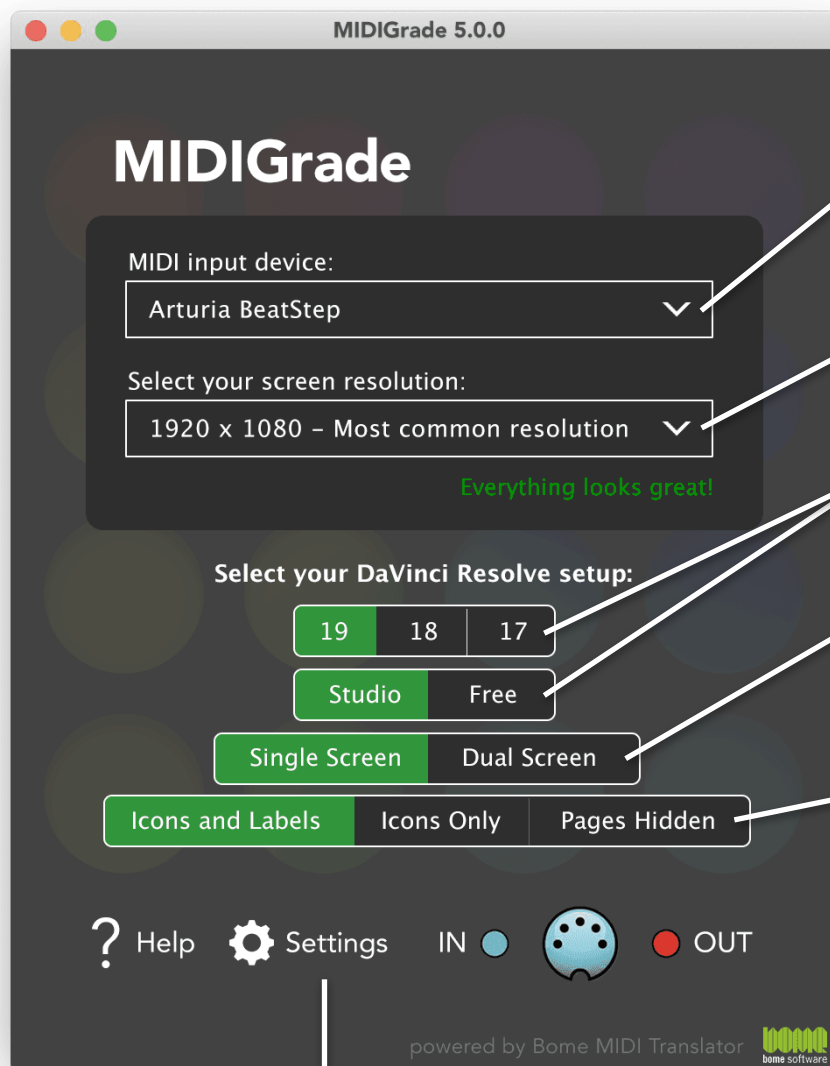


MIDIGrade

User Manual

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1. Begin by selecting your MIDI device, or "Enable Keyboard" in Settings menu

2. Make sure you have the right screen resolution selected

3. Select the version of DaVinci Resolve you are using

4. Select "Dual Screen" if you have said monitor setting enabled in DaVinci Resolve

5. Select your "Pages" visibility option — this is the menu in the bottom of DaVinci Resolve's UI

To learn the basics of using MIDIGrade, go to chapter: [How to use](#)

Auto Start	▶ Start MIDIGrade with your OS boot up
✓ Focus Mode	▶ MIDIGrade is off unless DaVinci Resolve is in focus
Enable Keyboard	▶ Toggle keyboard functionality on/off
User Menu	▶ Toggle access to menu with 16 custom coordinates
Swap Lift & Gain	▶ Swaps the positions of Lift and Gain adjustments
Target 2nd Monitor	▶ Moves all coordinates to your secondary display
Dolby Vision	▶ Toggle access to Dolby Vision menu
✓ Preset: MIDIGrade	▶ Select your Keyboard Preset in DaVinci Resolve
Preset: DaVinci Resolve	
Preset: Adobe Premiere	
Preset: Final Cut Pro X	
Preset: Avid MC	
Adjust Coordinates...	▶ Opens window for modifying coordinate positions
MIDI Settings...	▶ Opens window with more MIDI device options

To learn more about Settings go to chapter: [User interface & settings](#).

Welcome

About MIDIGrade® 5	4
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Setup instructions

System requirements	6
How to install	7
User interface & settings	8

Getting started

How to use	10
Controller options	12
Controller layout: Intech Studio BU16 + EN16	15
Custom controller: 8 Knob Layout	16
Controller layout: Keyboard + mouse	17
Controller layout: DJ Techtools Midi Fighter Twister	18
Controller layout: Behringer X-Touch Mini	19

For advanced users

Performing actions with MIDI notes	20
User customisable menu	22
Dolby Vision	23
Keyboard presets	24
List of MIDI notes triggering actions	26

Support

Known problems & troubleshooting	33
Contact support	34

WELCOME

About MIDIGrade® 5

MIDIGrade offers a fast, enjoyable and intuitive way to colour grade in DaVinci Resolve. With the use of physical knobs, buttons, and keys you can control your mouse movement and most commonly used functions with ease, develop efficient muscle-memory and thus, concentrate on what is most important — your resulting image!

The idea for this little-big invention came into existence in 2015 from my own need for an ergonomic and efficient user-experience while grading. Looking into the controller market at the time, I noticed a lot of room for improvement. Equipped with the dream of having all the controls at my fingertips and feeling confident about my design ideas, I was inspired to begin developing my own solution for controlling DaVinci Resolve.

MIDIGrade was first released in 2016 as a simple plugin made for a macOS-only macro building software. With it, users were able to perform basic colour adjustments in DaVinci Resolve 12, but it lacked many crucial colour grading features. Little by little, and thanks to a continuous stream of user feedback and support, an extensive list of new features has been added into MIDIGrade. After recently reaching its 5th major release and countless iterations over the years, there's now a whopping 180 different DaVinci Resolve functions inside.

Originally, *Midi Fighter Twister* was the only available hardware option for using MIDIGrade. Later on *keyboard functionality* was added for the ultimate minimalist setup — all you need is your keyboard and mouse. Then in 2021 support for *X-Touch Mini* was developed for a more affordable controller option. And finally in 2024 MIDIGrade has reached maturity and is now effectively controller-agnostic.

The choice of your controller is no longer limited by a brand or a model. In fact, it doesn't have to be a physical controller at all! — As long as you can output MIDI notes from a device or a piece of software into MIDIGrade, you can access all of the countless features it offers. You can find more information about this functionality in this document.

Since its inception soon a decade ago, MIDIGrade has come a long way. It has evolved into a must-have tool that is available on Windows and macOS, supports an infinitely diverse set of controllers, and includes an exhausting amount of features. MIDIGrade boasts 16,128 individually hand-input coordinates which together cover the selected 12 screen resolutions in both single and dual GUI monitor setups. This alone gives an idea of the amount of planning and dedication that went into putting this toolset together.

After all these years of development, the core principle has stayed the same; to have a premium-level controller solution — which I enjoy using myself — available for all colourists worldwide. No matter if you're just starting out, or are an established professional, MIDIGrade offers you a unique colour grading experience on DaVinci Resolve, and flexibility like none other.

I hope with MIDIGrade your workflow will experience as tremendous increase in efficiency as mine did. Happy grading!

A handwritten signature in black ink, reading "Julius Koivistoinen". The script is fluid and cursive, with the first name "Julius" and last name "Koivistoinen" clearly distinguishable.

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SETUP INSTRUCTIONS

System requirements

Please be aware that since MIDIGrade works by moving your mouse around at a very fast speed, a more powerful computer will run it with less occasional hick-ups. Your system should be at least capable of running DaVinci Resolve reliably.

► Operating system

macOS Ventura (v.13) - Yosemite (v.10.10)

Windows 11 - 10

► Main GUI screen resolution

(When looking at Apple Retina displays, count half the pixel amount)

1680 × 1050 – MacBook Pro 13"

1710 × 1112 – M2 MacBook Air 13"

1800 × 1169 – MacBook Pro 14" 2021

1920 × 1080 – Most common monitor resolution

1920 × 1200 – MacBook Pro 15"

1920 × 1243 – M2 MacBook Air 15"

2048 × 1280 – MacBook Pro 16" 2019

2056 × 1329 – MacBook Pro 16" 2021

2560 × 1080 – UltraWide 21:9

2560 × 1440 – iMac 27"

3440 × 1440 – UltraWide 21:9

3840 × 2160 – 4K UHD

You only need your keyboard and mouse to use MIDIGrade. If you wish to use a MIDI device as your controller, **you will need to purchase it separately.**

How to install

1. Install MIDIGrade with the provided .dmg (macOS¹) or .exe (Windows) file.
2. Open DaVinci Resolve, go to **Keyboard Customization**, import the provided keyboard preset .txt file.
3. In DaVinci Resolve make sure you have enabled **Full Screen** mode.
4. Open MIDIGrade, enter the License Key sent to you via email. The screen resolution² of your main GUI monitor will be selected automatically.
5. If you plan to use MIDIGrade with a MIDI device, select your controller from the “*MIDI input device*” dropdown menu.
 - ▶ Intech Studio **EN16**³ and **BU16**³, DJ Techtools **Midi Fighter Twister**⁴, and Behringer **X-Touch Mini** are selected automatically. Controllers are sold separately.
 - ▶ Alternatively, you can use your keyboard⁵ and mouse (no controller required) by enabling “*Enable Keyboard*” in the Settings menu.
6. If in DaVinci Resolve you have enabled “*Workspace > Dual Screen > On*” you will need to select **Dual Screen** in MIDIGrade.
7. Happy grading!

1. macOS: After installing you will need to allow MIDIGrade to control your computer by enabling it in “*System Preferences > Security & Privacy > Privacy tab > Accessibility*”.
2. Apple Retina displays: the correct resolution is the one with half of the physical pixel count. For example on MacBook Pro 15” the resolution would be 3840 x 2400 → 1920 x 1200. If you’re using a MacBook Pro or MacBook Air, you may need to select Scaled “*More Space*” resolution in your “*System Preferences > Display Settings*”.
3. Download, install, and open “*Grid Editor*” [[link](#)], plug in your EN16 and BU16, and import “MIDIGrade: EN16 profile” and “MIDIGrade: BU16 profile” public profiles found in Profile Cloud. You can also use EN16 only if you prefer to do so — more info [here](#).
4. Download, install, and open “*Midi Fighter Utility*” [[link](#)], plug in your Midi Fighter Twister and import provided .mfs preset file. Don’t forget to click “*Send to Midi Fighter*” button.
5. For optimal performance a QWERTY keyboard is recommended. If you decide to use a different Keyboard Preset from “*MIDIGrade*” some of the keyboard shortcuts may not work as intended.

User interface & settings

► **MIDI input device**

MIDIGrade has been designed to be used with practically any device capable of outputting selected MIDI notes. Use this dropdown menu to select your controller connected to your computer. For more information go to chapter: [Performing actions with MIDI notes.](#)

► **Screen resolutions**

Use this dropdown menu to select your main display's effective resolution. This will calibrate the mouse coordinates used by MIDIGrade to match the functions in DaVinci Resolve when set to Full Screen. If you're on a Mac computer equipped with a Retina display, you need to count only half of the physical pixels — also called "*Looks like.*"

► **DaVinci Resolve: Version**

Select the DaVinci Resolve version you are using MIDIGrade with. Different versions have slightly different UI layouts which this setting addresses.

► **DaVinci Resolve: Single / Dual Screen**

Toggle depending on whether you have "*Workspace > Dual Screen > On*" in DaVinci Resolve enabled or not. Dual Screen has a significant effect on DaVinci Resolve's UI so it's important to choose the right option.

► **DaVinci Resolve: Pages visibility**

Select depending which visibility option you have enabled for the Pages navigation bar in the bottom of DaVinci Resolve UI. "*Icons and Labels*" and "*Icons Only*" are accessible via right clicking the bottom bar, while hiding the navigation bar completely can be found in the "*Workspace*" menu at the top menu bar.

- ▶ **Auto Start**

MIDIGrade starts up automatically when your OS boots up.

- ▶ **Focus Mode**

Disables MIDIGrade when you don't have DaVinci Resolve window active.

- ▶ **Enable Keyboard**

Enable this to use your keyboard and mouse to control MIDIGrade. For more information go to chapter: [Controller layout: Keyboard + mouse](#).

- ▶ **User Menu**

Enable this to access the "*User Menu*". More info: [User customisable menu](#).

- ▶ **Swap Lift & Gain**

Swaps Lift and Gain adjustments in Wheels, Primaries Bars, and Dolby Vision.

- ▶ **Target 2nd Monitor**

Allows your second monitor act as your Primary GUI Display. Moves all coordinates to your secondary display.

- ▶ **Dolby Vision**

Enable this to access Dolby Vision menu. More info in chapter: [Dolby Vision](#).

- ▶ **Preset: MIDIGrade / DaVinci Resolve / ...**

Select keyboard shortcuts output by MIDIGrade. More info: [Keyboard presets](#).

- ▶ **Adjust Coordinates**

Allows you to customise the position of mouse coordinates. Very useful if your DaVinci Resolve's UI is not aligning with what is programmed into MIDIGrade by default. Horizontal adjustments move the coordinate 10 pixels per click, and vertical adjustments 5 pixels per click.

- ▶ **MIDI Settings**

Offers extended options to the "*MIDI input device*" dropdown menu.

GETTING STARTED

How to use

MIDIGrade is designed with a wide range of workflows in mind. Everyone working within the creative industries has their own way of accomplishing what may seem like the same task. With the multitude of options, and flexibility made available in MIDIGrade, hopefully you too will find an approach that suits you the best.

Once you have set it up following the instructions in the previous chapter, it's time to get familiar with how to use MIDIGrade.

Almost always you first select the menu in which the adjustment you wish to manipulate locates. For example if you want to adjust "Contrast", you need to select **Primary Adjustments** menu first. *(Advanced user tip: This rule doesn't apply if you use MIDI Channels 3 or 4, as these adjustments skip the menu selection requirement.)*

There are multiple ways to toggle between different menus and adjustments. Firstly, you can use one of the controllers which are supported by MIDIGrade natively. These are **EN16** and **BU16** by Intech Studio; **Midi Fighter Twister** by DJ Techtools; **X-Touch Mini** by Behringer; or **keyboard and mouse**. Then simply refer to one of the "Controller layouts" in the following chapters and the rest should be quite self-explanatory.

Secondly, you can send pre-defined MIDI notes into MIDIGrade that will have the same affect. For example send **Channel 1, CC 38, value 127** to trigger "Next Menu" action. Then **Ch 1, CC 41, value 127** to trigger "Next Adjustment" action which will cycle through adjustments in the currently selected menu. And finally hold down **Ch 1, CC 45, value 127** to trigger "Increase Adjustment" action, which will manipulate the value of your selected adjustment. CC value 0 on button release stops the action.

The available options become complex quickly. To learn more about what you can do with MIDI notes, see chapter: [Performing actions with MIDI notes](#). Let's take a step back and continue with the basics.

Whenever you're manipulating an adjustment, regardless of the controller, you can always enable "*Shift*" (aka "*10x Speed*") to speed up the process. This option effectively makes all adjustments more sensitive with the exception of **Curves** on certain controllers; pressing and holding "*Shift*" switches the axis of the adjustment.

Another important aspect of using MIDIGrade is utilising functions with button presses. Creating new nodes, navigating between nodes, toggling grades on and off, and so on becomes highly effective when used right. The most commonly used functions are programmed on the default layouts to be always accessible no matter which menu is selected. And then there are other functions that become available once in a certain menu; for example "*Add Linear Powerwindow*" when **Window** menu is selected.

For the ease of access some actions have been integrated into the menu selection process itself. For example by toggling **HDR Grade** menu again you can easily switch between the different HDR wheels. Toggling **Wheels / Bars** and **Curves** menus again browses through their respective submenus. Repeated **Qualifier** menu selection toggles "*Highlight*". And selecting the **Window** menu again results in "*Add Circular Powerwindow*".

MIDIGrade offers a lot of options so no worries if you stick to just the basics. Just remember you can always experiment with expanding to different controllers if you like. Think of it as a platform for DaVinci Resolve features that you can access with a multitude of ways. And if you feel adventurous, you can use MIDIGrade even with other software, wherever you need your mouse for precise control!

In the next chapter we will deep-dive into the nuances of using the selection of controller that natively work with MIDIGrade.

Controller options

► Intech Studio EN16 and BU16

Using these two controllers in conjunction is the intended and most versatile way of harnessing the power of MIDIGrade in a small footprint.

BU16 consists of 16 buttons in a 4×4 layout ([see graph on page 15](#)). There are 6 menu buttons in the top-left, a **Shift** button in the bottom-left, and the rest of the buttons are dedicated for shortcuts.

EN16 also has a 4×4 layout but with infinitely rotating knobs, which also function as buttons. The principle described in the previous chapter applies: first you select a menu with BU16, and then manipulate the adjustment of your choice with a knob turn.

The knob turns are calibrated to be precise, but if you wish to increase the speed of an adjustment, simply hold down the knob while turning it. You can achieve this same 10x speed effect with the **Shift** pressed while turning.

EN16 knob presses have a secondary function as well: **adjustment reset**. When pressing and releasing a knob without turning it, the adjustment in question — depending on your menu selected — is reset to its default value.

How to setup: in [Grid Editor](#) by Intech Studio, go to **Profile Cloud** and search for “MIDIGrade”. You will find profiles for BU16 and EN16 which you need to import into your controllers. This setup process is shown [in this video](#).

► Using EN16 without BU16

By importing “MIDIGrade: solo EN16 profile (no BU16)” from Grid Editor’s Profile Cloud, it is possible to bypass the need to have a BU16 controller. Once done, the knob presses on EN16 behave as if you pressed a button on BU16, following the same layout and logic. Do note that this disables EN16 knob presses’ native behaviour as adjustment resets.

► DJ Techtools Midi Fighter Twister

Midi Fighter Twister is the O.G. MIDIGrade controller. It's the one originally chosen in 2015 as the *all-in-one* solution, and continues to be natively supported by MIDIGrade.

Twister's layout was established during the previous versions of MIDIGrade, and thus there are some differences to Intech Studio EN16's behaviour described in the previous page:

1. Knob presses don't act as adjustment resets.
2. **Curves** menu doesn't feature **0% - 100% Custom Curves** adjustments.
3. The adjustments in **Primary Adjustments** menu have different order.

It is possible to change Twister's layout and logic to match EN16 by changing MIDI channel and notes of your Twister: [List of MIDI notes triggering actions](#)

► Behringer X-Touch Mini

X-Touch Mini became natively supported by MIDIGrade in 2021 as a more affordable alternative to the Twister. It features all the same functions as the Twister, and additionally has a slider which acts as playback control.

Knob presses act differently depending whether you're turning the knob: Press + Turn performs **10x Speed**, and Press + Release is **Adjustment Reset**. With **Fn Menu** button pressed, knob presses trigger Menu-specific functions.

► Keyboard and mouse

Whether you're on a budget or are after the ultimate minimalist controller, using MIDIGrade with your keyboard and mouse might be just for you. It is a surprisingly fast, precise and effortless way of operating which lets you to ignore your mouse cursor and fully focus on the resulting image, just like with the other controller options.

The basic principle still stays the same; you select a menu first and then make an adjustment, or you can access certain actions regardless of the

menu selected. The difference is that there are no knobs to turn, so each adjustment is an easy two-step process: first, **press and hold down** a keyboard key associated with the adjustment you wish to manipulate, and then **move your mouse cursor** using your mouse or trackpad. An alternative to the mouse move is to press **G** on your keyboard to decrease the adjustment value and **H** to increase it.

The keyboard layout follows the same 4 × 4 layout as with Intech Studio EN16 and BU16 controllers. This means when you memorise it, you won't have to relearn another layout switching between the two. Great if you decide to start off with the keyboard and mouse, and acquire these controllers later; or if you own the controllers already and happen to need to do grading work at a time when you don't have them at hand. The 4 × 4 layout can be located on your QWERTY keyboard as follows: top-left key is **1** and bottom-right key is **V**.

To access menus, create nodes, and trigger other basic functions (ie. BU16 button presses), hold down ⇧ **Shift** key on your keyboard while pressing one of the keys on the 4 × 4 layout. To trigger the secondary functions like clip navigation and advanced node actions, hold down **Alt** key on Windows or ⌘ **Option** key if you're on macOS.

You can reset individual adjustment values by **double-clicking the keyboard key** associated with the adjustment you wish to reset.

► **Design your own controller**

With MIDIGrade you are not limited to using one of the native controllers listed above. If you have a MIDI device or software that can output MIDI notes into MIDIGrade, you can use that as the controller.

Important to remember is that to get the most out of this approach, your MIDI device's individual MIDI notes needs to be customisable, and if it has knobs, you are better off with those which rotate infinitely without limits.

To learn more about designing your own controller keep on reading, as this is discussed in the next chapter.

Controller layout: Intech Studio EN16 + BU16

Menu: Primary Adj.	Menu: Wheels / Bars	Previous Node	Next Node
Menu: HDR Grade	Menu: Curves	+Serial Node	Node on/off
Menu: Qualifier	Menu: Window	+Before Node	Grade on/off
Shift	Play	+Parallel Node	Undo

Button press:
Menu / Fn

Shift + button:
Secondary Fn

*exceptions:
Wheels/Bars
Qualifier
Window

BU16

Reference Wipe *	Invert Wipe *	Previous Clip	Next Clip
Previous Still *	Next Still *	+Append Node	Reset Node
Previous Frame *	Next Frame *	+Outside Node	Delete Node
	Reverse	+Layer Node	Redo

* Wheels/Bars:
Add Keyframe
Delete Keyframe
Previous KF
Next KF

* Qualifier:
Hue on/off
Reset Hue
Sat on/off
Reset Sat
Lum on/off
Reset Lum

* Window:
+Linear
+Polygon
+Curve
+Gradient
Highlight
Toggle Outline

Menu: Primary Adj.
Repeat: User Menu
Dolby Vision

Temp	Tint	Contrast	Pivot
Color Boost	Shadows	Highlights	Midtone Detail
Saturation	Hue	Lum Mix	Log High
Y Lift	Y Gamma	Y Gain	Log Low

EN16

Select Menu
↓

Knob turn:
Adjustment

Press:
Reset

Press + turn:
10x Speed

Menu: Wheels / Bars
Repeat: Cycle submenus

Gain Lum	Gain Red	Gain Green	Gain Blue
Gamma Lum	Gamma Red	Gamma Green	Gamma Blue
Lift Lum	Lift Red	Lift Green	Lift Blue
Offset Lum	Offset Red	Offset Green	Offset Blue

Menu: HDR Grade
Repeat: Cycle wheels

1st Exp	1st X	1st Y	1st Sat
2nd Exp	2nd X	2nd Y	2nd Sat
3rd Exp	3rd X	3rd Y	3rd Sat
4th Exp	4th X	4th Y	4th Sat

Menu: Curves
Repeat: Cycle submenus

0%	20%	Red	Yellow
40%	60%	Green	Cyan
80%	100%	Blue	Purple
Soft Clip Low Soft	Soft Clip Low	Soft Clip High	Soft Clip High Soft

Menu: Qualifier
Repeat: Highlight

Hue Center Hue o/o	Hue Width Reset H	Hue Soft	Hue Symmetry
Sat Low Soft Sat o/o	Sat Low Reset S	Sat High	Sat High Soft
Lum Low Soft Lum o/o	Lum Low Reset L	Lum High	Lum High Soft
Denoise	Clean Black	Clean White	Blur Radius

Menu: Window
Repeat: +Circular

Size +Linear	Aspect +Polygon	Soft 1	Soft 2
Pan +Curve	Tilt +Gradient	Soft 3	Soft 4
Rotate Highlight	Opacity Window Outline	Inside Soft	Outside Soft
←Track→	Key O. Gain	← →	↑ ↓

Custom controller: 8 Knob Layout

This layout lets you use a custom controller with 8 knobs while still accessing all MIDIGrade features. The layout is similar to X-Touch Mini's. Knob turns are triggered by MIDI Ch 6 or 7 CC 51-58. Knob presses are CC 61-68 and they toggle either 10x Speed, or Reset on release.

- Step 1: Select a menu — menu buttons are not included in this layout so you'll need to add them manually, or use your keyboard
- Step 2: Select Layer A or B, using MIDI Ch 1 CC 121
- Step 3: Turn one of the 8 knobs to make an adjustment!

Menu:
Primary Adj.

Layer A

TempTintContrastPivotMidtone DetailColor BoostShadowsHighlights

Layer B

SaturationHueLum MixY LiftY GammaY GainLog LowLog High

Menu:
Wheels / Bars

Lift LumLift RedLift GreenLift BlueGamma LumGamma RedGamma GreenGamma Blue

Gain LumGain RedGain GreenGain BlueOffset LumOffset RedOffset GreenOffset Blue

Menu:
HDR Grade

Layer A

1st Exp1st X1st Y1st Sat2nd Exp2nd X2nd Y2nd Sat

Layer B

3rd Exp3rd X3rd Y3rd Sat4th Exp4th X4th Y4th Sat

Menu:
Curves

Soft Clip Low SoftSoft Clip Low0%20%40%60%80%100%

Soft Clip High SoftSoft Clip HighRedYellowGreenTealBluePurple

Menu:
Qualifier
Repeat:
Highlight

Layer A

Hue CenterHue WidthHue SoftHue SymmetrySat Low SoftSat LowSat HighSat High Soft

Layer B

Lum Low SoftLum LowLum HighLum High SoftDenoiseClean BlackClean WhiteBlur Radius

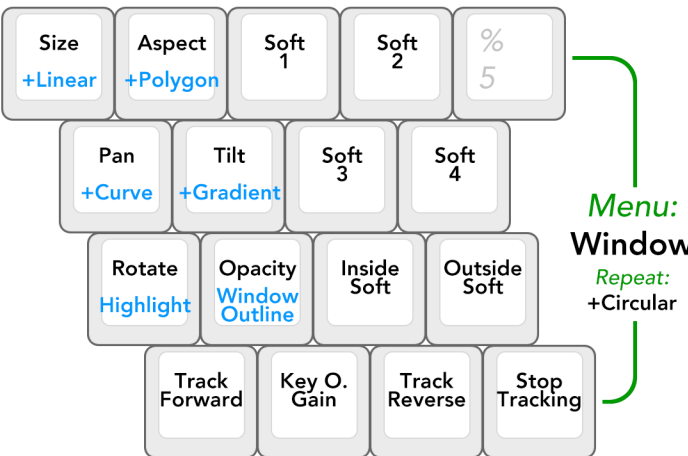
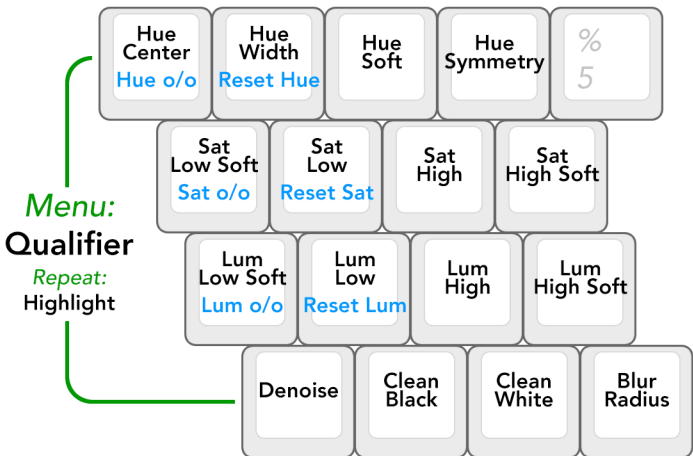
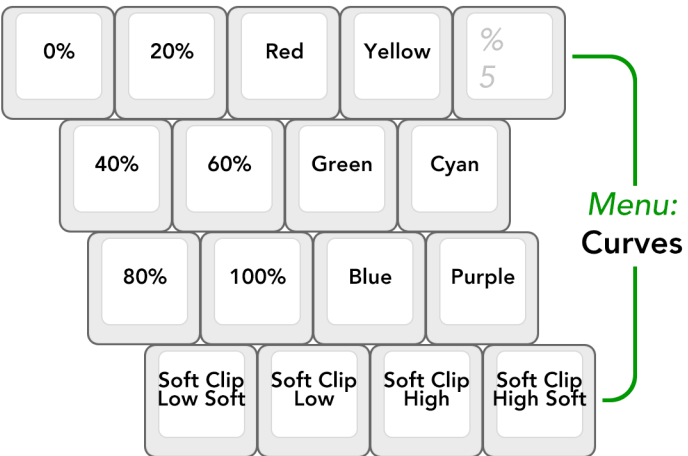
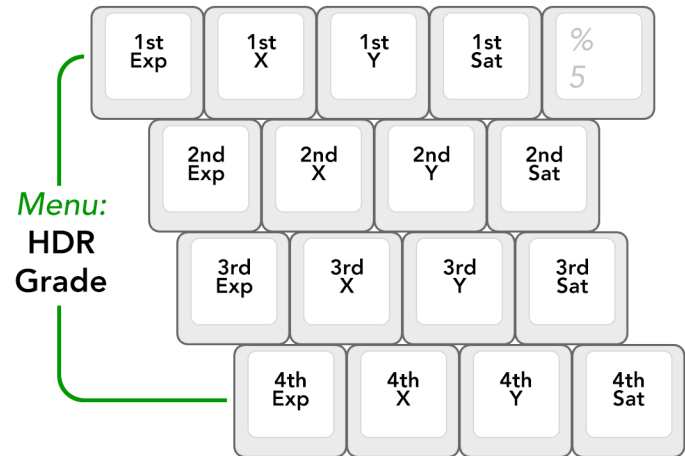
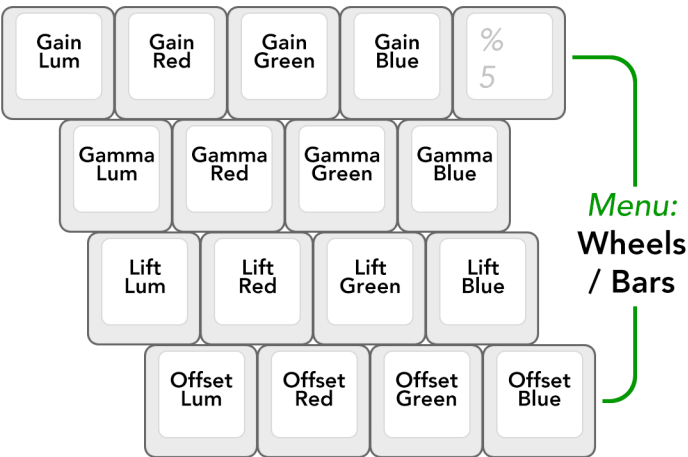
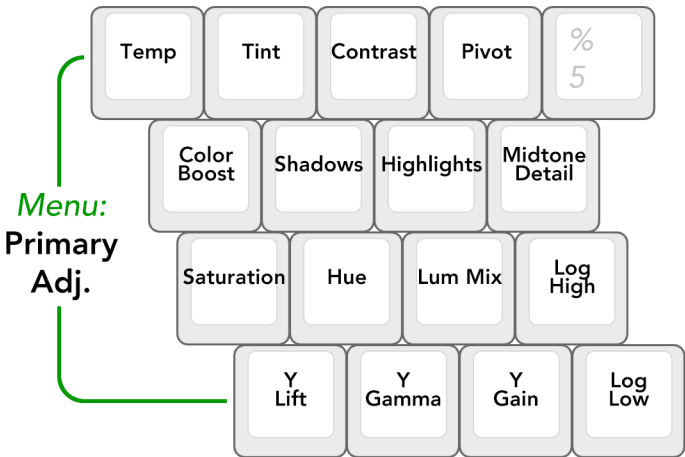
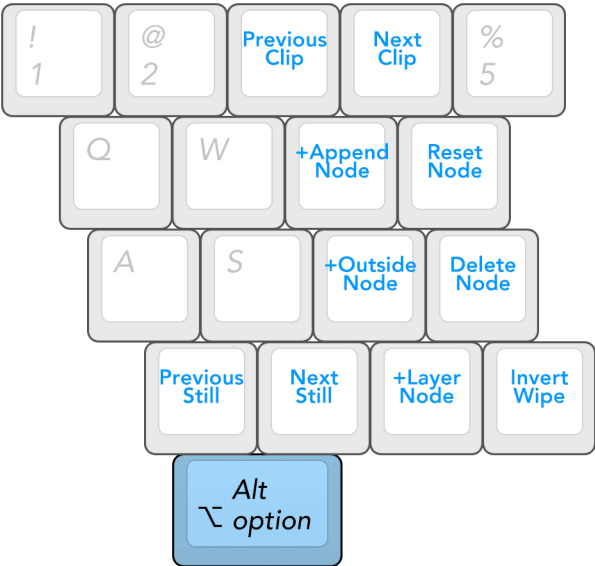
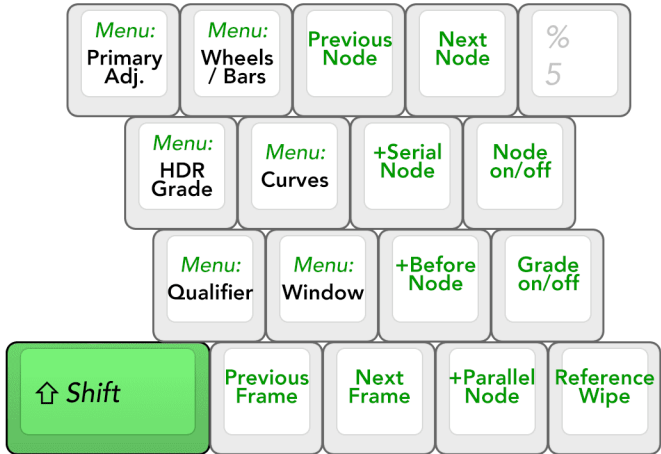
Menu:
Window
Repeat:
+Circular

SizeAspectPanTiltRotateOpacitySoft 1Soft 2

Soft 3Soft 4Inside BlurOutside Blur←Track→Key O. Gain←→↑↓

Controller layout: Keyboard + mouse

- Step 1:** Select a menu by pressing Shift + "Menu"
Step 2: Hold down any of the keys within the selected menu
Step 3: While holding the key, move your mouse to make an adjustment
Alternatively you can use keys **G** and **H** to move the mouse



Controller layout: DJ Techtools Midi Fighter Twister

COLOR ADJUSTMENTS

Temp Grab Still	Tint Enhanced Viewer	Contrast Previous Node	Pivot Next Node
Midtone Detail Next Still	Color Boost Reference Wipe	Shadow +Serial Node	Highlight Node on/off
Sat Previous Still	Hue Invert Wipe	Log Low +Node Before	Log High Grade on/off
Lift Y Reset Color	Gamma Y Play	Gain Y +Parallel Node	Lum Mix Undo

Lift Lum Reset Lift	Lift Red Enhanced Viewer	Lift Green Previous Node	Lift Blue Next Node
Gamma Lum Reset Gamma	Gamma Red Reference Wipe	Gamma Green +Serial Node	Gamma Blue Node on/off
Gain Lum Reset Gain	Gain Red Toggle Log	Gain Green +Node Before	Gain Blue Grade on/off
Offset Lum Reset Offset	Offset Red Play	Offset Green +Parallel Node	Offset Blue Undo

COLOR WHEELS

Lift Lum Reset Lift	Lift Red Enhanced Viewer	Lift Green Previous Node	Lift Blue Next Node
Gamma Lum Reset Gamma	Gamma Red Reference Wipe	Gamma Green +Serial Node	Gamma Blue Node on/off
Gain Lum Reset Gain	Gain Red Invert Wipe	Gain Green +Node Before	Gain Blue Grade on/off
Offset Lum Reset Offset	Offset Red Play	Offset Green +Parallel Node	Offset Blue Undo

PRIMARIES BARS

1st Exp Reset 1st	1st X Enhanced Viewer	1st Y Previous Node	1st Sat Next Node
2nd Exp Reset 2nd	2nd X Left Arrow	2nd Y +Serial Node	2nd Sat Node on/off
3rd Exp Reset 3rd	3rd X Right Arrow	3rd Y +Node Before	3rd Sat Grade on/off
4th Exp Reset 4th	4th X Play	4th Y +Parallel Node	4th Sat Undo

HDR GRADE

CURVES

Soft Clip Low Soft Custom Curves	Soft Clip Low Hue vs Hue	Soft Clip High Previous Node	Soft Clip High Soft Next Node
Red X Hue vs Sat	Red Y Hue vs Lum	Yellow X +Serial Node	Yellow Y Node on/off
Green X Lum vs Sat	Green Y Sat vs Sat	Cyan X +Node Before	Cyan Y Grade on/off
Blue X Reset Curves	Blue Y Play	Purple X +Parallel Node	Purple Y Undo

QUALIFIER

Hue Center Toggle Hue	Hue Width Reset Hue	Hue Soft Previous Node	Hue Symmetry Next Node
Sat Low Soft Toggle Sat	Sat Low Reset Sat	Sat High +Serial Node	Sat High Soft Node on/off
Lum Low Soft Toggle Lum	Lum Low Reset Lum	Lum High +Node Before	Lum High Soft Grade on/off
Denoise Highlight	Clean Black Play	Clean White +Parallel Node	Blur Radius Undo

Size +Lin	Aspect +Circ	Soft 1 Previous Node	Soft 2 Next Node
Pan +Poly	Tilt +Curve	Soft 3 +Serial Node	Soft 4 Node on/off
Rotate +Grad	Opacity Window Outline	Inside +Node Before	Outside Grade on/off
<Track> Highlight	Mouse X Play	Mouse Y +Parallel Node	Key O. Gain Undo

POWER WINDOW

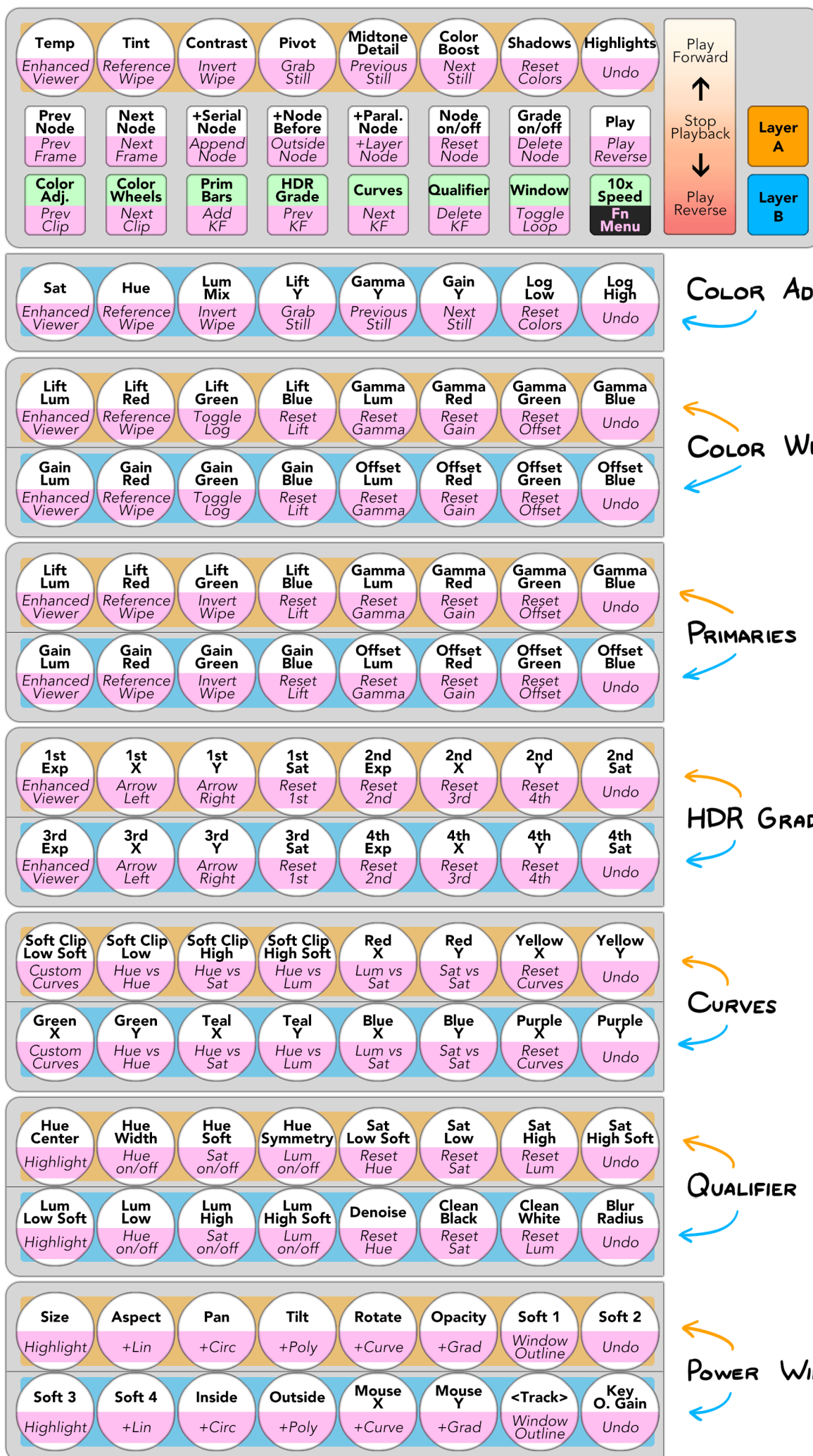
Previous Frame	Next Frame	Previous Clip	Next Clip
Add Keyframe	Delete Keyframe	+Append Node	Reset Node
Previous Keyframe	Next Keyframe	+Outside Node	Delete Node
Toggle Loop	Play Reverse	+Layer Node	Redo

FUNCTION MENU

10x SPEED

10x SPEED

Controller layout: Behringer X-Touch Mini



"X-Touch Mini" - MIDIGrade 5 for DaVinci Resolve 20

FOR ADVANCED USERS

Performing actions with MIDI notes

With MIDIGrade there is a lot of room to be creative. This has been made possible by introducing the option to trigger effectively any MIDIGrade function with a MIDI note. So as long as you can inject MIDI notes into MIDIGrade and you can select what those notes are, you are free to create whatever workflow suits you the best.

There are a couple different types of MIDI notes that can be used, depending on the type of your controller:

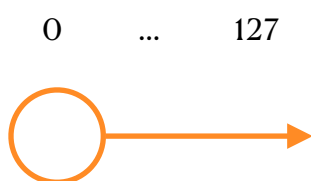
1. **Button:** CC notes in Channel 1, with value "127" to toggle ON, and value "0" to toggle OFF. You can do almost anything with these, as previously described in chapter: [How to use](#).
2. **Knob ("relative"):** CC notes in Channels 3 (adjustments) or 6 (User Menu), with value "63" when turned counter-clockwise, and value "65" when turned clockwise. These MIDI CC values repeat indefinitely with every trick of the knob turn.
3. **Knob ("absolute"):** CC notes in Channels 4 (adjustments) or 7 (User Menu), with decreasing values when turned counter-clockwise, and increasing values when turned clockwise. It is crucial that the controller outputs a repeating MIDI note even after reaching a minimum or maximum MIDI CC value, otherwise it will behave like a knob with hard limits. In other words, if you turn the knob clockwise until it reaches the value "127", on the following ticks from further clockwise knob turns the controller outputs repeated CC value "127".
4. **Slider (with hard limits):** Sliders can come in all shapes and sizes — for example thumbsticks on a gamepad are two sliders, just in X and Y axis! Sliders are best used in conjunction with buttons, as sliders haven't been programmed to perform adjustment selection by themselves.

To manipulate a selected adjustment using a gamepad thumbstick for example, use MIDI Channel 1, CC notes "98-101", or CC notes "108-109". Note: now is a good time to refer to chapter: [List of MIDI notes triggering actions](#).

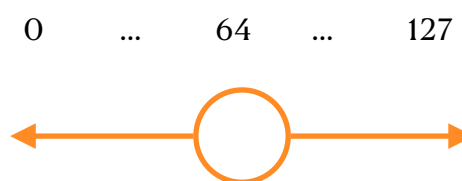
The option called "*Gradual Mouse*" is programmed to have no movement when the CC value is "0", and as the value increases, a mouse click and drag is performed at an increasing speed until the maximum value at "127" is reached.

"*Slider Mouse*" is similar but with the difference that click and drag is performed faster and faster as the CC value approaches either of the "0-127" extremes. To stop the mouse movement, the CC value needs to be in the middle of said range, so roughly "64".

Gradual Mouse (CC 98-101)



Slider Mouse (CC 108-109)



The decision which mouse behaviour to choose — Gradual or Slider — depends on how your MIDI device is programmed to output its MIDI notes. If your controller has a resting position in the middle like a gamepad thumbstick, go with Slider; and if the resting position is at the end like with a piano key, go with Gradual.

It's good to note that the controllers mentioned in chapter [Controller options](#) are also based on MIDI notes. If you prefer to use the already mapped layouts of Intech Studio EN16 and BU16 but don't have said devices, it is possible to simulate them with the use of MIDI notes. To learn more about this, go to chapter: [List of MIDI notes triggering actions — MIDI Channels 8-9](#).

User customisable menu

The "*User Menu*" can be accessed once you have enabled it in the MIDIGrade Settings menu. To select the menu, toggle **Primary Adjustments** menu two times.

The purpose of this feature is to offer you an easy way to manipulate adjustments that are not featured in MIDIGrade by default. These can be RAW footage settings, image sizing options, noise reduction, and so on. These adjustments don't have to be DaVinci Resolve specific. Once you have disabled "*Focus Mode*" in the Settings menu, you can use this feature wherever it can be useful! (*Premiere, Lumetri, Final Cut Pro* etc.)

The idea is that once you have enabled User Menu, go to **Adjust Coordinates** found in the Settings menu, and there navigate to the User Menu section. By default the 16 customisable coordinates in User Menu are not targeting anything, so by using the arrow buttons in Adjust Coordinates you will need to move these coordinates to match whatever you wish to adjust.

Note: The first "*User Menu*" option in Adjust Coordinates is for menu selection. This coordinate is triggered whenever you select User Menu, which can be useful if the adjustments you wish to control are behind a selectable menu tab.

The User Menu adjustments can also be accessed using custom MIDI notes. This is great if you wish to dedicate a set of MIDI controls for User Menu only because you don't have to select the menu first for them to work. User Menu uses MIDI channels 6 and 7. To learn more about using MIDI notes go to chapter: [List of MIDI notes triggering actions — MIDI Channels 6-7](#).

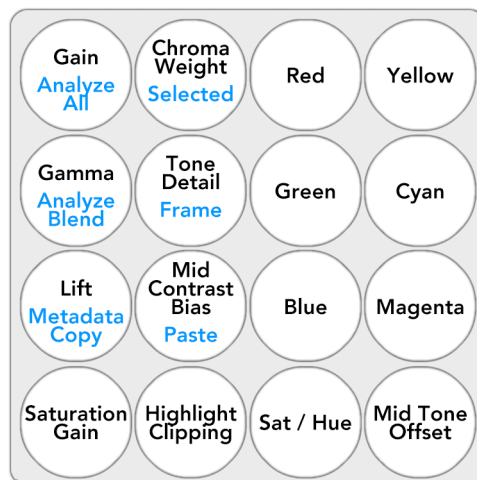
Dolby Vision

MIDIGrade supports Dolby Vision version 4.0. Once you have enabled “Dolby Vision” in MIDIGrade Settings, the menu button **Primary Adjustments** becomes a toggle between: Primary Adjustments, User Menu (*if enabled*), and Dolby Vision. Simply press the menu button again to switch between these menus.

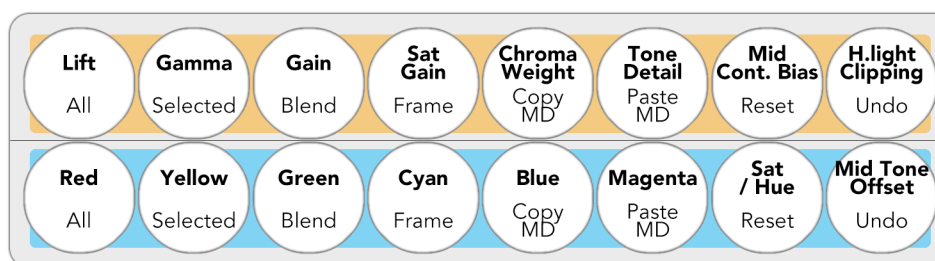
Toggling between Secondary Trims’ Saturation and Hue

1. **Knob turn:** Turn “Sat / Hue” knob counter-clockwise for Secondary Saturations, and clockwise for Secondary Hues.
2. **Key press:** Press “Sat / Hue” to switch between the two. Your cursor on screen will move according to the Secondary Trims selected.

4 × 4 layout: EN16 / Twister / keyboard



X-Touch Mini layout



Keyboard presets

Using a MIDI controller with MIDIGrade and pressing one of the buttons to trigger actions like “*Next Clip*” or “*Add Serial Node*” outputs keyboard shortcuts listed below.

While it’s not possible to customise the individual keyboard shortcuts, you can choose from 5 different Presets: **MIDIGrade**, **DaVinci Resolve**, **Adobe Premiere**, **Apple Final Cut Pro X**, and **Avid Media Composer**. These options are reflected by the default presets available in DaVinci Resolve’s Keyboard Customization menu.

In DaVinci Resolve you can add a secondary shortcut to any of the keyboard shortcuts by pressing the “+” symbol, which appears next to a command when you hover your mouse over it.

► Keyboard Shortcuts

Command	MIDIGrade	DaVinci Resolve	Adobe Premiere	Apple Final Cut Pro X	Avid Media Composer
<i>Previous Node</i>	Shift + Y	Alt + Shift + ;	Alt + Shift + ;	Alt + Shift + ;	Alt + Shift + ;
<i>Next Node</i>	Shift + U	Alt + Shift + ‘	Alt + Shift + ‘	Alt + Shift + ‘	Alt + Shift + ‘
<i>Previous Clip</i>	Up Arrow	Up Arrow	Page Up	Up Arrow	A
<i>Next Clip</i>	Down Arrow	Down Arrow	Page Down	Down Arrow	S
<i>+Serial Node</i>	Shift + E	Alt + S	Alt + S	Alt + S	Alt + S
<i>+Append Node</i>	Alt + E	Alt + K	Alt + N	Alt + N	Alt + N
<i>+Before Node</i>	Shift + D	Shift + S	Shift + S	Shift + S	Shift + S
<i>+Outside Node</i>	Alt + D	Alt + O	Alt + Y	Alt + Y	Alt + Y
<i>+Parallel Node</i>	Shift + C	Alt + P	Alt + P	Alt + P	Alt + P
<i>+Layer Node</i>	Alt + C	Alt + L	Alt + L	Alt + L	Alt + L
<i>Node on/off</i>	Shift + R	Ctrl + D	Ctrl + D	Ctrl + D	Ctrl + D

Command	MIDIGrade	DaVinci Resolve	Adobe Premiere	Apple Final Cut Pro X	Avid Media Composer
<i>Bypass Grade</i>	Shift + F	Shift + D	Shift + D	Shift + D	Shift + D
<i>Reset Node</i>	Alt + R	Shift + Home	Shift + Home	Shift + Home	Shift + Home
<i>Delete Node</i>	Alt + F	Backspace	Backspace	Backspace	Backspace
<i>Undo</i>	Ctrl + Z	Ctrl + Z	Ctrl + Z	Ctrl + Z	Ctrl + Z
<i>Redo</i>	Shift + Ctrl + Z	Shift + Ctrl + Z	Shift + Ctrl + Z	Shift + Ctrl + Z	Ctrl + R
<i>Reference Wipe</i>	Ctrl + W	Ctrl + W	Ctrl + W	Ctrl + W	Ctrl + W
<i>Invert Wipe</i>	Alt + V	Alt + W	Alt + W	Alt + W	Alt + W
<i>Grab Still</i>	Alt + Ctrl + G	Alt + Ctrl + G	Alt + Ctrl + G	Alt + Ctrl + G	Alt + Ctrl + G
<i>Previous Still</i>	Alt + Ctrl + B	Alt + Ctrl + B	Alt + Ctrl + P	Alt + Ctrl + P	Alt + Ctrl + P
<i>Next Still</i>	Alt + Ctrl + N	Alt + Ctrl + N	Alt + Ctrl + M	Alt + Ctrl + N	Alt + Ctrl + N
<i>Log/ Primaries</i>	Shift + B	Alt + Z	Alt + Z	Alt + Z	Alt + Z
<i>Add Keyframe</i>	Ctrl + [	Ctrl + [	Alt + K	Alt + K	Alt + K
<i>Delete Keyframe</i>	Alt +]	Alt +]	Shift + Backspace	Alt +]	Alt +]
<i>Previous Keyframe</i>	[	[	Alt + ;	Alt + ;	Alt + ;
<i>Next Keyframe</i>	]	]	Alt + ‘	Alt + ‘	Alt + ‘
<i>Track Forward</i>	Ctrl + T	Ctrl + T	Ctrl + T	Ctrl + T	Ctrl + T
<i>Track Reverse</i>	Alt + T	Alt + T	Alt + T	Alt + T	Alt + T
<i>Track Stop</i>	Alt + Ctrl + T	Alt + Ctrl + T	Alt + Ctrl + T	Alt + Ctrl + T	Alt + Ctrl + T
<i>Toggle Loop</i>	Ctrl + /	Ctrl + /	Ctrl + L	Ctrl + L	Alt + /
<i>Highlight</i>	Shift + H	Shift + H	Shift + H	Shift + H	Shift + H
<i>Window Outline on</i>	Alt + Shift + M	Alt + Shift + M	Alt + Shift + K	Alt + Shift + K	Alt + Shift + K
<i>Window Outline off</i>	Alt + Shift + N	Alt + Shift + N	Alt + Shift + J	Alt + Shift + J	Alt + Shift + J
<i>Enhanced Viewer</i>	Shift + G	Alt + F	Alt + F	Alt + F	Alt + F
<i>Pause/Start Playback</i>	Spacebar	Spacebar	Spacebar	Spacebar	Spacebar
<i>Play Reverse</i>	J	J	J	J	J

List of MIDI notes triggering actions

In MIDIGrade you can trigger almost any of its functions using standard MIDI notes. Use the following pages as reference which notes trigger what actions, and with this information you can create your own custom layout!

- The coloured number "(1)" refers to **MIDI CC** number (0-127).
- **Alternative actions** are triggered when **Shift** is active.

► MIDI Channel 1

This MIDI channel includes functions that are controllable with buttons and sliders. For more detailed instructions, see chapter: [Performing actions with MIDI notes](#).

Value 127 = Button press

Value 0 = Button release

(0)	Menu: Primary Adjustments	(24)	Window: Add Polygon
(1)	Menu: Wheels / Bars	(25)	Window: Add Curve
(2)	Menu: HDR Grade	(26)	Window: Add Gradient
(3)	Menu: Curves	(27)	
(4)	Menu: Qualifier	(28)	Window Outline toggle
(5)	Menu: Window	(29)	
(6)	Menu: User Menu	(30)	Track Forward
(7)		(31)	Track Reverse
(8)	Submenu: Custom Curves	(32)	Track Stop
(9)	Submenu: Hue vs Hue	(33)	
(10)	Submenu: Hue vs Sat	(34)	Log/Primaries Wheels
(11)	Submenu: Hue vs Lum	(35)	
(12)	Submenu: Lum vs Sat	(36)	Previous Menu
(13)	Submenu: Sat vs Sat	(37)	
(14)		(38)	Next Menu
(15)	Qualifier: Hue On/Off	(39)	
(16)	Qualifier: Reset Hue	(40)	Previous Adjustment
(17)	Qualifier: Saturation On/Off	(41)	Next Adjustment
(18)	Qualifier: Reset Saturation	(42)	
(19)	Qualifier: Luminance On/Off	(43)	Decrease Adjustment
(20)	Qualifier: Reset Luminance	(44)	Shift (10x Speed)
(21)		(45)	Increase Adjustment
(22)	Window: Add Linear	(46)	Reset Adjustment
(23)	Window: Add Circular	(47)	Mouse click & drag: ←

(48)	Mouse click & drag: →	(90)	Copy
(49)	Mouse click & drag: ↑	(91)	Paste
(50)	Mouse click & drag: ↓	(92)	
(51)		(93)	Mouse move: ←
(52)	Add Serial Node - Add Parallel Node	(94)	Mouse move: →
(53)	Add Node Before	(95)	Mouse move: ↑
(54)	Add Parallel Node	(96)	Mouse move: ↓
(55)	Append Node	(97)	
(56)	Add Outside Node	(98)	Gradual click & drag: ← (0-127)
(57)	Add Layer Node	(99)	Gradual click & drag: → (0-127)
(58)	Previous Node - Previous Clip	(100)	Gradual click & drag: ↓ (0-127)
(59)	Next Node - Next Clip	(101)	Gradual click & drag: ↑ (0-127)
(60)	Enable/Disable Node - Bypass Grade	(102)	
(61)	Bypass Grade	(103)	Gradual mouse move: ← (0-127)
(62)	Reset Node - Delete Node	(104)	Gradual mouse move: → (0-127)
(63)	Delete Node	(105)	Gradual mouse move: ↓ (0-127)
(64)		(106)	Gradual mouse move: ↑ (0-127)
(65)	Pause/Start Playback - Play Reverse	(107)	
(66)	Play Reverse	(108)	Slider click & drag: ← 0 - 127 →
(67)	Toggle Loop	(109)	Slider click & drag: ↓ 0 - 127 ↑
(68)	Frame Reverse	(110)	
(69)	Frame Forward	(111)	Slider mouse move: ← 0 - 127 →
(70)		(112)	Slider mouse move: ↓ 0 - 127 ↑
(71)	Previous Clip	(113)	
(72)	Next Clip	(114)	Mouse Left click
(73)		(115)	Mouse Left double click
(74)	Grab Still	(116)	Mouse Middle click
(75)	Previous Still	(117)	Mouse Right click
(76)	Next Still - Previous Still	(118)	
(77)	Enhanced Viewer	(119)	Bypass Adjustment changes ¹
(78)	Reference Wipe	(120)	
(79)	Invert Wipe	(121)	8 Knob Layout: Layer A / B toggle
(80)		(122)	8 Knob Layout: Layer A
(81)	Undo - Redo	(123)	8 Knob Layout: Layer B
(82)	Redo	(124)	
(83)	Highlight	(125)	Menu: Dolby Vision
(84)		(126)	Submenu: Dolby Vision Primary Trims
(85)	Keyframe: Add	(127)	Submenu: Dolby Vision Secondaries
(86)	Keyframe: Delete		
(87)	Keyframe: Previous		
(88)	Keyframe: Next		
(89)			

¹ Lets you use rotary encoders with limits. Hold bypass to temporarily disable the knob output.

► MIDI Channel 2

Channel 2 is for **MIDI Keyboard** notes. 25 and 49-key keyboards work the best, though with the 25-key you need change octaves to access all actions.

Instead of MIDI CC's, this channel responds to regular musical MIDI notes. (60) is middle C4.

(36)	Previous Menu	(70)	Keyframe: Next
(37)	Previous Node - Previous Clip	(71)	Keyframe: Delete
(38)	Next Menu	(72)	Add Layer Node
(39)	Next Node - Next Clip	(73)	Copy
(40)	Previous Adjustment	(74)	Bypass Adjustment changes ¹
(41)	Next Adjustment	(75)	Paste
(42)	8 Knob Layout: Layer A / B toggle	(76)	Mouse move: ←
(43)	Decrease Adjustment	(77)	Mouse move: →
(44)	Shift (10x Speed)	(78)	Mouse move: ↑
(45)	Increase Adjustment	(79)	Mouse move: ↓
(46)	Reset Adjustment	(80)	Mouse Left click
(47)	Add Serial Node	(81)	Mouse Left double click
(48)	Add Parallel Node	(82)	Mouse Middle click
(49)	Enable/Disable Node	(83)	Mouse Right click [Last key in 49-key]
(50)	Add Outside Node	(84)	Menu: Primary Adjustments
(51)	Bypass Grade	(85)	Menu: Wheels / Bars
(52)	Reset Node - Delete Node	(86)	Menu: HDR Grade
(53)	Grab Still	(87)	Menu: Curves
(54)	Reference Wipe	(88)	Menu: Qualifier
(55)	Next Still - Previous Still	(89)	Menu: Window
(56)	Invert Wipe	(90)	Menu: User Menu
(57)	Frame Reverse	(91)	Window: Add Linear
(58)	Pause/Start Playback - Play Reverse	(92)	Window: Add Circular
(59)	Frame Forward	(93)	Window: Add Polygon
(60)	Undo - Redo	(94)	Window: Add Curve
(61)	Toggle Loop	(95)	Window: Add Gradient
(62)	Enhanced Viewer	(96)	Window Outline toggle
(63)	Highlight	(97)	Track Forward
(64)	Mouse click & drag: ←	(98)	Track Reverse
(65)	Mouse click & drag: →	(99)	Track Stop
(66)	Mouse click & drag: ↑		
(67)	Mouse click & drag: ↓		
(68)	Keyframe: Previous		
(69)	Keyframe: Add		

¹ Lets you use rotary encoders with limits. Hold bypass to temporarily disable the knob output.

► MIDI Channels 3-5

These are your most commonly used DaVinci Resolve actions; the settings that you would click-and-drag with your mouse to make adjustments to. Menu selection is integrated into all of these, meaning you don't have to select a menu beforehand.

Although MIDI channels 3, 4 and 5 perform differently, they share the exact same order of actions, and so can share the same list.

Channel 3 ("relative"):

63 = Knob turn CCW

65 = Knob turn CW

Channel 4 ("absolute"):

→ 0 = Knob turn CCW

→ 127 = Knob turn CW

Channel 5 (reset adj.):

127 = Button press

(0)	Temperature	(31)	Gain: Red
(1)	Tint	(32)	Gain: Green
(2)	Contrast	(33)	Gain: Blue
(3)	Pivot	(34)	Offset: Red
(4)	Midtone Detail	(35)	Offset: Green
(5)	Color Boost	(36)	Offset: Blue
(6)	Shadows	(37)	
(7)	Highlights	(38)	HDR Grade: 1st HDR Wheel
(8)	Saturation	(39)	1st Exposure
(9)	Hue	(40)	1st X
(10)	Lum Mix	(41)	1st Y
(11)	Lift Y	(42)	1st Saturation
(12)	Gamma Y	(43)	2nd HDR Wheel
(13)	Gain Y	(44)	2nd Exposure
(14)	Log Low Range	(45)	2nd X
(15)	Log High Range	(46)	2nd Y
(16)		(47)	2nd Saturation
(17)	Luminance: Lift	(48)	3rd HDR Wheel
(18)	Luminance: Gamma	(49)	3rd Exposure
(19)	Luminance: Gain	(50)	3rd X
(20)	Luminance: Offset	(51)	3rd Y
(21)	Color Wheel: Lift - ↑↓	(52)	3rd Saturation
(22)	Color Wheel: Gamma - ↑↓	(53)	4th HDR Wheel
(23)	Color Wheel: Gain - ↑↓	(54)	4th Exposure
(24)	Color Wheel: Offset - ↑↓	(55)	4th X
(25)	Primaries Bars: Lift: Red	(56)	4th Y
(26)	Lift: Green	(57)	4th Saturation
(27)	Lift: Blue	(58)	
(28)	Gamma: Red	(59)	Curves: 0%
(29)	Gamma: Green	(60)	20%
(30)	Gamma: Blue	(61)	40%

(62) 60%
(63) 80%
(64) 100%
(65) Soft Clip Low Soft
(66) Soft Clip Low
(67) Soft Clip High
(68) Soft Clip High Soft
(69) Red Y
(70) Yellow Y
(71) Green Y
(72) Cyan Y
(73) Blue Y
(74) Purple Y
(75)
(76) **Qualifier:** Hue Center
(77) Hue Width
(78) Hue Soft
(79) Hue Symmetry
(80) Saturation Low Soft
(81) Saturation Low
(82) Saturation High
(83) Saturation High Soft
(84) Luminance Low Soft
(85) Luminance Low
(86) Luminance High
(87) Luminance High Soft
(88) Denoise
(89) Clean Black
(90) Clean White
(91) Blur Radius
(92)
(93) **Window:** Size
(94) Aspect

(95) Pan
(96) Tilt
(97) Rotate
(98) Opacity
(99) Soft 1
(100) Soft 2
(101) Soft 3
(102) Soft 4
(103) Inside Blur
(104) Outside Blur
(105)
(106) **Key:** Output Gain
(107)
(108) **Dolby Vision:** Lift
(109) Gamma
(110) Gain
(111) Saturation Gain
(112) Chroma Weight
(113) Tone Detail
(114) Mid Contrast Bias
(115) Highlight Clipping
(116) Saturation Red
(117) Saturation Yellow
(118) Saturation Green
(119) Saturation Cyan
(120) Saturation Blue
(121) Saturation Magenta
(122) Hue Red
(123) Hue Yellow
(124) Hue Green
(125) Hue Cyan
(126) Hue Blue
(127) Hue Magenta

► MIDI Channels 6-7

Channels 6 - 7 are for "User Menu", "8 Knob Layout", and menu/adjustment controls.

User Menu lets you adjust anything on your screen that can be adjusted with a mouse click-and-drag. More info in chapter: [User customisable menu](#).

8 Knob Layout: use your own controller with 8 knobs, while accessing advanced Menu logic. Toggle between Layers A / B with **Ch 1 CC 121**. More info: [Page 16](#).

Channel 6 ("relative"):

63 = Knob turn CCW

65 = Knob turn CW

Channel 7 ("absolute"):

→ 0 = Knob turn CCW

→ 127 = Knob turn CW

Horizontal ← → :

- (1) User 01
- (2) User 02
- (3) User 03
- (4) User 04
- (5) User 05
- (6) User 06
- (7) User 07
- (8) User 08
- (9) User 09 - 2x speed
- (10) User 10 - 2x speed
- (11) User 11 - 2x speed
- (12) User 12 - 2x speed
- (13) User 13 - 4x speed
- (14) User 14 - 4x speed
- (15) User 15 - 8x speed
- (16) User 16 - 16x speed

Vertical ↑ ↓ :

- (21) User 01
- (22) User 02
- (23) User 03
- (24) User 04
- (25) User 05
- (26) User 06
- (27) User 07
- (28) User 08
- (29) User 09 - 2x speed
- (30) User 10 - 2x speed
- (31) User 11 - 2x speed

(32) User 12 - 2x speed

(33) User 13 - 4x speed

(34) User 14 - 4x speed

(35) User 15 - 8x speed

(36) User 16 - 16x speed

Adjustment and Menu controls:

- (41) Increase/Decrease Adjustment
- (42) Previous/Next Adjustment
- (43) Previous/Next Menu

8 Knob Layout:

- (51) Knob 1
- (52) Knob 2
- (53) Knob 3
- (54) Knob 4
- (55) Knob 5
- (56) Knob 6
- (57) Knob 7
- (58) Knob 8

8 Knob 10x Speed / Resets (value 127):

- (61) Knob Press 1
- (62) Knob Press 2
- (63) Knob Press 3
- (64) Knob Press 4
- (65) Knob Press 5
- (66) Knob Press 6
- (67) Knob Press 7
- (68) Knob Press 8

► MIDI Channels 8-9

Channels 8 and 9 are used by Intech Studio controllers EN16 and BU16. You can use the same notes to simulate these devices even if you're using different hardware.

MIDIGrade's most sophisticated logic is built on the basis of having 16 pressable buttons and 16 turnable knobs. If your controller has the same amount of buttons and knobs — for example **Arturia BeatStep** — you can make it behave as if it was the EN16 and BU16 merged together into one device. Here's how:

Using your MIDI controller's software, map to your buttons the CC's **1-16**, and to your knobs the CC's **21-36**. If your controller's knobs are pressable, you can apply CC's **41-56** to the knob presses; these act as your adjustment resets.

Once the above is done, your controller will behave exactly like EN16 and BU16, and you can now follow the logic shown in the graphic: Controller layout EN16 + BU16. For example, buttons with assigned CC's 1, 2, 5, 6, 9, and 10 will now act as the "Menu" buttons; the button with CC 13 will now be the "Shift" button etc.

Channel 8 ("relative"):

63 = Knob turn CCW

65 = Knob turn CW

Channel 9 ("absolute"):

→ 0 = Knob turn CCW

→ 127 = Knob turn CW

Both channels 8 and 9:

127 = Button/knob press

0 = Button/knob release

(0)		(19)		(38)
(1)	BU16: Button 1	(20)		(39)
(2)	Button 2	(21)	EN16: Knob 1	(40)
(3)	Button 3	(22)	Knob 2	(41)
(4)	Button 4	(23)	Knob 3	(42)
(5)	Button 5	(24)	Knob 4	(43)
(6)	Button 6	(25)	Knob 5	(44)
(7)	Button 7	(26)	Knob 6	(45)
(8)	Button 8	(27)	Knob 7	(46)
(9)	Button 9	(28)	Knob 8	(47)
(10)	Button 10	(29)	Knob 9	(48)
(11)	Button 11	(30)	Knob 10	(49)
(12)	Button 12	(31)	Knob 11	(50)
(13)	Button 13	(32)	Knob 12	(51)
(14)	Button 14	(33)	Knob 13	(52)
(15)	Button 15	(34)	Knob 14	(53)
(16)	Button 16	(35)	Knob 15	(54)
(17)		(36)	Knob 16	(55)
(18)		(37)		(56)

SUPPORT

Known problems & troubleshooting

1. Misaligned menu & adjustment coordinates

DaVinci Resolve's UI can get stuck in wrong layout which can break MIDIGrade's coordinates. To fix this, select: *"Workspace > Reset UI Layout"*.

2. Qualifier menu: Adjustments are misaligned

The above *"Reset UI Layout"* doesn't fix misaligned adjustments in the Qualifier menu. To fix this issue you need to quit and restart DaVinci Resolve.

3. Windows: Not targeting the "main screen" correctly

With multi-monitor setups on Windows it's possible MIDIGrade targets the wrong screen, or the coordinates are offset causing misalignment.

Adjusting *"main display"* in Display Settings doesn't always seem to fix this.

Restarting your computer can fix this. Another possible fix is to swap the monitor cables around (connected to your GPU). Alternatively, you can make sure your DaVinci Resolve GUI screen is positioned very top-left in your Windows Display Settings, regardless of your physical monitor arrangement.

This issue is very rare and not well documented. Please reach out if you discover any new information about it.



4. Midi Fighter Twister: All adjustments go to Window menu

Open **Midifighter Utility** and select: *"Tools > Midifighter > Load Factory Firmware > Midi Fighter Twister (02 Oct 2019)"*. This problem began appearing late-2022 due to Twisters being shipped with wrong firmware.

Contact support

Please contact me when you experience major problems with MIDIGrade. This is helpful for other users and the health of this product, since your input can really affect how well MIDIGrade performs in the future!

Many issues are already covered in the [Known problems & troubleshooting](#) chapter and [the FAQ section of MIDIGrade website](#) so make sure to check those before reaching out.

If you have a cool setup that you would like to share with the rest of the community, please do so in the Discord channel. I'd love to see it and possibly add it in the collection of featured setups on the website!

— Julius

Discord server:
discord.gg/8s2xgfTJAp

Support email:
support@midigrade.com

Store contact form:
selffy.com/midigrade/contact

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