DLog-M to Rec. 709 LUT

User Guide V1.0

2018.10

This manual describes how to use the DLog-M to Rec. 709 LUT for color modulation with Blackmagic Davinci Resolve, Adobe Premiere Pro CC, and Apple Final Cut Pro X.

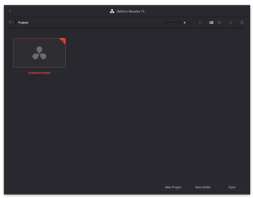
Using Blackmagic Davinci Resolve

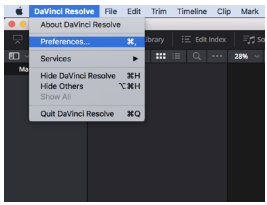
Download Davinci Resolve here: https://www.blackmagicdesign.com/products/davinciresolve/

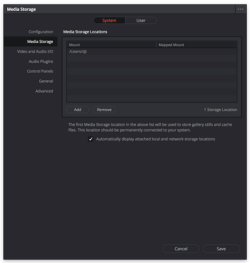
Screenshots are based on Davinci Resolve version 15.0.1 and are for reference only.

Getting Started

1. Launch Davinci Resolve and select “Preferences”.
2. Add the video to “Media Storage”.







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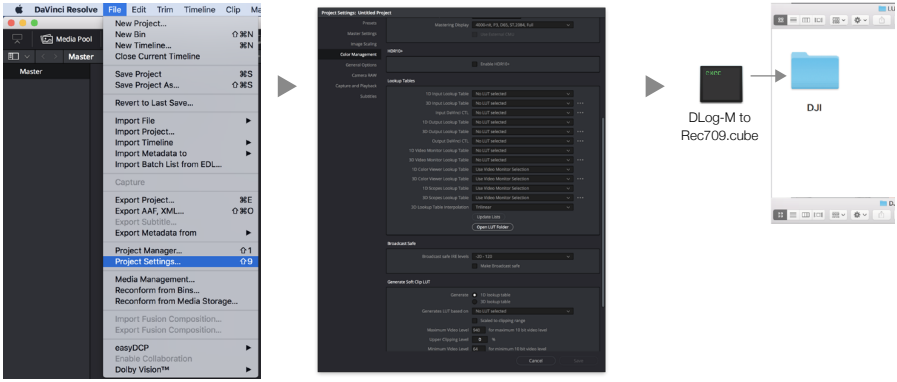
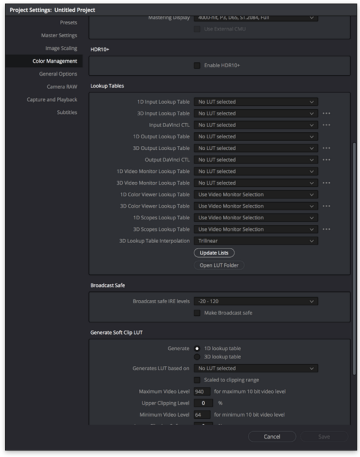
Install LUT

1. Select “File” and then “Project Settings”.
2. Select “Color Management” and then “Open LUT Folder”.
3. Open the “DJI” folder, or create the folder if it does not exist yet. Put “DLog-M to Rec709.cube” in the “DJI” folder.



Update Lists

1. Go back to “Color Management” and select “Update Lists”.
2. “DLog-M to Rec. 709” will now be available to select.
3. Note that the lists only need to be updated once.



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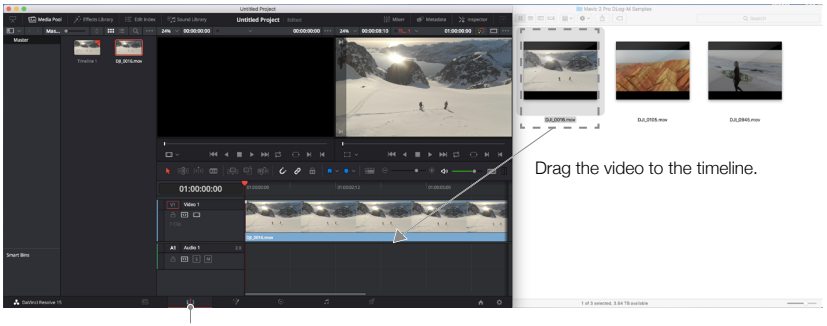
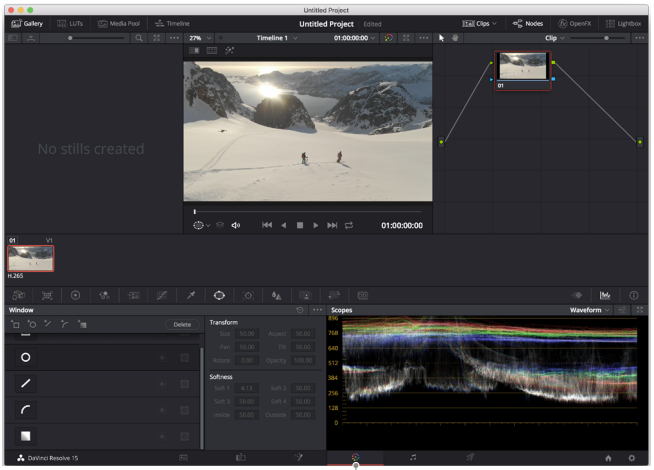
Import Videos



Open the video you wish to edit in Davinci Resolve.

Start Modulation



Select the Color Modulation icon to enter.

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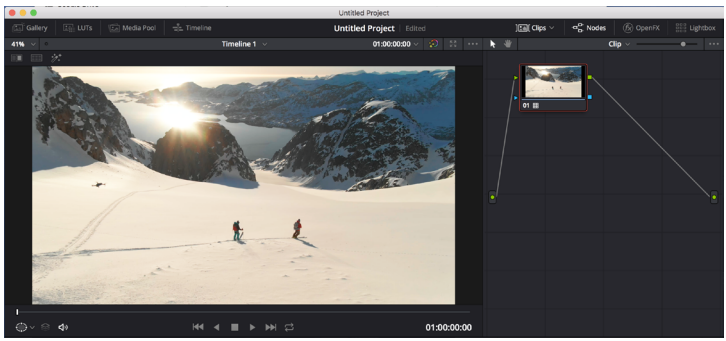
1. Apply the DLog-M to Rec. 709 LUT

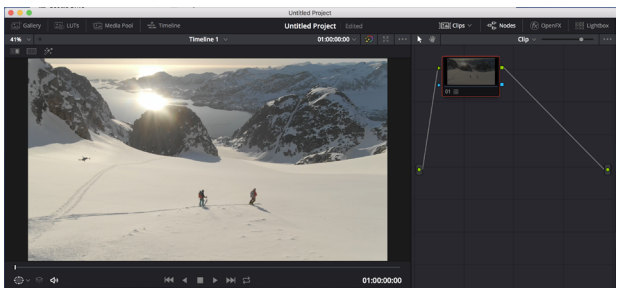
To apply the LUT, right click and select “3DLUT”->“DJI”->“DLog-M to Rec. 709”.

To apply the LUT, right click and select “LUTs”->“3DLUT”->“DJI”->“DLog-M to Rec. 709”.

2. Compare Color Effect



Use Command+D (Mac) or Ctrl+D (Windows) to preview the color effect before and after applying the LUT.



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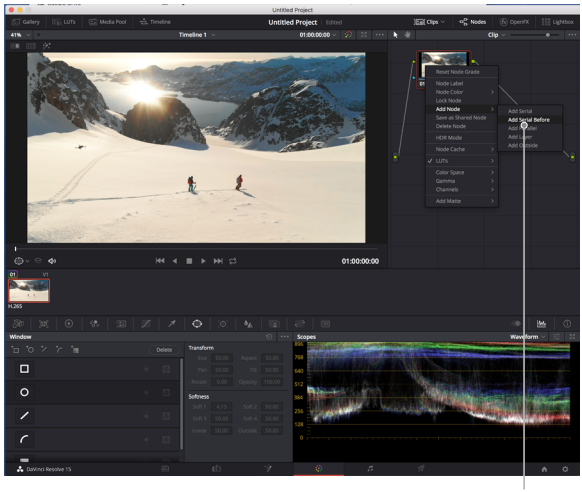
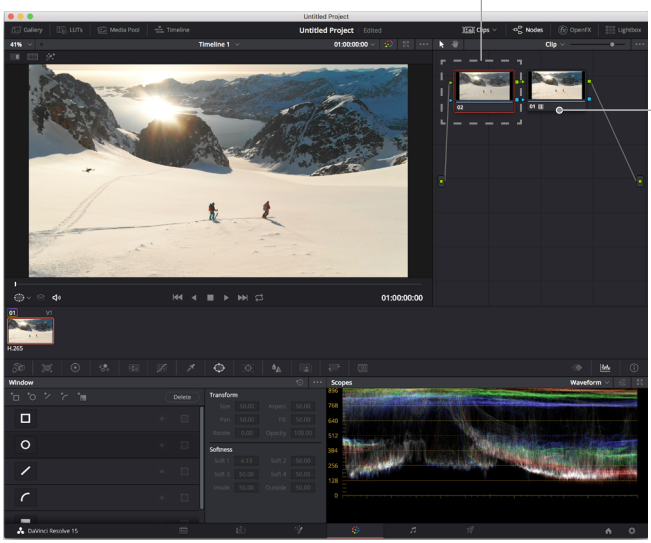
3. Color Modulation based on applying the LUT



Right click, select “Add Node” and then “Add Serial Before”.

Select the new node to adjust the dynamic range and compare the color effects before applying the 3DLUT.



A node with a grid icon indicates a 3DLUT is applied.

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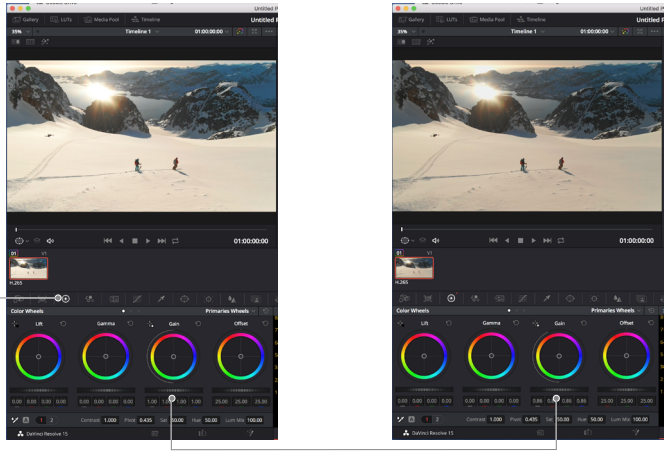
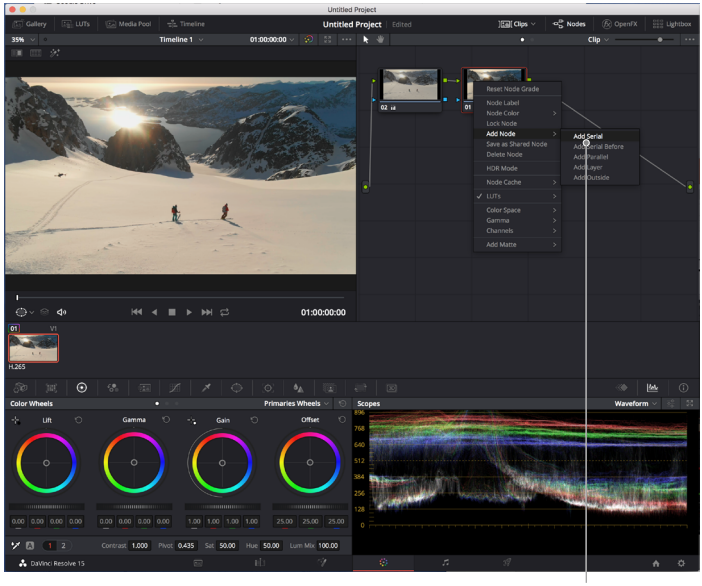
4. Recover Highlights

Select the Color Wheels icon.



Rotate the dial under the Gain color wheel.

5. Add Style



To add style, right click, select “Add Node”, and then “Add Serial”.

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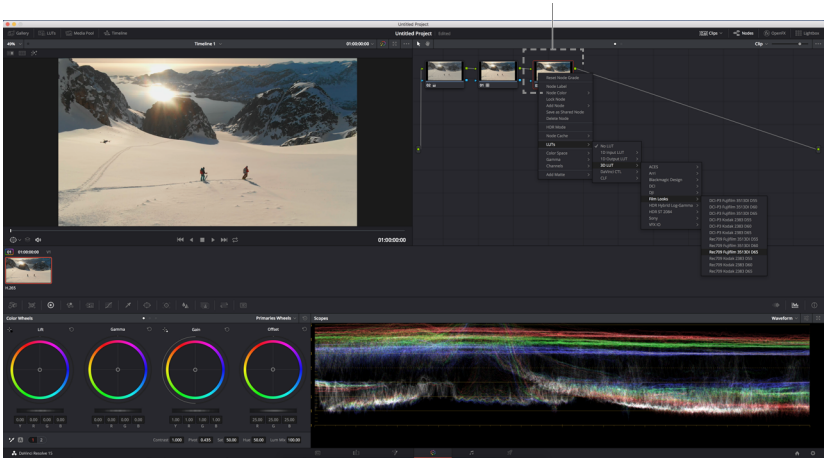
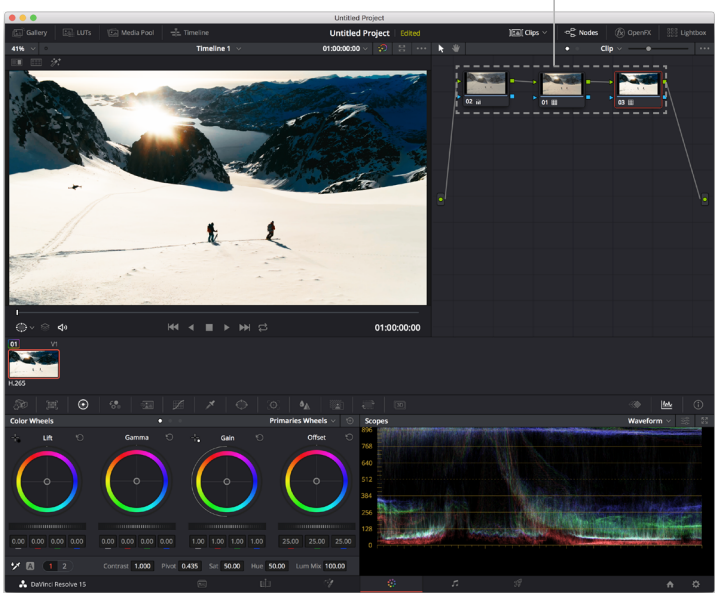
6. Create Style using a LUT

Style can be added in a number of ways, such as by using one of Davinci Resolve's built-in LUTs. The above example uses the "Rec. 709 LUT".



7. Video with Style

In the screenshot above, the nodes shown (from left to right) have been edited using Highlight Recovery, Color Space Transfer, and Add Style.



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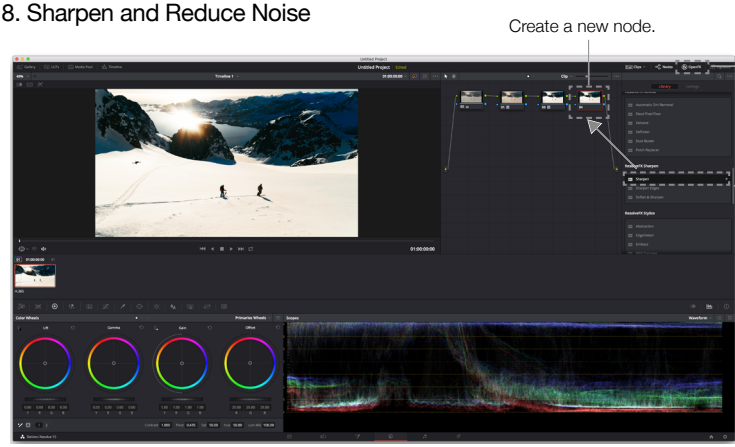
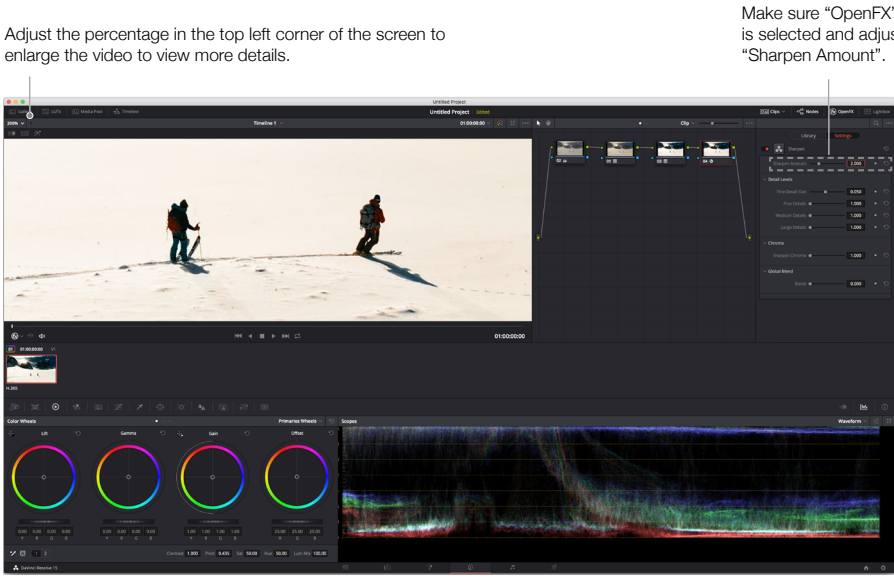
8. Sharpen and Reduce Noise



DLog-M does not sharpen or reduce noise in order to retain image quality for better processing in post-production.

* Please note that when sharpening or reducing noise, any videos edited using the free version of Davinci Resolve will contain watermarks.

9. Adjust Sharpen



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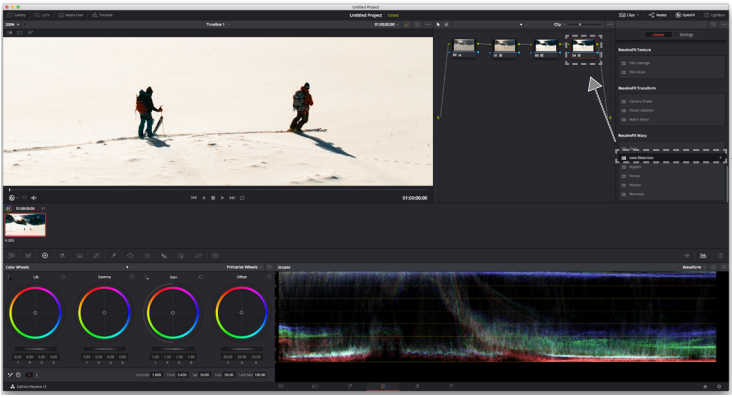
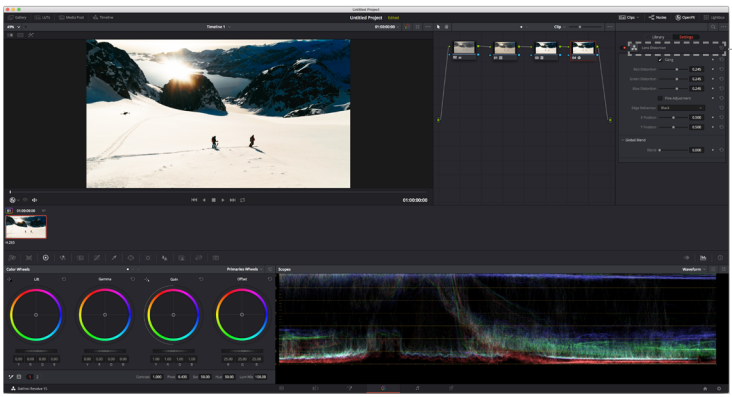
10. Video Distortion Correction



Make sure “OpenFX” is selected, and drag “Lens Distortion” to the node.

* Use “Lens Distortion” to correct the distortion for Mavic 2 Pro videos.



Fill in the value according to the recommended table below.

11. Recommended Video Distortion Correction Values

4K HQ	0.18
4K FOV	0.245
2.7K	0.240
FHD 24/25/30/48/50/60p	0.245
FHD 120p	0.18

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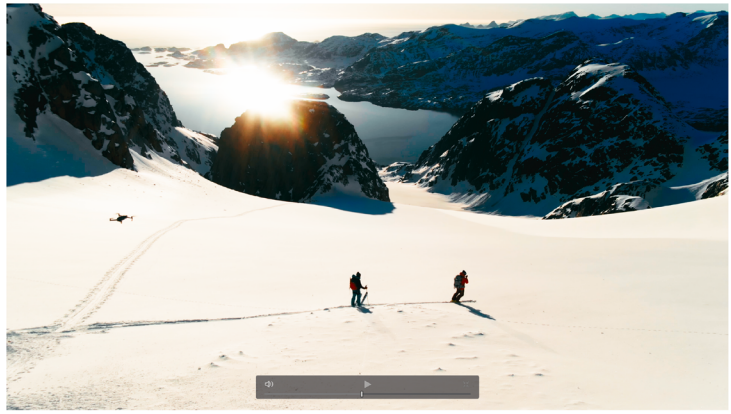
Delivery

2. Choose “Export Video” format and adjust settings.

3. Select “Add to Render Queue”.

1. Select the Delivery icon on the bottom of the screen.

4. Select “Start Render”.



The process has been completed and your video is ready to be viewed.

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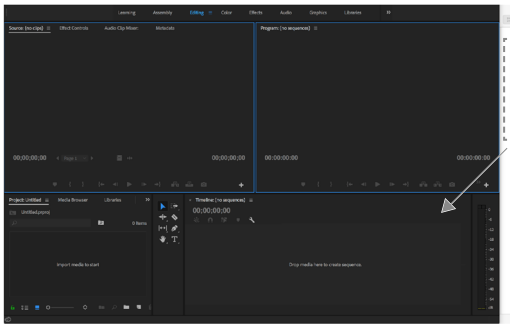
Adobe Premiere Pro CC

Download Adobe Premiere Pro via the link: https://www.adobe.com/cn/products/premiere.html

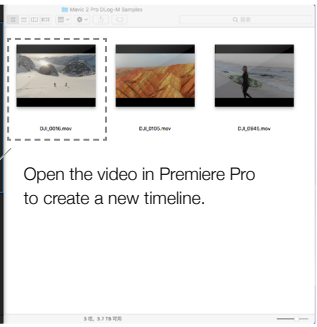
Adobe Premiere Pro CC

Screenshots are based on Adobe Premiere Pro version 12.1.1 and are for reference only.

Create New Project and Import Video

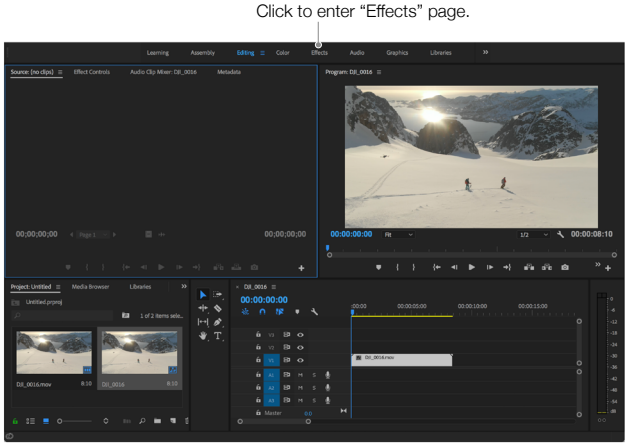


Create a new project.



An HEVC decoder is required when importing any HEVC videos to Premiere Pro for the first time.

Getting Started



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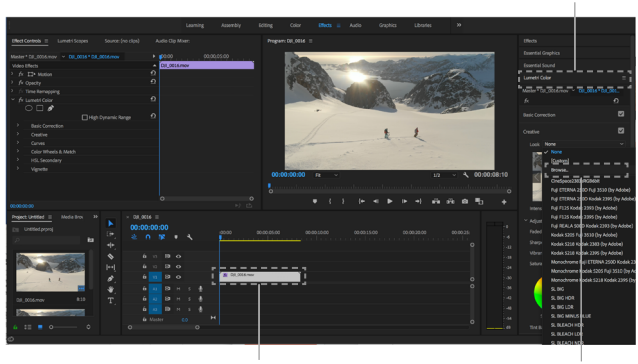
1. Apply the DLog-M to Rec. 709 LUT.

2. Select “Lumetri Color”.

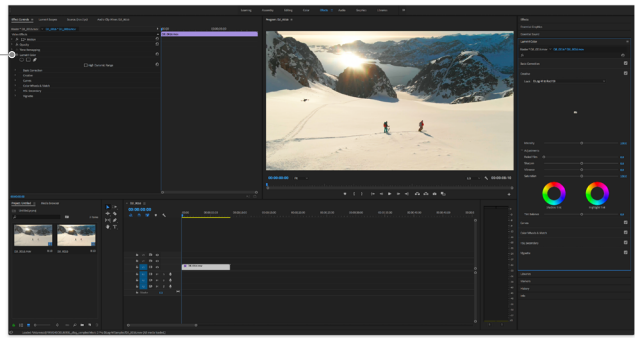


1. Select the video in the timeline

3. Select “Look” and then “Browse”. Select the “DLog-M to Rec 709 LUT.cube” file.

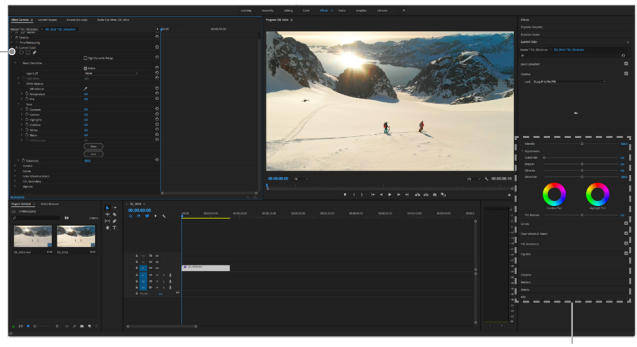
2. Compare Color Effect

Click “fx”, to be able to turn LUTs on and off to compare the results.



3. Color Modulation based on applying the LUT

Click “Lumetri Color” to set color parameters such as White Balance, Brightness, Contrast, Saturation, Curve, and Color Wheel.



Color parameters can also be adjusted here.

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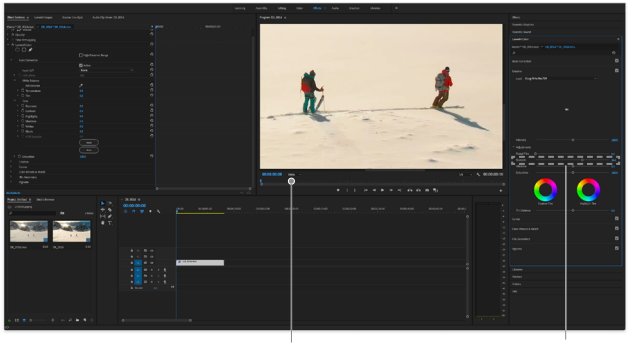
Sharpen



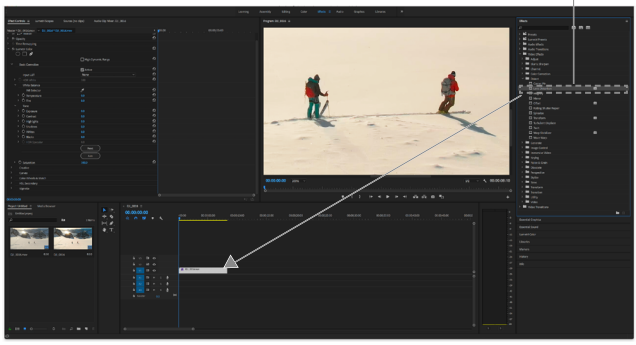
Enlarge to see more details.

Adjust Sharpen in “Lumetri Color”.

DLog-M will not sharpen or reduce noise in order to retain as much image information as possible for better post processing.

Video Distortion Correction

Select “Effects”->“Video Effects”->“Distort”->“Lens Distortion”.



Drag “Lens Distortion” to the video in the timeline.

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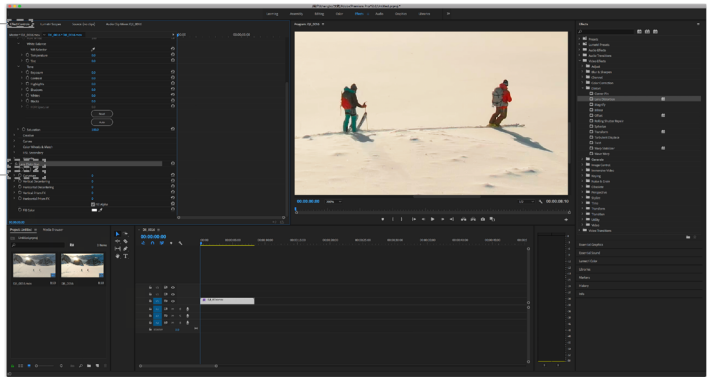
1. Video Distortion Correction Value Settings

Select “Effect Controls”->”Lens Distortion”

Set curvature values. The recommended values are listed below.

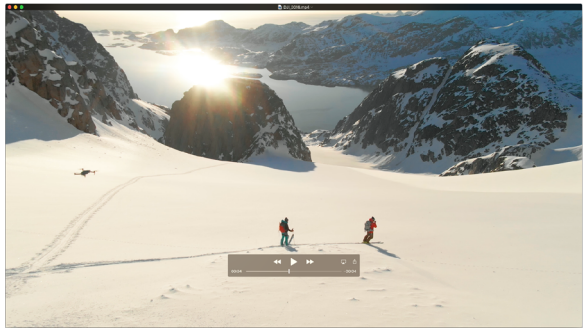


2. Recommended Values for Video Distortion Correction

4K HQ	-4
4K FOV	-9
2.7K	-8
FHD 24/25/30/48/50/60p	-9
FHD 120p	-4

Delivery

In the main menu of Premiere Pro, select “Document”->“Export”->“Media File” to complete the process and view the final video.



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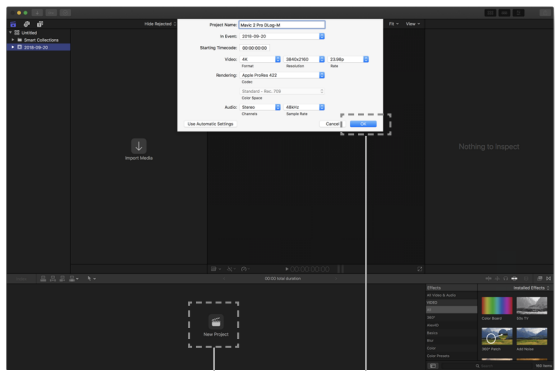
Using Apple Final Cut Pro X

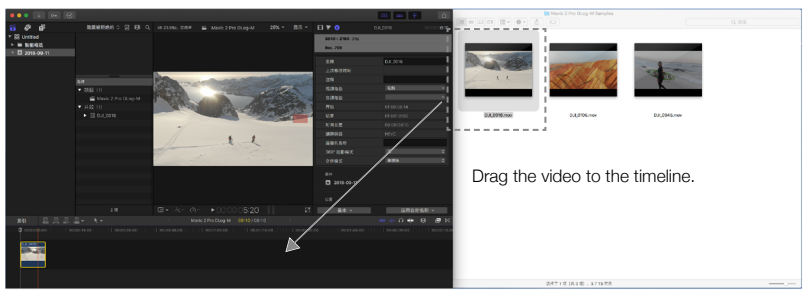
Screen shots are based on Apple Final Cut Pro X version 10.4.2 and are for reference only.

Create New Project



1. Select “New Project”. 2. Set the parameters as desired.

Import Video



Drag the video to the timeline.

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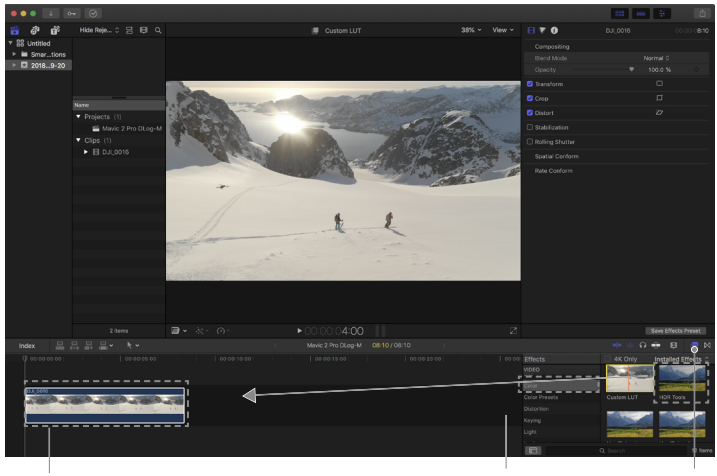
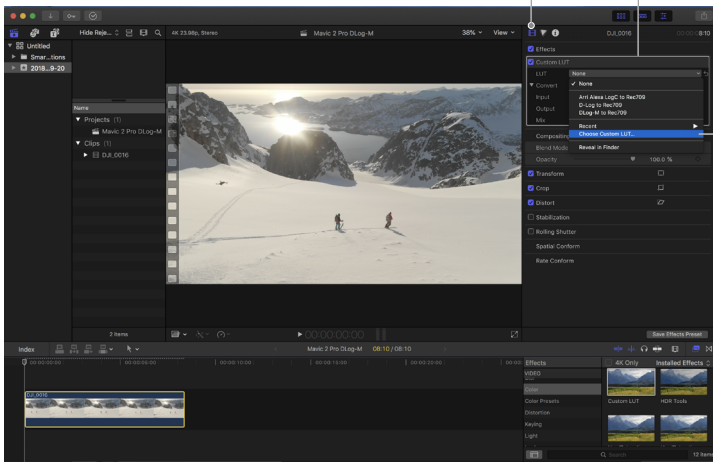
Apply LUT



1. Select the timeline. 4. Drag “Custom LUT” to the video. 3. Select “Color”. 2. Enable “Effects Browser” (Command+5).

Select DLog-M to Rec. 709 LUT

1. Select the Video Inspector icon. 2. Select “Custom LUT”.



3. Select “Choose Custom LUT”.

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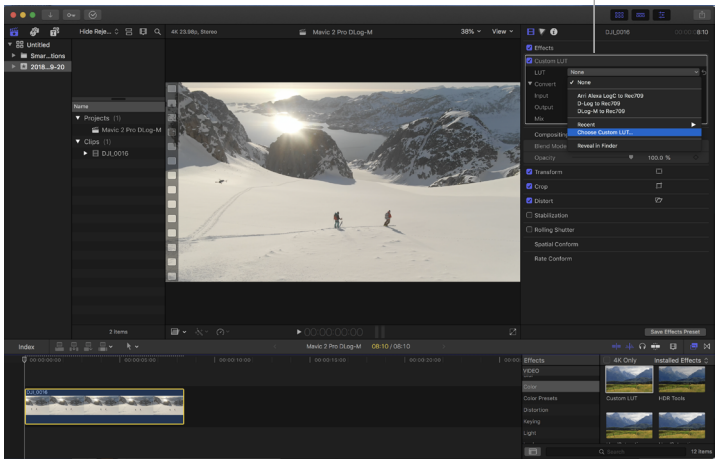
Compare

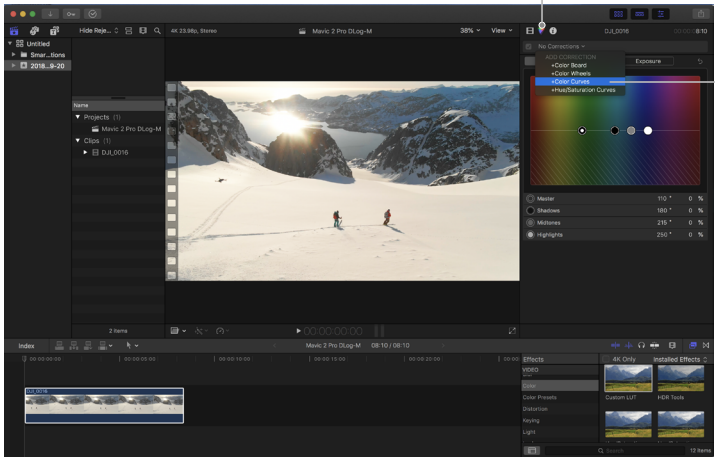
Select the Video Inspector icon. Select and unselect the “Custom LUT” to compare the color effect.



Color Modulation before applying the LUT

1. Enable “Color Checker”.

2. Select “+Color Curves”.



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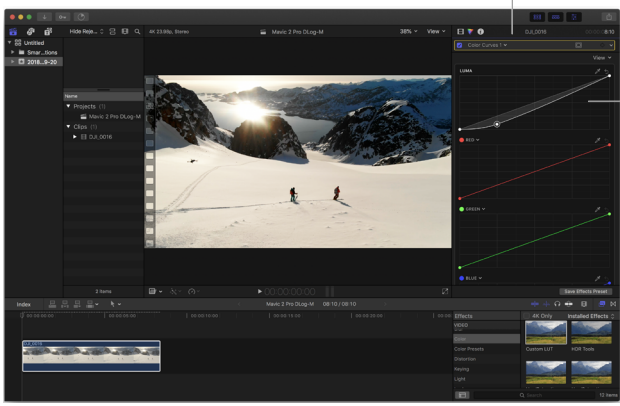
Adjust Curves and Color Wheel

You can modulate the color by selecting "+Color Curves" and other settings.



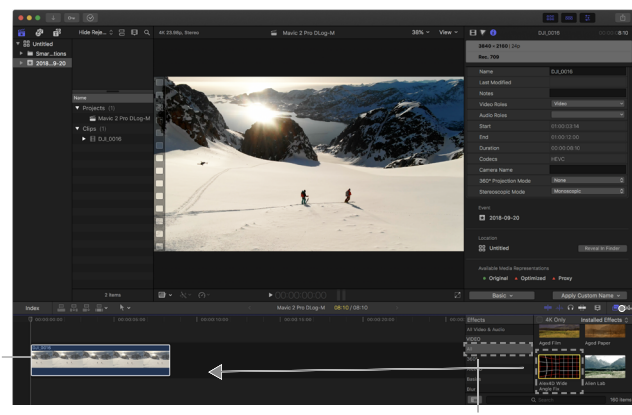
Adjust the brightness and contrast.

Video Distortion Correction

A plug-in is required when using Final Cut Pro X for video distortion correction. It is recommended to use Alex4D Wide Angle Fix.

http://www.alex4d.com/plugins/fcpX/Alex4D_Wide_Angle_Fix_Installer_1.0.dmg

1. Apply the plug-in to the video.



1. Select the video in the timeline.

2. Enable "Effects Browser" (Command+5).

3. Select "All".

4. Drag "Alex4D Wide Angle Fix" to the selected video.

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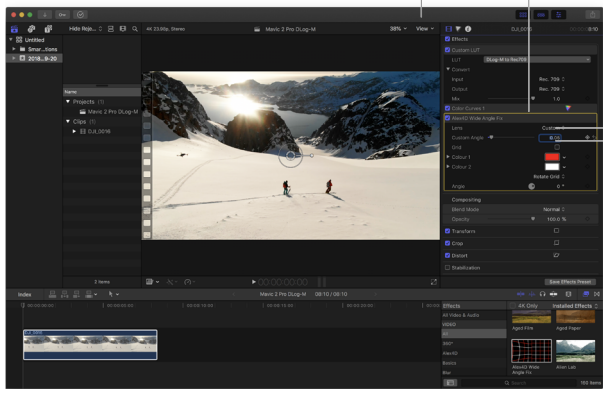
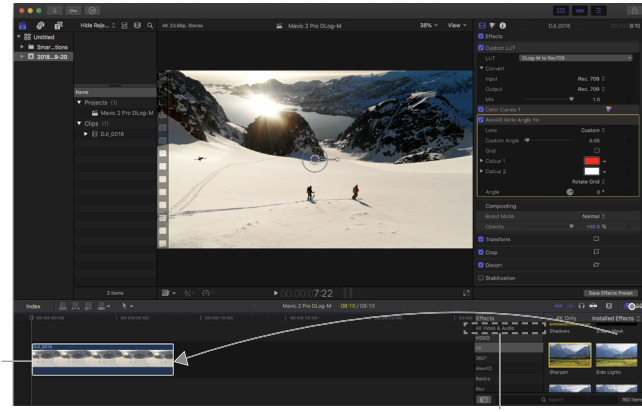


2. Recommended Values

4K HQ	0.02
4K FOV	0.05
2.7K	0.05
FHD 24/25/30/48/50/60p	0.05
FHD 120p	0.02

Sharpen



DLog-M will not sharpen or reduce noise in order to keep the image information as much as possible for better post processing.

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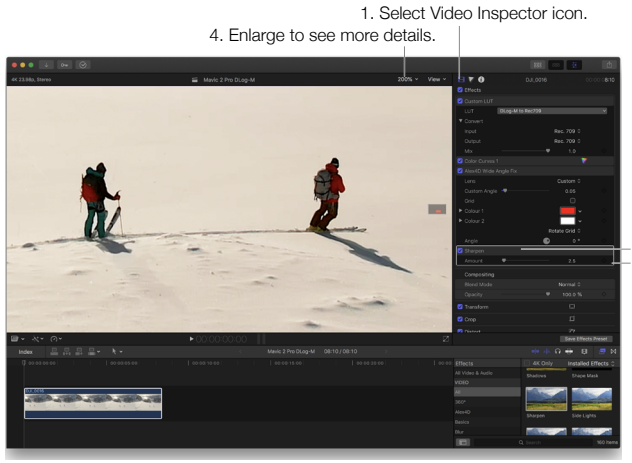
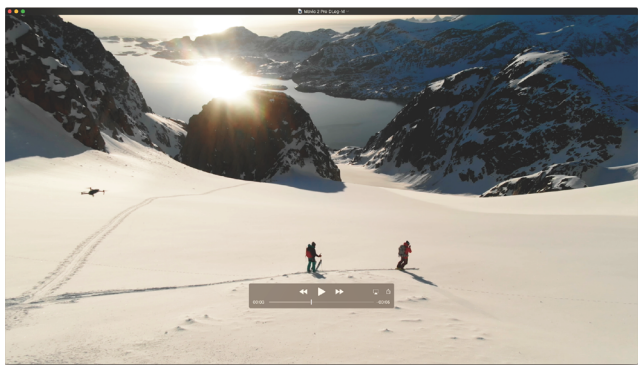
Adjust Sharpen



Delivery

In the main menu, select “File”->“Share”->“Write File”.



The process has been completed and your video is ready to be viewed.

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Reference

- Blackmagic DaVinci Resolve Manual
  https://www.blackmagicdesign.com/cn/manuals/DaVinciResolve/DaVinci_Resolve_15_Reference_Manual.pdf

- Adobe Premiere Pro User Guide
  https://helpx.adobe.com/premiere-pro/user-guide.html

- Apple Final Cut Pro X Help
  https://help.apple.com/finalcutpro/mac/10.4.1/

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DJI Support

http://www.dji.com/support

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