

tangent

Wave2

+ wave

and Resolve



ver1 rev5



Important: Check www.tangentwave.co.uk for updates

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1. Important - note the following first

- The mapping of the controls to the panels has been decided by Blackmagic Design and Tangent cannot change this.
- The mapping provided by Blackmagic Design has the following limitations:
 1. Resolve does support the Tangent Mapper so you cannot customise the way the controls are mapped to the panels. However, you can use the Warp Engine feature of the Tangent Mapper to map controls on the GUI to the panel. But note you will need to map all the controls you wish to use as you will not be able to use the Blackmagic Design map. For more information on the Warp Engine see the [Warp Engine Made Simple](#).
 2. Not all the controls within Resolve have been mapped to the panels, the most notable of these are the:
 - Primaries - Offset color wheel
 - HDR – Global color wheel
 - HDR – Temp, Tint, Hue, Contrast, Pivot, Mid/Det, Blk/OffsetThe rest of this document details what is mapped and where on the panels to find it.
- If you are going to use another application with the Wave/Wave2 panel then you must quit Resolve first. This is because Resolve, when it is running, takes over exclusive use of the panel.
- If you are using a USB hub to connect your panels to your computer then you must use a powered USB hub. The external power supply must be able to supply at least 500mA of power to the USB hub. If you have any other items plugged into the hub then this figure will be correspondingly higher.

2. Requirements

You will need the latest version of Resolve.

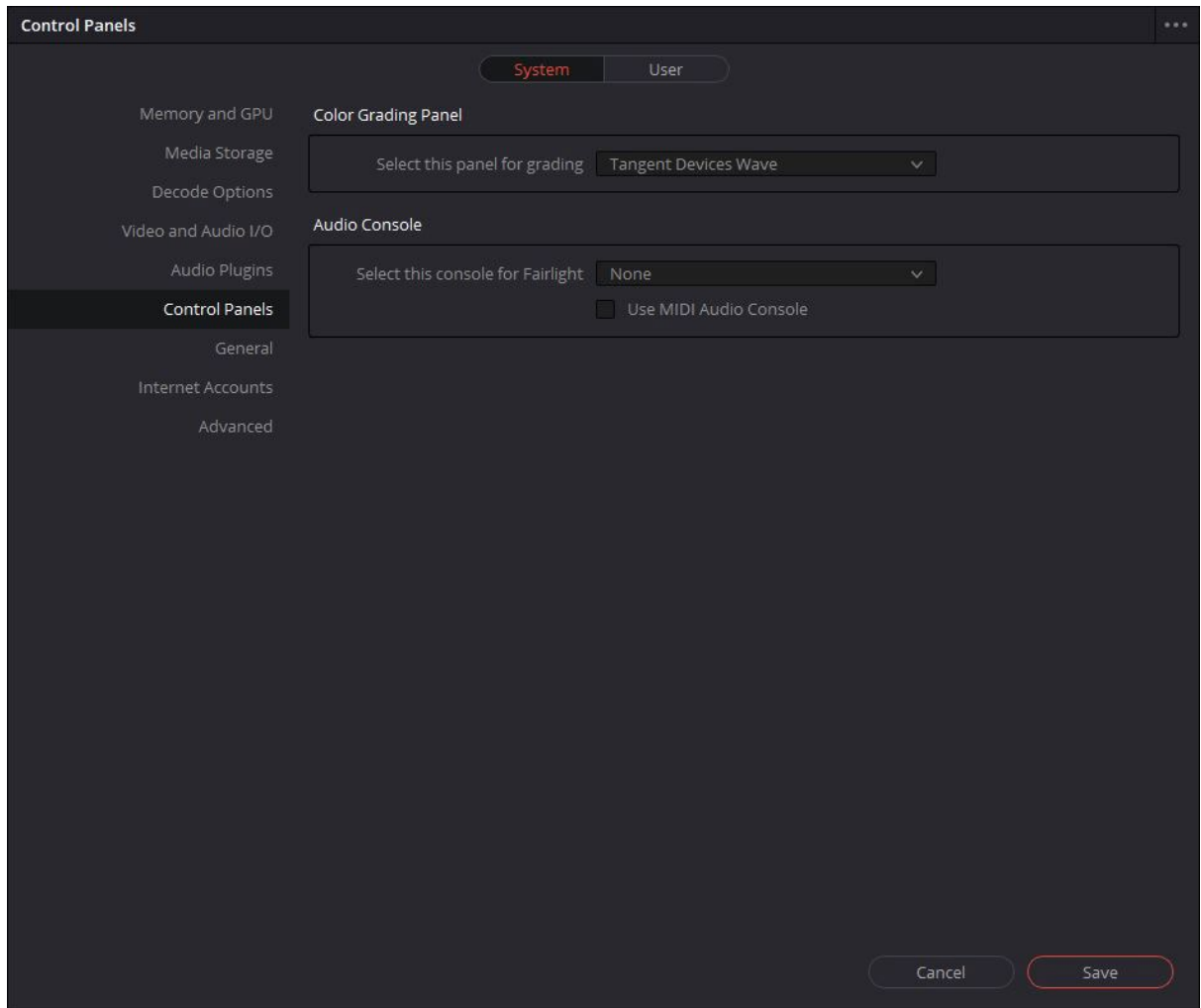
3. Quick Start

1. Install Resolve.
2. Plug in the Wave panel.
3. Start Resolve.
4. Set Resolve preferences to use Wave.
5. Quit and restart Resolve.
6. The Wave panel will now control Resolve.

The next section explains these steps in more detail.

4. Configuring Resolve to use a Wave or Wave2 panel

1. Connect the panel, using a powered USB hub if necessary.
2. Run DaVinci Resolve and open the **Preferences...** dialog.
3. Choose **Tangent Devices Wave** as the **Control Panel Type** :



4. Hit **Save**

Resolve may prompt you to restart Resolve in order for the changes to take effect.

Resolve will now be configured to use the Wave/Wave2 panel.

5. About the mapping

The mapping is supplied and maintained by Blackmagic Design.

It is not possible to change the mapping.

The document will not tell you how to use the panels with Resolve, and it will not tell you what the controls do. It is designed to act as a quick reference for how the controls are mapped. For a more detailed explanation you should refer to the Resolve user manual from Blackmagic Design.

The information supplied is correct to the best of Tangent's knowledge but there may be differences if Blackmagic Design have made updates since this document was produced. Please contact Tangent if you find any differences or errors.

6. Requirements

If you are using Mac OS X Mavericks or later, then you will need to update your Wave firmware to v1.12. No firmware update is required for Wave2.

You **DO NOT** need to install the Tangent Hub software.

Make sure you have set Wave as the panel type in the Resolve preferences. You will need to restart Resolve the first time you do this.

7. ALT button



Pressing the **ALT** button on the panel will select alternative functions to some of the controls on the panel. These are listed in this document with the word **ALT**.

When **ALT** is active the panel displays will be inverted.

8. Up And Down Arrows



These two buttons step you through the various pages of controls that Resolve has mapped to the **Soft Buttons And Knobs**.

NOTE:

Pressing the **Up and Down Arrows** together jumps you to the **Master Menu** for the **Soft Buttons And Knobs**.

9. Soft Buttons And Knobs



The **Up And Down Arrows** step you through the various pages of controls that Resolve has mapped to the **Soft Buttons And Knobs**.

The root of all these pages are the **Master Menus**. From the **Master Menus** you can jump directly to any of the pages of controls. To get back the **Master Menu** press the **Up And Down Arrows** together.

In the tables below, the three tables show you what the displays say for a particular page of controls.

- The top row tells you what the knobs do in the current page.
- The middle row tells you what page you are currently in.
- The bottom row tells you what the buttons do in the current page.

9.1 Master Menu A

Version / Memory	Input Sizing	Primary

Master Menu A		
Nodes	HSL Qualifier	Qualifier / Blur

Windows / Tracker	Key	Gallery / Reference

9.2 Master Menu B

Offset		

Master Menu B		
Custom Curves	Curves Clip	Curves Soft

		3D Stereoscop

9.3 Input Sizing / Image Blur Page

Pan	Tilt	Zoom
Input Sizing		
H Flip	V Flip	

Rotate	Hi Size	V Size
Input Sizing		
Clip / Track Unmix		Auto Color

Blur Radius	H / V Ratio	
Image Blur		
Switch Session	A / C Mode	Loop

9.4 Primary Page

Lum Lift	Lum Gamma	Lum Gain
Primary		
All Base Mem	Base Mem	Current Base Mem

Contrast	Pivot	
Primary		
Primary	Vector	Sizing

Saturation	Hue	Lum Mix
Primary		
Windows		

Press ALT to get...

Lum Lift	Lum Gamma	Lum Gain
Primary		
All Base Mem	Base Mem	Current Base Mem

Contrast	Pivot	
Primary		
Primary	Vector	Sizing

Saturation	Hue	Lum Mix
Primary		
Windows	Offset	

9.5 Offset Page

		Master Offset
Offset		

Red Offset	Green Offset	Blue Offset
Offset		

Offset		

9.6 Nodes Page

Nodes		
Add Serial	Add Parallel	

Nodes		
Append Node		Enable / Disable All

Nodes		
Add Outside	Disable Current	Delete Current

9.7 HSL Qualifier Page

Hue Centre	Hue Width	Hue Soft
HSL Qualifier		
Vector		

Hue Sym		Lum Low Clip
HSL Qualifier		
Window Outline		

Lum Low Soft	Lum High Soft	Lum High Clip
HSL Qualifier		
HSL Invert	Highlight	Invert All

9.8 HSL Qualifier 2 Page

Sat Low Clip	Sat Low Soft	Sat High Soft
HSL Qualifier 2		

Sat High Clip	Denoise	Black Clip
HSL Qualifier 2		

White Clip	Blur Radius	In / Out Ratio
HSL Qualifier 2		
	Highlight	

9.9 Power Window Page

Zoom	Aspect	Softness
Power Window		
Select CPW	Select LPW	Select PPW

Rotate	Pan	Tilt
Power Window		
Select PCW	Select GPW	Add

	Inside Softness	Outside Softness
Power Window		
Del	Prev	Next

Press ALT to get...

Power Window		
Node +CPW	Node +LPW	Node +PPW

Power Window		
Node +PCW	Matte / Mask / Off	Cursor On / Off

Power Window		
Track Rwd	Track Fwd	Inside / Outside

9.10 Input / Output / External Key Page

Qualifier Gain	Qualifier Offset	
Input Key		
Invert Key	Matte / Mask	

Post Mixin Gain	Post Mixin Offset	Ext Key Gain
Output Key		
Invert Key		

Ext Key Offset	Blur Radius	Blur H / V Ratio
External Key		
Invert Key	Matte / Mask	

9.11 Curves / YSFX Page

Red	Green	Blue
Curves		

Lum		Lum
Curves		YSFX

Red	Green	Blue
YSFX		

9.12 Curves High Clip Page

Red	Green	Blue
Curves High Clip		

Master		Master
High Clip		High Soft

Red	Green	Blue
Curves High Clip Soft		

9.13 Curves Low Clip Page

Red	Green	Blue
Curves Low Clip		

Master		Master
Low Clip		Low Soft

Red	Green	Blue
Curves Low Clip Soft		

9.14 Version / Grade Memory Page

Version		
Default version	Previous Version	Next Version

Version		
Add Version		

Grade Memory		
Preview Memory	Original Memory	

9.15 Gallery / Reference Wipe Page

Gallery		
Previous Still	Next Still	

Wipe Position		
Reference Wipe		
Ref Mode	Wipe Type	Invert Wipe

Reference Wipe		

9.16 Stereoscopic Page

Pan	Tilt	Zoom
Stereoscopic		
Gang / Solo	Stereo / Mono	Left / Right

Rotate		Covergenc
Stereoscopic		
Zoom / Opposite		

Pitch	Yaw	

10. F1 – F9 Buttons



The buttons F1 to F9 will do the following:

F7 Undo	F8 Redo	F9 Step Node >
F4 Grab Still	F5 Play Still	F6 Step Node <
F1 Start Dynamic	F2 Add Keyframe	F3 Basemem

Press **ALT** to get...

F7	F8	F9 Add Serial
F4	F5	F6 Add Parallel
F1	F2 Delete Keyframe	F3 Basemem Reset

11. Transport Buttons And Jog Dial



The dial will jog the clip backwards and forwards.

The transport buttons do the following:



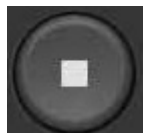
Previous Clip



Next Clip



Play Rev



Stop



Play Fwd

Press **ALT** to get...



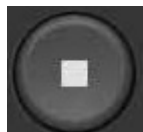
First Frame



Last Frame



Step Reverse



Step Forward

12. Trackerballs And Dials



Resets:

The “dot” and “ring” buttons above each trackerball are resets for that trackerball. In general:

- The “dot” will reset the parameters mapped to the ball.
- The “ring” will reset the parameters mapped to the dial and the ball.

Primaries – Color Wheels:

The three balls are mapped to **Lift**, **Gamma**, and **Gain**, as they appear in the GUI. Note the **Offset** color wheel in the GUI is not mapped.

The dials above the balls on the panel will control the **YRGB** values in unison.

Primaries – Log Wheels:

The three balls are mapped to **Shadow**, **Midtone**, and **Highlight**, as they appear in the GUI. Note the **Offset** color wheel in the GUI is not mapped.

The above the balls on the panel will control the **RGB** values in unison.

HDR:

The three balls are mapped to the three left most color wheels visible in the HDR GUI. If you use the scroll left and right buttons in the HDR GUI to change which Color Wheels are being displayed, the panel will always control the three left most color wheels visible in the HDR GUI. This means you can control the **Black**, **Dark**, **Shadow**, **Light**, **Highlight**, and **Specular** color wheels, whichever 3 of these are visible in the GUI at that time. Note the **Global** color wheel in the GUI is not mapped.

The above the balls on the panel are mapped to the **Exposure** control for that color wheel.

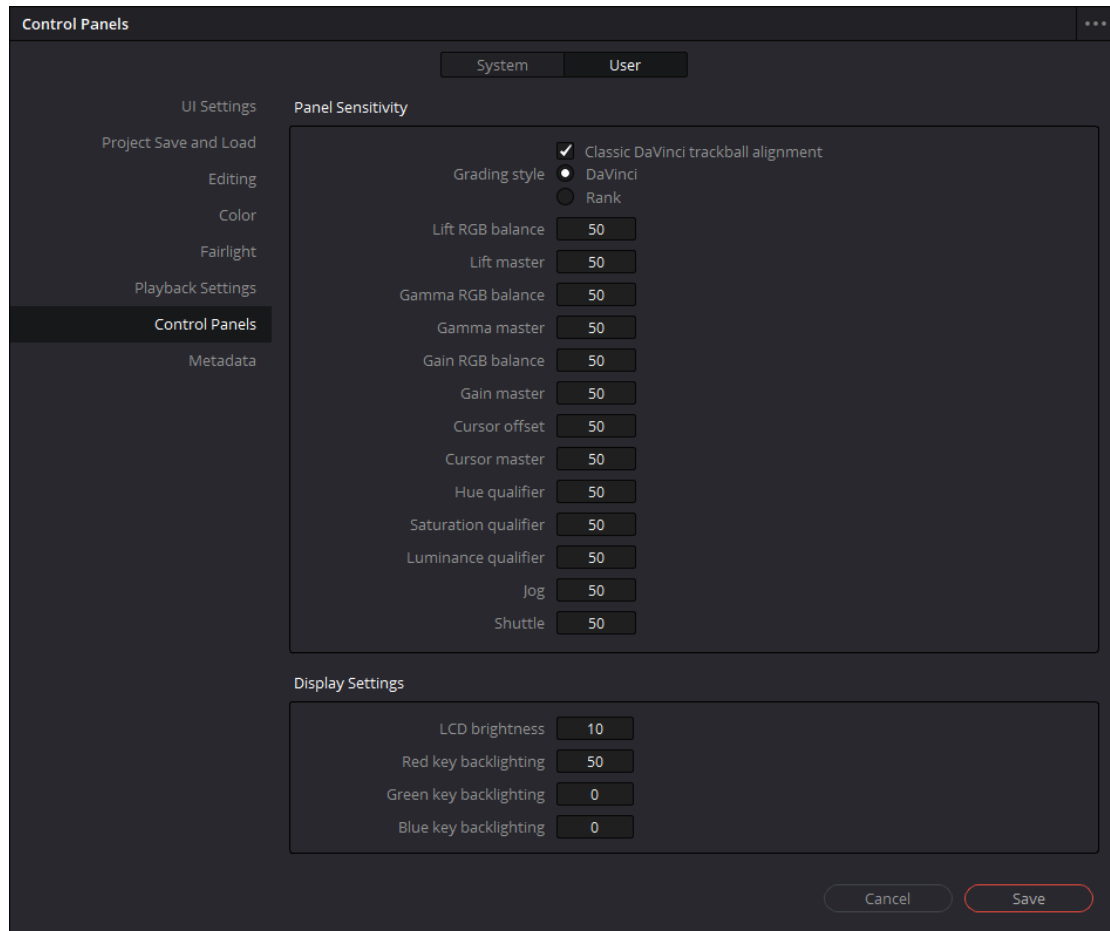
13. Control sensitivities

The sensitivity of the controls – how much a value changes by when you move a control - can be adjusted in Resolve.

Go to the Resolve menu **DaVinci Resolve > Preferences...**

When the window opens click on the **User** tab at the top and then the **Control Panels** tab at the side.

You will now see the following window:



For each Lift, Gamma, Gain control you will see **RGB balance** and **Master** sensitivity values.

- **RGB balance** sets the sensitivity for the **trackerball**.
- **Master** sets the sensitivity for the **dial**.

The other values set the sensitivity of the sliders controlled from knobs.