option if there are downsized images in your document, to avoid a crash
- WIRE-18626/WIRE-17007: Removed throttling of Preview video when Wirecast is not in focus.
- WIRE-18308: Fixed a crash when creating a new document after idling at the Welcome Screen for a long time.
- WIRE-18252: Limited the QR Code content field to 4000 characters to avoid abuse.
- WIRE-18241: Updated Preference Icons.
- WIRE-18150/WIRE-17322/WIRE-16623/WIRE-13923/WIRE-5229: Fixed several hangs that could occur when attempting to stop a disconnected RTMP output.
- WIRE-18102: Fixed a case where Wirecast could display the wrong Shot Properties in certain cases.
- WIRE-18006: Fixed some cases of HLS feeds not working in Wirecast.
- WIRE-17991: Fixed incorrect spacing between the Shot Display and Shot Properties.
- WIRE-17986: Use NV12 uncompressed format to improve H.264 playback performance on Windows.
- WIRE-17965: Encoder Presets help button link now links to a correct location.
- WIRE-17937: Fixed visible latency on Drop Shadow applied to Chroma Key.
- WIRE-17929: A Drop Shadow no longer gets cropped when another shot layer is cropped.
- WIRE-17895: Fixed an issue where pressing the scale to fit button could cause a state where resizing a different shot using the handles wouldn't update the size box initially.
- WIRE-17870: Dragging a file onto the Main Shot Display will no longer cause the next shot drag operation to fail.
- WIRE-17815: Added missing translations for Shot Layers UI.
- WIRE-17800: Fixed a crash that could occur when certain files are missing from the installation directory.
- WIRE-17777: Fixed display of configure button for Screen Capture on macOS.
- WIRE-17733: Layer Visibility now works properly when layers are reordered.
- WIRE-17661: Fixed the Application Source Latency tooltip value to reflect the actual maximum value of 330ms.
- WIRE-17597: Reflection Slider now properly updates when changes are entered into the text field.

- WIRE-17544: Shot layer image would occasionally show the wrong image if your source got disconnected. This is fixed.
- WIRE-17535: Keyboard shortcuts no longer fail to fire intermittently.
- WIRE-17456: Emojis now display correctly with Twitter and Text sources.
- WIRE-17433: Osprey 260e/460e capture cards are now working.
- WIRE-17418: Playlist progression bar is now working on the Main Shot Display.
- WIRE-17391: Dragging a folder of media files from Finder/File Explorer now results in either a playlist shot or separate shots for each file (depending on the option within Preferences).
- WIRE-17227: Fixed Screen Capture Source Properties layout issues.
- WIRE-17205: Improved performance of 60 fps videos.
- WIRE-17090: Fixed a crash that could occur when closing Output Settings with specific documents.
- WIRE-16944: Fixed a deadlock that could occur if an error alert was thrown while browsing transitions.
- WIRE-16893: Fixed a situation where shots could get inadvertently grabbed during layer resize.
- WIRE-16878: Now you can open documents from Windows Search box.
- WIRE-16755: Changing the Controller input setting to XKeys now automatically sets the Shot Display Theme as well.
- WIRE-16773: Text within the Source Properties panel no longer appears cut off
- WIRE-16714: Added the ability for a discovery process to signal the app to relaunch when a hot swap event has occurred.
- WIRE-16644: Updated the display of the Scale Icons to be centered.
- WIRE-16619: Fixed an issue where Layer Window icons are blank until the Layer Window is selected.
- WIRE-16584: Fixed an issue where scrubbing through media would use significant CPU
- WIRE-16520/WIRE-16518/WIRE-14754: Configuring certain custom Keyboard Shortcuts will now notify the user when they conflict with built-in shortcuts.
- WIRE-16371: Fixed the Tally light state does not work for playlist shots.
- WIRE-16360: Icons for Audio Sources are now consistent between the Main Shot Display and Shot Layer Properties.
- WIRE-16358: Fixed the display of Text Drop Shadow sliders.
- WIRE-16350: Fixed an issue where Titler Live shot properties would not be removed from the document when deleting them from the Asset Manager, causing high load times and CPU usage.
- WIRE-16332: Fixed the ability to drag a Shot into a Playlist Shot.
- WIRE-16327: Fixed scrollbar scaling issues on HiDPI displays.
- WIRE-16326: Dragging a shot from the desktop/finder into another shot now properly makes a Playlist with the dragged shot in it.
- WIRE-16314: Fixed minor display issue where a black line would appear at the bottom of shots in the Shot Layers tab on Windows.
- WIRE-16258: Shots in the Layer windows no longer appear out of place at certain scales.
- WIRE-16232: Fixed a variety of scaling issues with HiDPI displays on Windows.
- WIRE-16199: Fixed Scroll bar display that could occur after deleting a Playlist.
- WIRE-16195: Adding an image to an Image Carousel shot now works, even the first time.
- WIRE-16116: Fixed the display of the Playlist scrollbar on macOS.
- WIRE-16095: Fixed some odd drag/drop interactions that could occur when right clicking on a shot.

- WIRE-16065: Now you should be able to scroll while moving shots between layers on Windows.
- WIRE-15944: NDI Skype call no longer crashes when rotating phone from horizontal to vertical positions.
- WIRE-15861: Improved performance of video files with an alpha channel on Windows.
- WIRE-15759: Fixed a display issue where the Main Shot Display would resize vertically when the ISO + Replay output was toggled on and off.
- WIRE-15671: Fixed an issue where position values in the Shot Layer Properties tab weren't updating when a crop was added
- WIRE-15546: Fixed an issue where some sources would scale to unreasonable dimensions when replacing others.
- WIRE-15439: Opening the tutorial document no longer opens a CMD window with OMP_WAIT_POLICY warning on Windows
- WIRE-15402: Selecting a shot in a playlist now loads the correct shot layer properties if the playlist contains more than one shot.
- WIRE-15360: Audio Mixer no longer flickers when shots are switched in Windows.
- WIRE-15271: Graphical corruption no longer occurs in Windows on time duration when adjusting in and out points on clip in Preview window.
- WIRE-14788: Fixed a crash when using video delay on screen capture
- WIRE-14432/WIRE-10211: Fixed layout issues with playlists that contain long file names.
- WIRE-14135: Pressing the GO button multiple times will no longer cause the Wirecast UI to flicker when the Audio Mixer window is open.
- WIRE-13827: Fixed issue where Multiviewer output would show the menu bar when alt-tabbing between full screen applications on macOS.
- WIRE-13670: Fixed an issue where there could be a long delay or freeze when taking shots live in complex documents.
- WIRE-13130: Improved quality of the Telestream logo in Tutorial document.
- WIRE-13051 Main shot layers in document window now retain their zoom size when reopened.
- WIRE-12012: Improved quality display of Support Assistant on HiDPI displays on Windows.
- WIRE-11166: Fixed Tally states on Playlist shots when selecting a Clear layer shot.
- WIRE-11146: Previous and Next buttons are now properly grayed out when the Playlist shot isn't Live.
- WIRE-11073: Creating a new preset would sometimes be renamed as a GUID string. We're hoping that's fixed.
- WIRE-10649: Default location for new document windows is now centered, so they don't get partially covered by Windows taskbar.
- WIRE-10601: Resizing the UI windows no longer causes a green bar to appear along the Main Shot Layers scroll bar.
- WIRE-10483: Maximizing Wirecast scales both preview and live equally, keeping them at the same size in relation to one another.
- WIRE-10393: Support Assistant will now recognize email addresses with a "+" in the email address.
- WIRE-9236: Fixed an issue where the Source List would get cut off on a message prompt to delete sources when saving. The popup for deleting sources when saving scales with the number of sources that are being deleted.
- WIRE-6947: Bandwidth Meter no longer disappears when choosing to stop reconnecting while offline.

- WIRE-5331: Kbps will no longer show as negative value when starting a stream or recording while another stream/record is already in progress.
- WIRE-33: General UI fixes fixed a cropping issue where setting crop to 100% would stretch an image.

KNOWN ISSUES
- We added an automatic mode for Windows Render Engine Selection in Preferences, which, if you're using an AMD GPU we will automatically switch you to Direct3D11.