



Release Notes

System Requirements

	Minimum	Recommended
Operating System	Windows 7 Mac OS X El Capitan	Windows 10, macOS High Sierra
Processor	i5 quad-core @ 2.3GHz ¹	i7 quad-core @ 2.8GHz+
Memory	8GB RAM	16GB+ RAM
Hard Drive	2GB ² , 7200 RPM for record to disk	500GB+, Solid State OS Drive
Graphics Card	Intel HD, DirectX 11 capable	Nvidia GeForce or AMD Radeon DirectX11 compatible, 1GB+ video memory
Internet Connectivity	Open HTTP/HTTPS port 80, RTMP port 1935	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.

Languages Supported:

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

An internet connection is required for Gameshow.



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.
- 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.

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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Gameshow 4.2 - Changes

New:

Support for switching Shots with supported MIDI controllers:

- Akai APC Mini
- Akai APC 40 MKII
- Novation Launchpad

Fixes:

- **FIXED** – Preview and Live Canvas cropping sources off by 1 pixel on bottom and left sides
 - **FIXED** – Purchase cart not rendering properly on Windows
 - **FIXED** – Crash when no audio output devices are connected
 - **FIXED** – Indefinite hang when starting a Twitch stream after entering a Game Name
 - **FIXED** – Indefinite hang when closing the Multi-Viewer
 - **FIXED** – Finder window text hard to read on High Sierra
 - **FIXED** – Template import error when opening a new Document
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Gameshow 4 - New Features

NEW - Completely new rendering engine

- Huge performance increases
- (WIN) Upgrade to Direct 3D 11
- Added Z-rotation
- Resize, rotate, and crop handles directly in the Preview Window.
- Asset Snap-to-grid, Guidelines, and Centering.
- Add Reflection and/or Drop Shadow to any source.

NEW - Multi-Viewer Output System

- Support for up to 4 slot multi-viewer output to any attached display.
- Send different configurations (1x, 2x, 4x) to different monitors.

NEW - Multi-Channel Audio Ingest

- Support for up to 16 channels of input via each connected professional audio interface, each NDI source, and/or each capture card input with embedded audio.

NEW - Multi-Track Audio Support— up to 8 tracks

- Isolate audio sources for post-production.
- Multi-language recordings.
- Behind-the-scenes or other commentary track support.

NEW - Major encoding engine upgrade

- Substantially less system resource usage for most content when encoding with x264.
- Higher quality x264 encoding.
- Tighter bit rate variations when utilizing CBR (constant bit rate).

NEW - Automatic color space matrix with options for override

- No more washed out looking sources, Gameshow will auto detect the color space and apply any appropriate conversions to maintain color quality throughout the entire workflow.



Gameshow 4 - New Features(cont.)

NEW - New Transitions

- 23 included live transitions.
- New 'Smooth' transition features allow curve types and animation effects like 'spring'.

NEW - (WIN) Implement WASAPI Audio Capture

- Reduced audio latency and increased channel support compared to Direct Sound.
- Support for newer WASAPI only multi-channel audio devices.

NEW - (WIN) Implement ASIO Audio Ingestion

- Support for the industry standard Windows pro audio API.

NEW - (MAC) Added [Syphon](#) client support for Mac

- Improved quality and performance over macOS native functionality when capturing Syphon enabled apps on macOS (Adobe After effects and Character Animator, Many VJ tools, Unity engine, and many more).

NEW - New Clock, Timer, and Stopwatch Source

- World clock, time and date functionality - all completely customizable.
- Start, stop, and reset with the click of a mouse.

NEW - Add option to override automatic format detection in capture cards

- Now you can override the automatic detection system and specify the exact setting you need for your workflow.

NEW - De-interlacing hot toggle

- De-interlacing can now be toggled per source in the moment. No need to restart the app.

NEW - Add support for .WebM files

- Support for the popular .WebM format when bringing in media files
*Alpha channels not supported in .WebM

NEW - Add support for Sony XAVC-S video format

- Support for the popular XAVC-S format used in Sony cameras.

NEW - Replay - Option to mute audio during playback

- Now, you can set your replay files to include audio, without having to manually mute each



replay clip when used in a live setting with narration. Great for enhancing your post-production workflow.

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Gameshow 4 - Improvements & Fixes

Improvements:

- **IMPROVED** - (WIN) Put cursor at the end of the field when using Enter to accepting a search value
- **IMPROVED** - Ability to assign "Clear Layer", the special shot, to a keyboard shortcut/hotkey
- **IMPROVED** - Ability to copy & paste shots between documents
- **IMPROVED** - Ability to copy sources and its properties to other shots
- **IMPROVED** - Ability to duplicate sources within the same shot
- **IMPROVED** - Add a "Select All" menu item to allow users to select all sources in Preview
- **IMPROVED** - Add ability to snap to other media in canvas
- **IMPROVED** - Add Twitter Source to Plus button in shot inspector
- **IMPROVED** - Allow simultaneous CPU and GPU buffers during output
- **IMPROVED** - Allow the "Refresh Shot Icon" feature to work with all source types including "Media File" sources
- **IMPROVED** - Asynchronous media file indexing
- **IMPROVED** - Audio Mixer: Click 'R' to pan to 50R / Click 'L' to pan to 50L
- **IMPROVED** - Clock source icons were hard to read when viewed in the new source dialog
- **IMPROVED** - Delay the "missing sources" prompt a second or two after opening a document
- **IMPROVED** - Double clicking the vertical split bar between the preview and live panels should toggle between a 75% split and a 50% split
- **IMPROVED** - Eliminate 3 second wait when adding new video sources
- **IMPROVED** - Include "http://" by default in Web Display
- **IMPROVED** - Increase Default Font Size & Change default color to White
- **IMPROVED** - Make newly added video sources scale to fit by default.
- **IMPROVED** - Moved the "Default Playlist Live Shot Duration" out of the "Preferences" window and into the playlist duration window
- **IMPROVED** - Organize Add Source Menu
- **IMPROVED** - Playlists always transitions all layers rather than just the playlist layer.
- **IMPROVED** - Remove Blank Shot that appears with New Document
- **IMPROVED** - Removed Apply button in Capture Card settings as it applies with changes automatically
- **IMPROVED** - Request: Relabel the document recovery message
- **IMPROVED** - Request: Replace the "Clear Layer" (Blank Shot) icon
- **IMPROVED** - Show an RGB/Color-Hex value when picking sample for chroma key, allow direct hex entry
- **IMPROVED** - Smaller resize range for audio mixer
- **IMPROVED** - System Audio Capture Should say "Select Audio device: instead of "Audio Settings"
- **IMPROVED** - Take out the padding around the Preview and Master audio meters
- **IMPROVED** - Update Twitch Encoding Settings
- **IMPROVED** - Use the boxed icons from the Mixer in the main UI for Monitor and Mute.
- **IMPROVED** - Users do not need to restart the app for deinterlacing to work

Fixes:



- **FIXED** - (MAC) Audio timestamps passed to external display output plugins are broken
- **FIXED** - (MAC) CEF process separation caused some pages to no longer load correctly
- **FIXED** - (Mac) Crash on quit in rare cases
- **FIXED** - (MAC) Crash with specific URL's in the "Web Display" widget
- **FIXED** - (MAC) Dragging the main document UI to the minimum size causes Preview and Live to disappear when the shot editor is open
- **FIXED** - (MAC) Gameshow can crash when selecting a font for title text on Mac
- **FIXED** - (MAC) OpenGL crash when opening a specific document
- **FIXED** - (MAC) Apple H.264 hardware encoder disappears when in use
- **FIXED** - (Widgets) Black hex color boxes are unreadable in the "New Source Dialog" window for multiple widget sources
- **FIXED** - (WIN) "Drop Shadow" font style does not match other menu options in the "Preview Inspector"
- **FIXED** - (WIN) (NDI) Clicking "Reconnect" button quickly 5 or more times causes Gameshow to hang
- **FIXED** - (WIN) (NDI) Source doesn't always show up in the capture devices
- **FIXED** - (WIN) Colors do not look right and scaling is off when capturing from YCbCr 4:2:0 video sources
- **FIXED** - (WIN) Crash after exiting Gameshow while tearing down DirectShow device
- **FIXED** - (WIN) Cursor does not change to the "pointer" hand when hovering over hyperlinks in Windows
- **FIXED** - (WIN) Damaged resource notification refers to Mac file type in Windows
- **FIXED** - (WIN) DINPro font does not work in Text Widget
- **FIXED** - (WIN) Encoder audio settings should be limited to 192kbps on Windows only
- **FIXED** - (WIN) External Display Output on Windows will sometimes be very pixelated
- **FIXED** - (WIN) Gameshow installer shows when opening document from explorer
- **FIXED** - (WIN) Incorrect error message is displayed when attempting to record Program Replay to a read-only folder
- **FIXED** - (Win) Keyboard Shortcuts - Local shortcuts will not function when opening a saved document
- **FIXED** - (WIN) Mouse Scroll wheel does not work in Asset Manager
- **FIXED** - (WIN) Output settings window not populating Taskbar or Windows Peak
- **FIXED** - (WIN) Preview/Live flickers with GeForce GTX 980M
- **FIXED** - (WIN) Recordings created in VLC are crashing Gameshow
- **FIXED** - (WIN) Setting YouTube event to a pre-POSIX start date will crash the application
- **FIXED** - (WIN) Starting NDI or Blackmagic output with specific settings will cause crash
- **FIXED** - (WIN) Verify that AVerMedia Live Gamer HD2 GC570 works with Gameshow
- **FIXED** - (WIN) Windows video playback and encoded output on GTX960 is stuttering
- **FIXED** - (WIN) YUV sources have washed out colors with NVIDIA GPUs
- **FIXED** - 1080p Anamorphic setting is not 1440x1080
- **FIXED** - Adding audio filter de-highlights the headphones icon in the audio mixer
- **FIXED** - Audio bitrate settings that are not valid for the encoder are populating the list
- **FIXED** - Audio Effects disappear with playlist shot switching



- **FIXED** - Changing encoder resolution with Auto Canvas breaks color controls
- **FIXED** - Changing the UI to show program results in black bars
- **FIXED** - Clear Layer can be deleted via Edit menu
- **FIXED** - Corrupted encoding presets could cause documents to fail to open
- **FIXED** - Crash in project with many duplicating and playlists
- **FIXED** - Crash when importing an MOV in QuickTime Animation format
- **FIXED** - Crash when switching between Audio FX and/or slider settings within the same slot
- **FIXED** - Cropping then moving the image causes resizing
- **FIXED** - Disable keyboard shortcut for deleting a shot while the shot editor is open
- **FIXED** - Disconnecting secondary monitor while External Display Output is active does not terminate external viewport
- **FIXED** - Display persists through the External Display Output after closing document
- **FIXED** - External Display Obscuring Gameshow on some systems when external display is unplugged
- **FIXED** - External Display Output only available to the first Gameshow document
- **FIXED** - Hang when ending stream while still recording
- **FIXED** - Image shifts slightly whenever the user uses the crop attribute
- **FIXED** - Image Slideshow source does not convert from OBS converter
- **FIXED** - Indefinite hang in the GlobalHotkeyMonitor
- **FIXED** - Launching Gameshow without internet, reconnecting to the internet and pressing 'Try Again' leads to Oops page
- **FIXED** - Localization: Japanese: "Channel" is not localized when certain Broadcast Destinations are selected
- **FIXED** - Localization: Japanese: "Refresh" does not fit within the associated button in the USB Devices window
- **FIXED** - Localization: Locate missing Asset prompt displays placeholder text
- **FIXED** - Localization: Matte selections in the Configure Visual Effects tab are not localized
- **FIXED** - Localization: Multiple strings are not localized in the Desktop Presenter configuration pane
- **FIXED** - Localization: Select Screen Region text is cut off due to line-wrapping beyond the text box
- **FIXED** - Localization: Text does not display properly in the USB Devices window
- **FIXED** - Localization: Text is cut off on the Configure Cropping tab
- **FIXED** - Localization: The Gameshow Menu is not localized
- **FIXED** - Long audio interface names in audio mixer are being cut off
- **FIXED** - Minimize and maximize buttons react on mouse down rather than mouse up
- **FIXED** - Missing Twitch ingest servers in output settings
- **FIXED** - Problems invalidating or updating Playlist Shot UI Tabs after the Playlist Shot is moved to another Master Layer
- **FIXED** - Rare licensing issue leading to "Oh No" page with broken links
- **FIXED** - Record to Disk - MP4 x264 files have an edit list that excludes almost every frame in the first GOP
- **FIXED** - Remove Hitbox CDN as it no longer exists
- **FIXED** - Remove ImRaising Donations widget from GS
- **FIXED** - Same shortcut won't work if assigned to multiple actions



- **FIXED** - Selecting between options on the Source Properties tab causes Video/Audio to stutter with Blackmagic devices
- **FIXED** - Selecting Solid Background under Text Properties Defaults to a Background with 0% Opacity
- **FIXED** - Selecting the currently selected External Display Output causes the output image to disappear
- **FIXED** - Shot-level audio settings affect other shots using the same sources
- **FIXED** - Strict CBR sometimes fluctuates more than it should
- **FIXED** - Support for Blackmagic Production Camera 4K
- **FIXED** - Text Properties Background Color - Auto Switching to None
- **FIXED** - Text Properties window contents can be highlight selected
- **FIXED** - Text Tool - Clicking on Shadow Attribute Sliders does not apply correctly
- **FIXED** - TextField - Undo/Redo doesn't always function
- **FIXED** - The aspect ratio of a text source can become corrupted in certain situations
- **FIXED** - The mix minus and mute state is not being updated between the Audio Mixer and Source Properties
- **FIXED** - Tooltip for create replay shot button is "Update Replay Shot"
- **FIXED** - Twitch Dashboard inaccessible
- **FIXED** - Update Monitor Checkbox to button in mixer
- **FIXED** - Update Twitch API to V5
- **FIXED** - When In A Playlist Changes To Shots Position Will Not Go Live
- **FIXED** - With certain equipment workflows, audio dropouts can occur during shot switching
- **FIXED** - x264 Encoding Produces Increasing/Excessive Keyframes
- **FIXED** - x264 Outputs with a resolution of 480x270 can cause the encoder to fail

Known Issue(s):

- (WIN) Windows 7 users require the Windows 7 Platform Update.
[Click here for more information.](#)

Gameshow 4 contains hundreds of bug fixes, not all of which can be listed here. There are also additional user interface/user experience enhancements, and vast improvements to the general stability and performance of the application that are not able to be listed here.
