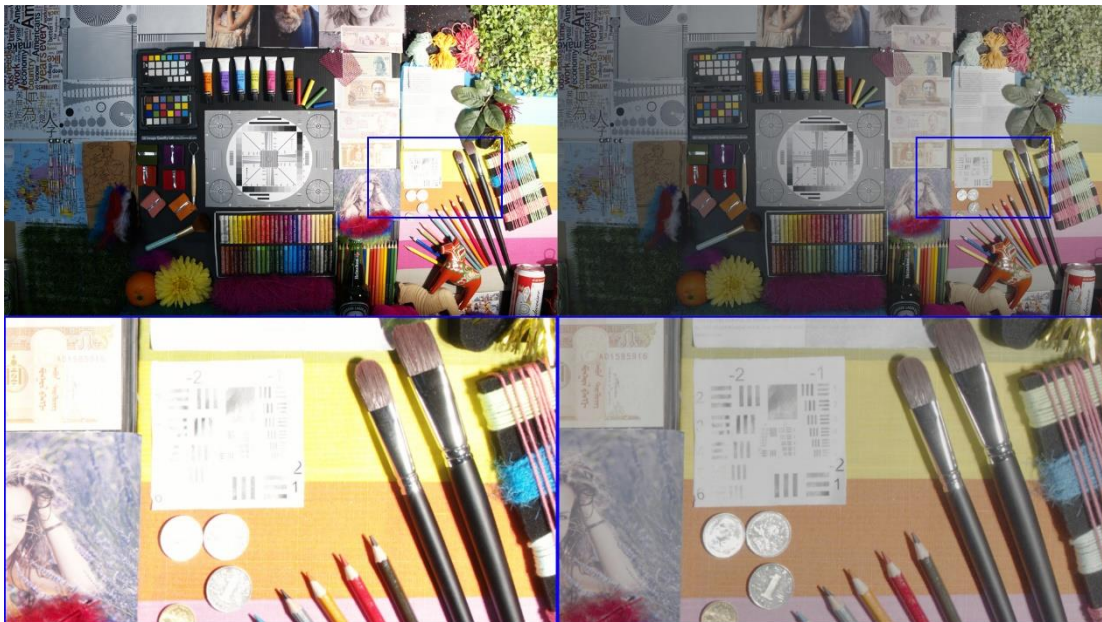
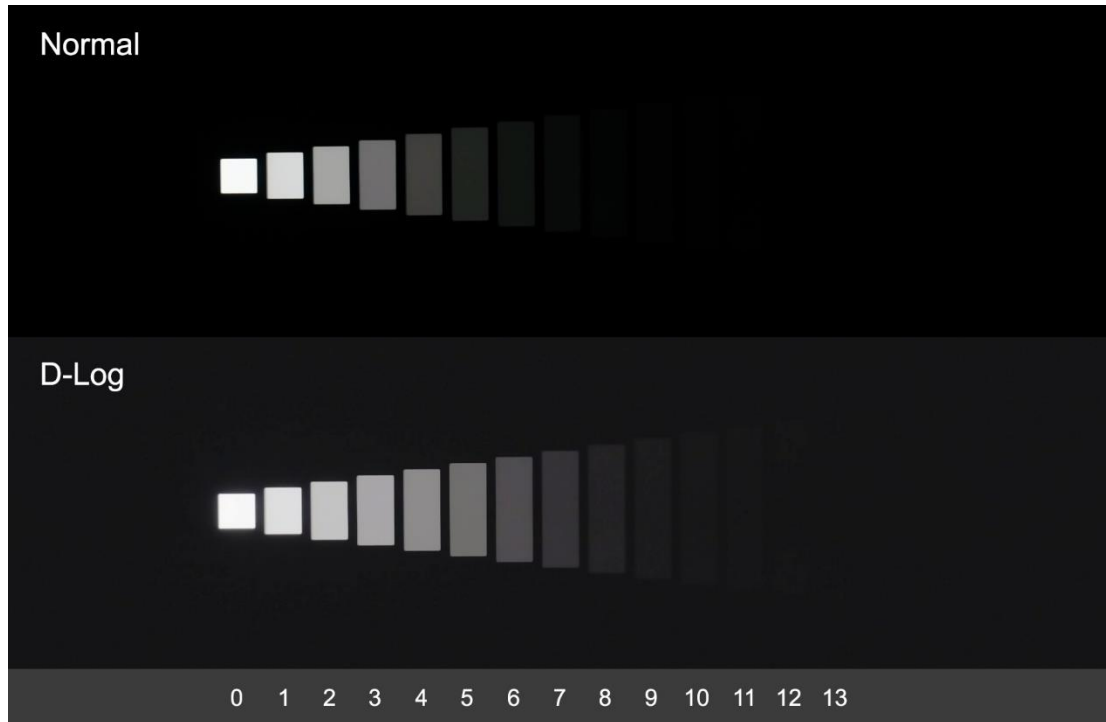


D-Log Grading Guide

In this document, we will showcase the method of capturing D-Log footage, as well as the post production workflows.

D-Log: recording video in higher dynamic range



Normal

D-Log

When capturing videos and photos, high-performance sensor usually captures dynamic range of 11 stops or above. However, when doing in-camera processing using a Gamma of common display equipment (e.g.

sRGB or Rec. 709 Gamma) and outputting 8-bit photos and videos, we can only achieve dynamic range of about 8 stops, losing some information during compression.

RAW capturing is a good choice for still photos, as it ensures all highlight and shadow details are recorded. However, for video, RAW is not supported in most consumer-grade cameras. That is why we need D-Log, with which we can record enough dynamic range and leave more room for grading in post-production.

Most recent DJI aircrafts are equipped with D-Log shooting capabilities. As is shown above, in D-Log mode, dynamic range and color gamut recorded by the sensor is significantly expanded. Since a much larger dynamic range has been compressed down to 8 bit, the image shown on a common screen (sRGB or Rec. 709) may seem to be flat, which is not suitable for direct viewing by the audience. As a result, colorists are required to correct and grade the footage to create a look pleasing to the audience. During the grading process, you can selectively preserve or compress the tones that interest you most.

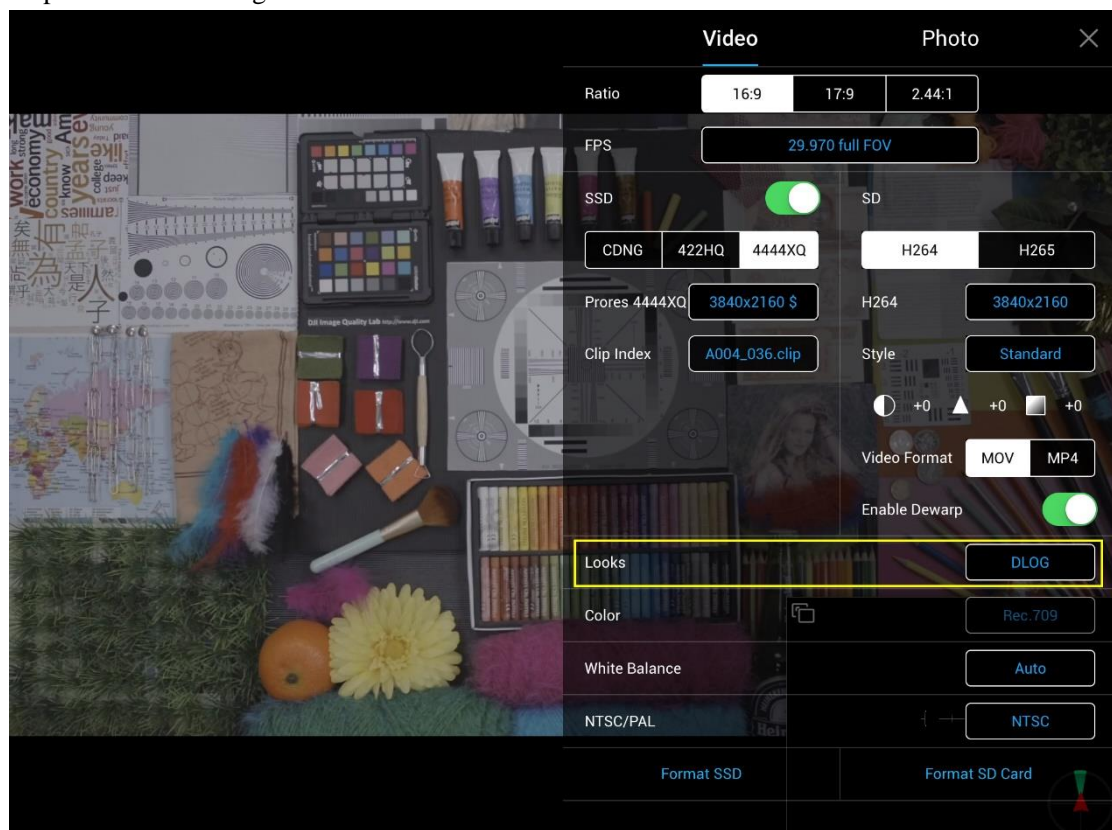
D-Log Shooting and Grading Workflow

With DaVinci Resolve as an example for post-production, we will introduce the workflow used to record professional videos in D-Log color.

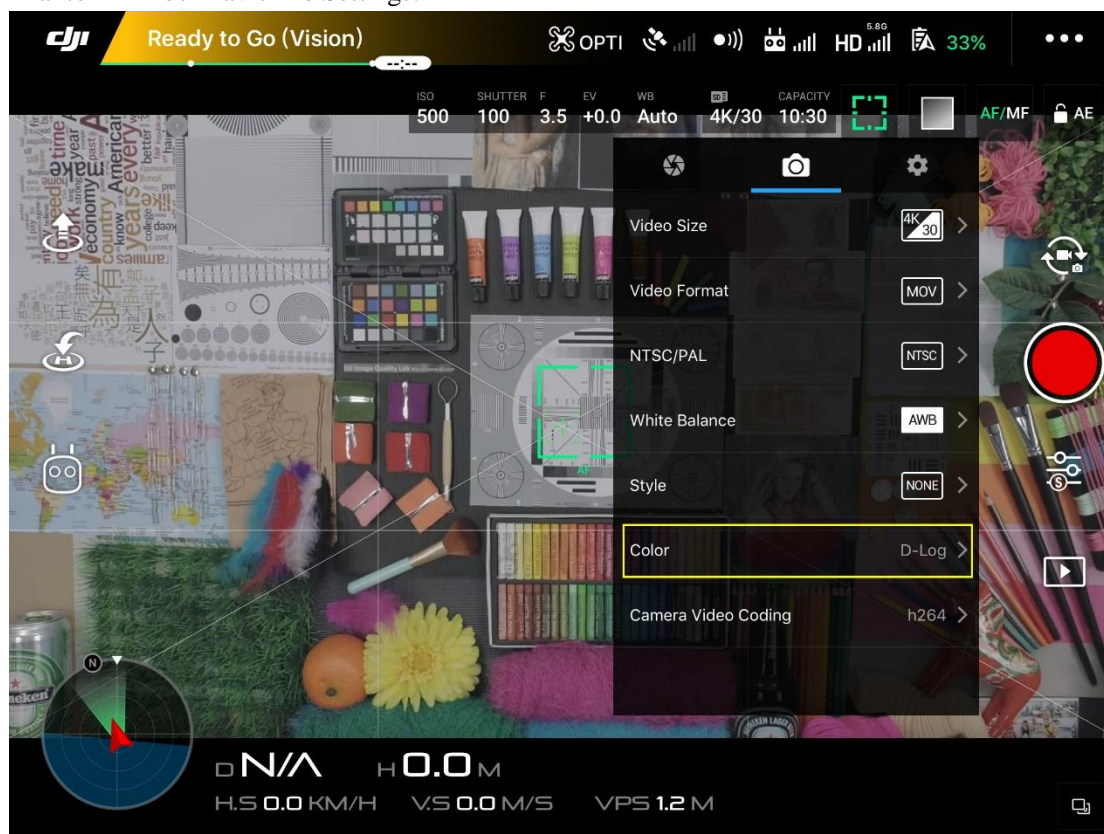
Video Recording

1. Ensure the aircraft firmware and DJI GO 4 app are all updated to the latest version. Select D-Log in → Advanced Settings in DJI GO 4 app.

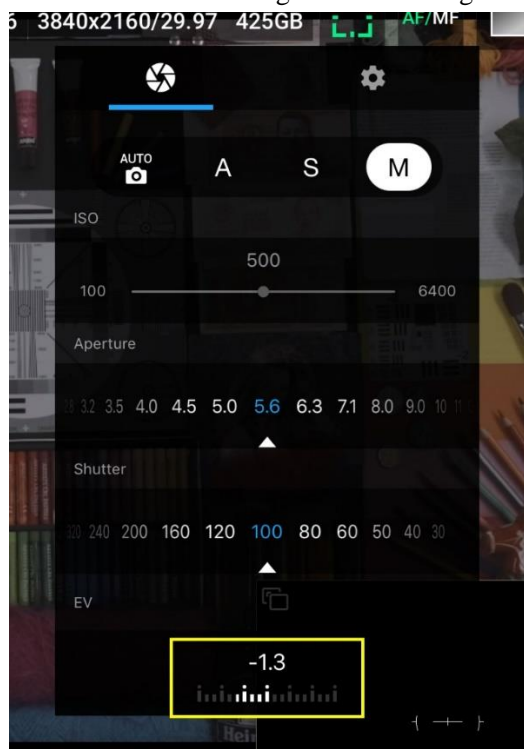
Inspire 2 / X5S Settings:



Phantom 4 Pro / Mavic Pro Settings:

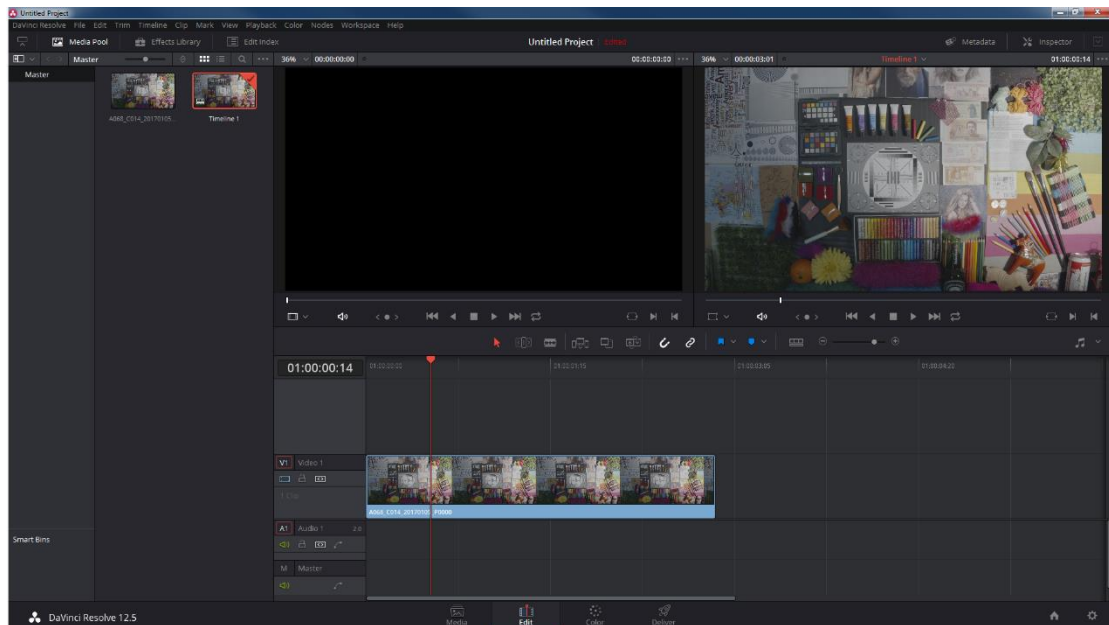


2. Shoot in AE Mode (Auto/A/S Mode) to achieve correct exposure. When shooting in Manual Exposure Mode, refer to the built-in Exposure Indicator, or confirm the exposure settings using a waveform monitor. An ND Filter may be required during outdoor shooting, which enables the application of the best iris and shutter settings. Medium-bright or above-average bright objects with apparent texture is recommended as AF targets under D-Log mode.



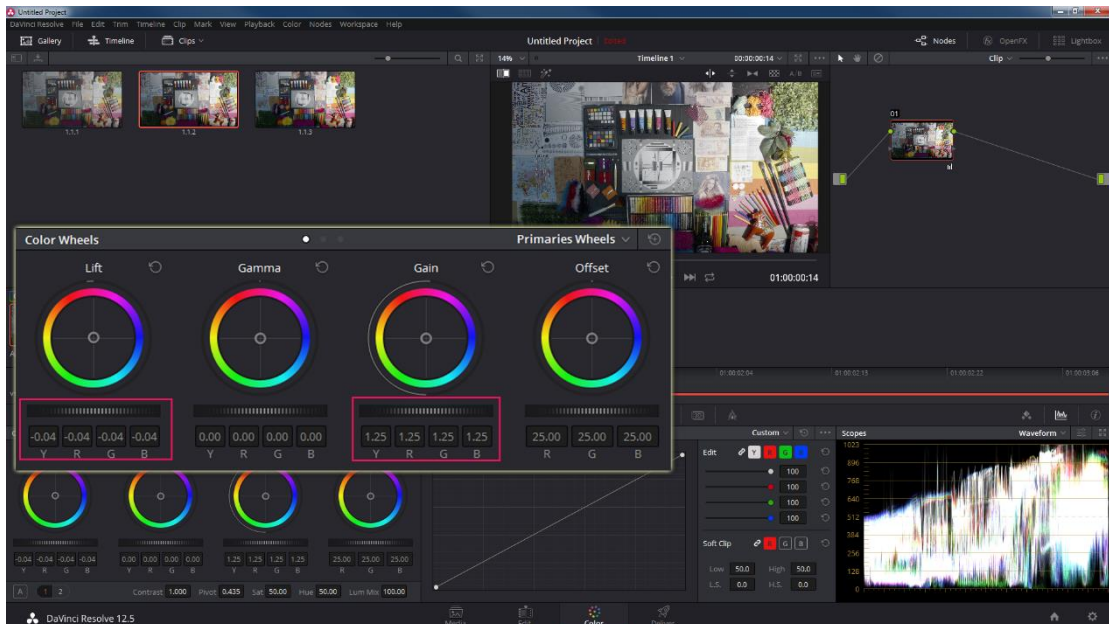
Importing

3. Import the original video shot in D-Log mode to a video processing software, and create a timeline to edit.

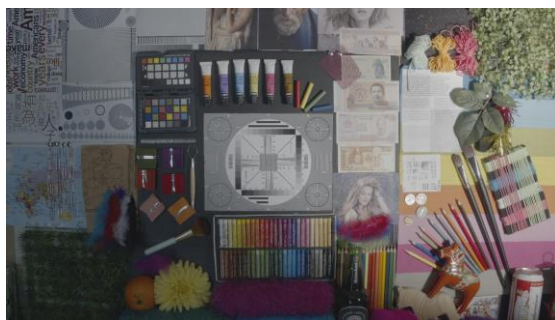
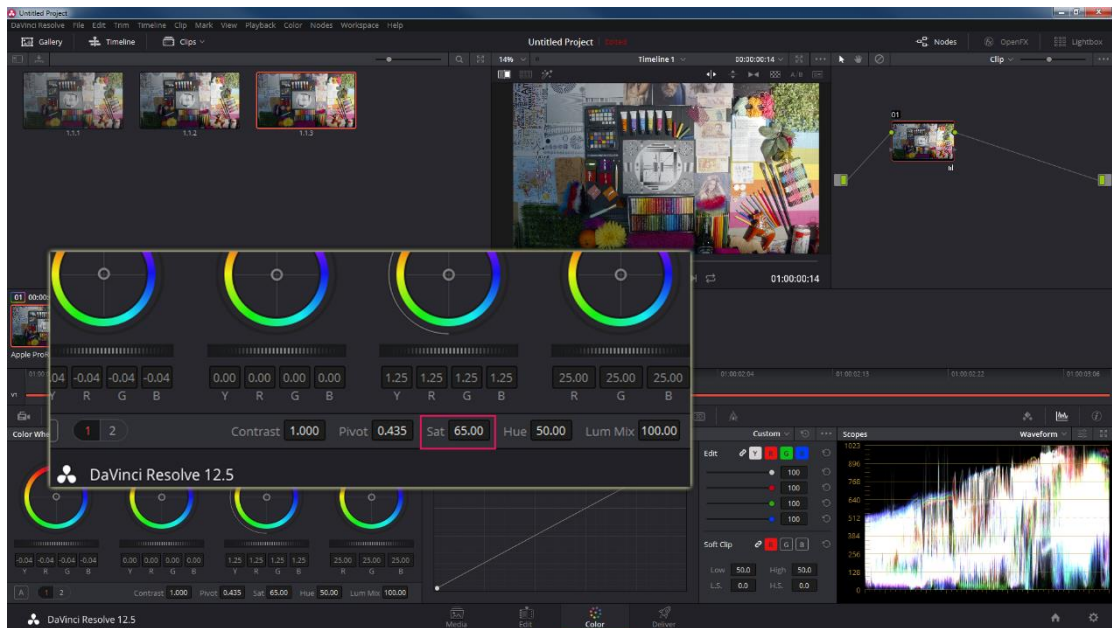


Grading

4. Primary Grading (1): On the Grading interface, adjust the brightness and contrast of the video footage to appropriate levels by adjusting Lift/Gamma/Gain. Refer to the waveform monitor to check and control the clipping of highlights and shadows. Generally, reducing Lift and increasing Gain value is adequate to give the video footage a proper contrast ratio.



5. Primary Grading (2): You can also increase the saturation as needed or make other delicate tweaks.

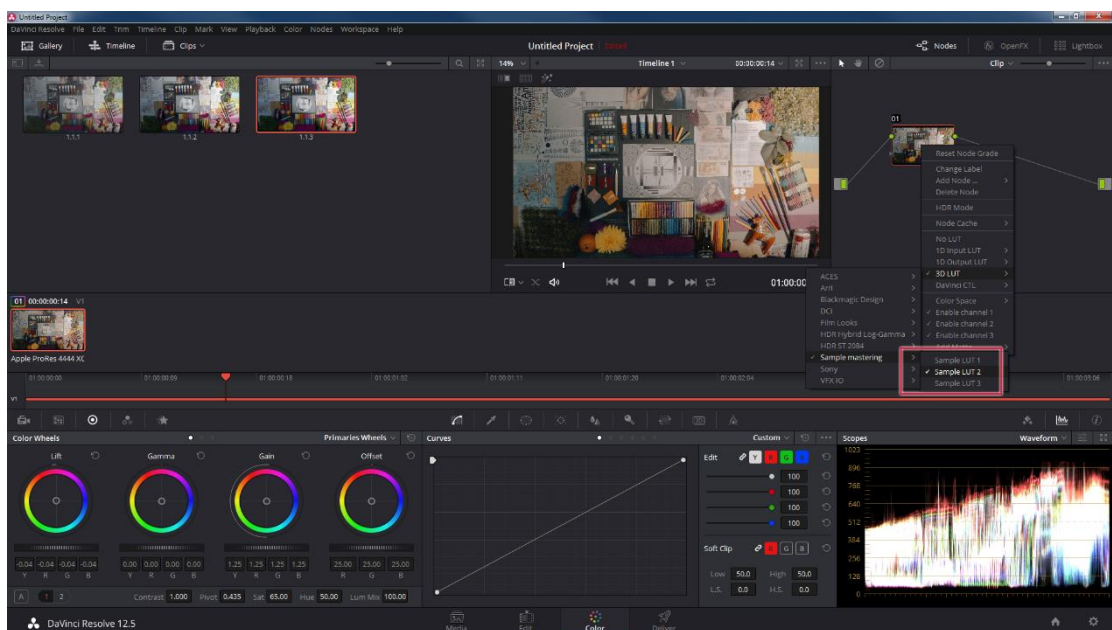



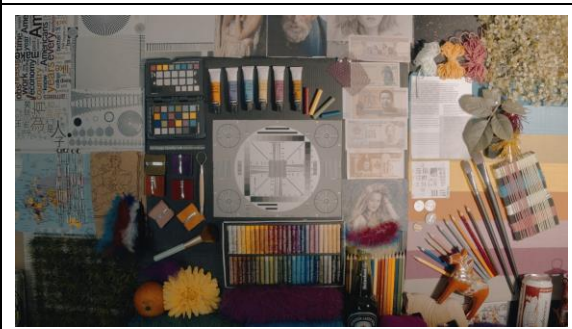
Before Primary Grading



Contrast Enhanced + Saturation Enhanced

6. Secondary Grading: Apply appropriate 3DLUT to the nodes for creative grading, or apply secondary grading in qualified regions.



	
<p>Before Secondary Grading</p>	<p>Sample Grading 1</p>
	
<p>Sample Grading 2</p>	<p>Sample Grading 3</p>

7. Render out the final footage.