

# Release Notes for Nuke and Hiero 12.2v8

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## Release Date

29 July 2021



**Warning:** As a result of the current COVID-19 lockdown here in the UK, Foundry cannot guarantee that our usual high standards of QA have been applied to Nuke's monitor output functionality, including VR headset support, in this release.

## Qualified Operating Systems

- macOS Mojave (10.14) or macOS Catalina (10.15)



**Note:** We recommend macOS Mojave customers update to 10.14.6 to take advantage of performance enhancements.

- Windows 10 (64-bit)
- CentOS 7.4, 7.5, and 7.6 (64-bit)



**Note:** The VFX Platform 2019 upgrade includes library versions that are only compatible with CentOS 7.4, or later.

Other operating systems may work, but have not been fully tested.

## Requirements for Nuke's GPU Acceleration

If you want to enable Nuke to calculate certain nodes using the GPU, there are some additional requirements.

### NVIDIA

An NVIDIA GPU with compute capability 3.0 (Kepler) or above. A list of the compute capabilities of NVIDIA GPUs is available at <https://developer.nvidia.com/cuda-gpus>



**Note:** The compute capability is a property of the GPU hardware and can't be altered by a software update.

With graphics drivers capable of running CUDA 10.1 or above. On Windows and Linux, CUDA graphics drivers are bundled with the regular drivers for your NVIDIA GPU. Driver versions 418.96 (Windows) and 418.39 (Linux), or above are required. See <https://www.nvidia.com/Download/Find.aspx> for more information.



**Note:** We recommend using the latest graphics drivers, where possible, regardless of operating system.

### AMD



**Note:** Bit-wise equality between GPU and CPU holds in most cases, but for some operations there are limitations to the accuracy possible with this configuration.

- On Windows and Linux, an AMD GPU from the following list:



**Note:** Other AMD GPUs may work, but have not been fully tested.

- Radeon™ RX 480
- Radeon™ Pro WX 7100
- Radeon™ Pro WX 9100
- Radeon™ Pro WX 8200

- Radeon™ Pro W5700



**Note:** For information on the recommended driver for each GPU, see <https://www.amd.com/en/support>

- On Mac, AMD GPUs are supported on any late 2013 Mac Pro, mid 2015 MacBook Pros onward, and late 2017 iMac Pros.



**Warning:** Although AMD GPUs are enabled on other Mac models, they are not officially supported and used at your own risk.

## Multi-GPU Processing

Nuke's GPU support includes an **Enable multi-GPU support** option. When enabled in the preferences, GPU processing is shared between the available GPUs for extra processing speed.



**Note:** Multi-GPU processing is only available for identical GPUs in the same machine. For example, two NVIDIA GeForce GTX 1080s or two AMD Radeon™ Pro WX 9100s.

## New Features

### HieroPlayer - Now Free with Nuke and NukeX

HieroPlayer is now a free annual subscription with your Nuke or NukeX license. Simply renew your existing Nuke or NukeX license to receive your HieroPlayer entitlement or fill in the on-demand form.

HieroPlayer is an artist desktop review tool that lets you play back shots or a sequence and compare versions of renders quickly, letting you easily see your work in the context of the VFX timeline.

See [HieroPlayer Free with Nuke](#) for more information.

## Feature Enhancements

- BUG ID 481030 - HieroPlayer now supports track blending in the same way as Nuke Studio and Hiero. See [Blending Tracks on the Timeline](#) for more information.

- BUG ID 481534 - HieroPlayer now includes several new workspaces tailored to specific tasks, including Flipbook Player, Reviewing, and Sync Session.

## Bug Fixes

- BUG ID 282435 - HieroPlayer: Random shots on the timeline were occasionally locked.
- BUG ID 358709 - Documentation: A layer command was missing attributes in the Nuke Python Developer's Guide for Channels.
- BUG ID 378555 - Localization: Playback during localization of source files did not perform as expected.
- BUG ID 427913 - Monitor Out: Looping a sequence occasionally skipped frames on the monitor and in the timeline Viewer.
- BUG ID 428258 - Python: Commenting out the last line of code in the Script Editor caused Nuke to become unresponsive.
- BUG ID 436068/43679 - Sync Review: Reviewing large projects referencing remote server footage was sluggish and occasionally caused reconnection issues or the application to crash.
- BUG ID 440884 - Sync Review: Clicking the update button in a client session with Viewer A/B mode active disconnected the client.
- BUG ID 444711 - Assert: Adding an Assert node between transforms broke concatenation.
- BUG ID 465300 - Read/Write: Certain **Photo - JPEG** encoded **.mov** files with non-standard format sizes caused Nuke Studio to crash.
- BUG ID 466816 - Read/Write: Certain **.mp4/.mov** files caused Nuke to become unresponsive during playback of the last frame.
- BUG ID 469260 - Read/Write: Failure to decode a frame from certain **.mov/.mp4** files written with a "non-intra" codec caused Nuke to become unresponsive.
- BUG ID 469710 - Read/Write: Certain **.mov** files caused Nuke Studio and Hiero to crash.
- BUG ID 473394 - Sync Review: Client sessions occasionally disconnected from the host when reviewing in large projects.
- BUG ID 473395 - Sync Review: Pushing changes from a client to the host occasionally disconnected or caused the application to crash.
- BUG ID 473399 - Viewing the output of certain scripts including a Merge (under), Shuffle, and Write node caused Nuke to crash.
- BUG ID 475236 - Project Bin: Deleting bin items from certain Nuke Studio projects was occasionally slow.
- BUG ID 476360 - C\_Stitcher: The output of C\_Stitcher was re-rendered for every scanline in the Viewer.
- BUG ID 477320 - Python: Some files were missing from the Flipbooking with External Applications **pyQtExamples** directory.
- BUG ID 481790 - Localization: Opening a project containing localized files caused Nuke Studio to become unresponsive.

- BUG ID 482494 - HieroPlayer: Saving a custom workspace over a default workspace and assigning a different keyboard shortcut caused the order of existing keyboard shortcuts to display incorrectly.
- BUG ID 483964 - Documentation: The Shotgun example in the Python Developers Guide referenced Python 3, rather than Python 2.7.

## New Known Issues Specific to Nuke 12.2

This section covers new known issues and gives workarounds for them, where appropriate.



**Note:** Changes to the way motion vectors are calculated in Nuke 12.2 cause any node using the **Local** option for motion estimation, such as Kronos and VectorGenerator, to render slightly different vectors when compared to legacy versions of Nuke. The default **Regularized** motion estimation method is unaffected.

- BUG ID 474957 - Monitor Output: The AJA T-Tap device does not currently work with Nuke.
- BUG ID 472462 - Frame Server: Nuke frame server processes do not currently free RAM after completing a render.
- BUG ID 472336 - Linux only: Adding certain MOV/QuickTime files containing audio to timeline causes Nuke Studio to crash.
- BUG ID 471373 - macOS Nuke Indie only: C\_STMap is incorrectly recognized as a custom plug-in and cannot be loaded.
- BUG ID 470465 - Preferences: The **Performance > Hardware > disable blink cache** control has a misleading label and tooltip.
- BUG ID 468956 - Read/Write: Importing **.aaf** files with the file browser Preview panel open causes Nuke Studio to crash.
- BUG ID 466754 - USD: Enabling **read from file** in a Camera or Axis node's **Properties** and then clicking **No** in the popup does not disable **read from file** as expected.
- BUG ID 466720 - USD: Copy/pasting a **.usd** file from a browser into the Node Graph adds a **/** (forward slash) to the file path and displays a **No such file or directory** error.  
As a workaround, delete the **/** and press enter to display the import dialog as normal.
- BUG ID 466485 - Linux only: Nuke can not read **.r3d** files without CUDA libraries available on the machine.  
As a workaround, you can manually install the CUDA libraries from NVIDIA, even if you don't have an NVIDIA GPU installed.
- BUG ID 461944 - Python: Changing a Read node from an image sequence to a container file format Pythonically causes Nuke to crash if the Read node has **postage stamp** set to a **static frame**.

- BUG ID 460411 - Read/Write: Rereading a **.mov** encoded with mov32 settings using the **file** control in legacy scripts causes Nuke to crash.
- BUG ID 460240 - macOS only: Existing export presets using the deprecated **mov32** codecs cause Hiero to crash on export.  
As a workaround, recreate the preset in a Hiero 12.2 release
- BUG ID 460038 - Particles: Secondary particles emitted from other particles do not render as expected.
- BUG ID 459859 - ACES: Nuke Studio incorrectly allows artists to alter the R3D IPP2 colorspace in Read nodes using **IPP2 Custom** selection, which results in **Half Float ACES Linear** colorspace mismatches between Nuke Studio and Nuke.
- BUG ID 459609 - USD: The Scenegraph does not automatically expand the first layer of items when loaded for the first time.
- BUG ID 448524 - macOS only: The resolution restriction informational message for Nuke Indie contains incorrect text.
- BUG ID 444347 - Export: Presets that rely on mov32 do not populate the **Content** field in the **Export** dialog.
- BUG ID 443296 - Windows only: The Nuke Indie icon is incorrect.
- BUG ID 442165 - MOV: Writing out **.mov** files using the **H.264** codec at resolutions above the 4K limit imposed by the codec causes Nuke to crash.
- BUG ID 441979 - USD: Deselecting a group in the USD importer and then enabling **view entire scenegraph** does not load the group.
- BUG ID 441555 - USD: Clicking **Cancel** in the USD import dialog and then enabling **view entire scenegraph** does not load the **.usd** file as expected.
- BUG ID 441439 - R3D: Red decode CPU performance is slower in Nuke 12.2 compared to 12.1 builds.
- BUG ID 440943 - USD: Expanding parent and children groups in the scenegraph manually does not create the horizontal scroll bar correctly.  
As a workaround, right-click and select **expand all** to display the scroll bar.
- BUG ID 440057 - Roaming: Hiero license roaming with a Nuke Studio license stack is not working as expected.  
As a workaround, launch Nuke Studio and select **License > Roaming** and then set the **Workspace** to **Conforming**.
- BUG ID 439856 - Sync Review: Client sessions do not cache sequences as expected when the Viewer A/B mode is active on the Host before the Client connects.
- BUG ID 439011 - ApplyMaterial: Selecting **filter > name** and then clicking **choose** incorrectly displays **Load** state icons.
- BUG ID 439002 - ApplyMaterial: Selecting **filter > name** and then clicking **choose** allows editing of the read-only names in the scenegraph.
- BUG ID 436560/436551 - Sync Review: The formatting in the **Sync Session** panel and **Host** and **Connect** dialogs is inconsistent.

- BUG ID 434956 - USD: Columns in the **Scenegraph** tab can only be rearranged once.
- BUG ID 434574 - File Formats Update: Reading **.mxf** files in the **HybridLogGamma** colorspace defaults to **linear** incorrectly.
- BUG ID 432438 - Vertex UV values are occasionally displayed incorrectly for **.abc** and **.usd** files.
- BUG ID 430779 - File Formats Update: All deprecated IPP2 **.r3d** colorspaces appear the same as current colorspaces.
- BUG ID 430760 - File Formats Update: DRAGONcolor2 and REDcolor4 use the same IPP2 **.r3d** colorspace.
- BUG ID 429788 - macOS only: Legacy mov32 presets are no longer retained, choosing a preset always displays the **Don't show this message** dialog.
- BUG ID 426901 - File Formats Update: In **IPP2 Custom** mode, enabling the **Use GPU** checkbox displays grading controls from the **IPP2 Pipeline** incorrectly.
- BUG ID 425200 - Read/Write: Legacy Write node Motion JPEG A/B files do not display the **Quality** control with **mov64** selected as the encoder.
- BUG ID 424070 - RIP: Ops requesting unused inputs occasionally prevent images being released from the device cache.

## Developer Notes

As Nuke develops, we sometimes have to make changes to the API and ABI under the hood. We try to keep these changes to a minimum and only for certain releases, but from time to time API and ABI compatibility is not guaranteed. See the following table for the situations when you may have to recompile your plug-ins and/or make changes to the source code.

Release Type	Example	Compatibility	Recompile	Rewrite
Version	12.0v1 to 12.0v2	API and ABI		
Point	12.0v1 to 12.1v1	API	●	
Major	12.0v1 to 13.0v1	-	●	●

Additionally, node **Class()** names occasionally change between major releases. While these changes do not affect legacy scripts, you may not get the results you were expecting if a node class has been modified. The **toolbars.py** file, used to create Nuke's node toolbar, contains all the current node class names and is located in **<install\_directory>/plugins/nukescripts/** for reference.

As an example, between Nuke 9 and Nuke 10, the CameraShake node **Class()** changed from CameraShake2 to CameraShake3. In the **toolbars.py** file for the two releases, the entries for the CameraShake node appear as follows:

```
m.addCommand("CameraShake", "nuke.createNode(\"CameraShake2\")",
icon="CameraShake.png")
m.addCommand("CameraShake", "nuke.createNode(\"CameraShake3\")",
icon="CameraShake.png")
```



# Release Notes for Nuke and Hiero 12.2v7

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## Release Date

10 June 2021



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## Qualified Operating Systems

- macOS Mojave (10.14) or macOS Catalina (10.15)



**Note:** We recommend macOS Mojave customers update to 10.14.6 to take advantage of performance enhancements.

- Windows 10 (64-bit)
- CentOS 7.4, 7.5, and 7.6 (64-bit)



**Note:** The VFX Platform 2019 upgrade includes library versions that are only compatible with CentOS 7.4, or later.

Other operating systems may work, but have not been fully tested.

## Requirements for Nuke's GPU Acceleration

If you want to enable Nuke to calculate certain nodes using the GPU, there are some additional requirements.

### NVIDIA

An NVIDIA GPU with compute capability 3.0 (Kepler) or above. A list of the compute capabilities of NVIDIA GPUs is available at <https://developer.nvidia.com/cuda-gpus>



**Note:** The compute capability is a property of the GPU hardware and can't be altered by a software update.

With graphics drivers capable of running CUDA 10.1 or above. On Windows and Linux, CUDA graphics drivers are bundled with the regular drivers for your NVIDIA GPU. Driver versions 418.96 (Windows) and 418.39 (Linux), or above are required. See <https://www.nvidia.com/Download/Find.aspx> for more information.



**Note:** We recommend using the latest graphics drivers, where possible, regardless of operating system.

### AMD



**Note:** Bit-wise equality between GPU and CPU holds in most cases, but for some operations there are limitations to the accuracy possible with this configuration.

- On Windows and Linux, an AMD GPU from the following list:



**Note:** Other AMD GPUs may work, but have not been fully tested.

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- Radeon™ Pro WX 7100
- Radeon™ Pro WX 9100
- Radeon™ Pro WX 8200

- Radeon™ Pro W5700



**Note:** For information on the recommended driver for each GPU, see <https://www.amd.com/en/support>

- On Mac, AMD GPUs are supported on any late 2013 Mac Pro, mid 2015 MacBook Pros onward, and late 2017 iMac Pros.



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## Multi-GPU Processing

Nuke's GPU support includes an **Enable multi-GPU support** option. When enabled in the preferences, GPU processing is shared between the available GPUs for extra processing speed.



**Note:** Multi-GPU processing is only available for identical GPUs in the same machine. For example, two NVIDIA GeForce GTX 1080s or two AMD Radeon™ Pro WX 9100s.

## New Features

There are no new features in this release.

## Feature Enhancements

- BUG ID 140786/148736/407810 - Backdrop: Creating a Backdrop node now places the backdrop near the mouse pointer's location if no other node is selected.

## Bug Fixes

- BUG ID 167882 - WriteGeo: Exporting an **.fbx** file with an upper case file extension did not work as expected.
- BUG ID 360410 - Selecting **File > New Comp** in Nuke did not carry command-line arguments, such as **--safe**, over to the new Nuke script.

- BUG ID 437414 - Windows only: Pressing **V** to display available versions on an offline shot caused Nuke Studio to crash.
- BUG ID 446363 - Node **Properties** undo/redo/reset controls were disabled when making adjustments with a Shuffle2 node upstream.
- BUG ID 453576/472075 - Tags: Selecting a new icon for a tag did not update the tag icon in the Viewer as expected.
- BUG ID 456647 - UI: Resizing the Node Graph map to **0** caused nodes in the Node Graph to disappear.
- BUG ID 458752 - Licensing: Nuke 12.2 did not display licensing errors as expected.
- BUG ID 467080 - Export: Re-exporting comps occasionally displayed an **out of frame range** warning in the Viewer after scanning for versions and then versioning up.
- BUG ID 469046 - Soft Effects: Some effects were displayed in different colors between Nuke Studio and Hiero or HieroPlayer.
- BUG ID 470096 - Python: Clicking the **Load** column for items in a custom **sceneView\_Knob** cleared the object name in the Scenegraph.
- BUG ID 470388 - ABC: Deselecting locator items in an Alembic ReadGeo import and then clicking **Create all-in-one node** caused the import of all objects to fail.
- BUG ID 470531 - Retiming: Attempting to retime a clip on an odd number frame at clip-level, resulted in frame offsets in exported shots.
- BUG ID 470569 - Retiming: Exporting a shot with frame handles beyond the source clip handle range and then clicking **Build Track from Export Tag** reimported the shot with an offset if the source clip did not start at frame 1.
- BUG ID 470881 - Text: The **clip to** control didn't handle black outside correctly.
- BUG ID 470999 - AddChannels: The **format\_size** knob didn't handle black outside correctly.
- BUG ID 471672 - Viewers: Disabling tracks in a sequence did not update the timeline Viewer as expected.
- BUG ID 473324 - WriteGeo: File format detection behaved differently to the Write node.
- BUG ID 473689 - Sync Review: Importing files during a Sync Review session occasionally caused Nuke Studio to crash.
- BUG ID 475297 - Viewers: Selecting **Audio and Video** in the timeline Viewer settings did not display the audio waveform.
- BUG ID 475778 - Group: Copying/pasting or loading Group nodes from ToolSets placed the node incorrectly in the Node Graph.
- BUG ID 476091 - Export: Re-exporting comps and then opening the new comp occasionally displayed a **no such file or directory** error.

## New Known Issues Specific to Nuke 12.2

This section covers new known issues and gives workarounds for them, where appropriate.



**Note:** Changes to the way motion vectors are calculated in Nuke 12.2 cause any node using the **Local** option for motion estimation, such as Kronos and VectorGenerator, to render slightly different vectors when compared to legacy versions of Nuke. The default **Regularized** motion estimation method is unaffected.

- BUG ID 475140 - Documentation: The Hiero Python Developer's Guide does not currently ship with Nuke builds.
- BUG ID 474957 - Monitor Output: The AJA T-Tap device does not currently work with Nuke.
- BUG ID 472462 - Frame Server: Nuke frame server processes do not currently free RAM after completing a render.
- BUG ID 472336 - Linux only: Adding certain MOV/QuickTime files containing audio to timeline causes Nuke Studio to crash.
- BUG ID 471373 - macOS Nuke Indie only: C\_STMap is incorrectly recognized as a custom plug-in and cannot be loaded.
- BUG ID 470465 - Preferences: The **Performance > Hardware > disable blink cache** control has a misleading label and tooltip.
- BUG ID 468956 - Read/Write: Importing **.aaf** files with the file browser Preview panel open causes Nuke Studio to crash.
- BUG ID 466754 - USD: Enabling **read from file** in a Camera or Axis node's **Properties** and then clicking **No** in the popup does not disable **read from file** as expected.
- BUG ID 466720 - USD: Copy/pasting a **.usd** file from a browser into the Node Graph adds a **/** (forward slash) to the file path and displays a **No such file or directory** error.  
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- BUG ID 466485 - Linux only: Nuke can not read **.r3d** files without CUDA libraries available on the machine.  
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- BUG ID 465300 - Read/Write: Certain **Photo - JPEG** encoded **.mov** files with non-standard format sizes cause Nuke Studio to crash.
- BUG ID 461944 - Python: Changing a Read node from an image sequence to a container file format Pythonically causes Nuke to crash if the Read node has **postage stamp** set to a **static frame**.
- BUG ID 460411 - Read/Write: Rereading a **.mov** encoded with mov32 settings using the **file** control in legacy scripts causes Nuke to crash.
- BUG ID 460240 - macOS only: Existing export presets using the deprecated **mov32** codecs cause Hiero to crash on export.  
As a workaround, recreate the preset in a Hiero 12.2 release
- BUG ID 460038 - Particles: Secondary particles emitted from other particles do not render as expected.

- BUG ID 459859 - ACES: Nuke Studio incorrectly allows artists to alter the R3D IPP2 colorspace in Read nodes using **IPP2 Custom** selection, which results in **Half Float ACES Linear** colorspace mismatches between Nuke Studio and Nuke.
- BUG ID 459609 - USD: The Scenegraph does not automatically expand the first layer of items when loaded for the first time.
- BUG ID 448524 - macOS only: The resolution restriction informational message for Nuke Indie contains incorrect text.
- BUG ID 444347 - Export: Presets that rely on mov32 do not populate the **Content** field in the **Export** dialog.
- BUG ID 443296 - Windows only: The Nuke Indie icon is incorrect.
- BUG ID 442165 - MOV: Writing out **.mov** files using the **H.264** codec at resolutions above the 4K limit imposed by the codec causes Nuke to crash.
- BUG ID 441979 - USD: Deselecting a group in the USD importer and then enabling **view entire scenegraph** does not load the group.
- BUG ID 441555 - USD: Clicking **Cancel** in the USD import dialog and then enabling **view entire scenegraph** does not load the **.usd** file as expected.
- BUG ID 441439 - R3D: Red decode CPU performance is slower in Nuke 12.2 compared to 12.1 builds.
- BUG ID 440943 - USD: Expanding parent and children groups in the scenegraph manually does not create the horizontal scroll bar correctly.  
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- BUG ID 440884 - Sync Review: Clicking the update button in a Client session with Viewer A/B mode active disconnects the Client.
- BUG ID 440057 - Roaming: Hiero license roaming with a Nuke Studio license stack is not working as expected.  
As a workaround, launch Nuke Studio and select **License > Roaming** and then set the **Workspace** to **Conforming**.
- BUG ID 439856 - Sync Review: Client sessions do not cache sequences as expected when the Viewer A/B mode is active on the Host before the Client connects.
- BUG ID 439011 - ApplyMaterial: Selecting **filter > name** and then clicking **choose** incorrectly displays **Load** state icons.
- BUG ID 439002 - ApplyMaterial: Selecting **filter > name** and then clicking **choose** allows editing of the read-only names in the scenegraph.
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- BUG ID 432438 - Vertex UV values are occasionally displayed incorrectly for **.abc** and **.usd** files.

- BUG ID 430779 - File Formats Update: All deprecated IPP2 **.r3d** colorspaces appear the same as current colorspaces.
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- BUG ID 425200 - Read/Write: Legacy Write node Motion JPEG A/B files do not display the **Quality** control with **mov64** selected as the encoder.
- BUG ID 424070 - RIP: Ops requesting unused inputs occasionally prevent images being released from the device cache.

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```



# Release Notes for Nuke and Hiero 12.2v6

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## Release Date

25 March 2021



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# New Features

## Sync Review Improvements

Sync Review is no longer a beta feature and now includes all the actions needed on a Review Session, such as changes in the timeline, importing new footage, or creating new soft effects. Sync Review for NukeStudio, Hiero, and HieroPlayer enable teams to collaborate and continue working together towards a shared vision of the final image.

HieroPlayer now includes the same annotations capabilities as Nuke Studio and Hiero, providing greater creative control during review sessions.

Previously, only the playback controls, versioning system and annotations were updated during the session, and editorial changes required a manual push to update other participants' sessions. In this release, most actions available in the timeline, Viewer, and Project bin are synced automatically during the session including:

- Changes in the Viewer: Layer and channel selection, the TC/TF frame slider option, Viewer guides, and zoom in and out.
- Changes in the Timeline: Creating new tracks, renaming shots, adding or deleting soft effects, retimes and transitions, changes to soft effects parameters, lock status of tracks, trimming, and moving shots on the timeline.
- Changes in the **Project** bin: Creating, renaming, moving or deleting project items, importing files, creating new sequences, tags, and bins.

## Feature Enhancements

- BUG ID 360412 - Annotations: Sequences exported from Nuke Studio and Hiero now have the option to include burnt-in annotations. The export option is in the **Transcode Image** exporter under **Effects and Annotations > Include Annotations**.

## Bug Fixes

- BUG ID 137121 - Nuke crashed on start up if the **disk cache** location set in the **Preferences** was no longer available.
- BUG ID 379806 - Python: The Hiero example file **spreadsheet\_csv\_export.py** did not work as expected.
- BUG ID 385696 - MergeMat: Copy/pasting a disabled MergeMat node to combine two Project3D nodes caused Nuke to crash.
- BUG ID 401016 - Python: Calling **Gizmo.filename()** returned the value of a gizmo's **file** knob, rather than the gizmo's location on disk.
- BUG ID 401881 - Windows only: Custom shortcuts using **Shift** and keypad numbers could not be initialized.
- BUG ID 431846 - Shuffle2: Expression linking **Input** or **Output Layer** controls to a **channel** control in another node caused Nuke to crash.
- BUG ID 431886 - Dragging files into the **Project** bin occasionally caused Nuke Studio and Hiero to become unresponsive.
- BUG ID 433153 - UI: The overlay and guides menu was occasionally disabled if it included custom guides.
- BUG ID 434560 - Python: PySide2 version 5.12.x did not support mocking in Nuke.
- BUG ID 437042 - Windows only: Nuke did not register Nuke scripts with an associated program when installed.
- BUG ID 438360 - Documentation: The NDK documentation for **Setting up Projects and Compilers** was out of date.
- BUG ID 447820 - Deep: Viewing a DeepMerge node with **deep.front** and **deep.back** set to **inf** values caused Nuke to crash.

- BUG ID 448363 - BlinkScript: Creating unsigned variables using **uint** displayed an error when GPU acceleration was enabled.
- BUG ID 453738 - Sync Review: Deleting a clip from the Host **Project** panel did not update Client sessions as expected.
- BUG ID 462887 - OCIO: Loading custom OCIO configs using the OCIO environment variable did not work as expected.
- BUG ID 463633 - Colorspace: Exporting a script with various output colorspaces displayed an **Invalid LUT selected** error.
- BUG ID 463791 - Soft Effects: Exporting a sequence containing Text effects on a separate video track set **clip to > bbox**, rather than **format**.
- BUG ID 464372 - Python: Nuke could not load movWriter from an external version of Python.
- BUG ID 464455 - Python: The **foundrySG\_Example.py** example and documentation did not work as expected.
- BUG ID 464508 - Transform: Adjusting the **scale** control in a Transform node's **Properties** panel with **show overscan** active in the Viewer settings caused Nuke to crash.
- BUG ID 464891 - Sync Review: Soft effect version names and numbers occasionally got out of sync between sessions.
- BUG ID 465012 - Python: **FnFilenameField.py** was missing an import of **QtCore.QEvent** and displayed errors in the console.
- BUG ID 465045 - Read/Write: The info bar overlay in Nuke Studio's Viewer displayed a one frame offset for **.mov** and **.mxf** files compared to the source timecode.
- BUG ID 465375 - Tags: Selecting shots with tags on the timeline was slow compared to shots without tags.
- BUG ID 466597 - Documentation: The **Sample Scripts** page was missing from the Nuke Python Developer's Guide.
- BUG ID 467078 - Python: Renaming tags using the **setName()** function did not work as expected.
- BUG ID 468211 - UI: Dragging widgets between panes occasionally named tabs incorrectly.
- BUG ID 468608 - User Knobs: User knobs created in the **Project Settings** were duplicated when a script was closed and re-opened.

## New Known Issues Specific to Nuke 12.2

This section covers new known issues and gives workarounds for them, where appropriate.



**Note:** Changes to the way motion vectors are calculated in Nuke 12.2 cause any node using the **Local** option for motion estimation, such as Kronos and VectorGenerator, to render slightly



different vectors when compared to legacy versions of Nuke. The default **Regularized** motion estimation method is unaffected.

- BUG ID 471373 - macOS Nuke Indie only: C\_STMap is incorrectly recognized as a custom plug-in and cannot be loaded.
- BUG ID 470465 - Preferences: The **Performance > Hardware > disable blink cache** control has a misleading label and tooltip.
- BUG ID 470388 - ABC: Deselecting locator items in an Alembic ReadGeo import and then clicking **Create all-in-one node** causes the import of all objects to fail.  
As a workaround, enable the **view entire scenegraph** control and then click the **Load** column for the required objects.
- BUG ID 470096 - Python: Clicking the **Load** column for items in a custom **sceneView\_Knob** clears the object name in the Scenegraph.
- BUG ID 468956 - Read/Write: Importing **.aaf** files with the file browser Preview panel open causes Nuke Studio to crash.
- BUG ID 466754 - USD: Enabling **read from file** in a Camera or Axis node's **Properties** and then clicking **No** in the popup does not disable **read from file** as expected.
- BUG ID 466720 - USD: Copy/pasting a **.usd** file from a browser into the Node Graph adds a **/** (forward slash) to the file path and displays a **No such file or directory** error.  
As a workaround, delete the **/** and press enter to display the import dialog as normal.
- BUG ID 466485 - Linux only: Nuke can not read **.r3d** files without CUDA libraries available on the machine.  
As a workaround, you can manually install the CUDA libraries from NVIDIA, even if you don't have an NVIDIA GPU installed.
- BUG ID 465300 - Read/Write: Certain **Photo - JPEG** encoded **.mov** files with non-standard format sizes cause Nuke Studio to crash.
- BUG ID 461944 - Python: Changing a Read node from an image sequence to a container file format Pythonically causes Nuke to crash if the Read node has **postage stamp** set to a **static frame**.
- BUG ID 460411 - Read/Write: Rereading a **.mov** encoded with mov32 settings using the **file** control in legacy scripts causes Nuke to crash.
- BUG ID 460240 - macOS only: Existing export presets using the deprecated **mov32** codecs cause Hiero to crash on export.  
As a workaround, recreate the preset in a Hiero 12.2 release
- BUG ID 460038 - Particles: Secondary particles emitted from other particles do not render as expected.
- BUG ID 459859 - ACES: Nuke Studio incorrectly allows artists to alter the R3D IPP2 colorspace in Read nodes using **IPP2 Custom** selection, which results in **Half Float ACES Linear** colorspace mismatches between Nuke Studio and Nuke.

- BUG ID 459609 - USD: The Scenegraph does not automatically expand the first layer of items when loaded for the first time.
- BUG ID 448524 - macOS only: The resolution restriction informational message for Nuke Indie contains incorrect text.
- BUG ID 444347 - Export: Presets that rely on mov32 do not populate the **Content** field in the **Export** dialog.
- BUG ID 443296 - Windows only: The Nuke Indie icon is incorrect.
- BUG ID 442165 - MOV: Writing out **.mov** files using the **H.264** codec at resolutions above the 4K limit imposed by the codec causes Nuke to crash.
- BUG ID 441979 - USD: Deselecting a group in the USD importer and then enabling **view entire scenegraph** does not load the group.
- BUG ID 441555 - USD: Clicking **Cancel** in the USD import dialog and then enabling **view entire scenegraph** does not load the **.usd** file as expected.
- BUG ID 441439 - R3D: Red decode CPU performance is slower in Nuke 12.2 compared to 12.1 builds.
- BUG ID 440943 - USD: Expanding parent and children groups in the scenegraph manually does not create the horizontal scroll bar correctly.  
As a workaround, right-click and select **expand all** to display the scroll bar.
- BUG ID 440884 - Sync Review: Clicking the update button in a Client session with Viewer A/B mode active disconnects the Client.
- BUG ID 440057 - Roaming: Hiero license roaming with a Nuke Studio license stack is not working as expected.  
As a workaround, launch Nuke Studio and select **License > Roaming** and then set the **Workspace** to **Conforming**.
- BUG ID 439856 - Sync Review: Client sessions do not cache sequences as expected when the Viewer A/B mode is active on the Host before the Client connects.
- BUG ID 439011 - ApplyMaterial: Selecting **filter > name** and then clicking **choose** incorrectly displays **Load** state icons.
- BUG ID 439002 - ApplyMaterial: Selecting **filter > name** and then clicking **choose** allows editing of the read-only names in the scenegraph.
- BUG ID 436560/436551 - Sync Review: The formatting in the **Sync Session** panel and **Host** and **Connect** dialogs is inconsistent.
- BUG ID 434956 - USD: Columns in the **Scenegraph** tab can only be rearranged once.
- BUG ID 434574 - File Formats Update: Reading **.mxf** files in the **HybridLogGamma** colorspace defaults to **linear** incorrectly.
- BUG ID 432438 - Vertex UV values are occasionally displayed incorrectly for **.abc** and **.usd** files.
- BUG ID 430779 - File Formats Update: All deprecated IPP2 **.r3d** colorspace appear the same as current colorspace.
- BUG ID 430760 - File Formats Update: DRAGONcolor2 and REDcolor4 use the same IPP2 **.r3d** colorspace.

- BUG ID 429788 - macOS only: Legacy mov32 presets are no longer retained, choosing a preset always displays the **Don't show this message** dialog.
- BUG ID 426901 - File Formats Update: In **IPP2 Custom** mode, enabling the **Use GPU** checkbox displays grading controls from the **IPP2 Pipeline** incorrectly.
- BUG ID 425200 - Read/Write: Legacy Write node Motion JPEG A/B files do not display the **Quality** control with **mov64** selected as the encoder.
- BUG ID 424070 - RIP: Ops requesting unused inputs occasionally prevent images being released from the device cache.



## Developer Notes

As Nuke develops, we sometimes have to make changes to the API and ABI under the hood. We try to keep these changes to a minimum and only for certain releases, but from time to time API and ABI compatibility is not guaranteed. See the following table for the situations when you may have to recompile your plug-ins and/or make changes to the source code.

Release Type	Example	Compatibility	Recompile	Rewrite
Version	12.0v1 to 12.0v2	API and ABI		
Point	12.0v1 to 12.1v1	API	●	
Major	12.0v1 to 13.0v1	-	●	●

Additionally, node **Class()** names occasionally change between major releases. While these changes do not affect legacy scripts, you may not get the results you were expecting if a node class has been modified. The **toolbars.py** file, used to create Nuke's node toolbar, contains all the current node class names and is located in **<install\_directory>/plugins/nukescripts/** for reference.

As an example, between Nuke 9 and Nuke 10, the CameraShake node **Class()** changed from CameraShake2 to CameraShake3. In the **toolbars.py** file for the two releases, the entries for the CameraShake node appear as follows:

```
m.addCommand("CameraShake", "nuke.createNode(\"CameraShake2\")",
icon="CameraShake.png")
m.addCommand("CameraShake", "nuke.createNode(\"CameraShake3\")",
icon="CameraShake.png")
```

# Release Notes for Nuke and Hiero 12.2v5

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## Release Date

02 February 2021



**Warning:** As a result of the current COVID-19 lockdown here in the UK, Foundry cannot guarantee that our usual high standards of QA have been applied to Nuke's monitor output functionality, including VR headset support, in this release.

## Qualified Operating Systems

- macOS Mojave (10.14) or macOS Catalina (10.15)



**Note:** We recommend macOS Mojave customers update to 10.14.6 to take advantage of performance enhancements.

- Windows 10 (64-bit)
- CentOS 7.4, 7.5, and 7.6 (64-bit)



**Note:** The VFX Platform 2019 upgrade includes library versions that are only compatible with CentOS 7.4, or later.

Other operating systems may work, but have not been fully tested.

## Requirements for Nuke's GPU Acceleration

If you want to enable Nuke to calculate certain nodes using the GPU, there are some additional requirements.

### NVIDIA

An NVIDIA GPU with compute capability 3.0 (Kepler) or above. A list of the compute capabilities of NVIDIA GPUs is available at <https://developer.nvidia.com/cuda-gpus>



**Note:** The compute capability is a property of the GPU hardware and can't be altered by a software update.

With graphics drivers capable of running CUDA 10.1 or above. On Windows and Linux, CUDA graphics drivers are bundled with the regular drivers for your NVIDIA GPU. Driver versions 418.96 (Windows) and 418.39 (Linux), or above are required. See <https://www.nvidia.com/Download/Find.aspx> for more information.



**Note:** We recommend using the latest graphics drivers, where possible, regardless of operating system.

### AMD



**Note:** Bit-wise equality between GPU and CPU holds in most cases, but for some operations there are limitations to the accuracy possible with this configuration.

- On Windows and Linux, an AMD GPU from the following list:



**Note:** Other AMD GPUs may work, but have not been fully tested.

- Radeon™ RX 480
- Radeon™ Pro WX 7100
- Radeon™ Pro WX 9100
- Radeon™ Pro WX 8200

- Radeon™ Pro W5700



**Note:** For information on the recommended driver for each GPU, see <https://www.amd.com/en/support>

- On Mac, AMD GPUs are supported on any late 2013 Mac Pro, mid 2015 MacBook Pros onward, and late 2017 iMac Pros.



**Warning:** Although AMD GPUs are enabled on other Mac models, they are not officially supported and used at your own risk.

## Multi-GPU Processing

Nuke's GPU support includes an **Enable multi-GPU support** option. When enabled in the preferences, GPU processing is shared between the available GPUs for extra processing speed.



**Note:** Multi-GPU processing is only available for identical GPUs in the same machine. For example, two NVIDIA GeForce GTX 1080s or two AMD Radeon™ Pro WX 9100s.

## New Features

There are no new features in this release.

## Feature Enhancements

- BUG ID 138143/155591/164403/165692 - Node Graph: Dragging multiple nodes onto an input or output now connects all nodes in the stack, rather than just the first node.
- BUG ID 393631 - Preferences: A new tooltip has been added to the **Preferences** under **Panels > Node Graph > Bounding Box Warning > enable**. If this is enabled, Nuke performs extra processing steps to identify problematic nodes, which may result in performance degradation.

## Bug Fixes

- BUG ID 156976 - Export: **Process as Shot** exports including soft effects or burn-ins did not match the Viewer output.
- BUG ID 156237/407936 - Node Graph: Moving multiple node selections at certain zoom levels caused node connections within the selection to change unexpectedly.
- BUG ID 418080 - LiveGroups: Exposing a large number of controls from nodes inside a LiveGroup caused the **Properties** panel to become unstable.
- BUG ID 420684 - Backdrop: The **font** > **color** control did not work as expected.
- BUG ID 436088 - C\_CamerSolver: Setting the **Lens Type** to **Rectilinear** with multiple camera inputs and **use GPU if available** enabled rendered black frames.
- BUG ID 438947 - Node Graph: Pressing **/** (forward slash) to search the Node Graph by node name or class did not highlight the previous search term.
- BUG ID 440783 - CaraVR: Attaching a Viewer to certain CaraVR nodes, such as C\_Stitcher or C\_Blender, occasionally caused views or cameras to disappear at high resolutions.
- BUG ID 446419 - Sync Review: Pressing a channel keyboard shortcut twice, such as **R**, **B**, or **A**, did not revert the channel states as expected.
- BUG ID 448577 - Sync Review: Unsuccessful connection to a Host caused Nuke Studio to become unresponsive.
- BUG ID 450185 - Sync Review: Cloned soft effects were displayed as invalid in client sessions.
- BUG ID 457327/460279 - Linux only: Importing multiple **.mx**f, **.ari**, or **.ar**x files into Nuke Studio or Hiero caused the application to become unresponsive.
- BUG ID 458799 - Timeline Editing: Adding audio clips to sequences that already contained audio did not work as expected.
- BUG ID 459394 - C\_Stitcher: Checking **Enable Stereo Stitch** did not warp stereo images correctly.
- BUG ID 459638 - Create Comp: Comps created from long timeline shots were occasionally slow to open in the Node Graph.
- BUG ID 460118 - Python: Exiting Nuke after adding a class to a menu displayed the Crash Reporter.
- BUG ID 461706 - FileIO Plug-ins: ARRI SDK plug-in version 6.2.3 caused Nuke Studio Non-Commercial to crash.
- BUG ID 461760 - FileIO Plug-ins: Opening a project containing **.ari** or **.mx**f files in Nuke Studio Non-Commercial caused the application to crash.
- BUG ID 461767 - FileIO Plug-ins: Selecting an MXF export preset or selecting an MXF/MOV write codec caused Nuke Studio Non-Commercial to crash.
- BUG ID 462393 - FileIO Plug-ins: Loading certain scripts referencing **.mov** container formats displayed a **Bad alloc** error.

- BUG ID 464134 - Read/Write: Reading DNxHR files with an alpha channel in Nuke Studio did not work as expected.
- BUG ID 464483 - Sync Review: Cloning soft effects between two sequences in the Host session invalidated the synched destination shot in Client sessions.
- BUG ID 464867 - Sync Review: Disabling a recently changed soft effect control caused cloned soft effects to become invalid.

## New Known Issues Specific to Nuke 12.2

This section covers new known issues and gives workarounds for them, where appropriate.



**Note:** Changes to the way motion vectors are calculated in Nuke 12.2 cause any node using the **Local** option for motion estimation, such as Kronos and VectorGenerator, to render slightly different vectors when compared to legacy versions of Nuke. The default **Regularized** motion estimation method is unaffected.

- BUG ID 466485 - Linux only: Nuke can not read **.r3d** files without CUDA libraries available on the machine.  
As a workaround, you can manually install the CUDA libraries from NVIDIA, even if you don't have an NVIDIA GPU installed.
- BUG ID 465709/463545 - Read/Write: Transcoding **.mxf** files using the Avid DNxHR codec and an 8-bit profile does not work as expected.
- BUG ID 465300 - Read/Write: Certain **Photo - JPEG** encoded **.mov** files with non-standard format sizes cause Nuke Studio to crash.
- BUG ID 465045 - Read/Write: The info bar overlay in Nuke Studio's Viewer displays a one frame offset for **.mov** and **.mxf** files compared to the source timecode.
- BUG ID 464508 - Transform: Adjusting the **scale** control in a Transform node's **Properties** panel with **show overscan** active in the Viewer settings causes Nuke to crash.
- BUG ID 463881 - macOS only: Rendering an **.mxf** file repeatedly to different channels causes Nuke to crash.
- BUG ID 461944 - Python: Changing a Read node from an image sequence to a container file format Pythonically causes Nuke to crash if the Read node has **postage stamp** set to a **static frame**.
- BUG ID 460411 - Read/Write: Rereading a **.mov** encoded with mov32 settings using the **file** control in legacy scripts causes Nuke to crash.
- BUG ID 460240 - macOS only: Existing export presets using the deprecated **mov32** codecs cause Hiero to crash on export.  
As a workaround, recreate the preset in a Hiero 12.2 release

- BUG ID 460038 - Particles: Secondary particles emitted from other particles do not render as expected.
- BUG ID 459859 - ACES: Nuke Studio incorrectly allows artists to alter the R3D IPP2 colorspace in Read nodes using **IPP2 Custom** selection, which results in **Half Float ACES Linear** colorspace mismatches between Nuke Studio and Nuke.
- BUG ID 459643 - Bookmarks: The bookmark **Save Location** keyboard shortcuts (**Ctrl/Cmd+F7 - F10**) are not working as expected.  
As a workaround, right-click in the Node Graph and select **Edit > Bookmark > Save Location** manually.
- BUG ID 459625 - Workspaces: The **Sync Review** and **Monitor Out** workspace keyboard shortcuts (**Shift+F7** and **Shift+F8**) conflict with Nuke's bookmark functionality.
- BUG ID 448524 - macOS only: The resolution restriction informational message for Nuke Indie contains incorrect text.
- BUG ID 444347 - Export: Presets that rely on mov32 do not populate the **Content** field in the **Export** dialog.
- BUG ID 443296 - Windows only: The Nuke Indie icon is incorrect.
- BUG ID 442165 - MOV: Writing out **.mov** files using the **H.264** codec at resolutions above the 4K limit imposed by the codec causes Nuke to crash.
- BUG ID 441979 - USD: Deselecting a group in the USD importer and then enabling **view entire scenegraph** does not load the group.
- BUG ID 441555 - USD: Clicking **Cancel** in the USD import dialog and then enabling **view entire scenegraph** does not load the **.usd** file as expected.
- BUG ID 441439 - R3D: Red decode CPU performance is slower in Nuke 12.2 compared to 12.1 builds.
- BUG ID 440943 - USD: Expanding parent and children groups in the scenegraph manually does not create the horizontal scroll bar correctly.  
As a workaround, right-click and select **expand all** to display the scroll bar.
- BUG ID 440884 - Sync Review: Clicking the update button in a Client session with Viewer A/B mode active disconnects the Client.
- BUG ID 440057 - Roaming: Hiero license roaming with a Nuke Studio license stack is not working as expected.  
As a workaround, launch Nuke Studio and select **License > Roaming** and then set the **Workspace** to **Conforming**.
- BUG ID 439856 - Sync Review: Client sessions do not cache sequences as expected when the Viewer A/B mode is active on the Host before the Client connects.
- BUG ID 439011 - ApplyMaterial: Selecting **filter > name** and then clicking **choose** incorrectly displays **Load** state icons.
- BUG ID 439002 - ApplyMaterial: Selecting **filter > name** and then clicking **choose** allows editing of the read-only names in the scenegraph.
- BUG ID 436560/436551 - Sync Review: The formatting in the **Sync Session** panel and **Host** and **Connect** dialogs is inconsistent.

- BUG ID 434956 - USD: Columns in the **Scenegraph** tab can only be rearranged once.
- BUG ID 434574 - File Formats Update: Reading **.mxf** files in the **HybridLogGamma** colorspace defaults to **linear** incorrectly.
- BUG ID 432438 - Vertex UV values are occasionally displayed incorrectly for **.abc** and **.usd** files.
- BUG ID 430779 - File Formats Update: All deprecated IPP2 **.r3d** colorspaces appear the same as current colorspaces.
- BUG ID 430760 - File Formats Update: DRAGONcolor2 and REDcolor4 use the same IPP2 **.r3d** colorspace.
- BUG ID 429788 - macOS only: Legacy mov32 presets are no longer retained, choosing a preset always displays the **Don't show this message** dialog.
- BUG ID 426901 - File Formats Update: In **IPP2 Custom** mode, enabling the **Use GPU** checkbox displays grading controls from the **IPP2 Pipeline** incorrectly.
- BUG ID 425200 - Read/Write: Legacy Write node Motion JPEG A/B files do not display the **Quality** control with **mov64** selected as the encoder.
- BUG ID 424070 - RIP: Ops requesting unused inputs occasionally prevent images being released from the device cache.



## Developer Notes

As Nuke develops, we sometimes have to make changes to the API and ABI under the hood. We try to keep these changes to a minimum and only for certain releases, but from time to time API and ABI compatibility is not guaranteed. See the following table for the situations when you may have to recompile your plug-ins and/or make changes to the source code.

Release Type	Example	Compatibility	Recompile	Rewrite
Version	12.0v1 to 12.0v2	API and ABI		
Point	12.0v1 to 12.1v1	API	●	
Major	12.0v1 to 13.0v1	-	●	●

Additionally, node **Class()** names occasionally change between major releases. While these changes do not affect legacy scripts, you may not get the results you were expecting if a node class has been modified. The **toolbars.py** file, used to create Nuke's node toolbar, contains all the current node class names and is located in **<install\_directory>/plugins/nukescripts/** for reference.

As an example, between Nuke 9 and Nuke 10, the CameraShake node **Class()** changed from CameraShake2 to CameraShake3. In the **toolbars.py** file for the two releases, the entries for the CameraShake node appear as follows:

```
m.addCommand("CameraShake", "nuke.createNode(\"CameraShake2\")",
icon="CameraShake.png")
m.addCommand("CameraShake", "nuke.createNode(\"CameraShake3\")",
icon="CameraShake.png")
```

# Release Notes for Nuke and Hiero 12.2v4

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## Release Date

09 December 2020



**Warning:** As a result of the current COVID-19 lockdown here in the UK, Foundry cannot guarantee that our usual high standards of QA have been applied to Nuke's monitor output functionality, including VR headset support, in this release.

## Qualified Operating Systems

- macOS Mojave (10.14) or macOS Catalina (10.15)



**Note:** We recommend macOS Mojave customers update to 10.14.6 to take advantage of performance enhancements.

- Windows 10 (64-bit)
- CentOS 7.4 (64-bit), or later



**Note:** The VFX Platform 2019 upgrade includes library versions that are only compatible with CentOS 7.4, or later. Nuke is qualified on the Centos 7.4, 7.5, and 7.6 distributions.

Other operating systems may work, but have not been fully tested.

## Requirements for Nuke's GPU Acceleration

If you want to enable Nuke to calculate certain nodes using the GPU, there are some additional requirements.

### NVIDIA

An NVIDIA GPU with compute capability 3.0 (Kepler) or above. A list of the compute capabilities of NVIDIA GPUs is available at <https://developer.nvidia.com/cuda-gpus>



**Note:** The compute capability is a property of the GPU hardware and can't be altered by a software update.

With graphics drivers capable of running CUDA 10.1 or above. On Windows and Linux, CUDA graphics drivers are bundled with the regular drivers for your NVIDIA GPU. Driver versions 418.96 (Windows) and 418.39 (Linux), or above are required. See <https://www.nvidia.com/Download/Find.aspx> for more information.



**Note:** We recommend using the latest graphics drivers, where possible, regardless of operating system.

### AMD



**Note:** Bit-wise equality between GPU and CPU holds in most cases, but for some operations there are limitations to the accuracy possible with this configuration.

- On Windows and Linux, an AMD GPU from the following list:



**Note:** Other AMD GPUs may work, but have not been fully tested.

- Radeon™ RX 480
- Radeon™ Pro WX 7100
- Radeon™ Pro WX 9100
- Radeon™ Pro WX 8200

- Radeon™ Pro W5700



**Note:** For information on the recommended driver for each GPU, see <https://www.amd.com/en/support>

- On Mac, AMD GPUs are supported on any late 2013 Mac Pro, mid 2015 MacBook Pros onward, and late 2017 iMac Pros.



**Warning:** Although AMD GPUs are enabled on other Mac models, they are not officially supported and used at your own risk.

## Multi-GPU Processing

Nuke's GPU support includes an **Enable multi-GPU support** option. When enabled in the preferences, GPU processing is shared between the available GPUs for extra processing speed.



**Note:** Multi-GPU processing is only available for identical GPUs in the same machine. For example, two NVIDIA GeForce GTX 1080s or two AMD Radeon™ Pro WX 9100s.

## New Features

### File I/O Plug-in Updates

Updates to various file I/O SDKs can now be installed to override the SDK version shipped with a particular Nuke build. This allows you to install updates to SDKs for ARRIRAW, Avid, and so on, without updating the version of Nuke you're running under.

The updates ship as **.zip** files by operating system, which can be downloaded from our website at: <https://www.foundry.com/products/nuke/download>



**Warning:** Plug-in updates are for Nuke 12.2v4, or later. If you run an incompatible version, such as Nuke 12.1v3, reading in **.mov**, **.mxf** and ARRIRAW files will not work as expected.

## Feature Enhancements

- BUG ID 131139/310593 - Roto/RotoPaint: Columns in the node **Properties** panel **curves** table can now be resized independently.

## Bug Fixes

- BUG ID 305293 - Rendering: Nuke's frame server did not render single views from stereo scripts as expected.
- BUG ID 367592 - CameraTracker: Creating a camera and then undoing the action caused Nuke to crash.
- BUG ID 418171 - Linux only: Right-clicking in the timeline and selecting **Editorial** > **Copy Cuts** did not work as expected.
- BUG ID 431435 - Read/Write: The input/timecode metadata pair displayed incorrect values for **.mov** files encoded by R3D Helium cameras.
- BUG ID 433034 - Soft Effects: Text effects above Crop effects were clipped to the bounding box rather than format.
- BUG ID 439886 - CaraVR: Setting the C\_CameraSolver's **Cam Projection** control to **Latlong** did not affect all cameras as expected.
- BUG ID 440488 - USD: Selection behavior for geometry in the ReadGeo scenegraph did not work as expected.
- BUG ID 441908 - Windows only: Attempting to launch NukeX in **--indie** mode caused Nuke to crash.
- BUG ID 444858/448037 - Keylight: Using Keylight in Nuke Non-Commercial displayed a licensing error.
- BUG ID 446214 - Keylight: The **Screen PreBlur** control did not work as expected.
- BUG ID 453598 - Read/Write: Certain **.r3d** files with 3D LUTs did not load as expected.
- BUG ID 453740 - Documentation: The Hiero PDF user guide did not ship with Nuke releases.
- BUG ID 454221 - Manually saving an **.hrox** project file during autosave caused Nuke Studio and Hiero to crash.
- BUG ID 458032 - CaraVR: C\_ColourMatcher rendered black frames from certain sequences.

## New Known Issues Specific to Nuke 12.2

This section covers new known issues and gives workarounds for them, where appropriate.



**Note:** Changes to the way motion vectors are calculated in Nuke 12.2 cause any node using the **Local** option for motion estimation, such as Kronos and VectorGenerator, to render slightly different vectors when compared to legacy versions of Nuke. The default **Regularized** motion estimation method is unaffected.

- BUG ID 461944 - Python: Changing a Read node from an image sequence to a container file format Pythonically causes Nuke to crash if the Read node has **postage stamp** set to a **static frame**.
- BUG ID 460240 - macOS only: Existing export presets using the deprecated **mov32** codecs cause Hiero to crash on export.  
As a workaround, recreate the preset in a Hiero 12.2 release
- BUG ID 460038 - Particles: Secondary particles emitted from other particles do not render as expected.
- BUG ID 459859 - ACES: Nuke Studio incorrectly allows artists to alter the R3D IPP2 colorspace in Read nodes using **IPP2 Custom** selection, which results in **Half Float ACES Linear** colorspace mismatches between Nuke Studio and Nuke.
- BUG ID 448524 - macOS only: The resolution restriction informational message for Nuke Indie contains incorrect text.
- BUG ID 444347 - Export: Presets that rely on mov32 do not populate the **Content** field in the **Export** dialog.
- BUG ID 443296 - Windows only: The Nuke Indie icon is incorrect.
- BUG ID 442165 - MOV: Writing out **.mov** files using the **H.264** codec at resolutions above the 4K limit imposed by the codec causes Nuke to crash.
- BUG ID 441979 - USD: Deselecting a group in the USD importer and then enabling **view entire scenegraph** does not load the group.
- BUG ID 441555 - USD: Clicking **Cancel** in the USD import dialog and then enabling **view entire scenegraph** does not load the **.usd** file as expected.
- BUG ID 441439 - R3D: Red decode CPU performance is slower in Nuke 12.2 compared to 12.1 builds.
- BUG ID 440943 - USD: Expanding parent and children groups in the scenegraph manually does not create the horizontal scroll bar correctly.  
As a workaround, right-click and select **expand all** to display the scroll bar.
- BUG ID 440057 - Roaming: Hiero license roaming with a Nuke Studio license stack is not working as expected.  
As a workaround, launch Nuke Studio and select **License > Roaming** and then set the **Workspace** to **Conforming**.
- BUG ID 439011 - ApplyMaterial: Selecting **filter > name** and then clicking **choose** incorrectly displays **Load** state icons.
- BUG ID 439002 - ApplyMaterial: Selecting **filter > name** and then clicking **choose** allows editing of the read-only names in the scenegraph.

- BUG ID 436560/436551 - Sync Review: The formatting in the **Sync Session** panel and **Host** and **Connect** dialogs is inconsistent.
- BUG ID 434956 - USD: Columns in the **Scenegraph** tab can only be rearranged once.
- BUG ID 434574 - File Formats Update: Reading **.mxr** files in the **HybridLogGamma** colorspace defaults to **linear** incorrectly.
- BUG ID 432438 - Vertex UV values are occasionally displayed incorrectly for **.abc** and **.usd** files.
- BUG ID 430779 - File Formats Update: All deprecated IPP2 **.r3d** colorspace appear the same as current colorspace.
- BUG ID 430760 - File Formats Update: DRAGONcolor2 and REDcolor4 use the same IPP2 **.r3d** colorspace.
- BUG ID 429788 - macOS only: Legacy mov32 presets are no longer retained, choosing a preset always displays the **Don't show this message** dialog.
- BUG ID 426901 - File Formats Update: In **IPP2 Custom** mode, enabling the **Use GPU** checkbox displays grading controls from the **IPP2 Pipeline** incorrectly.
- BUG ID 425200 - MOV: Legacy Write node Motion JPEG A/B files do not display the **Quality** control with **mov64** selected as the encoder.
- BUG ID 424070 - RIP: Ops requesting unused inputs occasionally prevent images being released from the device cache.

## Developer Notes

As Nuke develops, we sometimes have to make changes to the API and ABI under the hood. We try to keep these changes to a minimum and only for certain releases, but from time to time API and ABI compatibility is not guaranteed. See the following table for the situations when you may have to recompile your plug-ins and/or make changes to the source code.

Release Type	Example	Compatibility	Recompile	Rewrite
Version	12.0v1 to 12.0v2	API and ABI		
Point	12.0v1 to 12.1v1	API	●	
Major	12.0v1 to 13.0v1	-	●	●

Additionally, node **Class()** names occasionally change between major releases. While these changes do not affect legacy scripts, you may not get the results you were expecting if a node class has been modified. The **toolbars.py** file, used to create Nuke's node toolbar, contains all the current node class names and is located in **<install\_directory>/plugins/nukescripts/** for reference.

As an example, between Nuke 9 and Nuke 10, the CameraShake node **Class()** changed from CameraShake2 to CameraShake3. In the **toolbars.py** file for the two releases, the entries for the CameraShake node appear as follows:

```
m.addCommand("CameraShake", "nuke.createNode(\"CameraShake2\")",
icon="CameraShake.png")
m.addCommand("CameraShake", "nuke.createNode(\"CameraShake3\")",
icon="CameraShake.png")
```



# Release Notes for Nuke and Hiero 12.2v3

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## Release Date

24 September 2020



**Warning:** As a result of the current COVID-19 lockdown here in the UK, Foundry cannot guarantee that our usual high standards of QA have been applied to Nuke's monitor output functionality, including VR headset support, in this release.

## Qualified Operating Systems

- macOS Mojave (10.14) or macOS Catalina (10.15)



**Note:** We recommend macOS Mojave customers update to 10.14.6 to take advantage of performance enhancements.

- Windows 10 (64-bit)
- CentOS 7.4 (64-bit), or later



**Note:** The VFX Platform 2019 upgrade includes library versions that are only compatible with CentOS 7.4, or later. Nuke is qualified on the Centos 7.4, 7.5, and 7.6 distributions.

Other operating systems may work, but have not been fully tested.

## Requirements for Nuke's GPU Acceleration

If you want to enable Nuke to calculate certain nodes using the GPU, there are some additional requirements.

### NVIDIA

An NVIDIA GPU with compute capability 3.0 (Kepler) or above. A list of the compute capabilities of NVIDIA GPUs is available at <https://developer.nvidia.com/cuda-gpus>



**Note:** The compute capability is a property of the GPU hardware and can't be altered by a software update.

With graphics drivers capable of running CUDA 10.1 or above. On Windows and Linux, CUDA graphics drivers are bundled with the regular drivers for your NVIDIA GPU. Driver versions 418.96 (Windows) and 418.39 (Linux), or above are required. See <https://www.nvidia.com/Download/Find.aspx> for more information.



**Note:** We recommend using the latest graphics drivers, where possible, regardless of operating system.

### AMD



**Note:** Bit-wise equality between GPU and CPU holds in most cases, but for some operations there are limitations to the accuracy possible with this configuration.

- On Windows and Linux, an AMD GPU from the following list:



**Note:** Other AMD GPUs may work, but have not been fully tested.

- Radeon™ RX 480
- Radeon™ Pro WX 7100
- Radeon™ Pro WX 9100
- Radeon™ Pro WX 8200

- Radeon™ Pro W5700



**Note:** For information on the recommended driver for each GPU, see <https://www.amd.com/en/support>

- On Mac, AMD GPUs are supported on any late 2013 Mac Pro, mid 2015 MacBook Pros onward, and late 2017 iMac Pros.



**Warning:** Although AMD GPUs are enabled on other Mac models, they are not officially supported and used at your own risk.

## Multi-GPU Processing

Nuke's GPU support includes an **Enable multi-GPU support** option. When enabled in the preferences, GPU processing is shared between the available GPUs for extra processing speed.



**Note:** Multi-GPU processing is only available for identical GPUs in the same machine. For example, two NVIDIA GeForce GTX 1080s or two AMD Radeon™ Pro WX 9100s.

## New Features

### Nuke Indie

The 3rd party OFX plug-ins, H.264 read and write, and ACC audio restrictions have been removed from Nuke Indie. See [Foundry Learn](#) for more information on Nuke Indie restrictions.

## Feature Enhancements

- BUG ID 383567 - A new environment variable, NUKE\_DISABLE\_FRAMESERVER, has been added to enable and disable Nuke's Frame Server. Setting a value of **1**, disables the Frame Server and **0** enables it.

## Bug Fixes

- BUG ID 132581/418354 - Dope Sheet: Setting a working frame range with **Synchronise Frame Range** enabled did not set the same range in the Curve Editor.
- BUG ID 229671 - Linux only: Clicking **Import Tracks** in the CameraTracker **UserTracks** tab caused Nuke to become unresponsive.
- BUG ID 233945 - HieroPlayer: Timelines in autosaved projects could not be edited in HieroPlayer.
- BUG ID 243240 - Timeline Editing: Certain container formats, such as **.mov** and **.mp4**, added 1 frame to the start frame in the timeline when compared to the spreadsheet view.
- BUG ID 388705 - Python: Running a customer garbage cleanup script caused Nuke to crash.
- BUG ID 398188 - Python: Calling **nuke.scriptClear()** in the Script Editor multiple times caused Nuke to crash.
- BUG ID 403643 - Linux only: Clicking **File > Close Comp** before saving caused Nuke to crash.
- BUG ID 418068 - Read/Write: Files written using an Apple ProRes codec produced artifacts when read using the mov64 decoder.
- BUG ID 428432 - USD: Loading unsupported files failed silently and did not display a warning.
- BUG ID 429293 - HieroPlayer: Clicking **Quit** in the **License Error** dialogue caused the application to crash.
- BUG ID 429749 - Reading in QuickTime reference files caused Nuke to crash.
- BUG ID 431921 - Python: Calling **hierocore.projects()[-1].endUndo()** caused the application to crash.
- BUG ID 438219 - Python: **QComboBox()** objects containing items of different lengths were not aligned correctly.
- BUG ID 438224 - Python: Adding an item to a **QComboBox()** after creation cut off the text in the sub-widget.
- BUG ID 439958 - USD: Loading **.abc** or **.usd** files occasionally caused the **Transform** tab controls to be disabled.
- BUG ID 440295 - Python: Calling **addItem()** did not update the ReadGeo's scene graph as expected.
- BUG ID 440566 - USD: Toggling an item's parent state off and on did not work as expected.
- BUG ID 441429 - USD: A customer point-instanced **.usda** file caused Nuke to crash.
- BUG ID 441989 - USD: Loading an unsupported file after successfully loading a **.usd** file caused Nuke to crash.
- BUG ID 442045 - Nuke Indie: The application shortcut was named incorrectly.
- BUG ID 443584 - CaraVR: Creating a ParticleEmitter node downstream of a C\_GlobalWarp node caused Nuke to crash.
- BUG ID 443868 - Monitor Output: Certain Blackmagic Design devices occasionally became unresponsive.
- BUG ID 444806 - Sync Review: Switching between sequences with the same name did not update the timeline and Viewer for client machines.

- BUG ID 445689 - Create Comp failed silently when the Write node was set to the **.mxf** file type.
- BUG ID 446406 - Sync Review: Using keyboard shortcuts to set channels in multiple Viewers caused the channels to become out of sync if a client disconnected and reconnected.
- BUG ID 446419 - Sync Review: Pressing a channel keyboard shortcut twice, such as **R**, **B**, or **A**, did not revert the channel states as expected.
- BUG ID 446827 - Export: Switching between Hiero export presets with the transcode properties open displayed and error on the command line.

## New Known Issues Specific to Nuke 12.2

This section covers new known issues and gives workarounds for them, where appropriate.



**Note:** Changes to the way motion vectors are calculated in Nuke 12.2 cause any node using the **Local** option for motion estimation, such as Kronos and VectorGenerator, to render slightly different vectors when compared to legacy versions of Nuke. The default **Regularized** motion estimation method is unaffected.

- BUG ID 444347 - Export: Presets that rely on mov32 do not populate the **Content** field in the **Export** dialog.
- BUG ID 443296 - Windows only: The Nuke Indie icon is incorrect.
- BUG ID 442165 - MOV: Writing out **.mov** files using the **H.264** codec at resolutions above the 4K limit imposed by the codec causes Nuke to crash.
- BUG ID 441979 - USD: Deselecting a group in the USD importer and then enabling **view entire scenegraph** does not load the group.
- BUG ID 441555 - USD: Clicking **Cancel** in the USD import dialog and then enabling **view entire scenegraph** does not load the **.usd** file as expected.
- BUG ID 441439 - R3D: Red decode CPU performance is slower in Nuke 12.2 compared to 12.1 builds.
- BUG ID 440943 - USD: Expanding parent and children groups in the scenegraph manually does not create the horizontal scroll bar correctly.  
As a workaround, right-click and select **expand all** to display the scroll bar.
- BUG ID 440057 - Roaming: Hiero license roaming with a Nuke Studio license stack is not working as expected.  
As a workaround, launch Nuke Studio and select **License > Roaming** and then set the **Workspace** to **Conforming**.
- BUG ID 439011 - ApplyMaterial: Selecting **filter > name** and then clicking **choose** incorrectly displays **Load** state icons.

- BUG ID 439002 - ApplyMaterial: Selecting **filter** > **name** and then clicking **choose** allows editing of the read-only names in the scenegraph.
- BUG ID 436560/436551 - Sync Review: The formatting in the **Sync Session** panel and **Host** and **Connect** dialogs is inconsistent.
- BUG ID 434956 - USD: Columns in the **Scenegraph** tab can only be rearranged once.
- BUG ID 434574 - File Formats Update: Reading **.mxf** files in the **HybridLogGamma** colorspace defaults to **linear** incorrectly.
- BUG ID 432438 - Vertex UV values are occasionally displayed incorrectly for **.abc** and **.usd** files.
- BUG ID 430779 - File Formats Update: All deprecated IPP2 **.r3d** colorspace appear the same as current colorspace.
- BUG ID 430760 - File Formats Update: DRAGONcolor2 and REDcolor4 use the same IPP2 **.r3d** colorspace.
- BUG ID 429788 - macOS only: Legacy mov32 presets are no longer retained, choosing a preset always displays the **Don't show this message** dialog.
- BUG ID 429658 - Sync Review: Dragging annotations does not update positions in sync sessions until the annotation is dropped.
- BUG ID 429656 - Sync Review: Annotation markers in the timeline do not update automatically. As a workaround, scrub the timeline to force the update.
- BUG ID 426901 - File Formats Update: In **IPP2 Custom** mode, enabling the **Use GPU** checkbox displays grading controls from the **IPP2 Pipeline** incorrectly.
- BUG ID 425200 - MOV: Legacy Write node Motion JPEG A/B files do not display the **Quality** control with **mov64** selected as the encoder.
- BUG ID 424070 - RIP: Ops requesting unused inputs occasionally prevent images being released from the device cache.
- BUG ID 419327 - File Formats Update: DNxHD and DNxHR **.mov** files do not display different codec information in the Read node's **Properties** panel.

## Developer Notes

As Nuke develops, we sometimes have to make changes to the API and ABI under the hood. We try to keep these changes to a minimum and only for certain releases, but from time to time API and ABI compatibility is not guaranteed. See the following table for the situations when you may have to recompile your plug-ins and/or make changes to the source code.

Release Type	Example	Compatibility	Recompile	Rewrite
Version	12.0v1 to 12.0v2	API and ABI		
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Major	12.0v1 to 13.0v1	-	●	●

Additionally, node **Class()** names occasionally change between major releases. While these changes do not affect legacy scripts, you may not get the results you were expecting if a node class has been modified. The **toolbars.py** file, used to create Nuke's node toolbar, contains all the current node class names and is located in **<install\_directory>/plugins/nukescripts/** for reference.

As an example, between Nuke 9 and Nuke 10, the CameraShake node **Class()** changed from CameraShake2 to CameraShake3. In the **toolbars.py** file for the two releases, the entries for the CameraShake node appear as follows:

```
m.addCommand("CameraShake", "nuke.createNode(\"CameraShake2\")",
icon="CameraShake.png")
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icon="CameraShake.png")
```

# Release Notes for Nuke and Hiero 12.2v2

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## Release Date

11 August 2020



**Warning:** As a result of the current COVID-19 lockdown here in the UK, Foundry cannot guarantee that our usual high standards of QA have been applied to Nuke's monitor output functionality, including VR headset support, in this release.

## Qualified Operating Systems

- macOS Mojave (10.14) or macOS Catalina (10.15)



**Note:** We recommend macOS Mojave customers update to 10.14.6 to take advantage of performance enhancements.

- Windows 10 (64-bit)
- CentOS 7.4 (64-bit), or later



**Note:** The VFX Platform 2019 upgrade includes library versions that are only compatible with CentOS 7.4, or later. Nuke 12.1 is qualified on the Centos 7.4, 7.5, and 7.6 distributions.

Other operating systems may work, but have not been fully tested.



## Requirements for Nuke's GPU Acceleration

If you want to enable Nuke to calculate certain nodes using the GPU, there are some additional requirements.

### NVIDIA

An NVIDIA GPU with compute capability 3.0 (Kepler) or above. A list of the compute capabilities of NVIDIA GPUs is available at <https://developer.nvidia.com/cuda-gpus>



**Note:** The compute capability is a property of the GPU hardware and can't be altered by a software update.

With graphics drivers capable of running CUDA 10.1 or above. On Windows and Linux, CUDA graphics drivers are bundled with the regular drivers for your NVIDIA GPU. Driver versions 418.96 (Windows) and 418.39 (Linux), or above are required. See <https://www.nvidia.com/Download/Find.aspx> for more information.



**Note:** We recommend using the latest graphics drivers, where possible, regardless of operating system.

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## Multi-GPU Processing

Nuke's GPU support includes an **Enable multi-GPU support** option. When enabled in the preferences, GPU processing is shared between the available GPUs for extra processing speed.



**Note:** Multi-GPU processing is only available for identical GPUs in the same machine. For example, two NVIDIA GeForce GTX 1080s or two AMD Radeon™ Pro WX 9100s.

## New Features

There are no new features in this release.

## Feature Enhancements

There are no feature enhancements in this release.

## Bug Fixes

- BUG ID 410829 - Linux only: Creating a node from the Python interpreter shipped with Nuke caused the application to crash.
- BUG ID 442968 - Nuke Indie: Adding a Keylight node to a script displayed a licensing error.
- BUG ID 443058 - macOS only: Adjusting control sliders in Keylight's **Properties** panel occasionally caused Nuke to become unresponsive.

- BUG ID 443268 - Launching Nuke Studio Non-commercial called for a full commercial license.
- BUG ID 443488 - Read/Write: Using a relative file path in Read nodes failed if the `./` prefix was omitted from the string.
- BUG ID 443628 - Licensing: Nuke set the RLM\_ROAM environment variable on startup, rather than the foundry\_ROAM environment variable, which also affected third-party RLM servers.

## New Known Issues Specific to Nuke 12.2

This section covers new known issues and gives workarounds for them, where appropriate.



**Note:** Changes to the way motion vectors are calculated in Nuke 12.2 cause any node using the **Local** option for motion estimation, such as Kronos and VectorGenerator, to render slightly different vectors when compared to legacy versions of Nuke. The default **Regularized** motion estimation method is unaffected.

- BUG ID 444347 - Export: Presets that rely on mov32 do not populate the **Content** field in the **Export** dialog.
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# Release Notes for Nuke and Hiero 12.2v1

## Release Date

21 July 2020



**Warning:** As a result of the current COVID-19 lockdown here in the UK, Foundry cannot guarantee that our usual high standards of QA have been applied to Nuke's monitor output functionality, including VR headset support, in this release.

## Qualified Operating Systems

- macOS Mojave (10.14) or macOS Catalina (10.15)



**Note:** We recommend macOS Mojave customers update to 10.14.6 to take advantage of performance enhancements.

- Windows 10 (64-bit)
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**Note:** The VFX Platform 2019 upgrade includes library versions that are only compatible with CentOS 7.4, or later. Nuke 12.1 is qualified on the Centos 7.4, 7.5, and 7.6 distributions.

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# New Features

## License Roaming

Nuke 12.2 introduces the ability for artists to “roam” licenses for Nuke, NukeX, Nuke Studio, and Hiero. License roaming allows floating license servers to “check-out” licenses for use on machines in a node-locked capacity for up to 30 days, so you can work independently of a license server. Licenses can be checked out and returned through the UI, or by setting environment variables.



**Note:** Checking licenses in and out must be done from the machine you wish to use the license on, and with a connection to the license server.

To use license roaming you require a Roaming License. Licenses issued Before July 10th 2020 do not support roaming. New roaming licenses will be issued to customers at Maintenance Renewal time. If you are in Current Maintenance and would like to upgrade your licenses to take advantage of this new feature, please submit a request using this form: <https://www.foundry.com/nuke-roaming-license>





**Note:** License Roaming is not currently supported with Production Collective and EDU Collective licenses.

Once you have received your license and it's installed on the server, you are ready to roam! See License Roaming on [Windows](#), [macOS](#), or [Linux](#) for more information.

## Nuke Indie

Nuke Indie is a single user version of Nuke Studio using a log-in licensing model. Nuke Indie is designed for personal, small-scale commercial use and includes most of the features of the commercial version of Nuke Studio.

You can run Nuke Studio in Indie mode using the **--indie** command line argument. For example, to launch Nuke Studio in Indie mode on Mac, enter:

```
/Applications/Nuke12.2v8/Nuke12.2v8.app/Contents/MacOS/Nuke12.2 --indie
```

See [About Indie](#) for more information.

## Sync Review (Beta)

Sync review allows artists to connect sessions of Nuke Studio, Hiero and/or HieroPlayer and collaborate on a single project. Each artist has access to the playback controls, annotations, and version system, letting participants run collaborative review sessions.

Sync Review works by connecting through the machine IP or hostname and through a given open port. Footage needs to be available for all participants either locally or through a central server. This feature is in a very early stage of development, but the current functionality may be helpful in the current circumstances.

See [Sync Review](#) for more information.

## Known Limitations

- While Nuke Studio, Hiero and HieroPlayer can be hosts or clients, HieroPlayer cannot work as a host for Nuke Studio or Hiero pre-created projects.
- HieroPlayer can only view annotations, and when creating new annotations from Nuke Studio or Hiero, the host needs to push the session for HieroPlayer to get the updated annotations.

## Linux Terminal Setup

If the host is a Linux machine, run the following command in the terminal prior to launching Nuke:

```
sudo iptables -I INPUT -p tcp --dport 45124 --syn -j ACCEPT
```

## Firewalls

Certain firewall protection, such as macOS, can prevent syncing. Ensure that you allow Nuke to operate under your network security and privacy settings.

## USD

Nuke 12.2 introduces the first part of our USD development for Nuke. It incorporates core USD work and focuses on the ability to read USD data into Nuke using a ReadGeo node.

We have integrated USD with a dedicated scenegraph, which has support for multi-parent loading and the ability to view the entire USD scenegraph, just like Alembic. Normals and Color data are also supported, as well as animated geometry.

See [Importing USD Meshes and Point Clouds](#) for more information.

## New MOV Reader and Writer

In line with Apple removing support for 32-bit applications, the mov32 Reader/Writer is being deprecated on all platforms. Along with this change, mov64 has also been replaced with a new MOV Reader and Writer.



**Note:** Some of the older QuickTime codecs will no longer be supported as a result of this work. We would appreciate your feedback on whether any essential codecs are missing.

## MOV Reader Updates

- Improved layout and labeling of items
- Improved support for reading **.mov** files and associated Metadata
- Performance improvements
- AAC Audio support added - Supported formats include **.m4a**, **.mov**, and **.mp4**

## MOV Writer Updates

- Improved layout and labeling of items
- Improved support for Writing **.mov** files and associated Metadata
- Performance improvements
- New Presets added in Nuke Studio

## MOV Writer formats supported (Linux, Win, macOS)

- Animation
- ProRes
- DNxHD
- DNxHR
- H.264
- Motion JPEG A
- Motion JPEG B
- MPEG-4
- Photo - JPEG
- PNG
- Uncompressed

## Deprecation of mov32

In Nuke 12.2, the mov32 Reader/Writer is hidden. mov32 is still available using the prefix **mov32:** in the file path, however we now recommend using the standard Nuke controls, as mov32 is scheduled for removal in a future release.



**Note:** mov32 is not available on macOS Catalina (10.15).

## DNxHR MXF Export in Nuke Studio

You can now write DNxHR MXF files in Nuke Studio and Hiero, bringing these inline with support introduced to Nuke 12.1, including OP-Atom and OP-1a Patterns.

## Feature Enhancements

### R3D and Sony SDK Updates

#### R3D SDK Update

- Red R3D SDK updated to 7.3.1
- Komodo camera support

#### R3D IPP2 Workflow Improvement

- R3D Image Pipeline has been updated with the addition of an IPP2 custom setting, which allows you to select your own Primary Color Space and Gamma Curve.

#### Sony SMDK Update to 4.19.0

- Improvements to platform compatibility

### Miscellaneous Enhancements

- BUG ID 420052 - High DPI: UI scaling options have been added to the **Preferences > Behaviors > UI Scaling** menu.

## Bug Fixes

- BUG ID 394981 - C\_Blur and Nuke's Blur node did not always produce exactly the same result.
- BUG ID 417542 - Planarlop: Planar inputs connected to a scanline op occasionally released cached images before all rows had been read, resulting in unnecessary processing overheads.
- BUG ID 422741 - RIP: Images stored in the device cache were occasionally released before being fully consumed.
- BUG ID 422769 - RIP: Unrequested ops were added as consumers to images stored in the device cache.
- BUG ID 423275/430355 - Replacing **%40d** notation with **%9999d** in a file path caused Nuke to crash or used a large amount of RAM.
- BUG ID 423513 - C\_Blender: Operations that reverted to using the CPU rather than GPU caused Nuke to crash.

- BUG ID 425382 - Deep: The Viewer was not updated to use DeepToImage2 internally.
- BUG ID 428443 - macOS only: Keyboard shortcuts for secondary Viewer inputs, such as **Shift+2** to activate A/B wipe, did not work as expected.
- BUG ID 431560 - macOS only: Scripts containing MotionBlur nodes displayed an error in the Viewer when playback stopped.
- BUG ID 431815 - C\_Blur: Executing a script containing C\_Blur nodes from the command line caused Nuke to become unresponsive or crash.
- BUG ID 438676 - Viewers: Changing the Viewer selection mode did not redraw the selection handles in the Viewer.
- BUG ID 441750 - Linux only: Setting **Output** to **Repair** in F\_WireRemoval caused Nuke to crash.
- BUG ID 441945/441953 - Export: Dragging a custom export preset into the project export preset panel removed the **Content** column from the **Export Structure** panel.

## New Known Issues Specific to Nuke 12.2

This section covers new known issues and gives workarounds for them, where appropriate.



**Note:** Changes to the way motion vectors are calculated in Nuke 12.2 cause any node using the **Local** option for motion estimation, such as Kronos and VectorGenerator, to render slightly different vectors when compared to legacy versions of Nuke. The default **Regularized** motion estimation method is unaffected.

- BUG ID 442165 - MOV: Writing out **.mov** files using the **H.264** codec at resolutions above the 4K limit imposed by the codec causes Nuke to crash.
- BUG ID 441989 - USD: Loading a **.usd** file and then changing the **file** extension to an unsupported file type, such as **.txt**, causes Nuke to crash.
- BUG ID 441979 - USD: Deselecting a group in the USD importer and then enabling **view entire scenegraph** does not load the group.
- BUG ID 441555 - USD: Clicking **Cancel** in the USD import dialog and then enabling **view entire scenegraph** does not load the **.usd** file as expected.
- BUG ID 441439 - R3D: Red decode CPU performance is slower in Nuke 12.2 compared to 12.1 builds.
- BUG ID 441429 - USD: Loading certain **.usd** files and switching the 3D Viewer selection mode to **Vertex** or **Face** selection causes Nuke to crash.
- BUG ID 440943 - USD: Expanding parent and children groups in the scenegraph manually does not create the horizontal scroll bar correctly.  
As a workaround, right-click and select **expand all** to display the scroll bar.

- BUG ID 440566/440488 - USD: Enabling and disabling parents and children in the scenegraph does not always work as expected.
- BUG ID 440295 - Python: Calling **addItem()** does not update the USD scenegraph automatically. As a workaround, enable and disable **view entire scenegraph** to force an update.
- BUG ID 440057 - Roaming: Hiero license roaming with a Nuke Studio license stack is not working as expected. As a workaround, launch Nuke Studio and select **License > Roaming** and then set the **Workspace** to **Conforming**.
- BUG ID 439958 - USD: The **Transform** tab controls are occasionally grayed-out for certain **.usd** files. As a workaround, reload the **.usd** file.
- BUG ID 439011 - ApplyMaterial: Selecting **filter > name** and then clicking **choose** incorrectly displays **Load** state icons.
- BUG ID 439002 - ApplyMaterial: Selecting **filter > name** and then clicking **choose** allows editing of the read-only names in the scenegraph.
- BUG ID 436998 - Sync Review: The **Sync Session** menu options should not be available in the **Compositing** workspace.
- BUG ID 436560/436551 - Sync Review: The formatting in the **Sync Session** panel and **Host** and **Connect** dialogs is inconsistent.
- BUG ID 434956 - USD: Columns in the **Scenegraph** tab can only be rearranged once.
- BUG ID 434574 - File Formats Update: Reading **.mxf** files in the **HybridLogGamma** colorspace defaults to **linear** incorrectly.
- BUG ID 432438 - Vertex UV values are occasionally displayed incorrectly for **.abc** and **.usd** files.
- BUG ID 431643 - Sync Review: Loading a project from a shared network causes the connection to time out if the host and clients are on different networks.
- BUG ID 430779 - File Formats Update: All deprecated IPP2 **.r3d** colorspace appear the same as current colorspace.
- BUG ID 430760 - File Formats Update: DRAGONcolor2 and REDcolor4 use the same IPP2 **.r3d** colorspace.
- BUG ID 429788 - macOS only: Legacy mov32 presets are no longer retained, choosing a preset always displays the **Don't show this message** dialog.
- BUG ID 429658 - Sync Review: Dragging annotations does not update positions in sync sessions until the annotation is dropped.
- BUG ID 429656 - Sync Review: Annotation markers in the timeline do not update automatically. As a workaround, scrub the timeline to force the update.
- BUG ID 428432 - USD: Loading unsupported files in a ReadGeo node fails silently and does not display an error.
- BUG ID 426901 - File Formats Update: In **IPP2 Custom** mode, enabling the **Use GPU** checkbox displays grading controls from the **IPP2 Pipeline** incorrectly.

- BUG ID 425200 - MOV: Legacy Write node Motion JPEG A/B files do not display the **Quality** control with **mov64** selected as the encoder.
- BUG ID 424070 - RIP: Ops requesting unused inputs occasionally prevent images being released from the device cache.
- BUG ID 419327 - File Formats Update: DNxHD and DNxHR **.mov** files do not display different codec information in the Read node's **Properties** panel.

## Developer Notes

As Nuke develops, we sometimes have to make changes to the API and ABI under the hood. We try to keep these changes to a minimum and only for certain releases, but from time to time API and ABI compatibility is not guaranteed. See the following table for the situations when you may have to recompile your plug-ins and/or make changes to the source code.

Release Type	Example	Compatibility	Recompile	Rewrite
Version	12.0v1 to 12.0v2	API and ABI		
Point	12.0v1 to 12.1v1	API	●	
Major	12.0v1 to 13.0v1	-	●	●

Additionally, node **Class()** names occasionally change between major releases. While these changes do not affect legacy scripts, you may not get the results you were expecting if a node class has been modified. The **toolbars.py** file, used to create Nuke's node toolbar, contains all the current node class names and is located in **<install\_directory>/plugins/nukescripts/** for reference.

As an example, between Nuke 9 and Nuke 10, the CameraShake node **Class()** changed from CameraShake2 to CameraShake3. In the **toolbars.py** file for the two releases, the entries for the CameraShake node appear as follows:

```
m.addCommand("CameraShake", "nuke.createNode(\"CameraShake2\")",
icon="CameraShake.png")
m.addCommand("CameraShake", "nuke.createNode(\"CameraShake3\")",
icon="CameraShake.png")
```