wave2

and Adobe Premiere Pro

Ver2 rev2

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

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Table of Contents

1. Requirements

You will need Adobe Premiere Pro CC 2015.3 or later.
You will need the latest Tangent Hub.

2. Quick Start

1. Install Premiere Pro.
2. Install the Tangent Hub.
3. Connect the Wave panel.
4. Start Premiere Pro.
5. Create a new project.
6. In Premiere Pro preferences set Tangent Extended as the control surface type.
7. Load a clip into the Premiere Pro timeline.
8. Click on Color in the workspace switcher to open the Lumetri Color Panel.
9. Now click on one of the Lumetri Color Panel sections.
   The Wave panel controls also automatically switch to match the current Lumteri Color Panel section that's open.

The rest of this document explains the above steps in more detail.

3. Configuring Premiere Pro to use a Wave or Wave2 panel

1. Ensure you have Premiere Pro CC 2015.3 or greater installed.

2. Download and install the latest Tangent Hub package from our website: www.tangentwave.co.uk/support

3. Connect the Wave or Wave2 panel, using a powered USB hub if necessary.

4. Run Premiere and open the **Preferences -> Control Surfaces…** dialog.
   In Windows this is under the **Edit** menu.
   In Mac this is under the **Premier Pro CC** menu.
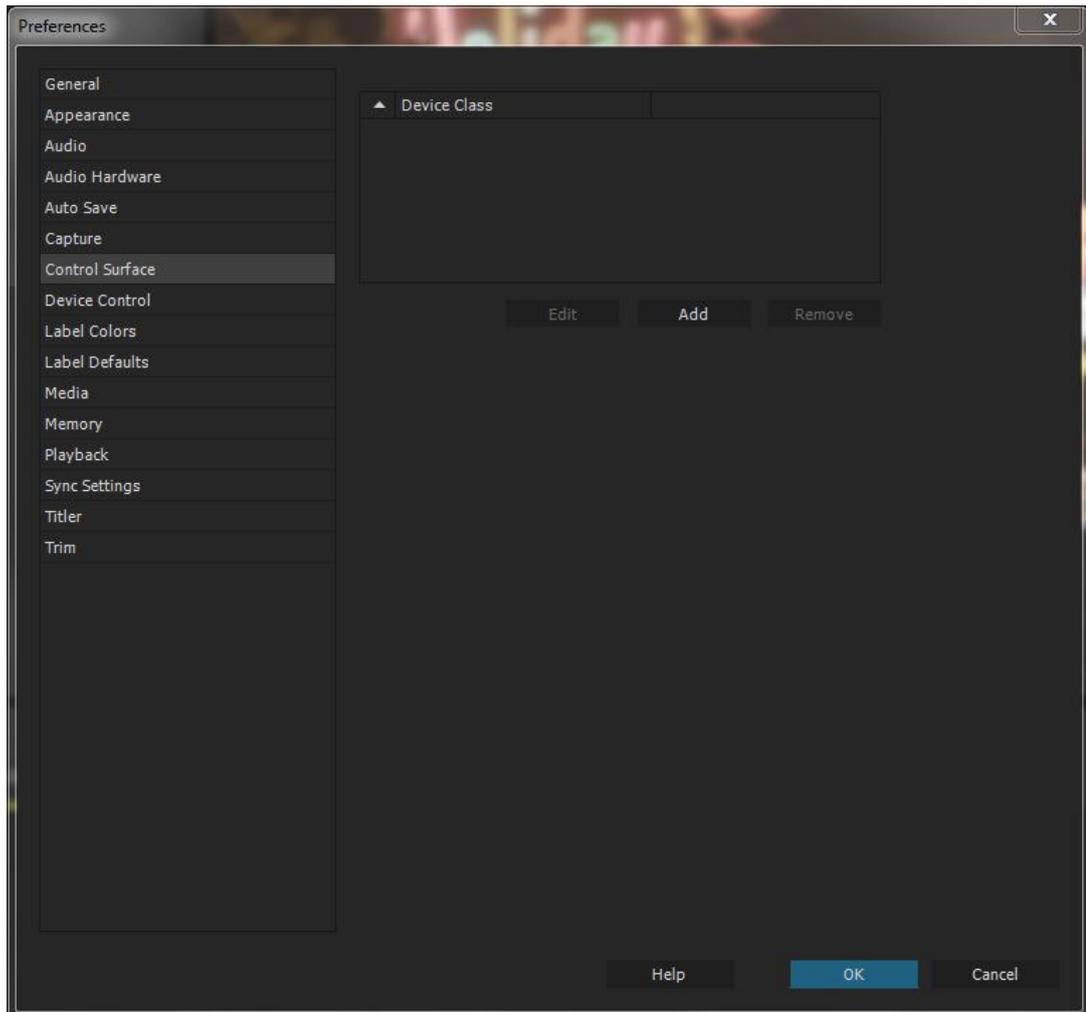
5. Click **Add** and select **Tangent Extended** as the Device Class.
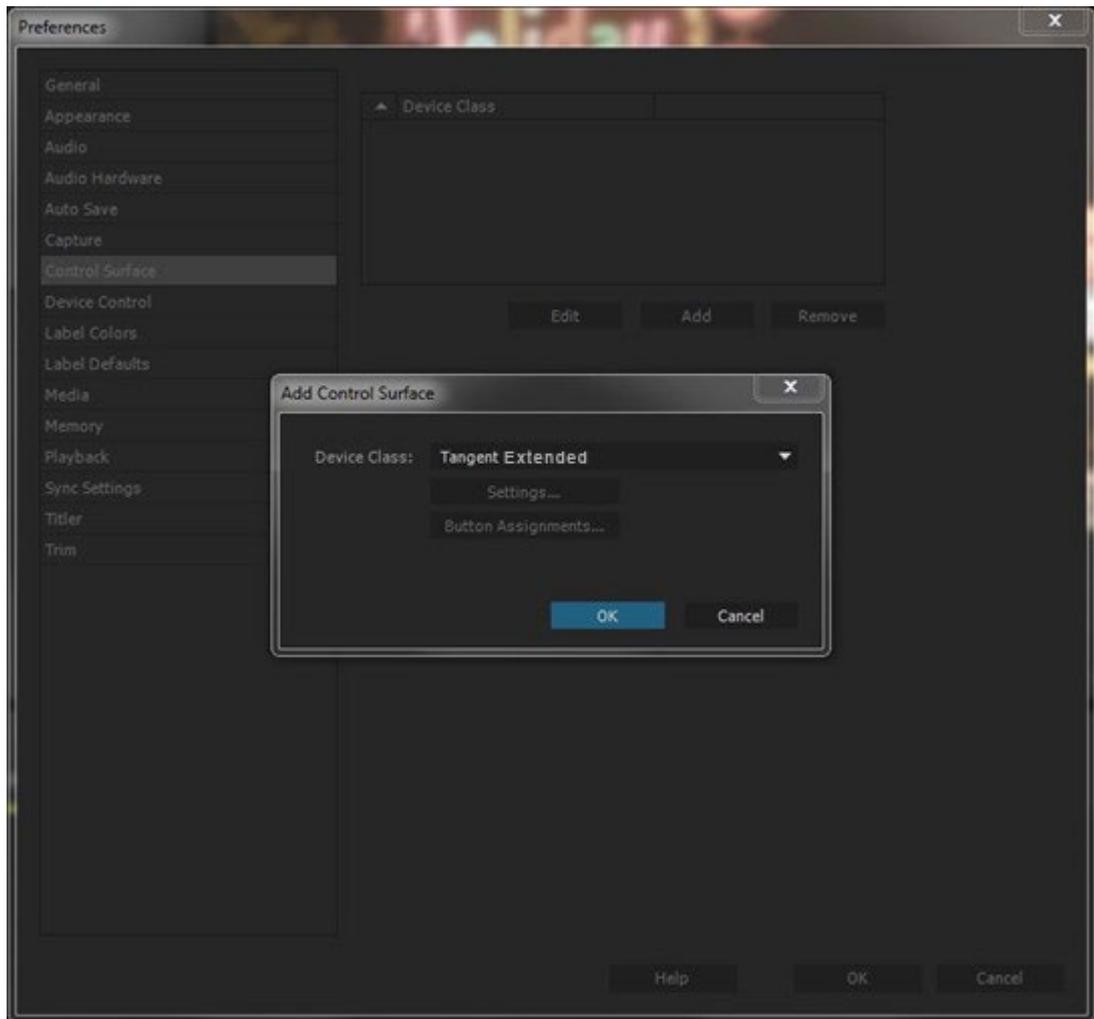
6. Click **OK** to close this dialog, and click **OK** to close the Preferences dialog.

4. The basic idea

1.1 Wave & Wave2 panel controls

Let's start by familiarising ourselves with the controls on the panel.

Displays

The three displays label what the buttons and knobs above and below them do.

Buttons

You can program the buttons to do anything that Premiere allows. You can even assign keyboard shortcuts to them. Some buttons have legends on them to help identify them, but you can still choose what you want them to do.

The only two buttons that are different and cannot be programmed are the resets for the trackerballs and dials. See the **Trackerball and Dial** below.

Knobs

You can program the knobs to do anything that Premiere allows. You can even assign keyboard shortcuts to them, triggering a different keyboard shortcut depending on the direction of rotation.

The only thing to note with a knob is that if you press down lightly on a knob it will reset its value. You cannot program this reset to do anything other than reset the knob value.

Trackerball and Dial

The trackerball and dial each have their own reset:

This resets the trackerball.

This resets the dial.
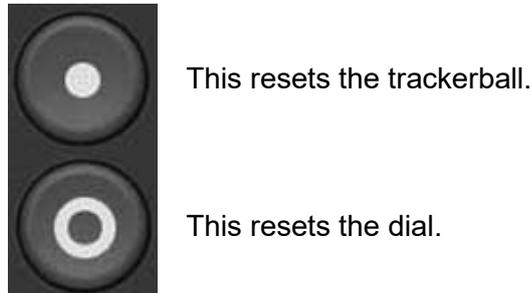
You can program the trackerball and dial to do anything that Premiere allows. You can even assign keyboard shortcuts to them, triggering a different keyboard shortcut depending on the direction of rotation.

With the trackerball it's possible to assign a different control to each axis.

Tangent provide a default map for Premiere Pro, and the function of each control changes depending on the Premiere Panel which has focus.

You can use the Tangent Mapper to create your own map and customise what each of the controls do. We'll cover this later, but for now just use the default map provided when you install the Tangent Hub.

1.2 Lumetri Color Panel in Premiere Pro

In Premiere Pro you have the Lumetri Control Panel. In the screen shot below, we have loaded a clip into Premiere Pro and clicked on **Color** in the workspace switcher bar at the top of the screen. This gives us the **Lumetri Color Panel** on the right of the screen.
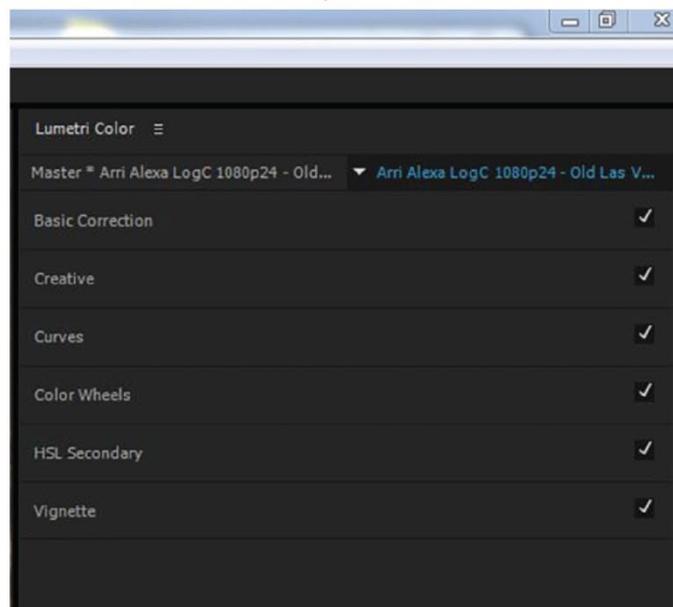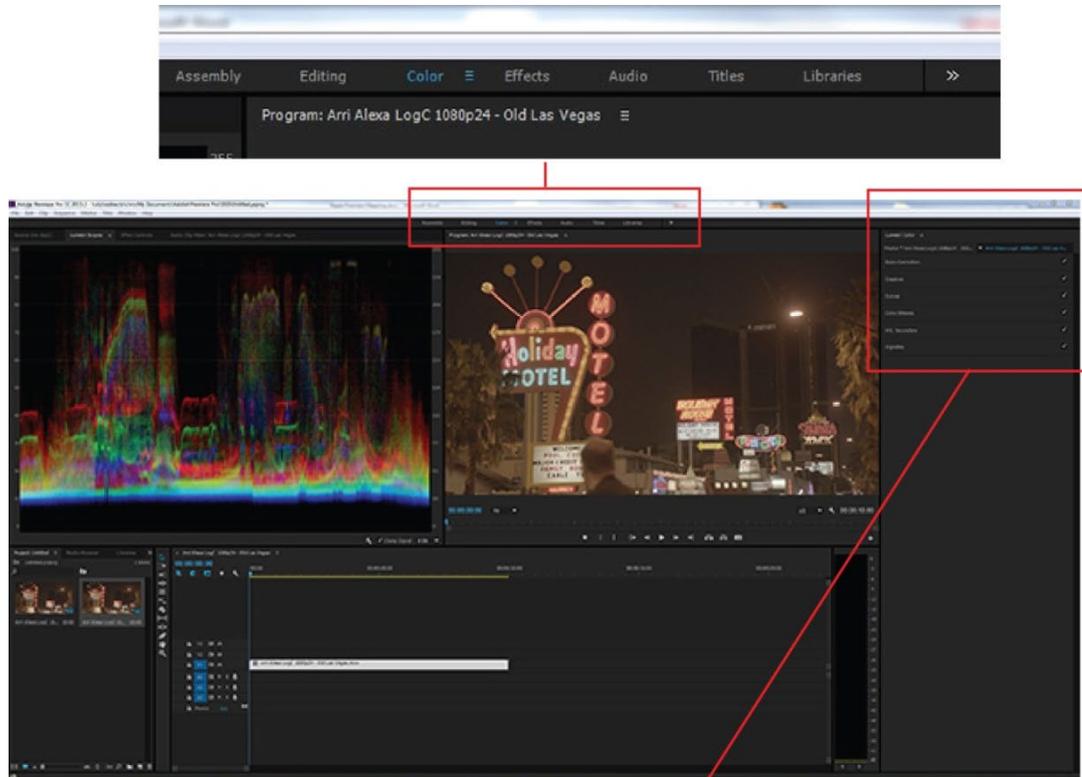
1.3 How the Wave interacts with the Lumetri Color Panel

Inside the Lumetri Color Panel you will see the following sections:

- Basic Correction
- Creative
- Curves
- Color Wheels & Match
- HSL Secondary
- Vignette

When you click on a Lumetri section on the GUI it will open to reveal the controls within that section. The Wave panel controls also automatically switch to match the current Lumteri Color Panel section.

Rather than use the mouse to open the various sections in Lumetri, you can also do this from the Wave panel. So let's do this now:

On the Wave panel, hold the **Alt** button and at the same time press the button labelled **F4**. This is the same as using the mouse to click on **Color** in the workspace switcher bar at the top of the screen. This will open the Lumetri Color Panel.

Now press the button labelled **F4** alone (without the **Alt** button). This is the same as using the mouse to click on the **Color Wheels** in the Lumetri Color Panel. This will open the Color Wheels section.

Press the other F buttons - as you do this you will see the Lumetri Sections open on the GUI and the displays on the Wave panel update to show what those controls are operating.

One final thing to note is that if you press the **Alt** button on the Wave panel and then **F7**, **F8** or **F9** then Premiere will switch to the **Editing, Audio** or **Effects** workspaces respectively.

There is a table of Wave / Premiere Pro panel mapping at the end of this document - **Wave / Premiere Pro mapping table**. Take a quick look at the table before continuing on to the next section where we are going to look at a couple of control examples.

5. Taking a look at how the controls work

If you haven't already done so, load a clip into your timeline. Now press **Alt-F4** (Color workspace) button followed by the **F4** (Color Wheels). You should see the following in the Premiere Pro Lumetri Control Panel:
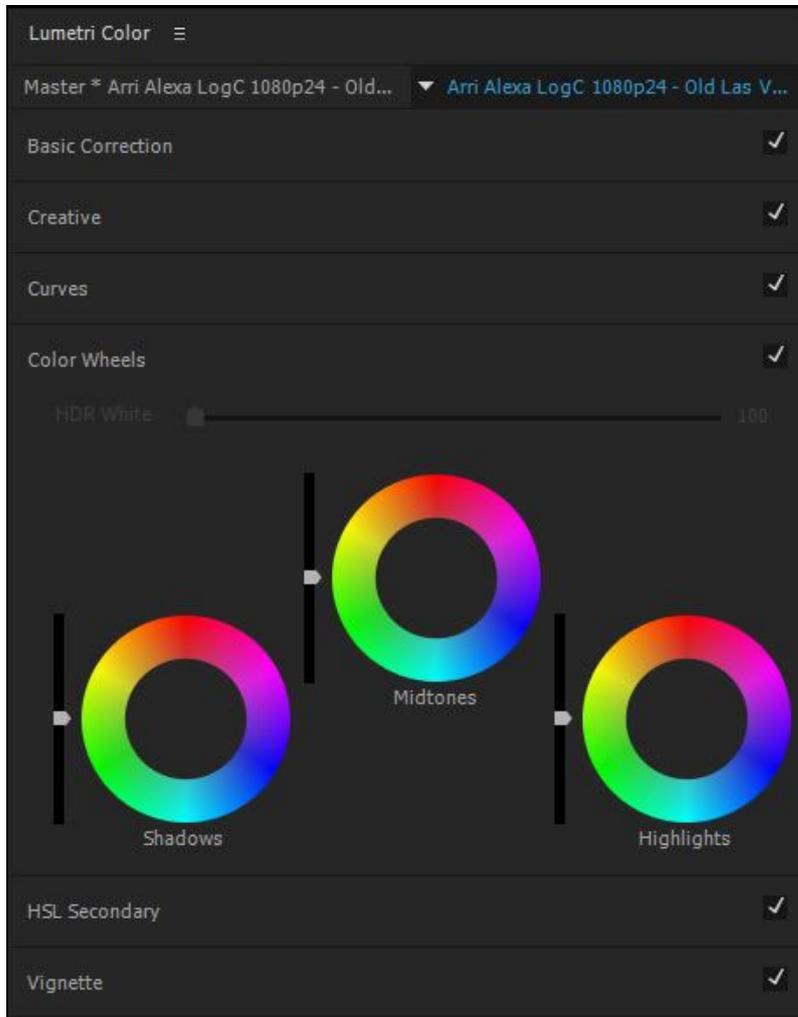
Now take a look at the **Wave/ Premiere Pro mapping table** at the end of this document. The mapping table for **Lumetri - Color Wheels** says that the trackerballs and dials will do the following:

Dials	Shadows	Midtones	Highlights
	Shadows	Midtones	Highlights
Balls	Shadows	Midtones	Highlights
	Shadows	Midtones	Highlights

Let's start by looking at the mapping for the middle trackerball and dial. Both the dial and the trackerball are mapped to control **Midtones**.

1.4 Trackerball

Gently roll the middle trackerball diagonally towards you and left. You will see the Midtones Color Wheel move towards green. Basically, move the ball in the direction of the color on the Color Wheel to change the picture tint towards that color.

Now press the trackerball reset button above the middle trackerball and dial. This will reset the midtones color wheel control back to the centre.

 This resets the trackerball.

1.5 Dial

Now rotate the middle dial in a clockwise direction. You will see the Midtones luminance slider move up. Basically, move a dial clockwise and its control will increase, move it anti-clockwise and it will decrease.
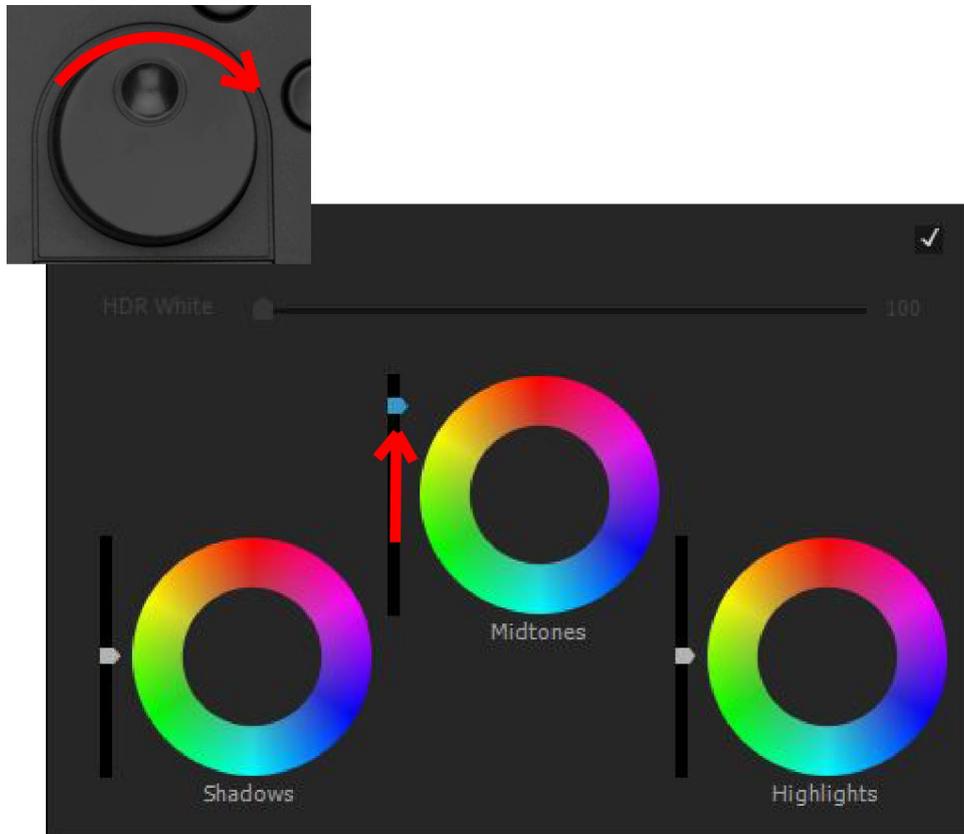

Now press the dial reset button above the middle trackerball and dial. This will reset the midtones luminance slider control back to the centre.
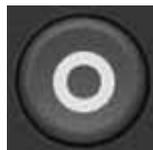
   This resets the dial.

1.6 Standard and Alternate mapping

Controls may have an alternative function assigned to them. Think of this like pressing the 'shift' key on your keyboard. The functions don't have to be related however knobs and trackerballs are nearly all programmed by default to offer control of the same parameter but with 2 different control sensitivities.

To access the alternative functions you press a button that has been programmed to be **Select ALTernative Function**. By default, this is the **Alt** button on the Wave panel.

Let's look at an example: select the Lumetri Basic in Premiere Pro, you can do this by first pressing the **F4** (Color workspace) button on the Wave panel to select the color workspace, and then pressing the **F1** (Basic) button.

Take a look at the **Buttons** control map for the **Lumteri – Basic**, you'll find this in the **Wave / Premiere Pro mapping table** section below. It shows the following:

Prev LUT	Next LUT		Reset Tone	Auto Tone				Full Screen
Copy	Paste	Paste Attributes	Clear	Undo	Redo	Remove Attributes	Bypass Lumetri	Basic

Now look at the display above the buttons, you'll see it matches the labels in the white boxes of the table above. These are the **Standard** mappings for the buttons.

Now press and hold the **ALT** button on the Wave panel. The display on the panel will change to match the labels in the grey boxes of the table above. These are the **Alternate** mappings for the buttons. Why has this happened? Well, in the **ALT** button is mapped to be **Select ALTernative Function**.

So, if you just press the first button on the left on the Wave panel you will get the **Prev LUT** (previous LUT). But, if you press and hold the **ALT** button and press the first button on the left you will get **Copy**.

This principle of **Standard** and **Alternate** mapping also applies to knobs, trackerballs, and dials.

1.7 Banks

One last thing to understand about how the controls are mapped is the concept of **Banks**. To explain what a **Bank** is let's think about what to do if the Lumetri Section which you are controlling has more than 9 things to control but the Wave panel only has 9 knobs. A **Bank** lets you do just that – it's another page of controls you can switch the panel to by pressing a button.

Select the Lumetri - Basic in Premiere Pro, you can do this by first pressing **Alt-F1** to select the color workspace, and then pressing **F1**.

Take a look at the Kb control map for the **Lumteri – Basic**, you'll find this in the **Wave / Premiere Pro mapping table** section below. It shows the following:

Knobs Bank 1

Saturation	Temp	Tint	Exposure	Contrast	Highlights	Shadows	Whites	Blacks
Saturation	Temp	Tint	Exposure	Contrast	Highlights	Shadows	Whites	Blacks

Knobs Bank 2

			HDR White	Specular				
			HDR White	Specular				

You can see there are two **Banks**: Bank 1 and Bank 2.

If you look at the mapping for the **Up** and **Down** arrow buttons, you'll see that the **Up** arrow is set to advance to the Next Knob Bank. Remember that the controls in the Grey boxes are used when the **Alt** button is held down.

Up	Next Knob Bank
	Next Mode
Down	Next Button Bank
	Previous Mode

When you press this button you will see the labels on the displays below the knobs on the Wave panel switch between the labels in the white boxes in Bank 1 and Bank 2 of the table above. What's happening is that you're switching between **Banks**, and so the knobs will switch to controlling different functions.

Don't get confused between **Banks** and **Alternate** functions.

It's worth noting that it is possible to have as many banks as you want.

This principle of **Banks** also applies to the buttons below the displays.

6. Control sensitivities

If you want the trackerballs, dials or knobs to be more or less sensitive (move their control more or less for a given movement) then go to the Tangent Mapper and open the **File -> Control Map Settings…** menu. You should now get a pop-up window like this:
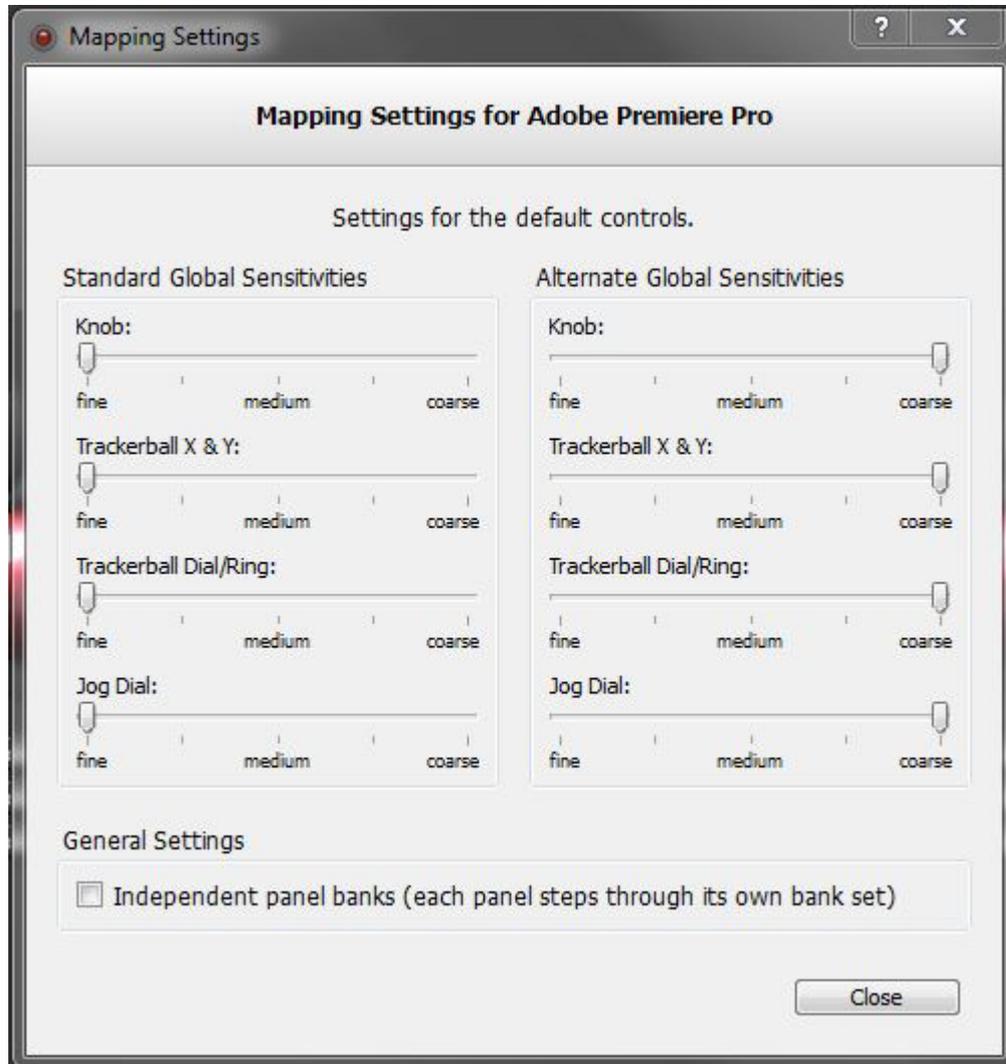
Set the sensitivity to suit how you want the control to respond:
- **fine** means you have to move the control further to get a change.
- **coarse** means you will need to move the control less to get a change.

These settings apply globally to all controls of that type on the panel. If you wish to change the sensitivity for just a certain control in Premier Pro then you can do this by going to that control in the Mapper. We discuss this in the **Customising the Wave control map** section.

Going back to what we said earlier about **Standard** and **Alternate** mapping, you can see that each has its own set of sensitivities.

7. Customising the Wave control map

It's possible to customise the layout of all the controls on the Wave panel. To do this you will use the Tangent Mapper tool which was installed as part of the Tangent Hub bundle.
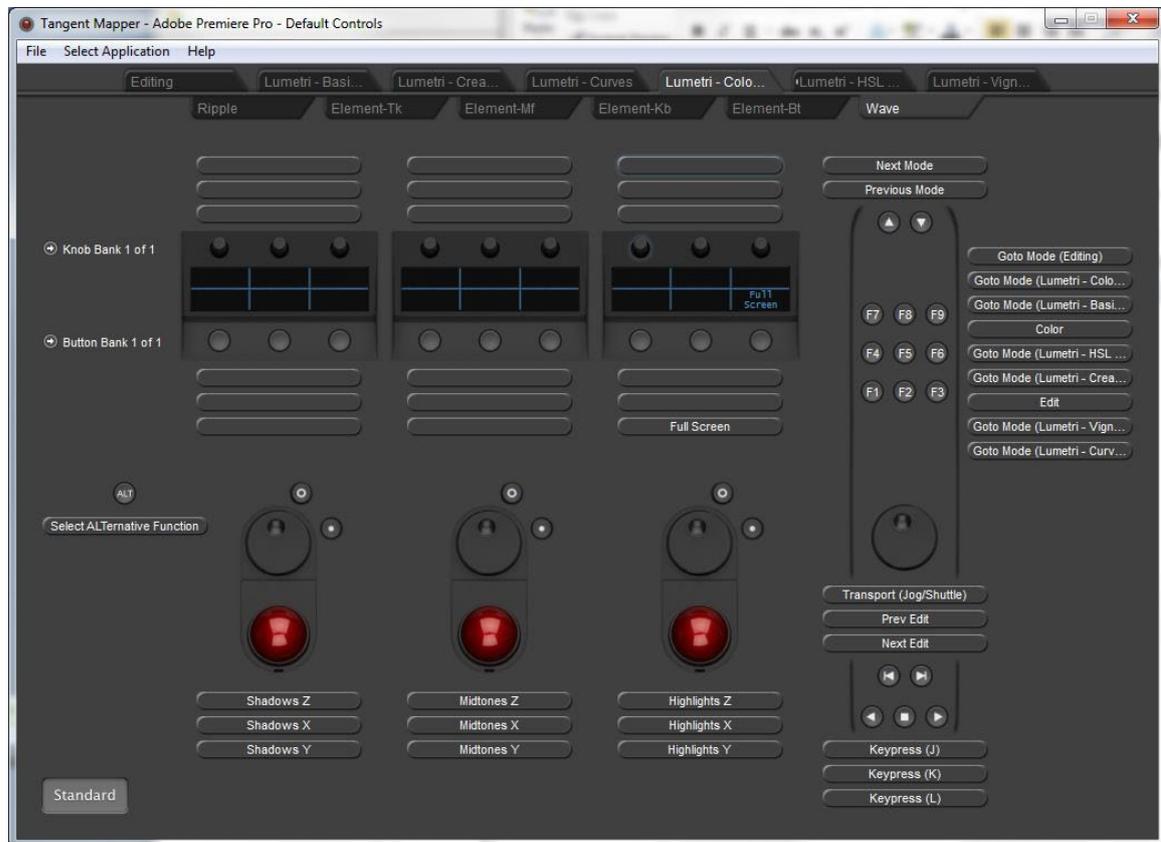
You can find full details of this process in the **Mapper Manual** however we'd also recommend that you first read our **Mapper Made Simple** document to get started quickly. Both of these can be downloaded from the same page as this file.

8. Wave / Premiere Pro mapping table

The following sections show the panel mapping for each of the "modes" that Adobe have defined for Premiere. You can change this mapping to suit your own way of working using the Tangent Mapper.

In the table the grey cells indicate the alternative mapping that the control will do when you press any button that has been mapped to **Select ALTernative**.

Standard	
Alternative	

1.8 F1 – F9 buttons, Up and Down Arrow buttons and Alt button

These buttons do the same thing regardless of the Mode selected.

Up	Next Knob Bank
	Next Mode
Down	Next Button Bank
	Previous Mode

F1	Lumetri – Basic
	Color Workspace
F2	Lumetri - Creative
	Color Workspace
F3	Lumetri - Curves
	Color Workspace
F4	Lumetri – Color Wheels
	Color Workspace
F5	Lumetri – HSL Secondary
	Color Workspace
F6	Lumetri - Vignette
	Color Workspace
F7	Editing
	Editing Workspace
F8	Audio
	Audio Workspace
F9	Effects
	Effects Workspace

The **ALT** button is always mapped to be **Select ALTernative**. Pressing this button will choose the Alternative function for all other controls.

1.9 Transport controls and Jog Dial

The **Transport** buttons and **Jog Dial** are mapped to do the same thing in all modes:

Jog	Jog
	Jog

I<	Previous Edit
	Step Back
>I	Next Edit
	Step Forward

<	Play Reverse
	Step Back 5
Stop	Stop
	Stop
>	Play Forward
	Step Forward 5

1.10 Editing

Knobs

Buttons Bank 1

Go To In	Mark In	Clear In	Go To Out	Mark Out	Clear Out	Clear I/O		Full Screen
Copy	Paste	Paste Attributes	Clear	Undo	Redo	Remove Attributes		

Buttons Bank 2

GoToPrev Marker	Add Marker	GoToNext Marker	ClearAll Markers	ClearSel Marker				
Copy	Paste	Paste Attributes	Clear	Undo	Redo	Remove Attributes		

Trackerballs and Dials

Dials			
Ball			

1.11 Lumetri – Basic

Knobs Bank 1

Saturation	Temp	Tint	Exposure	Contrast	Highlights	Shadows	Whites	Blacks
Saturation	Temp	Tint	Exposure	Contrast	Highlights	Shadows	Whites	Blacks

Knobs Bank 2

			HDR White	Specular				
			HDR White	Specular				

Buttons

Prev LUT	Next LUT		Reset Tone	Auto Tone				Full Screen
Copy	Paste	Paste Attributes	Clear	Undo	Redo	Remove Attributes	Bypass Lumetri	Basic

Trackerballs and Dials

Dials			
Balls			

1.12 Lumetri – Creative

Knobs

Look	Intensity	Faded Film	Sharpness	Vibrance	Saturation	Tint Balnc		
	Intensity	Faded Film	Sharpness	Vibrance	Saturation	Tint Balnc		

Buttons

Prev Look	Next Look							Full Screen
Copy	Paste	Paste Attributes	Clear	Undo	Redo	Remove Attributes	Bypass Lumetri	Creative

Trackerballs and Dials

Dials			
Balls	Shadow Tint		Highlight Tint
	Shadow Tint		Highlight Tint

1.13 Lumetri – Curves

Knobs

Buttons

H/S Red	H/S Yellow	H/S Green	H/S Cyan	H/S Blue	H/S Magenta			Full Screen
Copy	Paste	Paste Attributes	Clear	Undo	Redo	Remove Attributes	Bypass Lumetri	Curves

Trackerballs and Dials

Dials		Mouse Scroll	
		Mouse Scroll	
Balls		Mouse XY	
		Mouse XY	

1.14 Lumetri – Color Wheels

Knobs

Buttons

								Full Screen
Copy	Paste	Paste Attributes	Clear	Undo	Redo	Remove Attributes	Bypass Lumetri	Col Wheels

Trackerballs and Dials

Dials	Shadows	Midtones	Highlights
	Shadows	Midtones	Highlights
Balls	Shadows	Midtones	Highlights
	Shadows	Midtones	Highlights

1.15 Lumetri – HSL Secondary

Knobs

Hue Middle	Hue Range	Hue Falloff	Sat Middle	Sat Range	Sat Falloff	Lum Middle	Lum Range	Lum Falloff
Hue Middle	Hue Range	Hue Falloff	Sat Middle	Sat Range	Sat Falloff	Lum Middle	Lum Range	Lum Falloff

Buttons

HSL Red	HSL Yellow	HSL Green	HSL Cyan	HSL Blue	HSL Magenta	HSL Luma	Show Mask	Full Screen
Copy	Paste	Paste Attributes	Clear	Undo	Redo	Remove Attributes	Bypass Lumetri	HSL

Trackerballs and Dials

Dials			
Balls			

1.16 Lumetri – Vignette

Knobs

			Vig Amnt	Vig Midpt	Vig Round	Vig Fethr		
			Vig Amnt	Vig Midpt	Vig Round	Vig Fethr		

Buttons

								Full Screen
Copy	Paste	Paste Attributes	Clear	Undo	Redo	Remove Attributes	Bypass Lumetri	Vignette

Trackerballs and Dials

Dials			
Balls			

1.17 Audio

Knobs Bank 1

Trk1 Vol	Trk1 Pan	Trk1 Mode	Trk2 Vol	Trk2 Pan	Trk2 Mode	Sel Vol	Sel Pan	Sel Mode
Trk1 Vol	Trk1 Pan		Trk2 Vol	Trk2 Pan		Sel Vol	Sel Pan	

Buttons Bank 1

Trk1 Mute	Trk1 Solo	Trk1 Rec	Trk2 Mute	Trk2 Solo	Trk2 Rec	Sel Mute	Set Solo	Sel Rec
Copy	Paste	Paste Attributes	Clear	Undo	Redo	Remove Attributes		Tog Mixer

Knobs Bank 2

Trk3 Vol	Trk3 Pan	Trk3 Mode	Trk4 Vol	Trk4 Pan	Trk4 Mode	Trk5 Vol	Trk5 Pan	Trk5 Mode
Trk3 Vol	Trk3 Pan		Trk4 Vol	Trk4 Pan		Trk5 Vol	Trk5 Pan	

Buttons Bank 2

Trk3 Mute	Trk3 Solo	Trk3 Rec	Trk4 Mute	Trk4 Solo	Trk4 Rec	Trk5 Mute	Trk5 Solo	Trk5 Rec
Copy	Paste	Paste Attributes	Clear	Undo	Redo	Remove Attributes		Tog Mixer

Trackerballs and Dials

Dials	Trk1 Vol	Trk2 Vol	Sel Vol
	Trk1 Vol	Trk2 Vol	Sel Vol
Balls X	Trk1 Pan	Trk2 Pan	Sel Pan
	Trk1 Pan	Trk2 Pan	Sel Pan

1.18 Effects

Knobs Bank 1

Position X	Position Y	Scale	Scale Width	Uni Scale	Rotation	Anchor X	Anchor Y	Anti Flckr
Position X	Position Y	Scale	Scale Width		Rotation	Anchor X	Anchor Y	Anti Flckr

Buttons

Sel Next Keyframe	Sel Prev Keyframe		Add/Remove Vid Keyfrm	Add/Remove Aud Keyfrm		Remove Effects		Full Screen
Copy	Paste	Paste Attributes	Clear	Undo	Redo	Remove Attributes		

Knobs Bank 2

			Vol Bypass	Vol Level		Ch Vol Byp	Left Vol	Right Vol
				Vol Level			Left Vol	Right Vol

Trackerballs and Dials

Dials	Scale	Scale Width	Rotation
	Scale	Scale Width	Rotation
Balls	Anchor Point		Position
	Anchor Point		Position