# White Paper Working with RED ONE Camera Files

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RED ONE<sup>™</sup> cameras record 4K footage as REDCODE<sup>™</sup> RAW (.r3d) files that you can add directly to the Vegas<sup>™</sup> Pro timeline and edit like any other supported media type. This white paper guides you through the process of setting up a Vegas project, adding RED clips to the project, and then rendering the project.

# Step 1: Transfer files from your camera to your computer

Transfer the .RDM folder containing your clips from your RED ONE camera's memory card or hard drive to your local hard drive.

# Step 2: Set up your Vegas Pro project

- 1. From the File menu, choose New to create a project. The New Project window appears.
- 2. On the Video tab, choose a template to match the format of your final output.
  - To output a 2K still-image sequence, use the 2K 16:9 24p (2048x1152, 23.976 fps) template.

New Project				? 💌	
Video Audi	o Ruler	Summary	Audio C	D	
Template:	2K 16:9 24p (2048x1152, 23.976 fps) 🔹 🖬 🗙 📄				
Width:	2,048	Field order:		None (progressive scan)	
Height:	1,152	Pixel aspect ratio		1.0000 (Square) 🗸	
		Output ro	itation:	0° (original) 🔹	
Frame rate:	23.976 (I	/TC Film)	•		
Pixel format:	Pixel format:			•	
Compositing gamma:		2.222 (Video) 👻			
Full-resolution rendering quality:		Good			
Motion blur type:		Gaussian			
Deinterlace r	Deinterlace method:		None		
Adjust source media to better match project or render settings					
Prerendered files folder:					
C:\Users\Administrator\AppData\Local\Sony\Vegas Pro\9.0\ Browse					
Free storage space in selected folder: 11,675.9 Megabytes					
Start all new projects with these settings					
				OK Cancel	

New Project window with 2K template selected

• To output a 4K still-image sequence, use the 4K 16:9 24p (4096x2304, 23.976 fps) template.

New Project 🔹 😨 💌						
Video Audio Ruler Summary Audio CD						
Template:	4K 16:9 24p (4096x2304, 23.976 fps) 🛛 🗸 📔			×   🖻		
Width:	4,096	Field order:		None (progressive scan)	•	
Height:	2,304	Pixel aspect ratio:		1.0000 (Square) 👻		
		Output ro	tation:	0° (original)	•	
Frame rate:	23.976 (I	/TC Film)	•			
Pixel format:	Pixel format:			8-bit		
Compositing gamma:		2.222 (Video) 👻				
Full-resolution rendering quality:		Good				
Motion blur type:		Gaussian				
Deinterlace r	Deinterlace method:		None			
Adjust source media to better match project or render settings						
Prerendered files folder:						
C:\Users\Administrator\AppData\Local\Sony\Vegas Pro\9.0\ Browse						
Free storage space in selected folder: 11,675.9 Megabytes						
Start all new projects with these settings						
				ОК	Cancel	

New Project window with 4K template selected

To output to Blu-ray Disc<sup>™</sup>, use the HD 1080-24p (1920x1080, 23.976 fps) template.

New Project 🔹 😨 💌						
Video Audio Ruler Summary Audio CD						
Template:	HD 1080-24p (1920×1080, 23.976 fps) 🛛 🚽 📔 🗙 📔					
Width:	1,920	Field orde	r:	None (progressive scan) 🔹		
Height:	1,080	Pixel aspect ratio:		1.0000 (Square) 🗸		
		Output ro	tation:	0° (original)		
Frame rate:	23.976 (I	VTC Film)	•			
Pixel format:	Pixel format:			8-bit		
Compositing gamma:		2.222 (Video) 👻				
Full-resolution rendering quality:		Good				
Motion blur type:		Gaussian 💌				
Deinterlace method:		None				
Adjust source media to better match project or render settings						
Prerendered files folder:						
C:\Users\Administrator\AppData\Local\Sony\Vegas Pro\9.0\ Browse						
Free storage space in selected folder: 11,675.9 Megabytes						
Start all new projects with these settings						
				OK Cancel		

New Project window with HD template selected

### 3. Click OK.

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4. From the File menu, choose Save. The Save As dialog appears.



- 5. Select the drive and folder where you want to store the project.
- 6. Type the project name in the File name box.
- 7. Click Save.

# Step 3: Add clips to your project

1. Drag the clips from the Explorer or Project Media window to the timeline to create events.

**Note:** The RED ONE camera creates new "rollover" files for a clip each time a file reaches 2 GB on disk. For example, a 10-minute clip recorded in 4K will be approximately 20 GB on disk, divided among 10.r3d files. You can drag any one of these files to the timeline to place the entire clip on the timeline.



2. Edit your project as needed. You can edit RED events just like any other events in Vegas Pro software.

# Step 4: Modify R3D decode properties

You can modify the decode properties of your RED ONE camera files in the R3D Decode Properties window. These settings are applied nondestructively to the raw .r3d file as metadata. To access this window for one or more .r3d files, select the files in the Project Media window, right-click them, and choose **File Format Properties** from the shortcut menu.

R3D Decode Properties				<b>.</b>
Color temperature:				5339.000
Tint:				5.000
Exposure compensation:				0.000
Gain red:				1.000
Gain green:				1.000
Gain blue:				1.000
Saturation:	-0			1.200
Contrast:				0.000
Brightness:				0.000
DRX:				0.500
User defined 5 point transformation curve				
Black X:	0.000 Y:	<b></b>		0.000
Low X:	0.250 Y:			0.250
Mid X:	0.500 Y:		-0	0.500
High X:	0.750 Y:			0.750
White X:	1.000 Y:			1.000
Gamma curve:   Color	space: Camera RGB 🔻	Image detail: H	igh	•
OLPF compensation: Off    Image d	enoise: Off 🗸	ISO: 3	20	•
	Clip Default	Factory Default	ОК	Cancel

#### Modifying properties for multiple files

- When multiple files are selected, check boxes appear for slider settings that do not match across all selected files. When you drag the slider or type a new value, the check box is automatically selected, and the new value is applied to all selected files when you click **OK**. Clear the check box to leave the setting unchanged for the selected files.
- If values already match for a slider setting, no check box is displayed, and any changes made to the setting are applied to all selected files.
- If values do not match for a drop-down setting, the setting is blank. If you choose a value for a blank drop-down setting, that value is applied to all selected files.

#### **Restoring default values**

- Double-click a slider () to restore the setting to the clip default.
- Click the **Clip Default** button to restore all settings to the clip default.
- Click the Factory Default button to restore all settings to the default settings of the camera.

For more information about the settings in the R3D Decode Properties window, refer to your RED ONE camera documentation or http://www.red.com/support. These settings map one-to-one to settings on the RED ONE camera.

# Step 5: Create your movie

#### Render your project to an image sequence

If you'd rather burn your project to Blu-ray Disc, skip to Step 6.

1. From the File menu, choose Render As. The Render As dialog appears.



- 2. In the File name box, type the base file name you want to use for rendered images. Files will be numbered automatically using this file name.
- 3. From the Save as type drop-down list, choose Image Sequence.
- 4. Click Save to start rendering the image sequence.

# Burn a Blu-ray Disc

1. From the Tools menu, choose Burn Disc, and then choose Blu-ray Disc from the submenu. The Burn Blu-ray Disc dialog appears.

Burn Blu-ray Disc	? 💽				
Operation					
Render image and	burn				
Render image only					
Burn existing image	: file				
Render parameters –					
Video format:	Sony AVC (*.mp4;*.m2ts;*.avc)				
Video template: Blu-ray 1440x1080-60i, 15 Mbps video stream					
Audio format:	Sony Wave64 (*.w64)				
Audio template:	48,000 Hz, 16 Bit, Stereo, PCM 👻				
Description:	Audio: 48,000 Hz, 16 Bit, Stereo, PCM Video: 29.970 fps, 1440x1080 Upper field first, YUV, 15 Mbps				
Render loop region only Estimated size: 123.51MB					
📝 Insert chapter poi	nts at markers				
Stretch video to fill output frame size (do not letterbox)					
Image parameters –					
File path: C:\Users\Administrator\AppData\Local\Sony\Vegas Pro\9.0\biliards.is Browse					
Drive parameters					
Burn drive: [E:]	SONY DVD RW DW-Q120A PYS3				
Burn speed: 1.0x	Eject when done				
	OK Cancel				

- 2. Modify the render, image, and drive parameters as needed.
- 3. Click OK to start rendering an image and burning the Blu-ray Disc.