



30 JULY – 3 AUGUST *Los Angeles*  
**SIGGRAPH**2017

# Post-production for 360 Video

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**FOUNDRY.**

F.

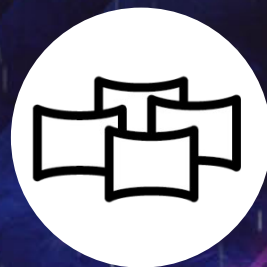
# Challenges for 360 video



Camera rig setup



Colour correction



Stitching



Stitch correction



Stabilisation



Match-move



Headset review



with thanks to Ryan Cummins  
VR VFX Supervisor, Legend3D



Input footage



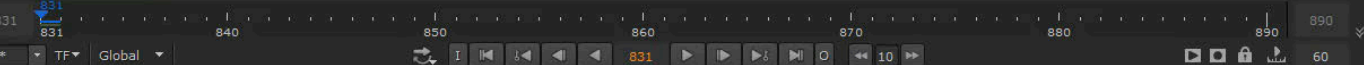


# CARAVR

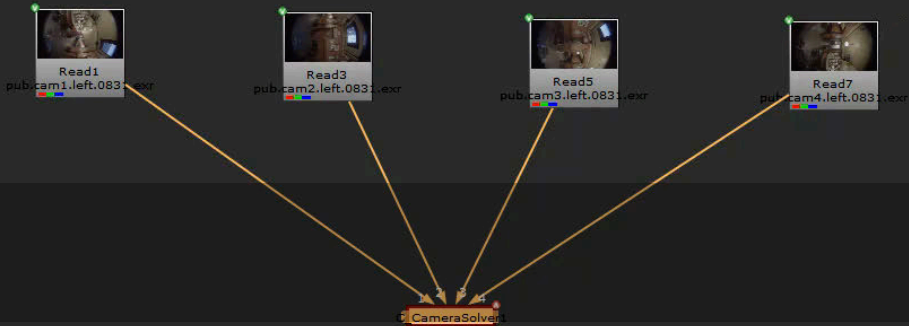


UHD\_4K 3840x2160 bbox: 0 0 3840 2160 channels: rgb

x=4612 y=96



Node Graph Curve Editor Dope Sheet



Properties

C\_CameraSolver1

C\_CameraSolver Cameras Settings Python Node

Input Views  
Left Views left Right Views right Stereo

Rig  
Cameras 8  
Rig Size 0.30000001

Camera  
Lens Type Rectilinear  
Sensor Size x 0 y 0  
Focal Length 0  
Position 0 0 0  
Rotation 0 0 0  
Centre Shift 0 0 0  
Distortion 0 0 0

Mask  
Shape Rectangular  
Size 0 0  
Feather 0 0

Links

Output  
View All

e	name	lens	size_x	size_y	focal	X	Y	Z	R
1	camera1	1	35.6	23.8	9	0	0	0	0
2	camera2	1	35.6	23.8	9	0	0	0	0
3	camera3	1	35.6	23.8	9	0	0	0	0
4	camera4	1	35.6	23.8	9	0	0	0	0
5	camera5	1	35.6	23.8	9	0	0	0	0
6	camera6	1	35.6	23.8	9	0	0	0	0
7	camera7	1	35.6	23.8	9	0	0	0	0
8	camera8	1	35.6	23.8	9	0	0	0	0

Set as Default

## Camera geometry

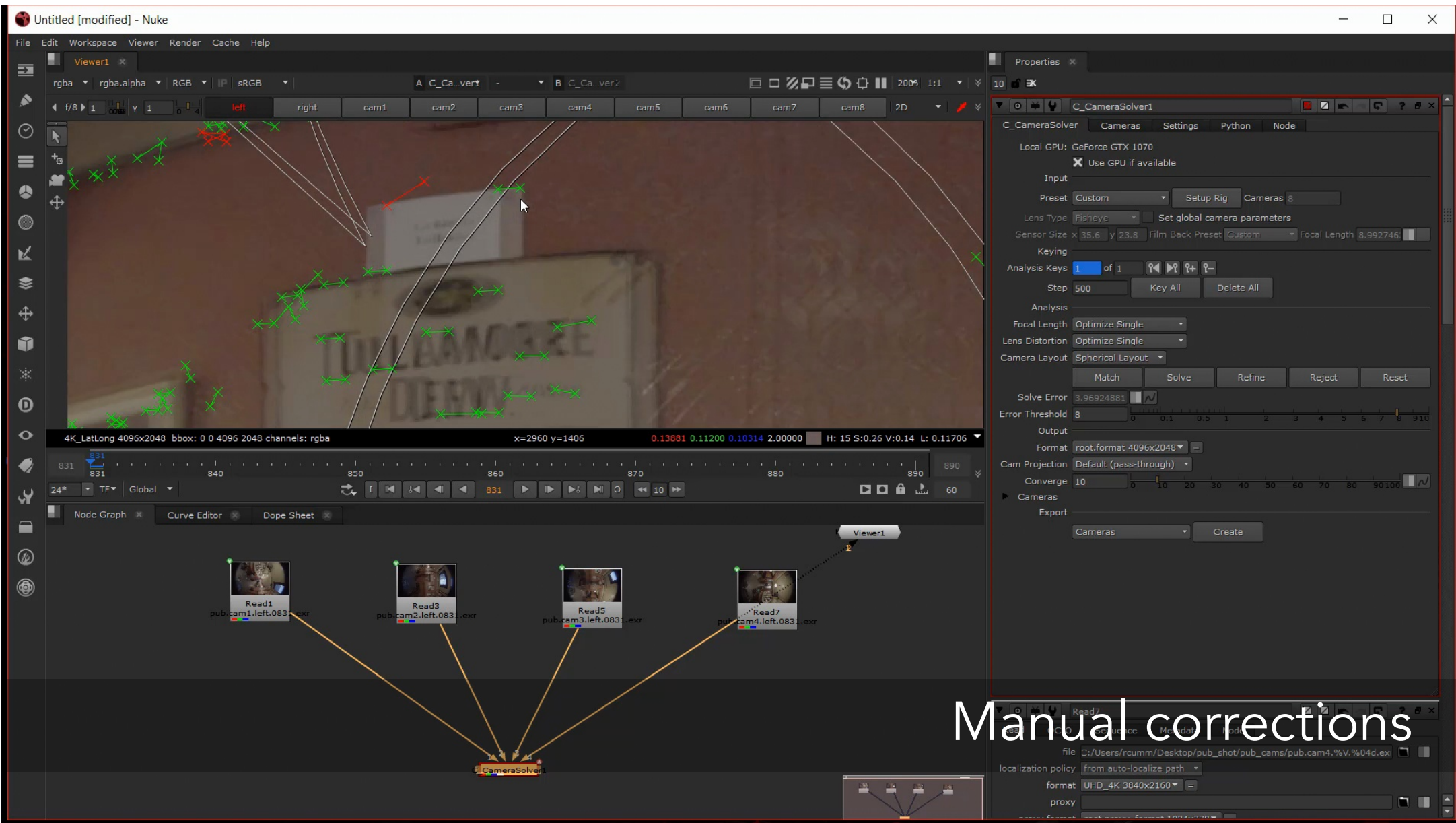
Read7

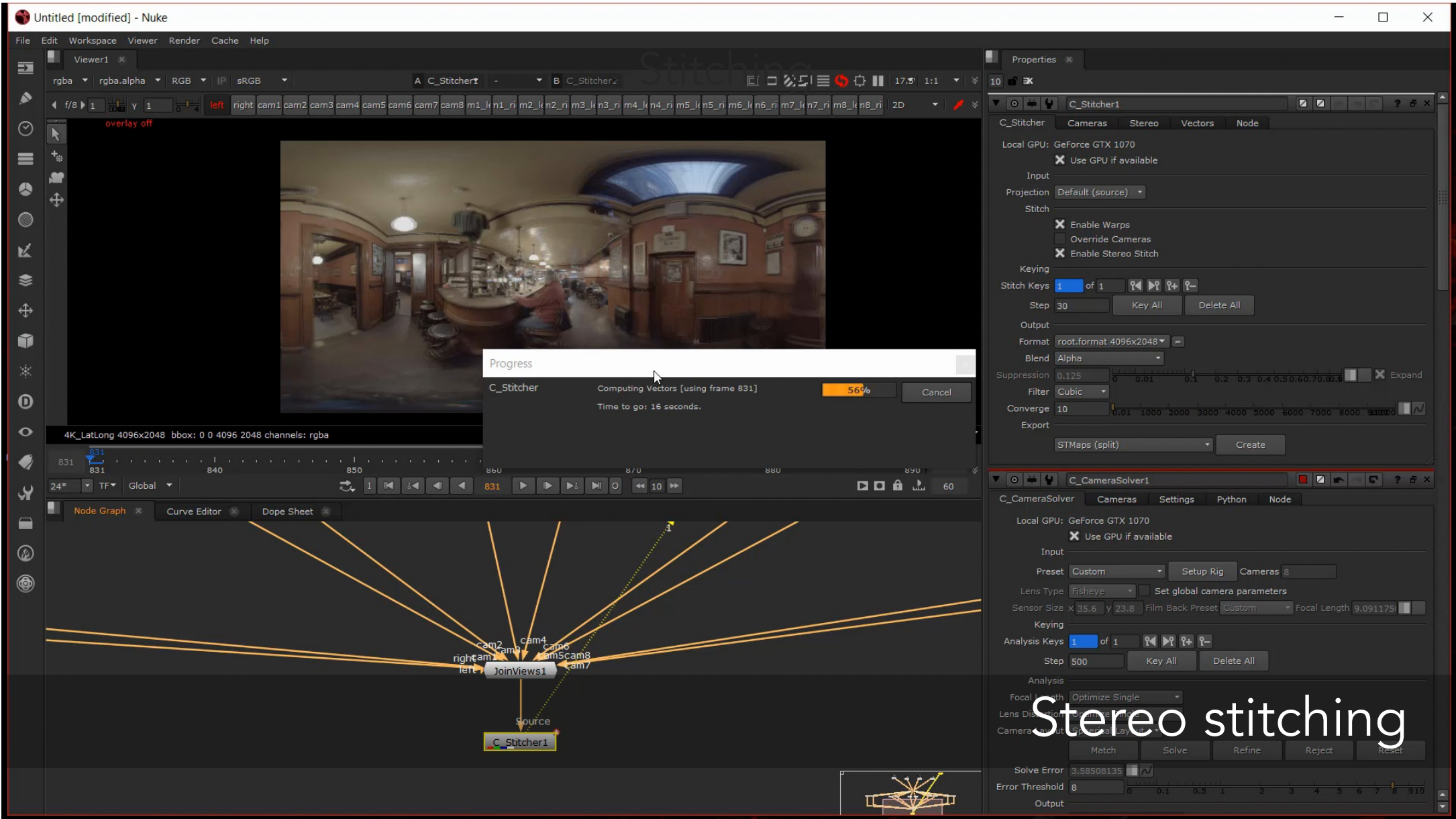
file C:/Users/rcumm/Desktop/pub\_shot/pub\_cams/pub.cam4.%V.%04d.exr

localization policy from auto-localize path

format UHD\_4K 3840x2160

proxy



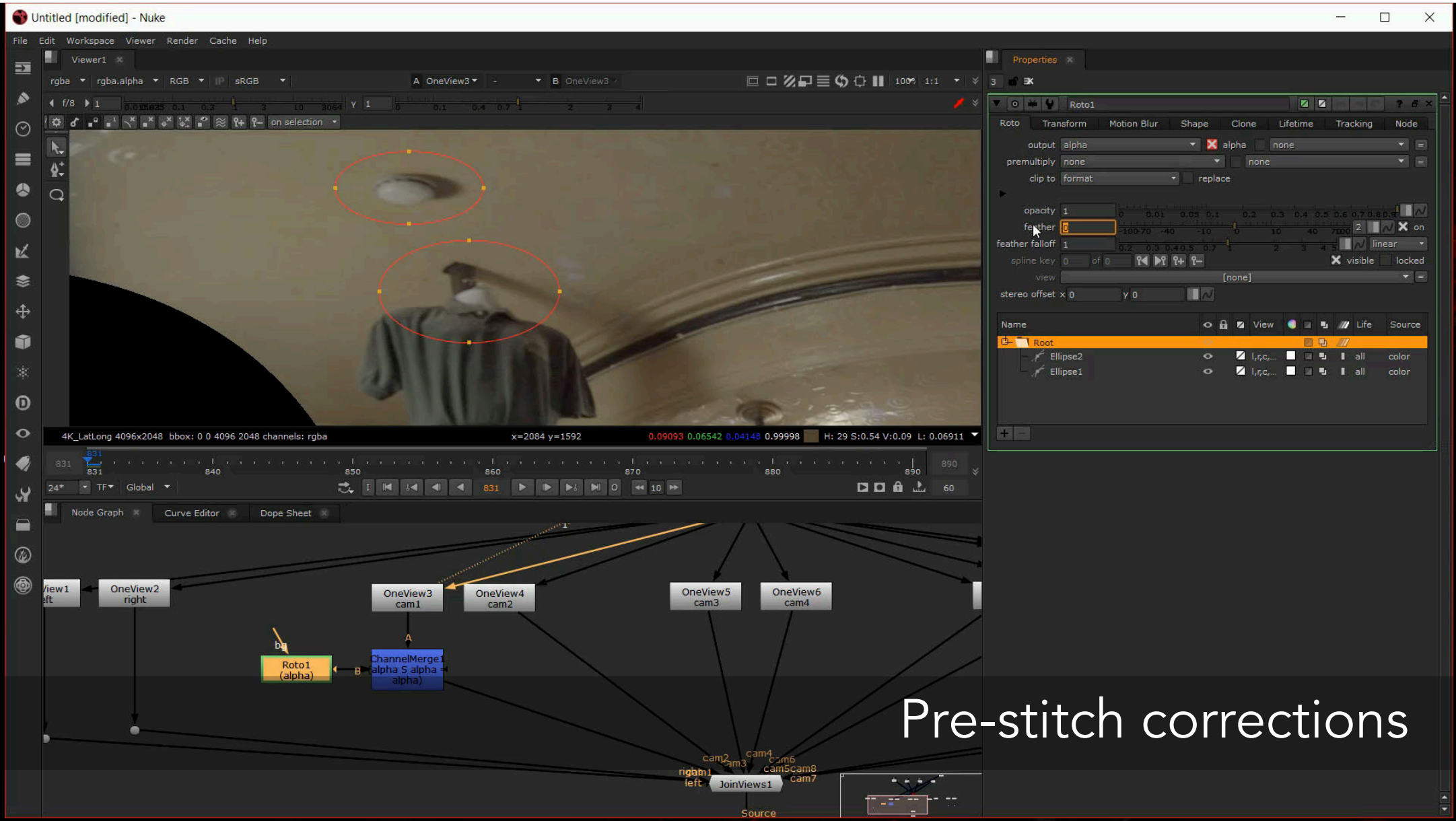


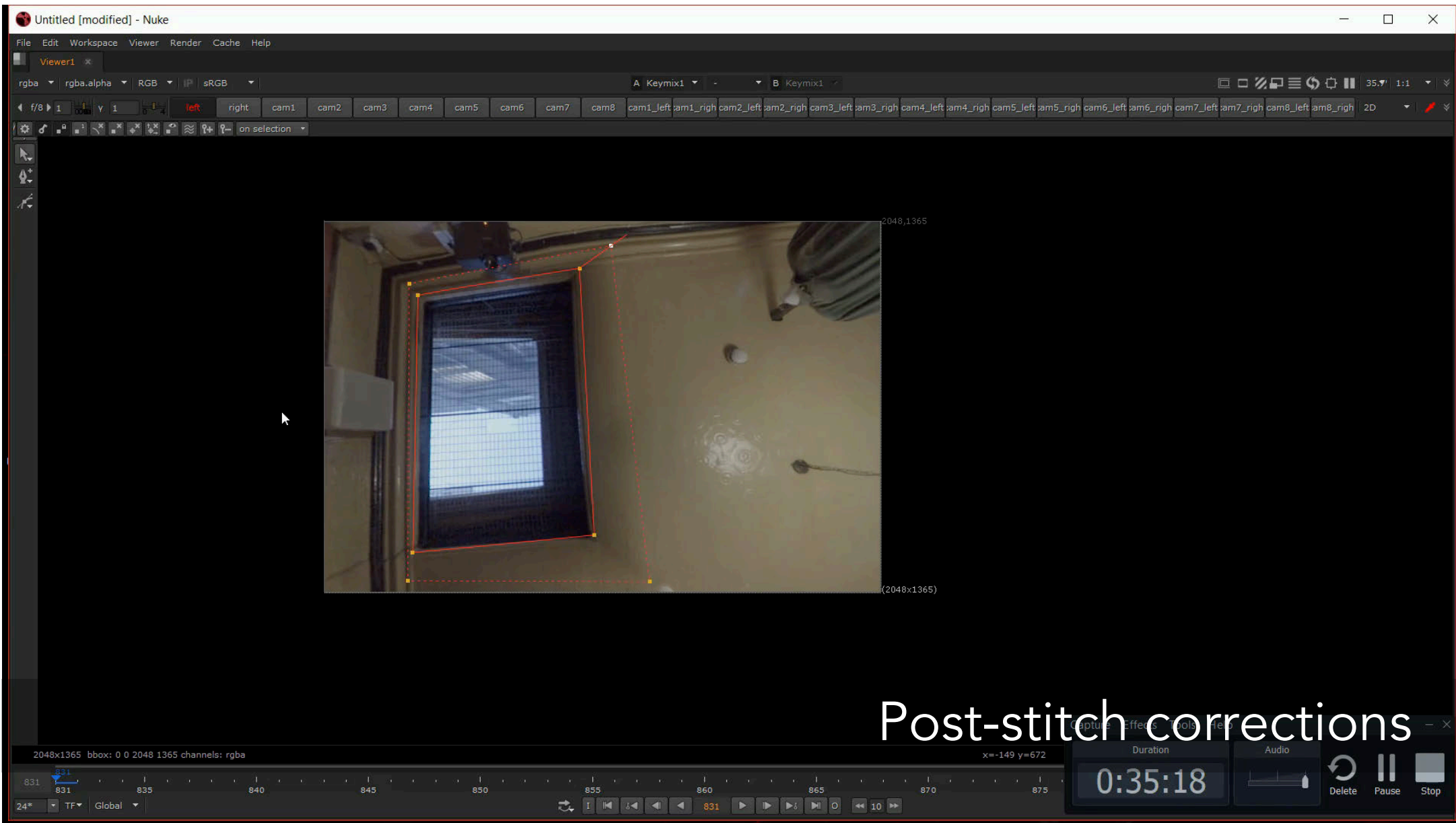




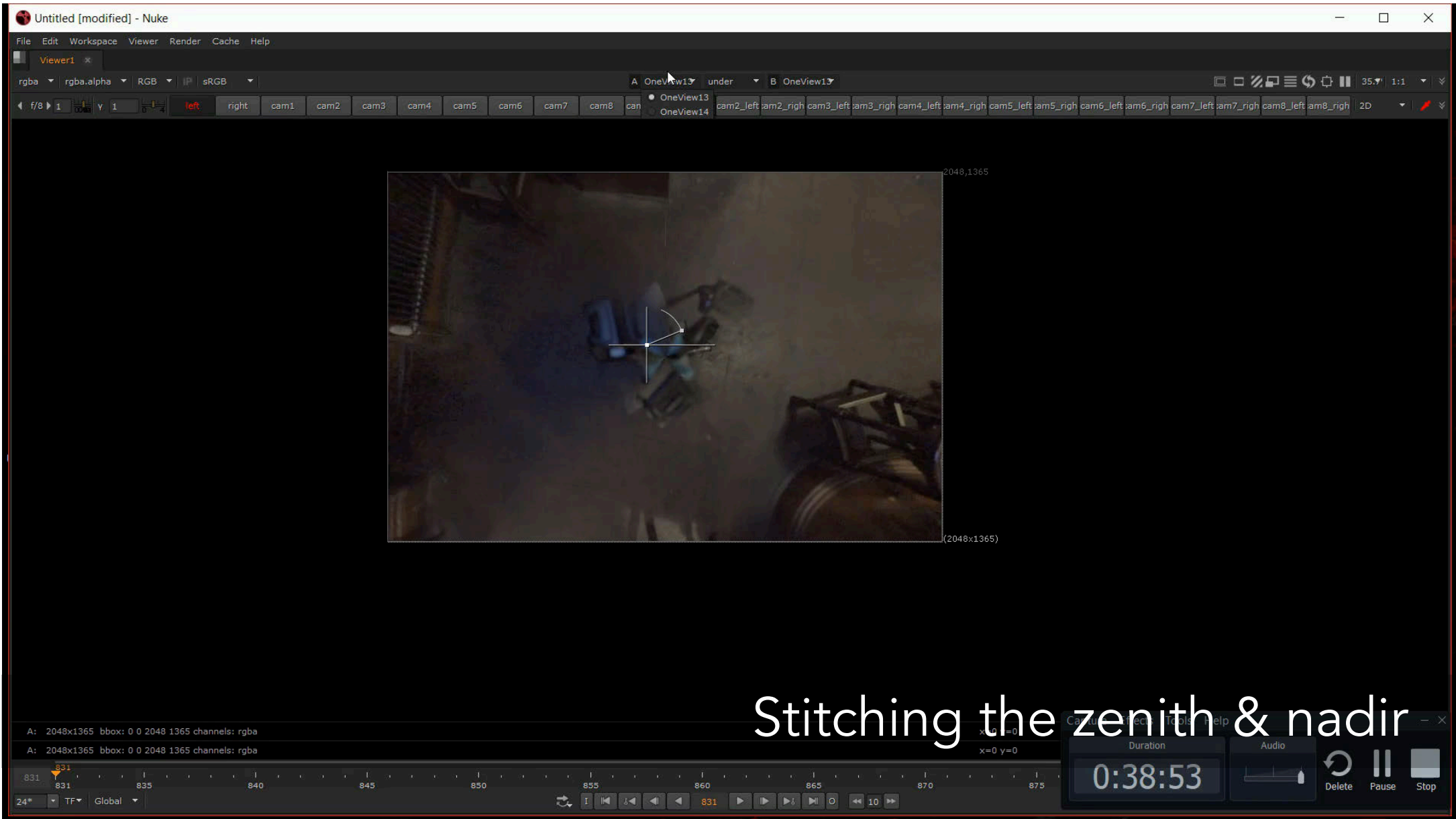
Stitch QC





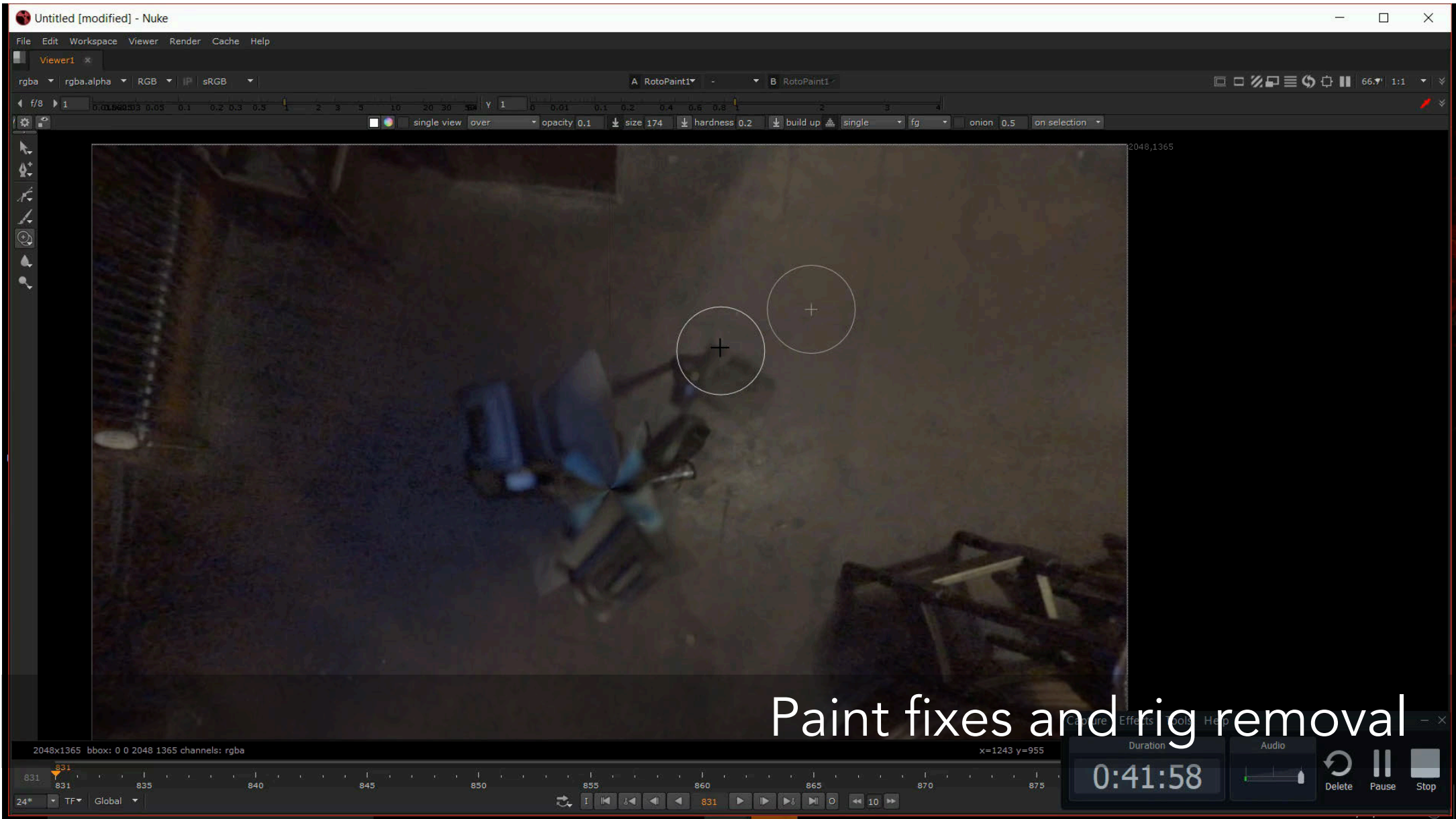


# Post-stitch corrections



# Stitching the zenith & nadir





Untitled [modified] - Nuke

File Edit Workspace Viewer Render Cache Help

Viewer1

rgba rgba.alpha RGB IP sRGB A RotoPaint1 B RotoPaint1 34.3' 1:1

f/8 1 y 1 left right cam1 cam2 cam3 cam4 cam5 cam6 cam7 cam8 m1\_le m1\_ri m2\_le m2\_ri m3\_le m3\_ri m4\_le m4\_ri m5\_le m5\_ri m6\_le m6\_ri m7\_le m7\_ri m8\_le m8\_ri

2048x1365 bbox: 0 0 2048 1365 channels: rgba x=2563 y=785

831 831 840 850 860 870 880 890

24\* TF Global 831 10 60

Node Graph Curve Editor Dope Sheet

Source SphericalTransform

OneView13 C\_DisparityGenerator1 OneView14

Properties C\_DisparityGenerator1 Node

Local GPU: GeForce GTX 1070  Use GPU if available

Input

Left View left Right View right

Projection Default

Mask None

Vector Generation

Vector Detail 1

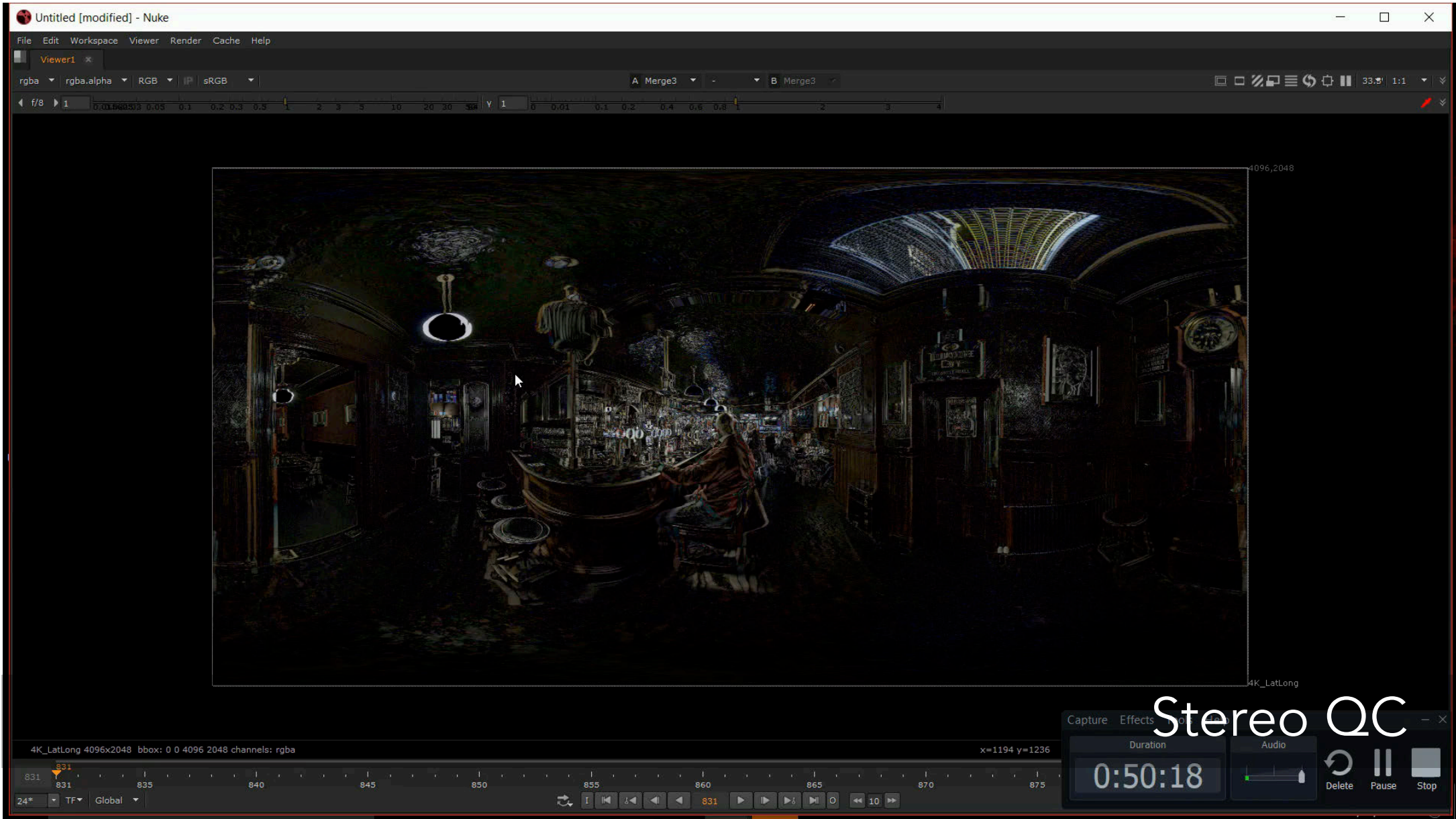
Strength 1.5

Consistency 2

Iterations 32

Warps 4

0:45:35 Audio Delete Pause Stop





# We covered

- Tasks in post-production
- Node-based compositing
- Setting up a “stitch”
- Stitch corrections
- Stereo corrections
- QC steps

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imagination engineered