

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.

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 SSG

- Radeon™ Pro WX 8200



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

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.
- 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 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 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 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.

Release Notes for Nuke and Hiero 12.2v1

Release Date

21 July 2020



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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/Nuke12.2v2/Nuke12.2v2.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** 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 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.