



DaVinci Resolve Interface

PART 1 — CONTENTS

1	Introduction to DaVinci Resolve.....	7
2	Using the DaVinci Resolve User Interface.....	48

Introduction to DaVinci Resolve

DaVinci Resolve integrates editing, compositing and motion graphics, color correction, audio recording and mixing, and finishing within a single, easy to learn application.

The editing, compositing, grading, and audio tools found in DaVinci Resolve should be immediately familiar to experienced artists who've used other applications, but they're also approachable to folks who are new to post-production.

Additionally, dedicated tools available for on-set workflows integrate tasks such as media duplication, shot and metadata organization, and on-location look management into a complete toolset that lets you smoothly segue from the camera original media being acquired in the field to the organization and use of that media in a wide variety of post-production workflows with DaVinci Resolve at their heart. In particular, the tight integration in DaVinci Resolve means that you can freely move from one task to the next of your project's workflow without skipping a beat, making it easy to back up and organize a shoot's media before immediately diving into editing, while switching over to add a quick composite or to color-correct clips in the middle of your editing spree, and then getting right back to cutting, with a bit of mixing to make sure things sound right, all without needing to export projects or launch other applications.

And you can go further, using the collaborative features of DaVinci Resolve to enable multiple artists, for example an editor, a colorist, and assistants, to work together on the same timeline simultaneously, for the ultimate integrated workflow.

Of course, no post-production professional works in a vacuum, and DaVinci Resolve makes it easy to work with other facilities by importing projects and exporting project exchange formats and rendered or managed media among applications such as Apple's Final Cut Pro X, Adobe's Premiere Pro, Avid's Media Composer and Pro Tools, Autodesk's Flame Premium, and many other applications via robust support of XML, AAF, and EDL import and export workflows.

This chapter introduces the DaVinci Resolve user interface (UI), explaining where to find each group of features, and how the highly focused and tightly integrated Media, Edit, Fusion, Color, Fairlight, and Deliver pages work together to let you pursue nearly any post-production workflow you can imagine. After this brief tour, the rest of Part 1 of this manual provides much more in-depth information about project management, preferences, project settings, and other topics of general interest for getting started.

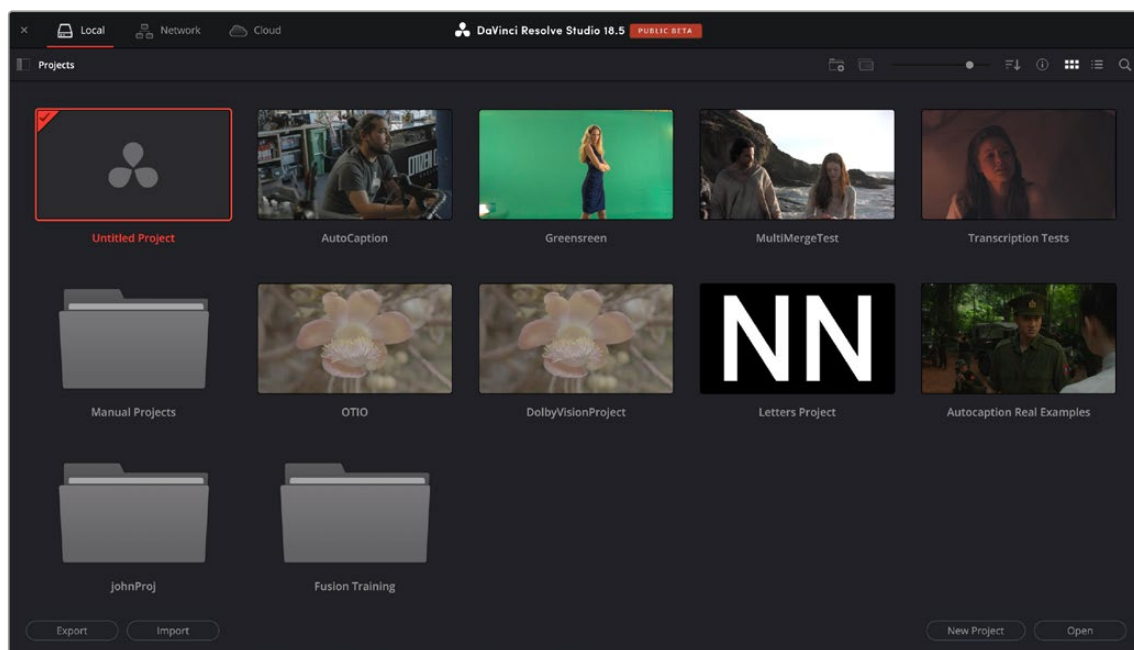
Contents

The Project Manager	9	Motion Graphics and Visual Effects in DaVinci Resolve	27
Preferences and Project Settings	9	VFX Connect	27
Individual Preferences and Settings Based on Login	10	The Fusion Page	28
Preferences	10	The Work Area	29
System Preferences	10	Viewers	29
User Preferences	12	Toolbar	30
Project Settings	12	Effects Library	30
Switching Among Pages	14	Node Editor	31
Minimizing the Resolve Page Bar	14	Inspector	31
Switching Pages Using Keyboard Shortcuts	14	Thumbnail Timeline	32
Hide Pages You Don't Use	14	Media Pool	33
Hide Page Navigation Altogether	15	Status Bar	33
The Media Page	15	The Console	33
The Media Storage Browser	16	The Color Page	34
Viewer	16	Viewer	35
Media Pool	17	Gallery	35
Metadata Editor	18	Node Editor	36
Audio Panel	18	Timeline	36
The Cut Page	19	Left Palettes	37
The Media Pool	19	Center Palettes	38
The Viewer	20	Keyframe Editor	38
Audio Meter	21	The Fairlight Page	39
The Timeline	21	The Audio Timeline	40
The Edit Page	22	Toolbar	41
The Media Pool	23	Mixer	41
Effects Library Browsing	23	Dedicated Channel Strip Controls	42
Edit Index	23	The Monitoring Panel	43
Source/Offline and Timeline Viewers	24	Floating Timecode Window	44
Inspector	25	The Deliver Page	44
Toolbar	26	The Render Settings List	45
Timeline	26	The Deliver Page Timeline	45
Floating Timecode Window	26	The Viewer	46
		The Render Queue	47

The Project Manager

For most users, Project Manager is the first window you'll see when you open DaVinci Resolve. The Project Manager is a centralized interface for managing all projects belonging to the user who's currently logged in, whose name appears at the upper right-hand corner in a project title bar. The Project Manager is also the place where you import and export projects to and from DaVinci Resolve, whether you're moving projects around from user to user, or moving projects from one DaVinci Resolve workstation to another. Finally, the Project Manager also lets you organize the project libraries that are used to manage everything in DaVinci Resolve using the Project Library sidebar.

To open any project, double-click it. To create a new project, double-click the Untitled Project icon, or click the New Project button.



The Project Manager shows all projects belonging to the current user.

For more information about the Project Manager, see *Chapter 3, "Managing Projects and Project Libraries."*

Preferences and Project Settings

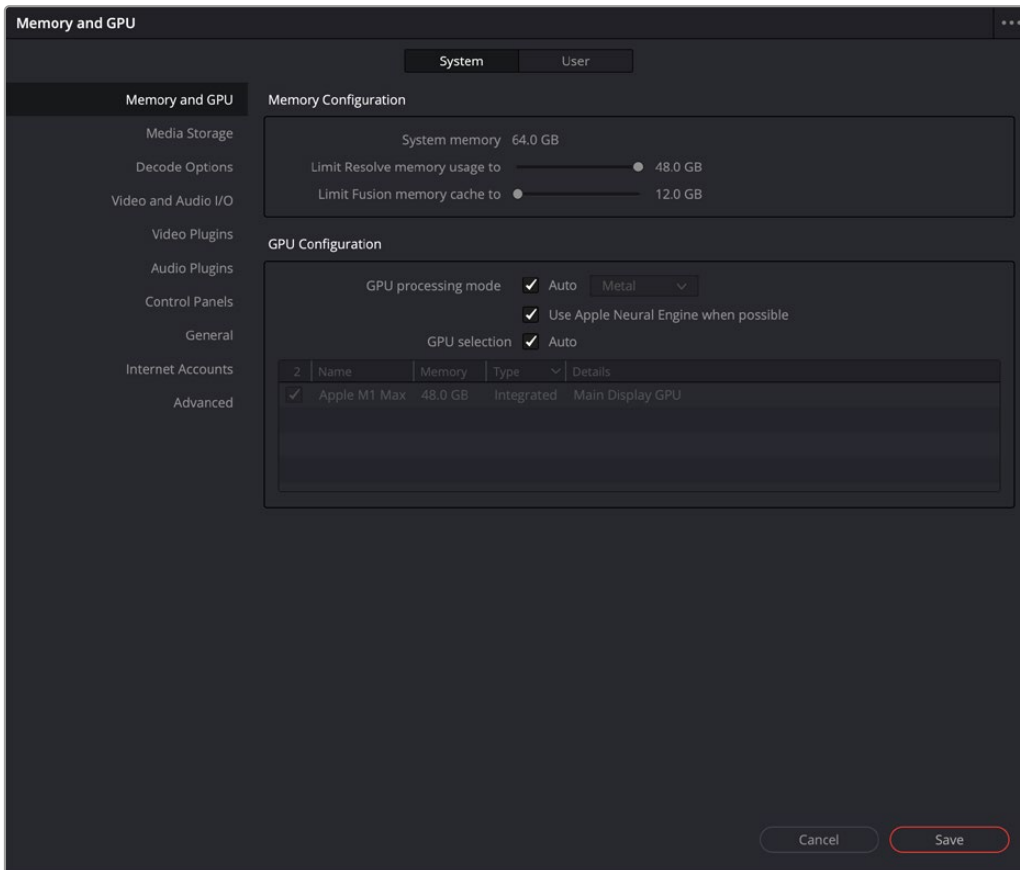
Once you open a project, you have the option of adjusting the System and User Preferences that govern the installation of DaVinci Resolve on your workstation, and the Project Settings governing the currently open project. When you first install DaVinci Resolve, the most important of these settings are selected via the installer's on boarding questions. However, if you're opening DaVinci Resolve for the first time, you should probably check these settings to make sure they're optimal for your system.

Individual Preferences and Settings Based on Login

As of DaVinci Resolve 16, there are individual preferences and settings for each login account on a given computer. This means that multiple artists can each have their own login, and DaVinci Resolve will maintain separate workspace layouts and preference states for each artist, depending on who's logged in.

Preferences

The Preferences window, divided into System preferences and User preferences panels, lets you set up the overall environment of your DaVinci workstation, choosing what hardware to use with DaVinci Resolve and what user interface settings you prefer as you work.



The DaVinci Resolve preferences let you set up your environment

A quick overview of the most important System and User preferences appears below, with guidance about the first settings you should adjust when you first set DaVinci Resolve up on your workstation. However, for a comprehensive overview and for more information, *see Chapter 4, "System and User Preferences."*

System Preferences

The System preferences let you configure the hardware DaVinci Resolve works with. If you have a system that doesn't change very often, then you may only rarely use the Preferences window. On the other hand, if you're working with a mobile system with changing video interfaces, control panels, and scratch volumes, then you may use this window more frequently.

NOTE: Whenever you change certain core System Settings in the Preferences, you may have to quit and restart DaVinci Resolve for those changes to take effect.

Memory and GPU

Lets you choose various options governing how to use the GPUs attached to your computer, and how to configure Viewers in different pages. This panel also provides an overview, for reference, of all hardware and computer characteristics that are relevant to DaVinci Resolve running smoothly, including a listing of installed GPUs.

Media Storage

This is a list within which you define the scratch disk used by your system. The first volume in this list is where Gallery stills and cache files are stored, so you want to make sure that you choose the fastest storage volume that's connected.

Decode Options

These settings let you select various hardware options for decoding RAW files and H.264/H.265. It also lets you choose to use the easy DCP decoder and the ability to refresh growing any files (files that are in the process of being written) in the Media Pool.

Video and Audio I/O

The preferences in this panel let you choose which video and audio Capture and Monitor interfaces you want DaVinci Resolve to use on your workstation. If you have multiple Blackmagic Design I/O interfaces connected to your computer, you can choose between them.

Video Plugins

If you have any third-party Open FX plugins installed, you can see them and enable/disable them here.

Audio Plugins

If you have any third-party VST plugins installed, you can see them and enable/disable them here.

Control Panels

Lets you choose and configure (if necessary) a control panel that's connected for use during grading in DaVinci Resolve.

General

Lets you choose from a variety of settings that modify DaVinci Resolve's behavior. The LUT Locations section lets you point DaVinci Resolve to any external folders containing LUTs for use in your project.

Internet Accounts

The Internet Accounts panel serves as a login manager for the Blackmagic Cloud and other social media sites.

Advanced

This tab is used for special DaVinci Resolve configurations and SAN parameters that are applicable to older file systems.

User Preferences

User preferences govern the setup of the user interface in DaVinci Resolve, letting you customize it to work the way you like.

UI Settings

A Language drop-down menu at the top lets you specify which language the DaVinci Resolve user interface displays. DaVinci Resolve currently supports English, Chinese, Japanese, and Spanish, Portuguese, French, Russian, Thai, Vietnamese, and Korean. Additional checkboxes let you choose options for which project to open during startup, and how to configure the Viewers that appear in every page of DaVinci Resolve.

Project Save and Load

This panel contains the all-important auto-save controls, including the Live Save option that enables Resolve to incrementally save your changes as you work.

Editing

Numerous controls in this panel let you customize the editing experience in the Edit page, including default settings to use when making new timelines, and general settings that govern standard effects durations and trim behaviors.

Color

These controls let you customize the grading experience in the Color page, with options controlling video scope display, the look of UI overlays, and other color-specific functions.

Fairlight

These controls let you customize the editing experience in the Fairlight page with options controlling video offset, automation, and general settings.

Playback Settings

These controls let you customize how DaVinci Resolve handles video playback. If your playback is too slow, adjusting these settings may help.

Control Panels

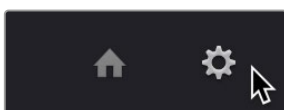
These controls let you customize the settings of your connected control surface.

Metadata

These controls let you customize the Metadata Presets.

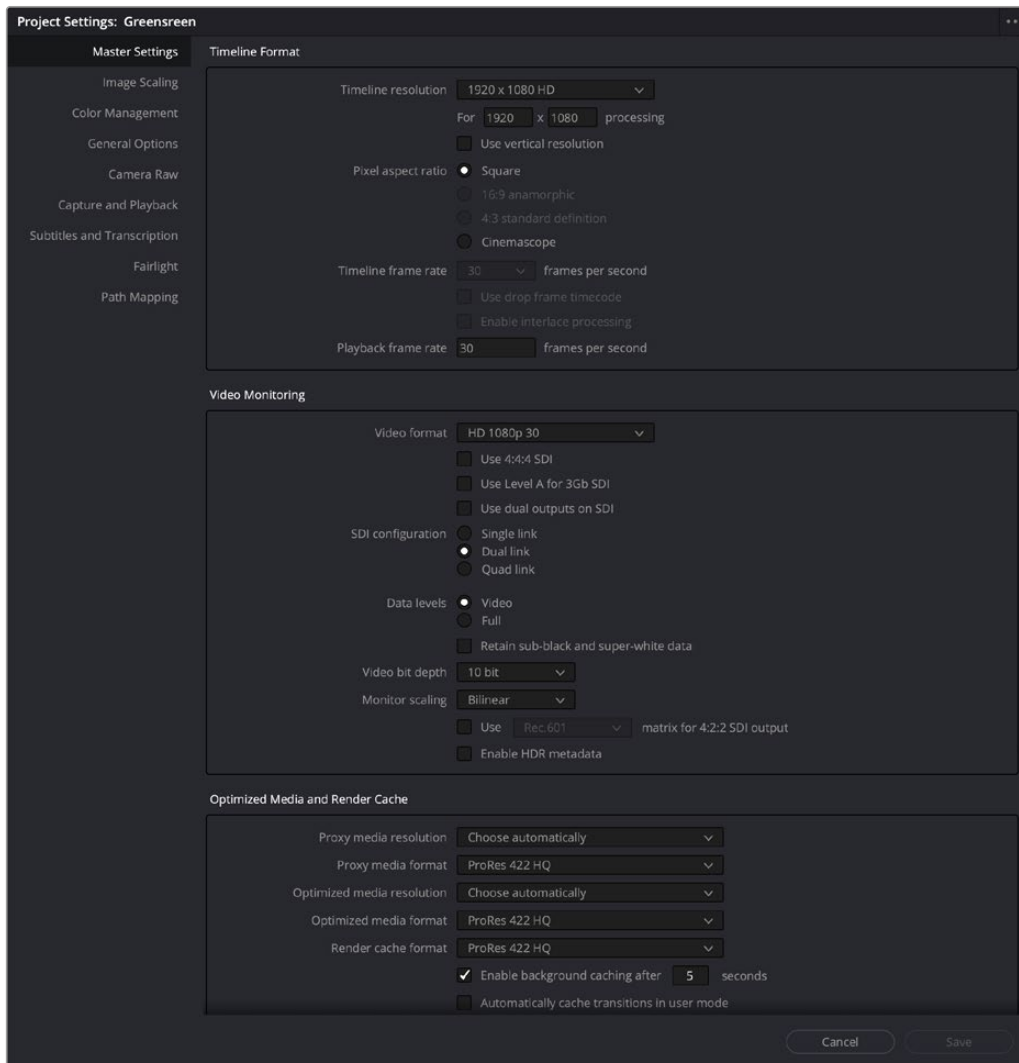
Project Settings

Once you've created a project, all project-specific settings are found in the Project Settings window. To open the Project Settings window, just click the gear button at the bottom right on any page.



Project Manager and Project Settings buttons

The Project Settings open in the middle of the screen, divided into a series of panels which can be selected from a sidebar to the left. Each panel contains a collection of related settings that affects some category of DaVinci Resolve functionality. To open a panel of settings, simply click its name in the sidebar at the left.



The Project Settings show all project-specific settings and attributes.

The Master Settings define the principal attributes of a project, such as the timeline resolution, timeline frame rate, color science, and bit depth. Image Scaling settings define how clips that don't match the timeline resolution are scaled to fit. There are other panels for Color Management, Camera Raw, Capture and Playback, etc.

For more information about Project Settings, see *Chapter 4, "System and User Preferences."*

Switching Among Pages



Buttons for switching pages appear at the bottom of the UI.

DaVinci Resolve is divided into seven main pages of functionality, each of which facilitates a different specialization of a typical post production workflow, and each of which can be accessed using buttons at the very bottom of the DaVinci Resolve interface. These buttons are organized in order of workflow, and they're always available, letting you quickly switch between importing media, fast editing, detailed editing, compositing, grading, audio mixing, and outputting your project in a structured manner.

Minimizing the Resolve Page Bar

If you right-click anywhere within the Resolve Page bar at the bottom of the DaVinci Resolve UI, two options appear in a contextual menu: "Show Icons and Labels" and "Show Icons Only." If you show icons only, the Resolve Page bar at the bottom takes less room.



The Page bar showing icons only, to save space

Switching Pages Using Keyboard Shortcuts

You can also switch pages using the following keyboard shortcuts, which can be referenced from the Workspace > Switch to Page submenu.

Hide Pages You Don't Use

You can leave the page navigation bar showing and just hide the buttons of specific pages. For example:

- If you like the quick navigation of this bar but there are pages you simply don't want to use
- If you're setting up a DaVinci Resolve workstation for an artist making specific contributions to a project, and you want to hide easy access to pages of functionality they won't (or shouldn't) be using; this can be especially useful in collaborative workflow projects

You can disable/re-enable each page's buttons using the Workspace > Show Page submenu. Effects and adjustments that have been applied on hidden pages continue to affect the current project, they're only hidden, and you can still navigate to them using the Workspace > Switch to Page submenu commands or keyboard shortcuts.

Hide Page Navigation Altogether

If you're an artist that only uses a single page of the DaVinci Resolve experience, or if you want more screen real estate to work with given your existing computer display's limited resolution, you can choose Workspace > Show Page Navigation to hide the page navigation bar at the bottom of the DaVinci Resolve user interface. While this bar is closed, you can still navigate to other pages using the Workspace > Switch to Page submenu commands or keyboard shortcuts.

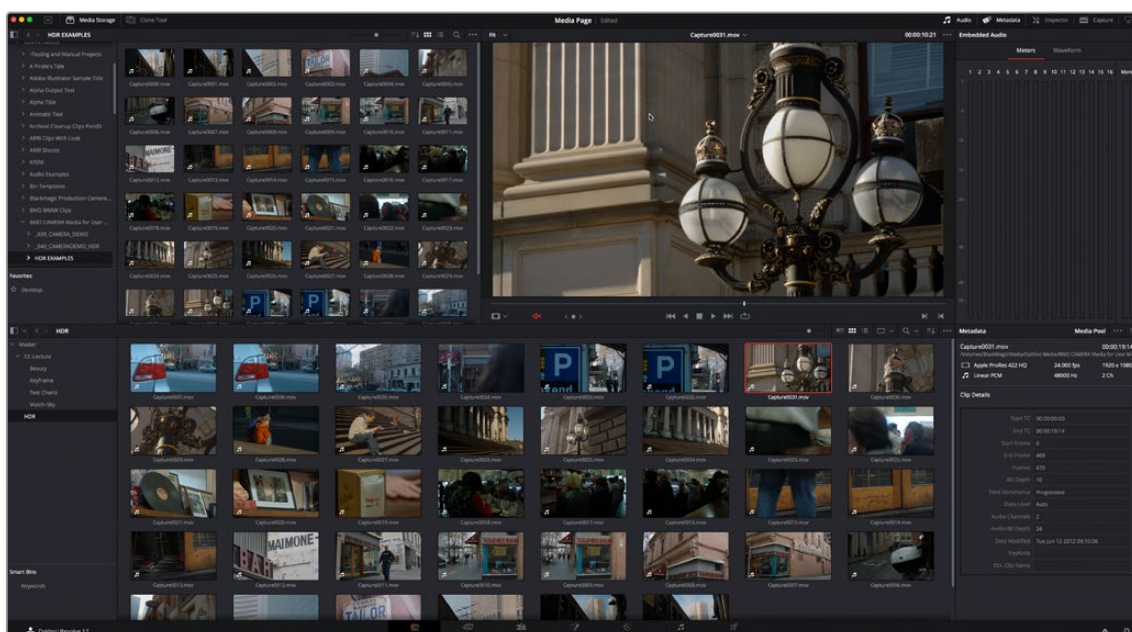
To toggle the Show Page Navigation function:

- Check Workspace > Show Page Navigation.

With this interface element hidden, you can use keyboard shortcuts to access the individual pages (Shift - 2 through 8), Project manager (Shift - 1), and Project settings (Shift - 9). You can also access these functions from DaVinci Resolve's main menu bar.

The Media Page

The Media page is the primary interface for clip import, media management, and clip organization in DaVinci Resolve. It's central to the way DaVinci Resolve works that the source media used by a project is organized separately from the project data that you import and manage in the Edit page. In this way, you can manage and update the clips used by timelines in the current project with ease, switching between offline and online media, reorganizing clips, and troubleshooting any problems that occur.



Media page

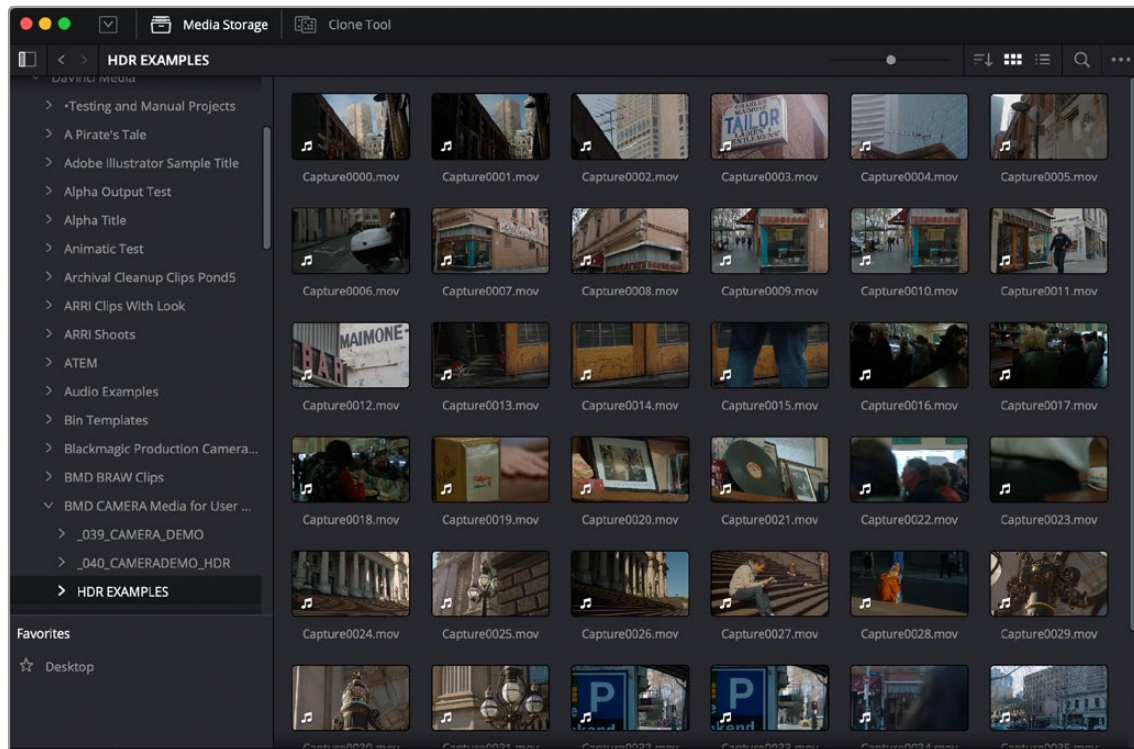
The Media page also contains much of the core functionality that will be used for on-set workflows, and in the ingest, organizational, and sound-syncing steps of digital dailies workflows. This chapter covers most of the functionality found in the Media page, including functions in detail that are referenced throughout this manual.

The Media page is divided into six different areas, designed to make it easy to find, select, and work with media in your project. Much of the functionality and most of the commands are found within the contextual menus that appear when you right-click clips in the Library, File Browser, or Media Pool.

For more information on using the Media page, see *Chapter 17, "Using the Media Page."*

The Media Storage Browser

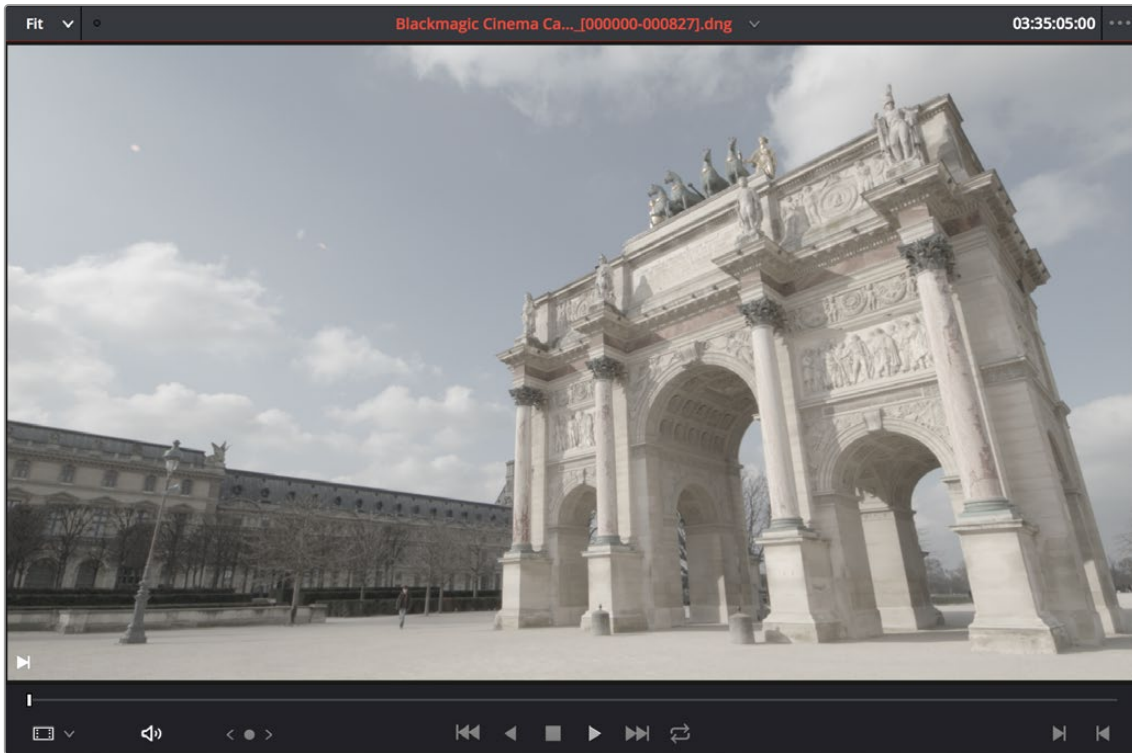
The Media Storage browser shows a list of all volumes that are currently available to your Resolve workstation. It's used to locate media that you want to import manually into your project.



Media Storage with scrubbable Clip view

Viewer

Clips that you select in any area of the Media page show their contents in the Viewer. A jog bar appears at the bottom, letting you drag the playhead directly with the pointer, while a jog control between the mode drop-down and transport controls lets you move through a long clip more slowly. The full width of the jog bar represents the full duration of the clip in the Viewer. The current position of the playhead is shown in the timecode field at the upper right-hand corner of the Viewer. Simple transport controls appear underneath the jog bar, letting you Jump to First Frame, Play/Stop, and Jump to Last Frame. Audio levels can be adjusted by right-clicking on the speaker icon and dragging the slider.



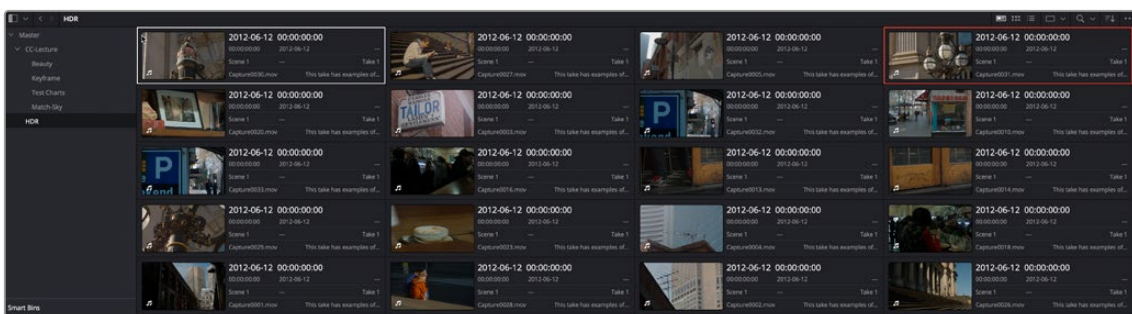
Media page Viewer

You can also put the Viewer into Cinema Viewer mode by choosing **Workspace > Viewer Mode > Cinema Viewer** (Command-F), so that it fills the entire screen. This command toggles Cinema Viewer mode on and off.

If you have two monitors connected to your computer, you can make the Viewer fill one entire screen and keep the Resolve UI in the other monitor by choosing **Workspace > Full Screen Viewer On**, and selecting the display you wish to use for the Viewer.

Media Pool

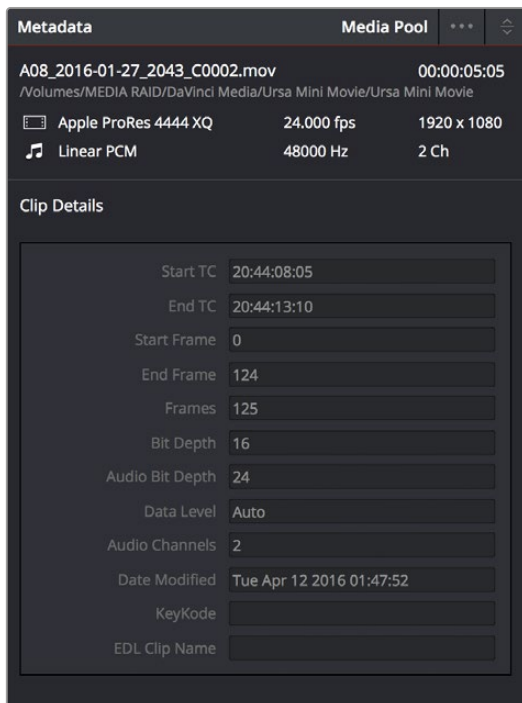
The Media Pool contains all of the video, audio, and still image media that you import into the current project. It also contains any media that's automatically imported along with timelines that have been imported into DaVinci Resolve. Ordinarily, all media imported into a project goes into the Master bin, however the Media Pool can be organized into as many user-definable bins as you like, depending on your needs. Media can be freely moved from one bin to another from within the Media Pool. The Media Pool also appears on the Edit, Fusion, Color, and Fairlight pages, making it possible to browse and open clips and timelines everywhere they're relevant.



Media Pool showing the selected bins' clips

Metadata Editor

When you select a clip in any area of the Media page, its metadata is displayed within the Metadata Editor. If you select multiple clips, only the last clip's information appears. The Metadata Editor's header contains uneditable information about the selected clip, including the file name, directory, duration, frame rate, resolution, and codec. A series of editable fields within the Metadata Editor lets you review and edit the different metadata items that are available. A drop-down menu at the upper right of the Metadata Editor lets you choose from many different sets of metadata fields and checkboxes, each grouped for a specific task or workflow.



Clip Metadata Editor



Audio Meters exposed

Audio Panel

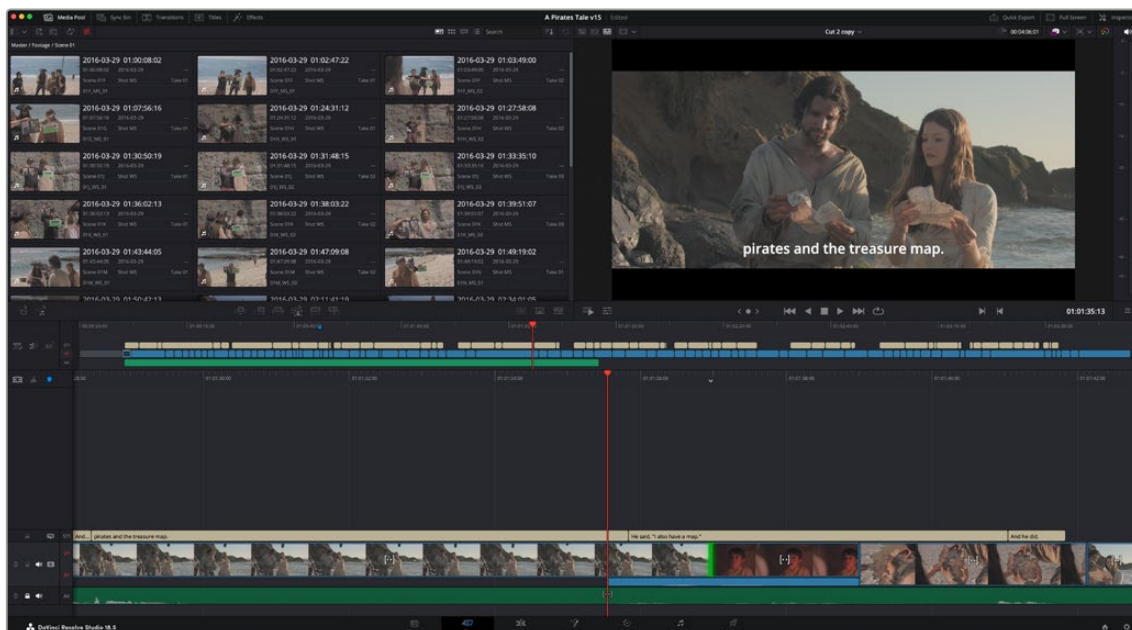
The Audio panel can be put into one of two modes via a pair of buttons above the audio meters. In the default Meters mode, Audio Meters are displayed that show the levels of audio in clips you're playing. In Waveform mode, you can load audio clips side by side with video clips opened in the Viewer in order to sync them together manually. The Audio panel can also be hidden.

The Cut Page

The Cut page is a focused environment for fast editing. It's useful in situations where you need to quickly cut a news segment, build an episode of web content, edit a straightforward program, experiment with multiple arrangements of a scene, or put together a first assembly edit.

The Cut page is also a good introductory editing interface for people who are new to editing, as it presents a streamlined set of tools that are fast to learn and simple to use. Whatever your background, you'll find the Cut page to be a valuable addition to your editing experience in DaVinci Resolve.

The default workspace of the Cut page consists of the Media Pool, a single Viewer, and the Timeline area. These three regions let you quickly import and organize clips, edit clips, and even export the result, all from within the Cut page.



The Cut page default workspace with the Media Pool in Metadata view

For more information on the Cut page, see *Chapter 26, "Using the Cut Page."*

The Media Pool

The Media Pool appears in the Cut page as well, and contains all video clips, audio clips, graphics, and other media that you import into your project. You can create Bins with which to organize all of this media, to make it easier to find what you need quickly. These bins are opened via the bin drop-down at the upper left-hand corner.

Each piece of media you import, whether it's video, audio, or graphics, appears as an individual clip, and they can be selected, scrubbed for fast viewing, reorganized into bins, opened into the Viewer for playback, or edited into a timeline using the edit buttons or via drag and drop.

Owing to the Cut page's mission to make editing faster, the Media Pool has different options for viewing (such as the filmstrip view) and customizing.



The Filmstrip View mode

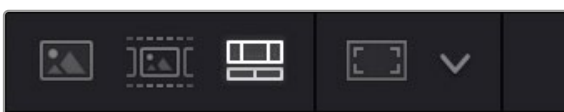
The Viewer

The Viewer lets you see clips from the Media Pool or clips in the Timeline play, and has numerous controls to control what you see and how things play.



The single Viewer in the Cut page

The Viewer has three options. Which option is currently in use can be seen, and switched, by three buttons in the upper lefthand corner of the Viewer.



The Viewer option buttons

Different options are entered automatically by various actions:

- You can double-click any clip to open it into the Viewer as a Source Clip (the left button)
- You can view an entire bin full of clips in the Source Tape (the middle button)
- You can play your edited program in the Timeline (the right button)

Eight controls sit at the bottom of the Viewer. These let you play through and otherwise navigate clips and the Timeline in different ways.

Clicking the Tools button in the lower left of the Viewer reveals an effects toolbar that you can use to add and edit clip effects, right within the Viewer with no Inspector needed. The Tools button reveals a variety of controls over sizing, cropping, audio, speed effects, stabilization, dynamic zoom, and compositing, covered in more detail later in this chapter.



The Tools bar shown opened

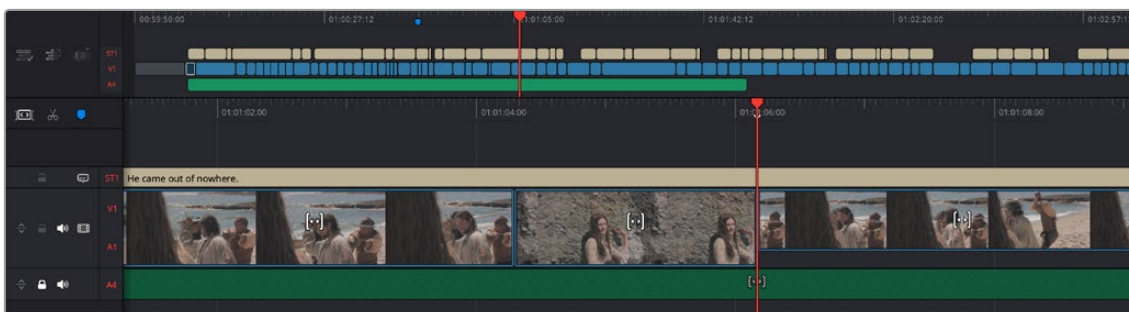
Audio Meter

An audio meter to the right of the Viewer shows you a graphical representation of the audio levels playing in the current clip or in the Timeline as you play through the Viewer, via animated vertical bars that are tinted to indicate how loud the levels are.

The Timeline

The word “timeline” refers both to an edited sequence of clips which constitutes a program that is stored in the Media Pool, and to the area of the Cut page interface where you can open this sequence of clips to see its contents, and for playback and editing.

For the Cut page user, the timeline is divided into an Upper Timeline at the top, and a larger and more detailed Timeline Editor showing a zoomed in portion of the timeline around the playhead at the bottom. Working together, these two views of your edited sequence make it possible to navigate your entire project and cut in great detail.



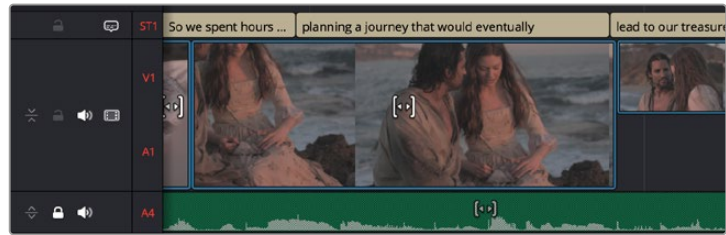
The Timeline of the Cut page, comprising the Upper Timeline and the zoomed in Timeline

Three icons at the upper left-hand corner of the Timeline lets you choose a variety of timeline tasks. They are composed of Timeline Options, Timeline Actions, and Edit Actions.

The Timeline is divided into multiple tracks, with each track capable of holding a sequence of clips in order to create a program. The main tracks, which are labeled numerically, combine a clip's video and audio into a single item in the Timeline, for simplicity. Editing the In or Out point of a clip edits the video and audio together.



The Action Icons in the Cut page

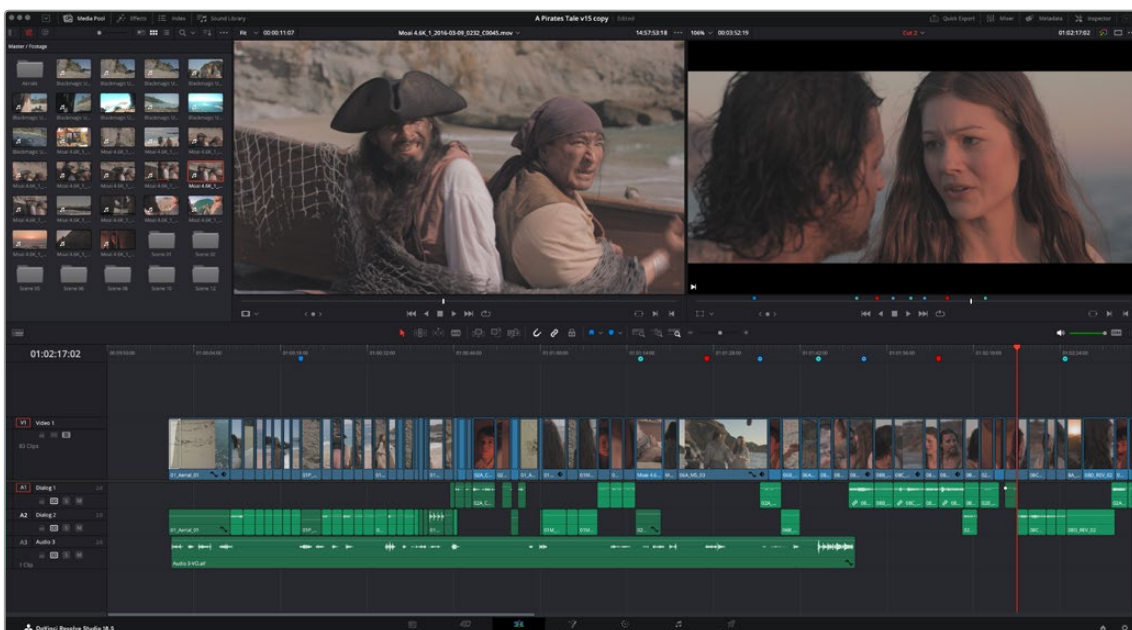


Track 1 shows combined Video+Audio tracks in the Cut page Timeline.

TIP: In the Edit page, Video+Audio clips are presented as separated Video and Audio items on different tracks. When you open the Fairlight page, audio is presented on tracks with lanes, where each audio channel can be seen. In this way, each page gives you different sets of controls over the contents of the timeline that are appropriate for each page.

The Edit Page

The Edit page exposes a source-record style NLE that incorporates many specialized features for both creative editing and finishing. The Edit page is divided into three main regions: the browsers found at the left, the Viewers at the top, and the Timeline at the bottom, all of which work together to let you import, edit, and trim timelines with a flexible variety of tools and methods.



The Edit page

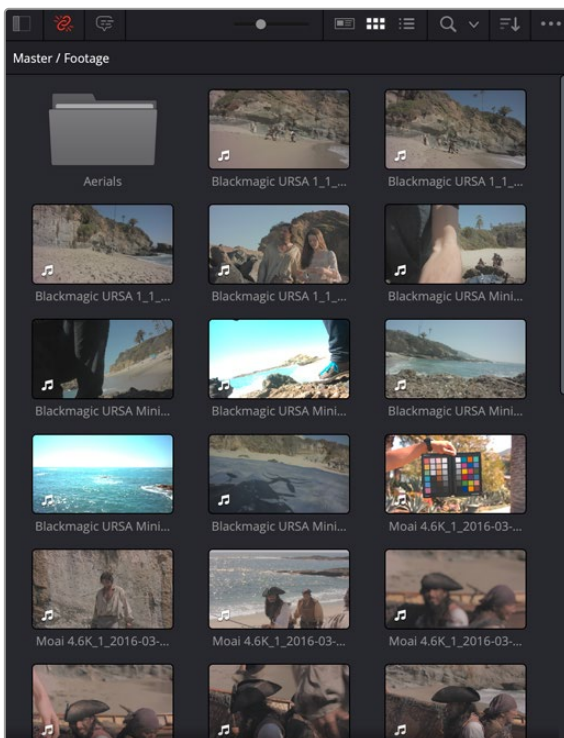
For more information on the Edit page, see *Chapter 33, "Using the Edit Page."*

The Media Pool

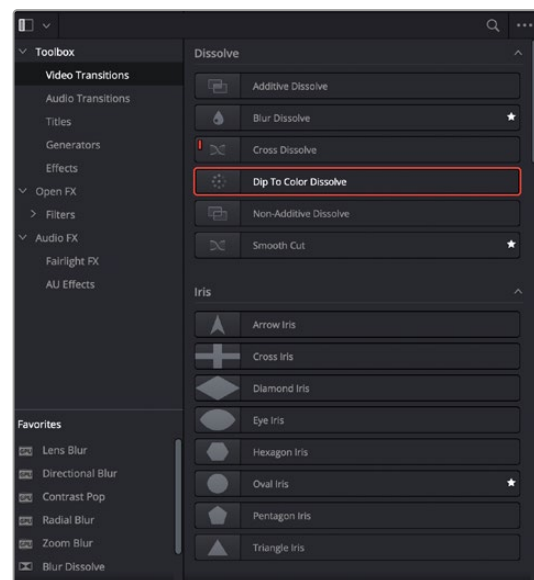
As with everywhere else it appears in DaVinci Resolve, the Media Pool lets you organize and peruse all of the media and timelines in a project. DaVinci Resolve projects may contain one or more edited timelines (sometimes called a sequence in other applications).

The Media Pool in the Edit page is identical to that shown on the Media, Fusion, Color, and Fairlight pages, and shows you all of the source clips and timelines that are available for editing. A Bin list at the left shows a hierarchical list of folders that you can use to organize your media.

By default, the Media Pool has a single bin, named “Master,” but you can add more bins as necessary to organize your clips, opening any of them to expose their contents with a single click. The Bin list can be hidden or shown via the button at the upper-left of the Media Pool. A browser to the right shows the contents of the currently selected bin.



The Media Pool in Thumbnail mode



The Effects Library

Effects Library Browsing

The Effects Library contains a folder with the different Video Transitions, Title Effects, Generators, and Filters that are available for editing in the Timeline. The Effects Library has two panels, a Toolbox panel that contains the default Transitions, Titles, and Generators that Resolve comes with, and an OpenFX panel that contains any OpenFX transitions and generators you might have installed on your system.

Edit Index

Clicking the Index button opens the Edit Index. By default, this shows an EDL-style list view of all the edit events in the current timeline. Whichever timeline is selected in the Timeline list displays its events here; each clip and transition is shown as an individual event, each of which contains multiple columns of information. If you re-edit a timeline, your changes are automatically reflected in this list.

#	Reel	V	C	Dur	Source In	Source Out	Record In	Record Out	Name	Comments
1		V1	C		00:59:45:00	00:59:50:00	00:59:45:00	00:59:50:00	SMPTE Color ...	
2		V1	C		00:59:50:00	00:59:55:00	00:59:50:00	00:59:55:00	Text	
3		V1	C		00:59:55:00	00:59:55:01	00:59:55:00	00:59:55:01	Text	
4		V1	C		00:59:55:01	01:00:00:00	00:59:55:01	01:00:00:00	Solid Color	
5		V1	C		12:36:48:14	12:36:51:07	01:00:00:00	01:00:02:17	BMC test_B1_...	
6		V2	C		01:00:00:00	01:00:04:15	01:00:00:00	01:00:04:15	Text	
7		A1	C		12:36:48:14	12:36:51:07	01:00:00:00	01:00:02:17	BMC test_B1_...	
8		V1	C		11:00:01:20	11:00:03:04	01:00:04:15	01:00:05:23	BMC test_B1_...	
9		A1	C		11:00:01:20	11:00:03:04	01:00:04:15	01:00:05:23	BMC test_B1_...	
10		V1	C		12:05:36:15	12:05:39:11	01:00:05:23	01:00:08:19	BMC test_B2_...	
11		A1	C		12:05:36:15	12:05:39:11	01:00:05:23	01:00:08:19	BMC test_B2_...	
12		V1	C		11:39:48:18	11:39:53:13	01:00:08:19	01:00:13:14	BMC test_B1_...	
13		A1	C		11:39:48:18	11:39:53:13	01:00:08:19	01:00:13:14	BMC test_B1_...	
14		V1	C		12:05:46:15	12:05:51:09	01:00:13:14	01:00:18:08	BMC test_B2_...	
15		A1	C		12:05:46:15	12:05:51:09	01:00:13:14	01:00:18:08	BMC test_B2_...	
16		V1	C		11:40:03:03	11:40:16:12	01:00:18:08	01:00:31:17	BMC test_B1_...	
17		A1	C		12:05:46:15	12:05:51:09	01:00:18:08	01:00:23:02	BMC test_B2_...	
18		A1	C		11:40:07:21	11:40:07:21	01:00:23:02	01:00:23:03	BMC test_B1_...	
19		A1	C		11:40:07:21	11:40:16:11	01:00:23:03	01:00:31:17	BMC test_B1_...	
20		V1	C		01:00:31:17	01:00:35:00	01:00:31:17	01:00:35:00	Text	
21		A5	C		00:00:00:00	00:00:20:06	01:00:31:17	01:00:51:23	Music Cue 01	
22		V1	D	24	01:00:34:00	01:00:35:00	01:00:34:00	01:00:35:00	Cross Dissolve	
23		A4	C		00:00:00:00	00:00:05:17	01:00:34:03	01:00:39:20	AMBI_021-WA...	

Edit Index List shown open

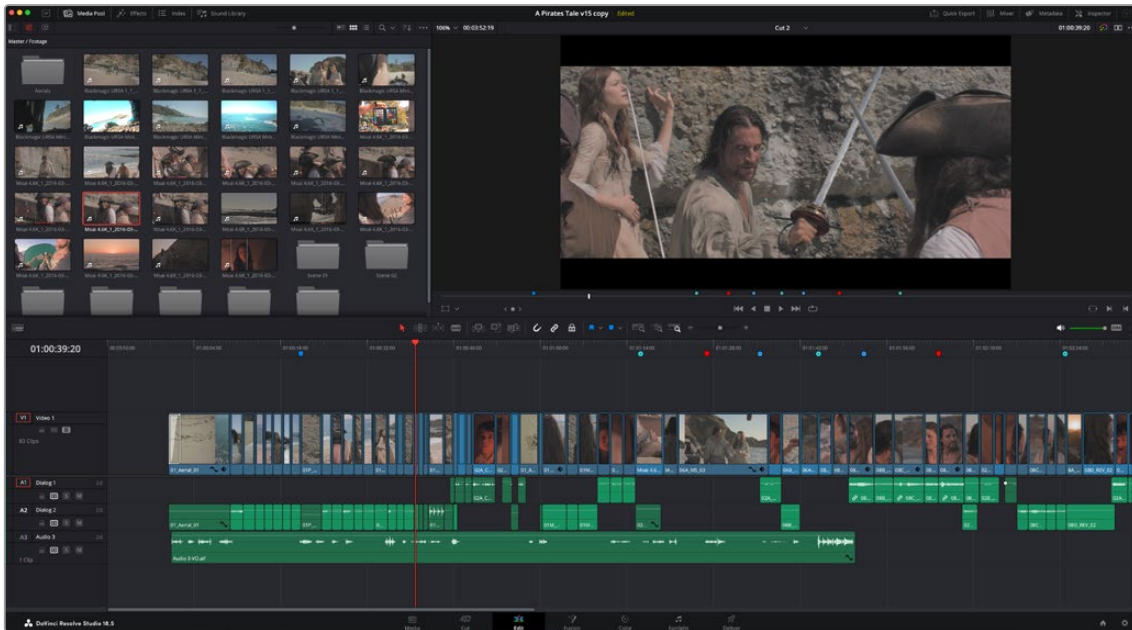
Source/Offline and Timeline Viewers

The Source Viewer lets you view individual clips from the Media Pool to prepare them for editing. Meanwhile, the Timeline Viewer shows the frame at the position of the playhead in the Timeline. You can select either viewer by clicking, and the name of the viewer that currently has focus appears in orange. The color shown in the Source Viewer usually reflects that of the original source media, while the Timeline Viewer shows whatever grading you've done in the Color page.



Source and Timeline Viewers

If you want to change the Edit page layout to hide the Source Viewer, you can choose Workspace > Single Viewer Mode to hide the Source Viewer and instead use just a single viewer to contextually display either a selected Source Clip or the current frame of the Timeline.



Single Viewer mode

In Single Viewer mode, whatever you select in the Media Pool or Timeline determines which controls appear in the Viewer, which lets you do nearly everything you can do with two simultaneously open viewers.

You can also put either the Source or Timeline Viewers into Cinema Viewer mode by choosing Workspace > Viewer Mode > Cinema Viewer (Command-F), causing whichever viewer is currently selected to fill the entire screen. This command toggles Cinema Viewer mode on and off.

Inspector

The Inspector can be opened to let you customize compositing, transform, and cropping parameters for clips, as well as clip-specific retime and scaling options. Furthermore, the Inspector lets you edit the parameters of transitions, titles, and generators used in the Timeline, in order to customize their effect. Ordinarily, the Inspector opens alongside the Source and Timeline Viewers, but on smaller displays, opening the Inspector switches the Edit page to a single-viewer mode, showing you the Timeline item that you're inspecting alongside the Inspector with that clip's parameters.



The Inspector, opened and showing a clip's parameters

Toolbar

Eleven buttons starting from the left, running along the top of the Timeline, let you choose different tools for performing various editing functions.

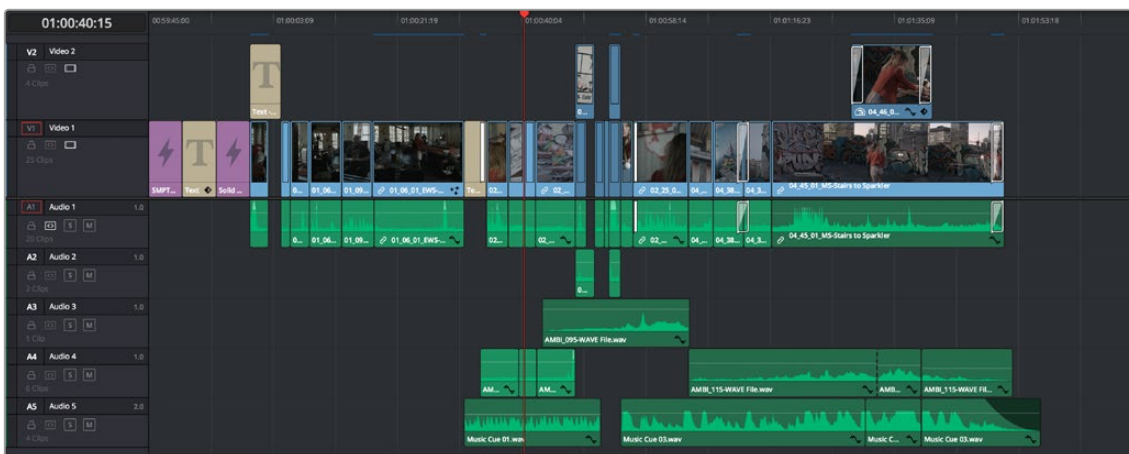


Buttons in the toolbar

Timeline

The Timeline shows whichever timeline you've double-clicked in the Timelines browser. It's the workspace where you either edit programs together from scratch, or import sequences from other applications to work on inside of Resolve. You can only have one Timeline open at a time.

The Timeline is divided into audio and video tracks, each of which has a series of header controls at the left that let you choose destination tracks for editing, name tracks, and turn tracks on and off, among other things. The appearance of the Timeline can be customized using the Timeline View Options drop-down in the toolbar.



An edited timeline

Floating Timecode Window

A timecode window is available from the Workspace menu on every page, including the Edit page. Choosing this option displays a floating timecode window that shows the timecode of the Viewer or Timeline that currently has focus. This window is resizable so you can make the timecode larger or smaller.



A new floating timecode window is available

Motion Graphics and Visual Effects in DaVinci Resolve

To begin with, DaVinci Resolve has a wealth of effects in both the Edit and Color pages for creating titles, transforming and animating clips, compositing and creating transparency effects, cutting mattes, applying filters, image stabilization, lens dewarping, and so on.

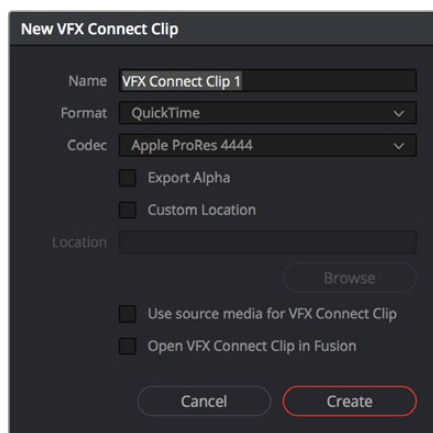
Then of course there's the Fusion page, which adds considerably more powerful VFX and motion graphics capabilities via its node-based interface and deep toolset of effects nodes, keyframing and curve editing controls, and 2D and 3D compositing features.

To use DaVinci Resolve to the best effect, it's prudent to begin to think of the Edit, Fusion, and Color pages as complementary sets of controls.

- For editors, the Fusion and Color pages are really just two giant inspectors; one filled with every compositing tool you could hope to use, and the other filled with every control for color and visual adjustment you could want, each of which are only one click away.
- For compositing artists, the Edit page can be considered a robust shot management interface as well as an opportunity to do VFX work that's deeply integrated with the edit of the program you're working on.
- For colorists, the Edit page is a refined environment for dealing with conform issues and taking care of myriad finishing tasks quickly and easily, that itself is only one click away. For more information on the effects that are available in DaVinci Resolve, see the chapters available within Part 6, "Editing Effects and Transitions," and Part 11, "Color Page Effects."

VFX Connect

As robust as the built-in compositing capabilities of DaVinci Resolve now are, when you run into instances where the various capabilities found in the Edit, Fusion, and Color pages aren't enough to achieve the effect you require, you can use the VFX Connect features of DaVinci Resolve to send one or more clips from the Edit page Timeline to Blackmagic Fusion, the powerful node-based compositing application from Blackmagic Design, in order to do more robust compositing and effects work there. Furthermore, the VFX Connect feature can also be used to round-trip media to and render results from third-party applications such as The Foundry's Nuke, Autodesk Flame, or Blender.



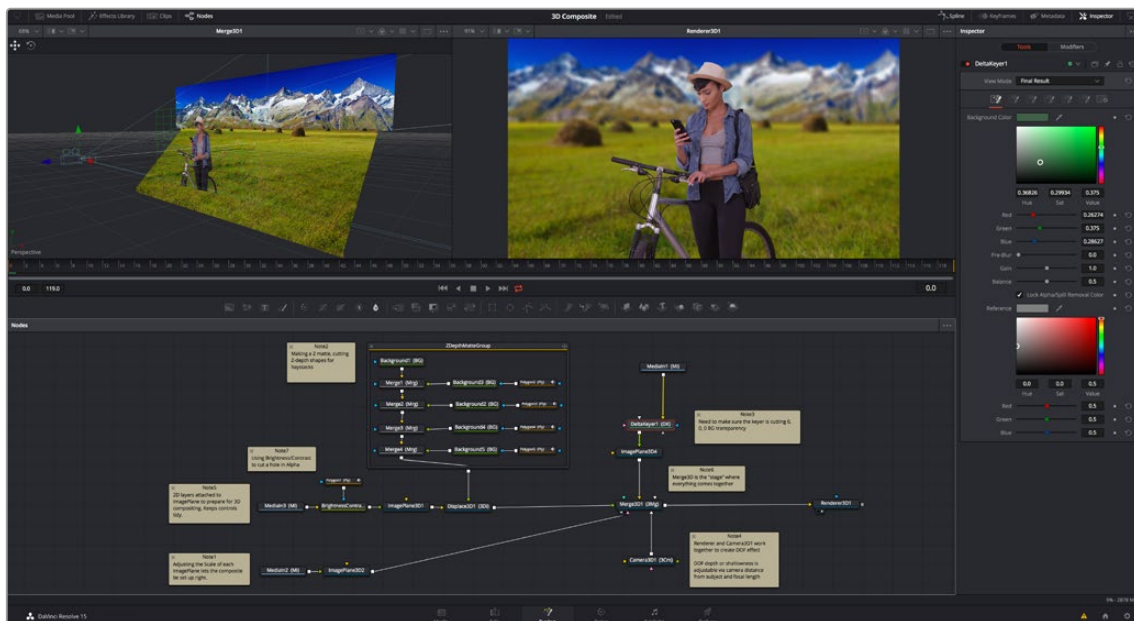
The New VFX Connect Clip dialo

This is a simple round-trip operation that lets you send clips from the DaVinci Resolve timeline to Fusion or another application, where you'll add effects and do whatever work needs to be done before rendering a finished effect file that, if properly named, will automatically appear back in your timeline. When you use VFX Connect with Blackmagic Fusion, a project file is automatically generated and the render path is automatically named for automatic linking from the DaVinci Resolve timeline. If you use this feature with third-party applications, you'll need to set up the naming of your rendered effect file manually. For more information, see *Chapter 63, "Introduction to Compositing in Fusion."*

The Fusion Page

The Fusion page is intended, eventually, to be a feature-complete integration of Blackmagic Design Fusion, a powerful 2D and 3D compositing application with over thirty years of evolution serving the film and broadcast industry, creating effects that have been seen in countless films and television series.

Merged right into DaVinci Resolve with a newly updated user interface, the Fusion page makes it possible to jump immediately from editing right into compositing, with no need to export media, relink files, or launch another application to get your work done. Everything you need now lives right inside DaVinci Resolve.



The Fusion page showing Viewers, the Node Editor, and the Inspector

For more information on using the Fusion page, see *Chapter 63, "Introduction to Compositing in Fusion."*

The Work Area

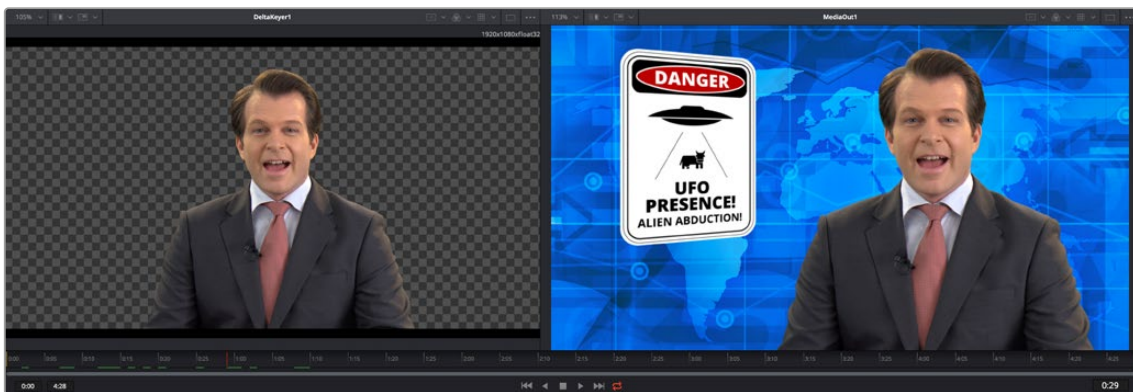
You'll probably not see this term used much, in favor of the specific panels within the work area that you'll be using, but the area referred to as the Work Area is the region at the bottom half of the Fusion page UI, within which you can expose the three main panels used to construct compositions and edit animations in the Fusion page. These are the Node Editor, the Spline Editor, and the Keyframes Editor. By default, the Node Editor is the first thing you'll see, and the main area you'll be working within, but it can sit side-by-side with the Spline Editor and Keyframes Editor as necessary, and you can make more horizontal room on your display for these three panels by putting the Effects Library and Inspector into half-height mode, if necessary.



The Work Area showing the Node Editor, the Spline Editor, and Keyframes Editor

Viewers

The Viewer Area area encompasses the Time Ruler and transport controls. The Time Ruler is the principal "timeline" of the Fusion page, which focuses exclusively on the current composition you're working on and may consist of one clip or several. This area can be set to display either one or two viewers at the top of the Fusion page, chosen via the Viewer button at the far right of the Viewer title bar. Each viewer can show a single node's output from anywhere in the node tree. You assign which node is displayed in which viewer. This makes it easy to load separate nodes into each viewer for comparison. For example, you can load a Keyer node into the left Viewer and the final composite into the right Viewer, so you can see the image you're adjusting and the final result at the same time.



Dual viewers let you edit an upstream node in one while seeing its effect on the overall composition in the other

Ordinarily, each viewer shows 2D nodes from your composition as a single image. However, when you're viewing a 3D node, you have the option to set that viewer to one of several 3D views, including a perspective view that gives you a repositionable stage on which to arrange the elements of the world you're creating, or a quad view that lets you see your composition from four angles, making it easier to arrange and edit objects and layers within the XYZ axes of the 3D space in which you're working.

Toolbar

The toolbar, located underneath the Time Ruler, contains buttons that let you quickly add commonly used nodes to the Node Editor. Clicking any of these buttons adds that node after the currently selected node in the node tree, or adds an unconnected instance of that node if no nodes are selected.

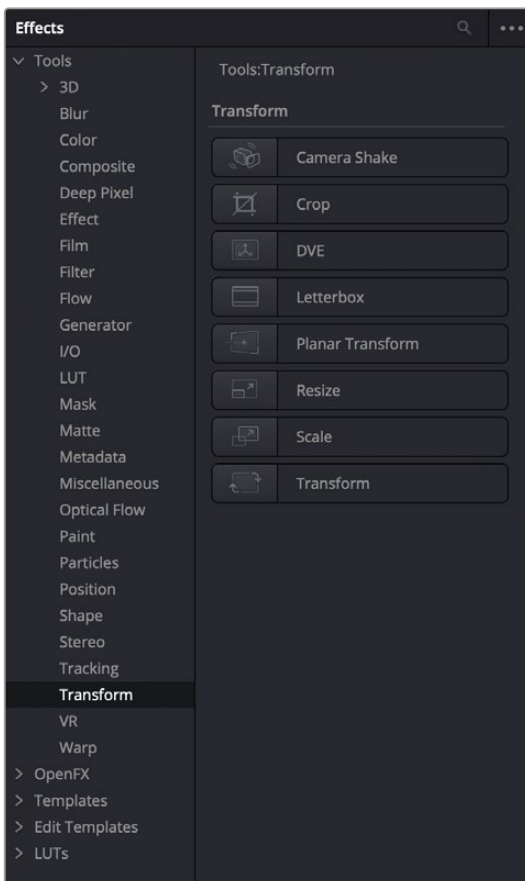
The toolbar is divided into six sections that group commonly used nodes together. As you hover the pointer over any button, a tooltip shows you that node's name.



The toolbar has buttons for adding commonly used nodes to the Node Editor

Effects Library

The Effects Library on the Fusion page shows all of the nodes and effects that are available in the Fusion page, including effects that come with DaVinci Resolve and third-party OFX, if available. While the toolbar shows many of the most common nodes you'll be using in any composite, the Effects Library contains every single tool available in the Fusion page, organized by category, with each node ready to be quickly added to the Node Editor. Suffice it to say there are many, many more nodes available in the Effects Library than on the toolbar, spanning a wide range of uses.

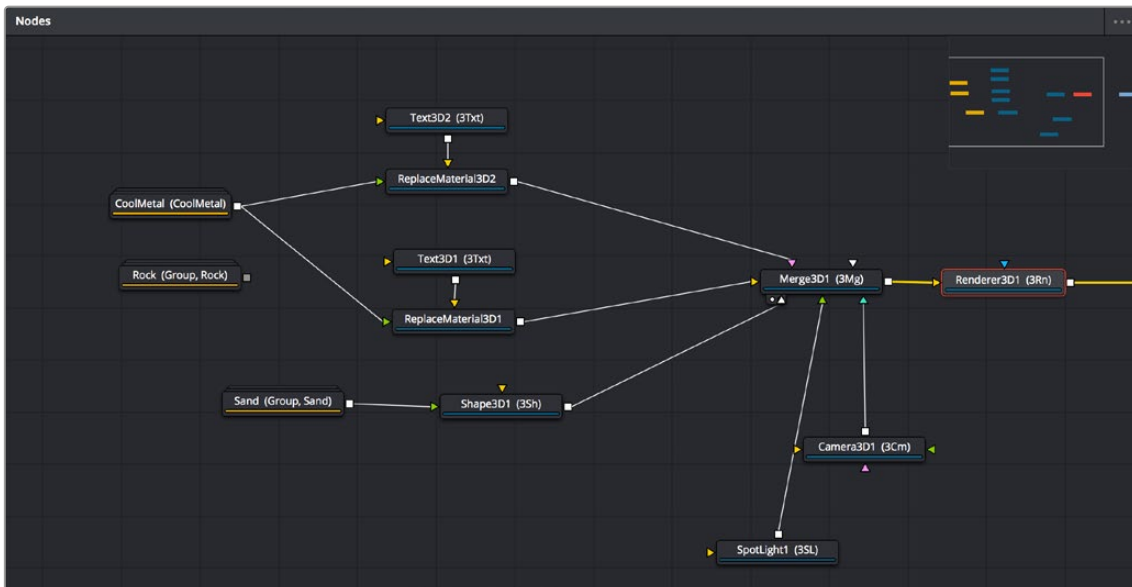


The Effects Library with Tools open

Node Editor

The Node Editor is the heart of the Fusion page, because it's where you build the tree of nodes that makes up each composition. Each node you add to the node tree adds a specific operation that creates one effect, whether it's blurring the image, adjusting color, painting strokes, drawing and adding a mask, extracting a key, creating text, or compositing two images into one.

You can think of each node as a layer in an effects stack, except that you have the freedom to route image data in any direction to branch and merge different segments of your composite in completely nonlinear ways. This makes it easy to build complex effects, but it also makes it easy to see what's happening, since the node tree doubles as a flowchart that clearly shows you everything that's happening, once you learn to read it.



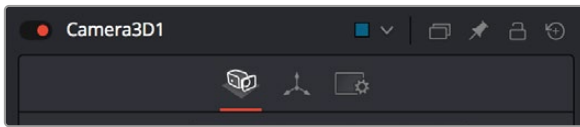
The Node Editor displaying a node tree creating a composition

Inspector

The Inspector is a panel on the right side of the Fusion page that you use to display and manipulate the parameters of one or more selected nodes. When a node is selected in the Node Editor, its parameters and settings appear in the Inspector, ready for you to modify. The Fusion Inspector is divided into two panels. The Tools panel shows you the parameters of selected nodes.

The Modifiers panel shows you different things for different nodes. For all nodes, it shows you the controls for Modifiers, or adjustable expressions, that you've added to specific parameters to automatically animate them in different ways.

Additionally, many nodes expose multiple tabs' worth of controls in the Inspector, seen as icons at the top of the parameter section for each node. Click any tab to expose that set of controls.



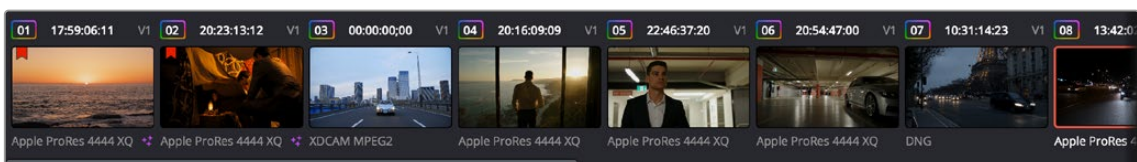
Nodes with several tabs worth of parameters



The Inspector shows parameters from one or more selected nodes

Thumbnail Timeline

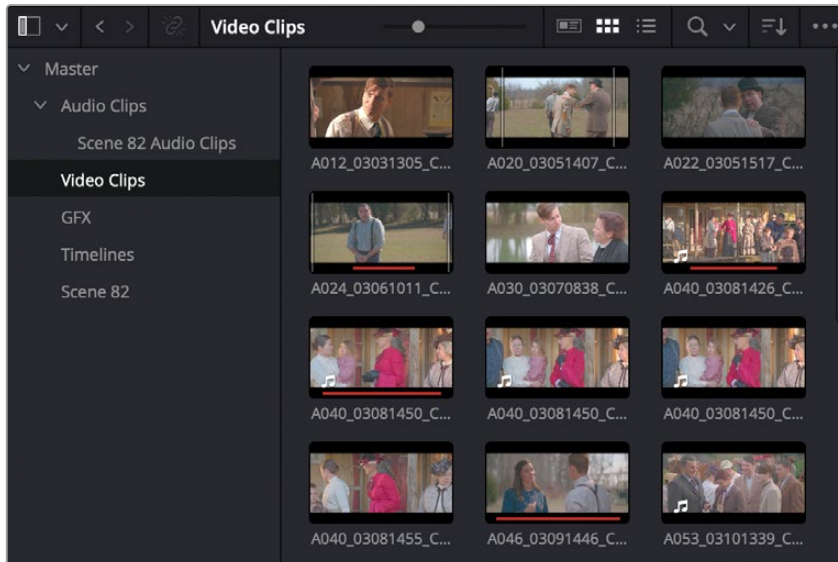
Hidden by default, the Thumbnail timeline can be opened by clicking the Clips button in the UI Toolbar and appears underneath the Node Editor when it's open. The Thumbnail timeline shows you every clip in the current Timeline, giving you a way to navigate from one clip to another when working on multiple compositions in your project and providing an interface for creating and switching among multiple versions of compositions and resetting the current composition, when necessary.



The Thumbnail timeline lets you navigate the Timeline and manage versions of compositions

Media Pool

In the Fusion page, the Media Pool continues to serve its purpose as the repository of all media you've imported into your project. This makes it easy to add additional clips to your compositions simply by dragging the clip you want from the Media Pool into the Node Editor. The media you add appears as a new MediaIn node in your composition, ready to be integrated into your node tree however you need.

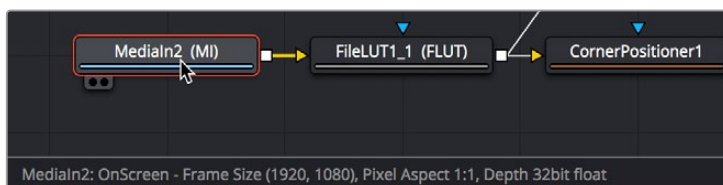


The Media Pool in Thumbnail mode showing video clips

Status Bar

The status bar at the bottom of the Fusion page, immediately above the Resolve Page bar, shows you a variety of up-to-date information about things you're selecting and what's happening in the Fusion page.

For example, hovering the pointer over any node displays information about that node in the status bar (as well as in a floating tooltip), while the currently achieved frame rate appears whenever you initiate playback, and the percentage of the RAM cache that's used appears at all times. Other information, updates, and warnings appears in this area as you work.

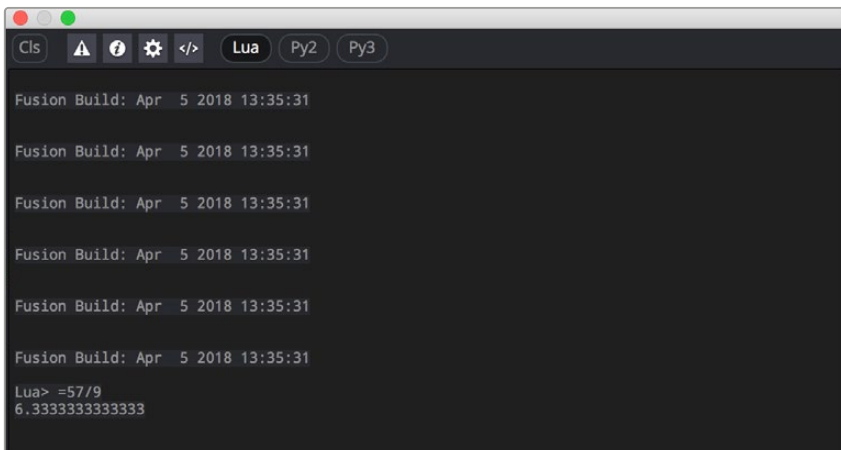


The status bar under the Node Editor showing you information about a node under the pointer

The Console

The console, available by choosing Workspace > Console, is a window in which you can see the error, log, script, and input messages that may explain something the Fusion page is trying to do in greater detail. The console is also where you can read FusionScript outputs or input FusionScripts directly.

Occasionally, the status bar (described above) will display a badge to let you know there's a message in the console you might be interested in. The badge will indicate if the message is an error, log, or script message.



The Console window

The Color Page

The Color page is where you color correct, or grade, your program. It has all of the controls available for manipulating color and contrast, reducing noise, creating limited secondary color corrections, building image effects of different kinds, adjusting clip geometry, and making many other corrective and stylistic adjustments. The Color page is divided into seven main areas that work together to let you build a grade.

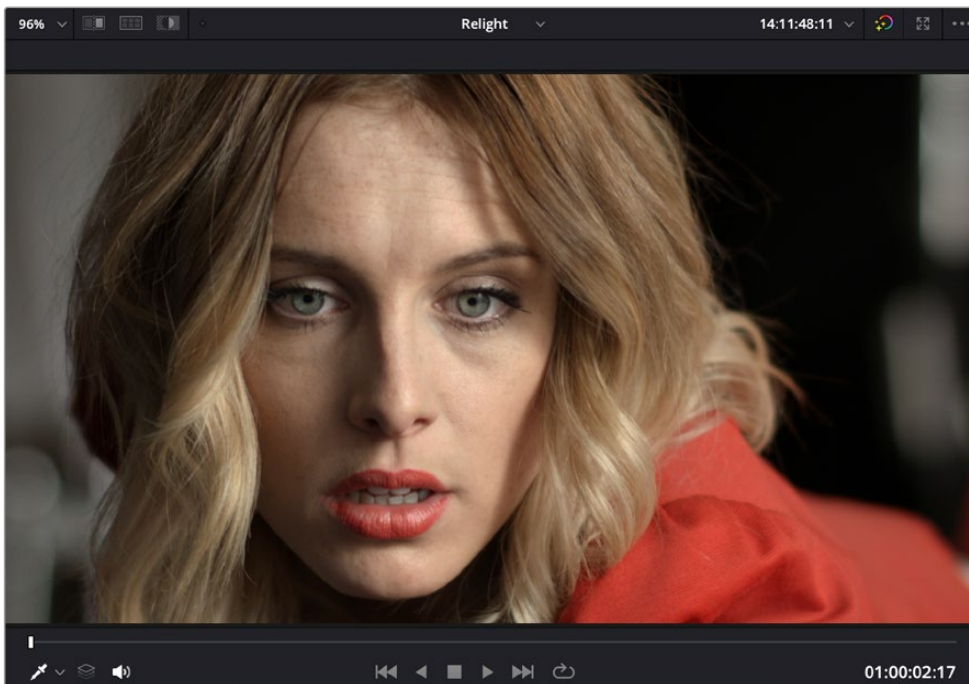


The Color page

For more detailed information about the Color page, see *Chapter 124, "Using the Color Page."*

Viewer

The Viewer shows the frame at the current position of the playhead in the Timeline. The contents of the Viewer are almost always output to video via whichever I/O interface you have connected. At the top of the Viewer is a header that displays the Project and Timeline names, as well as a Viewer Timecode display that shows the source timecode of each clip by default. The Timeline name is also a drop-down display that lets you switch to any other timeline in the project. A jog bar (sometimes referred to as a scrubber bar) underneath the image lets you drag the playhead across the entire duration of the clip, while transport controls underneath that let you control playback. A toolbar at the top provides controls governing Image Wipes, Split-Screen controls, and Highlight display. Additional controls let you turn audio playback on and off, or adjust them by right-clicking on the speaker icon and dragging the slider. You can also choose which onscreen controls are currently displayed.



Viewer with transport controls

You can also put the Viewer into Cinema Viewer mode by choosing **Workspace > Viewer Mode > Cinema Viewer (Command-F)**, so that it fills the entire screen. This command toggles Cinema Viewer mode on and off. Two other modes, **Enhanced Viewer (Option-F)** and **Full Screen Viewer (Shift-F)**, are available to provide more working area for tasks such as window positioning and rotoscoping.

Gallery

The Gallery is used for storing still frames to use as reference when comparing clips to one another. Each still frame also stores that clip's grade so you can copy it later; stills and grades are stored together. A button lets you open up the Album browser, used for organizing your stills. At the top of the Gallery, Memories let you store grade information that you can apply using a control panel or keyboard shortcuts. You can also open a larger Gallery window within the Color page that provides more room for organizing your saved stills and grades. For more information on the Gallery page, see *Chapter 138, "Using the Gallery."*

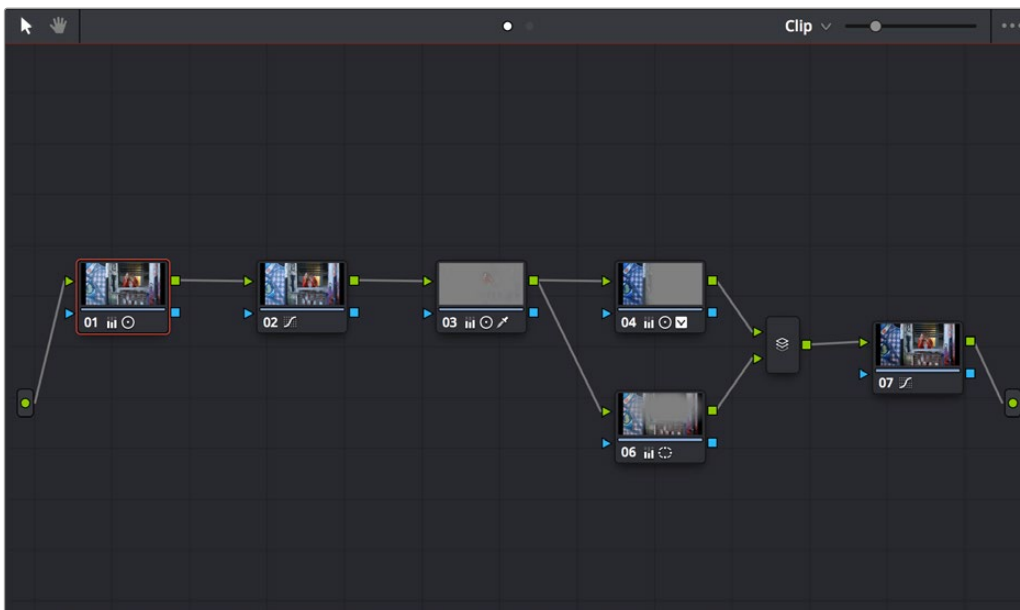


The Gallery has Memories, stills saved in albums, and your PowerGrades

Node Editor

The Node Editor is where you assemble one or more individual corrections (nodes) together to create multi-correction grades (seen as node trees). This is a powerful way of assembling grades, since different combinations of nodes let you create different corrections and very specific adjustments by reordering operations, combining keys, or changing the layer order of different adjustments.

For more information about the Node Editor, see *Chapter 140, "Node Editing Basics."*

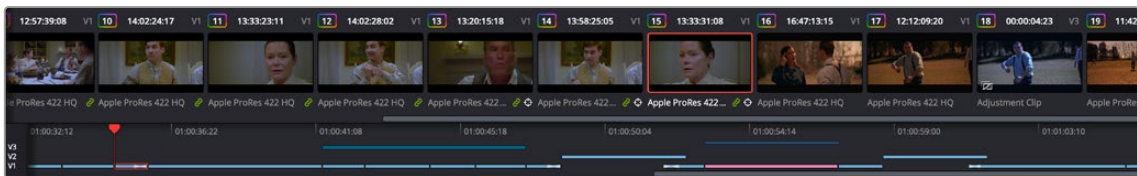


Node Editor to construct your grade processing signal flow

Timeline

The Timeline in the Color page reflects the contents of the Timeline in the Edit page, but has a different appearance that's tailored to the requirements of the colorist. However, the content is identical, and changes made to the Timeline in the Edit page are immediately seen in the Color page as you switch back and forth. The Color page Timeline provides several ways of navigating the clips in your project, as well as keeping track of what has been done to which clips.

The Timeline is divided into three parts, each of which shows different information and provides differing controls. A Timeline Ruler at the top lets you scrub the playhead across multiple clips, and can be zoomed out enough to show every clip in your entire program. Underneath, the Mini-Timeline (which can be opened or closed via a button at the right of the palette bar) shows a small representation of the Timeline in the Edit page wherein each clip is as long as its actual duration. At the bottom of the Timeline is the Thumbnail timeline, in which each clip is represented by a single frame. The currently selected clip is outlined in orange, and information appears above and below each thumbnail such as each clip's source timecode, clip number and track number, version name, whether it's been graded, whether it's been tracked, if it's been flagged, and so on.

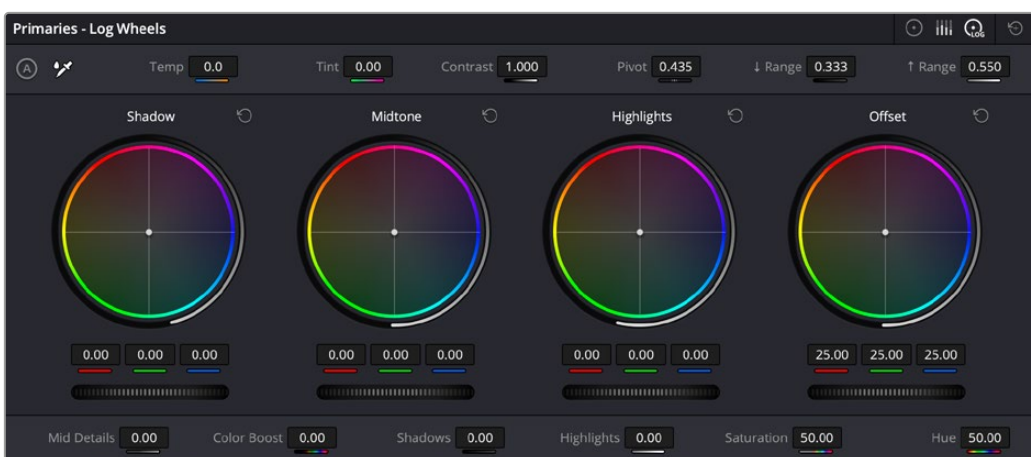


The Color page Timeline

Left Palettes

A series of palettes at the bottom left of the Color page provide access to different sets of grading tools, used principally for manipulating color, contrast, and raw media format settings. Each individual palette is opened by clicking the corresponding icon at the top of the Palette panel.

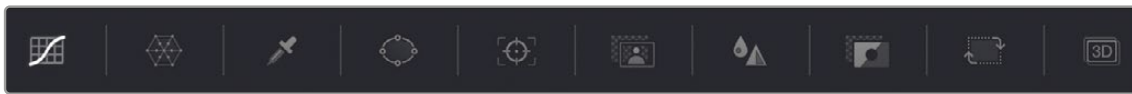
The available palettes are the Camera Raw palette (for making metadata adjustments to raw media formats), the Color Match palette (for creating automatic grades by sampling on-camera color charts), the Color Wheels (graphical color balance controls and master wheels or sliders for adjusting YRGB Lift/Gamma/Gain), HDR Grade for enhanced High Dynamic Range grading, the RGB Mixer (for mixing color channels into one another), and the Motion Effects palette (with controls for noise reduction and artificial motion blur).



Left palette selection buttons in the top bar

Center Palettes

At 1920x1080 resolution or higher, a second set of palettes is organized at the bottom center of the Color page. These palettes span a wide range of functionality, and the adjustments you make with them can be combined with those made using the Color palettes.



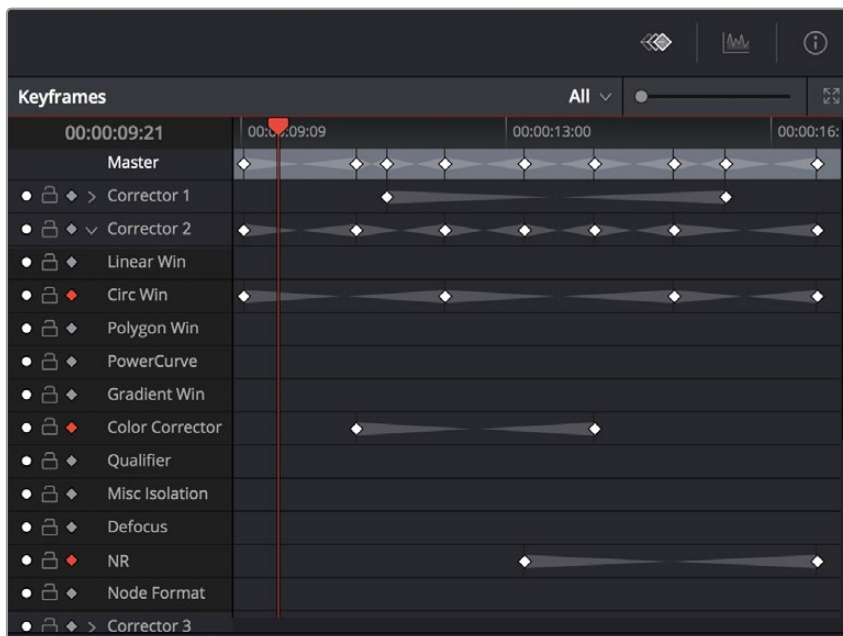
Center palette selection buttons

NOTE: At lower resolutions, the Left and Center palettes are merged to fit the DaVinci Resolve interface into a smaller area.

The eight available Center palettes include the Curves palette, the Color Warper palette, the Qualifiers palette, the Windows palette, the Tracker palette, the Magic Mask palette, the Blur palette, the Key palette, the Sizing palette, and the Stereoscopic 3D palette.

Keyframe Editor

The Keyframe Editor provides an interface for animating Color, Sizing, and Stereo Format adjustments over time. Each node in the Node Editor corresponds to a track in the Keyframe Editor, which lets you animate each node's adjustments independently.

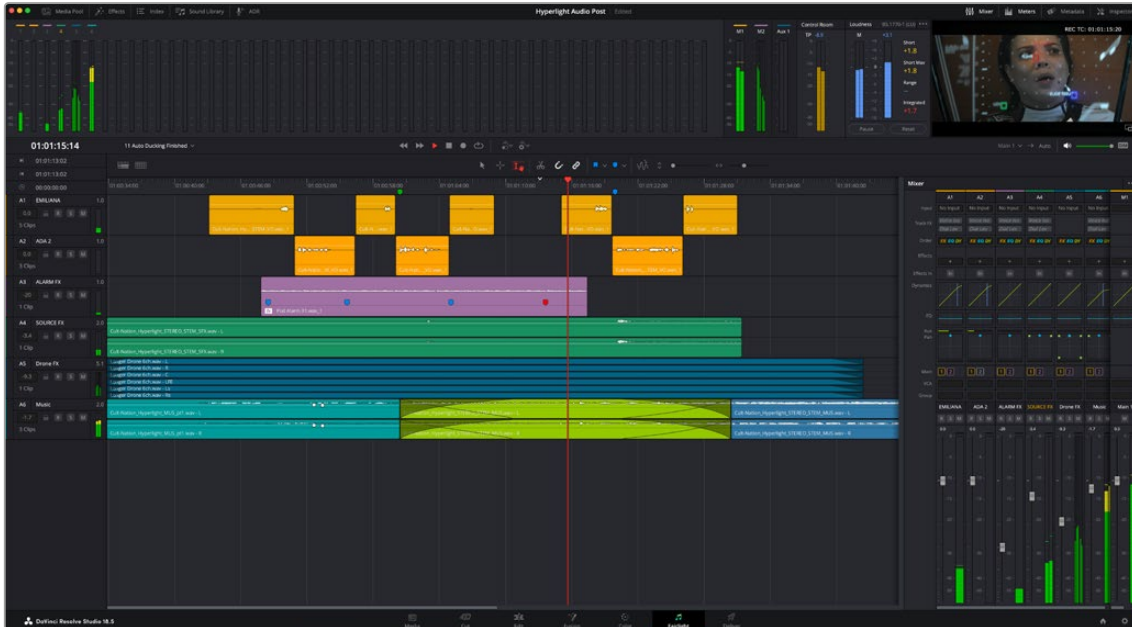


Keyframe Editor displaying dynamic grade changes

Furthermore, each node's track can be opened up to reveal parameter groups, so that you can animate subsets of an individual node's functions independently of other functions within the same node.

The Fairlight Page

In single monitor mode, the Fairlight page is an optimized look at the audio tracks of your project, with an expanded mixer and custom monitoring controls that make it easy to evaluate and adjust the levels of your program in order to create a smooth and harmonious mix.



Fairlight page

About Audio Monitoring and Audio Input

The audio processing throughout DaVinci Resolve, including on the Fairlight page and audio processing using Fairlight FX plugins, is equally compatible with all platforms that DaVinci Resolve runs on, including macOS, Windows, and Linux.

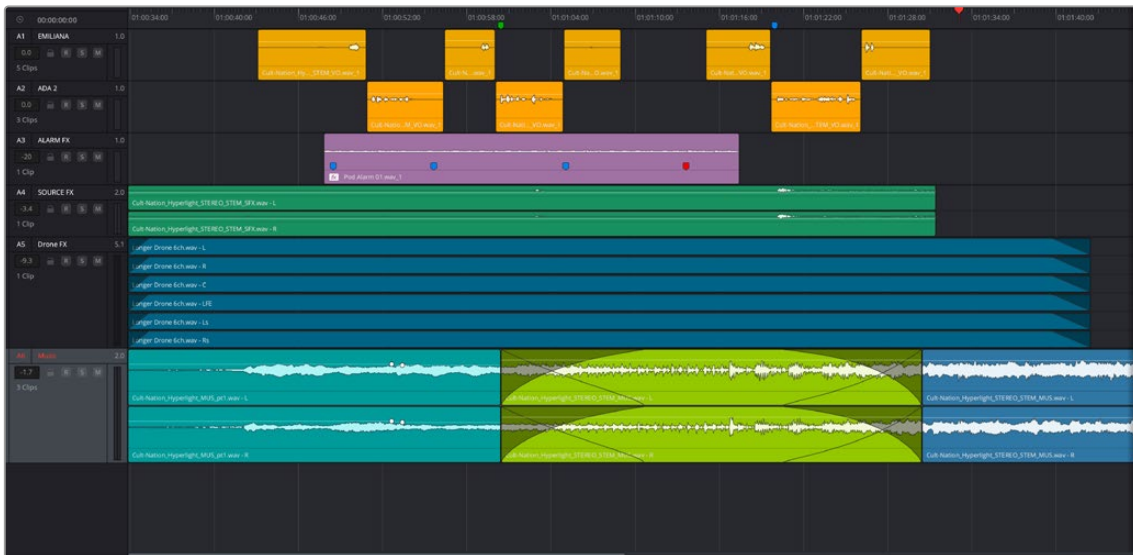
DaVinci Resolve supports audio monitoring using:

- a) The audio of a supported Blackmagic Design I/O device such as an UltraStudio or Decklink.
- b) Your macOS, Windows, or Linux workstation's on-board audio.
- c) Any Core Audio compatible, Windows compatible, or Advanced Linux Sound Architecture (ALSA)-supported third-party audio interface.
- d) The Fairlight Audio Accelerator, MADI Upgrade, and Fairlight Audio Interface.

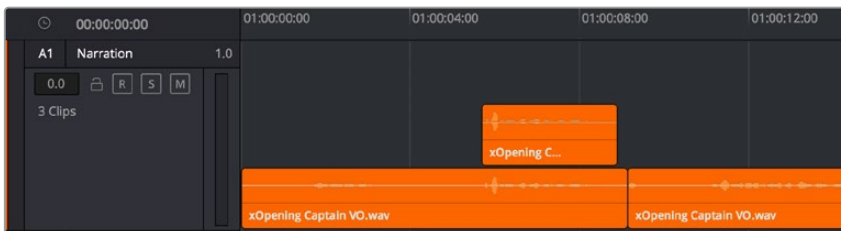
DaVinci Resolve supports audio input using the embedded audio on an incoming SDI video feed when capturing incoming A/V source, via system audio and also via the Fairlight Audio Accelerator, MADI Upgrade, and Fairlight Audio Interface.

The Audio Timeline

The heart of the Fairlight page, the Audio Timeline presents the audio channels and tracks of the currently selected timeline differently than the Edit page does, in a one-channel-per-track format that's optimized for audio mixing and sweetening. The Audio page Timeline cannot be closed.



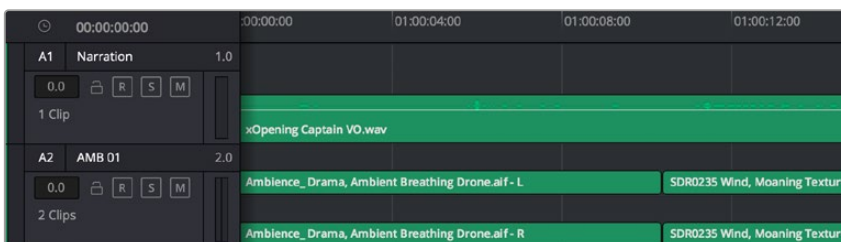
The Audio Timeline



Audio layering in a mono audio track

The Fairlight page of DaVinci Resolve supports multiple audio tracks, and each audio track may contain multiple lanes. The clips edited into the Timeline appear within each track, with the recorded channels within each clip occupying as many lanes as that clip has available. At the left of each track is a header area that contains a number of controls.

The Fairlight page differs in another unique respect from the Edit page Timeline, in that it supports audio layering. Audio layering is a special audio editing mode that lets you superimpose multiple audio clips in the same track, and whatever audio clip is on top dictates which audio will play. In a way, when audio layering is enabled, superimposed audio clips are treated the same as superimposed video clips that all have opacity set to 100%, with clips on top obscuring (or muting) clips underneath.



Turning on Track Layers opens up space to edit more audio into each track

Audio layering is incredibly useful for any situation where you're combining pieces of multiple takes together to create a single VO, audio vocal track, or dramatic performance, as you can choose which pieces to prioritize via their superimposed position in the track, while you're preserving the other takes underneath in case you want them later.

TIP: Track Layering can be used on the Edit page as well.

Toolbar

The toolbar has buttons that let you choose modes of audio-specific functionality and other buttons that let you execute commands, such as placing markers and flags.



Buttons in the Fairlight page toolbar

Mixer



The Audio Mixer provides a set of graphical controls you can use to assign track channels to output channels, adjust EQ and Dynamics, set levels and record automation, pan stereo and surround audio, and mute and solo tracks, all while you continue to edit.

The Audio Mixer exposes a set of channel strips with controls that correspond to the tracks in the Timeline, one for each track, plus a Master strip corresponding to the Master audio track in the Timeline, that lets you choose the number of audio channels to output, and also lets you adjust the overall level of the mix.

The Audio Mixer, with channel strips corresponding to the tracks in the Timeline

Dedicated Channel Strip Controls

The Mixer also has a series of dedicated channel strip controls that add powerful mastering capabilities to DaVinci Resolve. These include:

- **EQ:** Double-clicking exposes a four-band parametric equalizer with additional Hi and Lo Pass filters, that has both graphical and numeric controls for tuning the frequencies of the audio on each track. You can select from among four types of EQ filtering from the Equalizer Type drop-down menu, with options for Earth (the default), Air, Ice, and Fire. Each band has controls for the filter type (Bell, Lo-Shelf, Hi-Shelf, Notch), Frequency, Gain, and Q-factor (sharpness of the band).



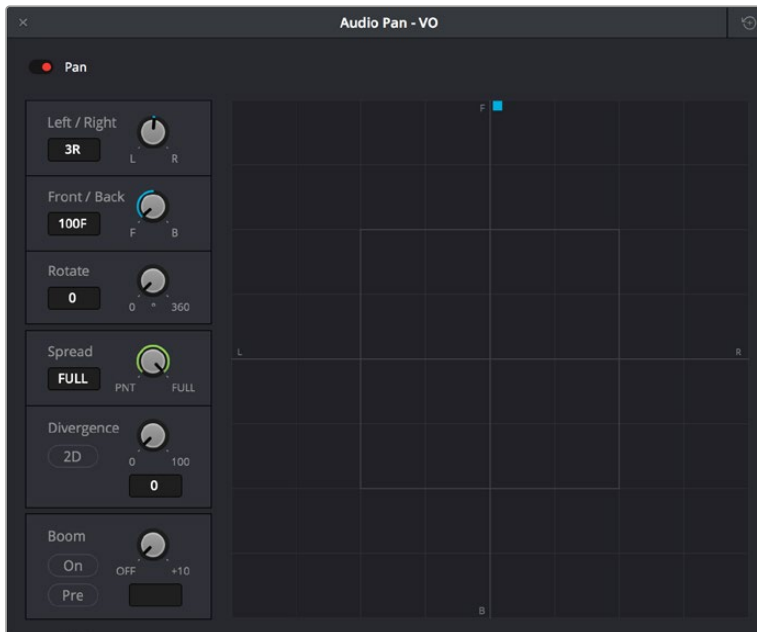
The channel strip EQ window

- **Dynamics:** Double-clicking exposes a set of dynamics controls with compressor, limiter, and expander or gate sections. The Equalizer button at the upper left-hand corner lets you turn all EQ on and off. The first section can be switched between working as an Expander or a Gate, with attendant Threshold/Range/Ratio and Attack/Hold/Release controls. The second section provides Compressor controls, while the third section provides Limiter controls. These controls may be used either singly or in concert to manage the dynamics of the audio on that track.



The channel strip Dynamics control window

- **Pan:** A pan control compatible with stereo and surround panning. You can drag within this control to adjust pan, or you can double-click to expose a Pan window. What controls are available in the Pan window depend on the mapping of the audio track, but both stereo and surround panning controls are available, with corresponding numeric controls.



The Pan control window

The Monitoring Panel

The Monitoring panel shows all of the audio meters corresponding to the tracks in the Timeline, as well as the Master Output meter, Control Room meters, and a video viewer.



The Monitoring panel

At left, a row of audio meters corresponds to the channel strips of the Mixer, one meter for every audio track in the Timeline. To the right of these, all buses appear, showing you meters for the Mains and Subs (submixes) you're using to mix down your show. Farther to the right of these, a set of Control Room meters show you the monitored output and loudness meters for a precise analysis of your mix's perceived loudness.

Finally, a small viewer to the right of the Monitoring panel shows the frame of video at the position of the playhead. This viewer can be undocked via a button at the lower right-hand corner.

Floating Timecode Window

A timecode window is available from the Workspace menu on every page, including the Fairlight page. Choosing this option displays a floating timecode window that shows the timecode of the Viewer or Timeline that currently has focus. This window is resizable so you can make the timecode larger or smaller.



A new floating timecode window is available

The Deliver Page

Once you've finished grading your project, you need to either render it, or output it to tape to deliver it to your client. This is where the Deliver page comes in. The Deliver page can be used both to output digital deliverables, or to output tape, depending on which mode you enable. Either way, the Deliver page is divided into five areas of functionality, each of which lets you set up a different part of a render or output to tape.

The Deliver page is set up to let you queue a series of individual jobs, each of which can have different settings, or be set up to render different parts of the Timeline. In this way, you can output multiple deliverables, or re-render multiple areas of a timeline, as your needs require.



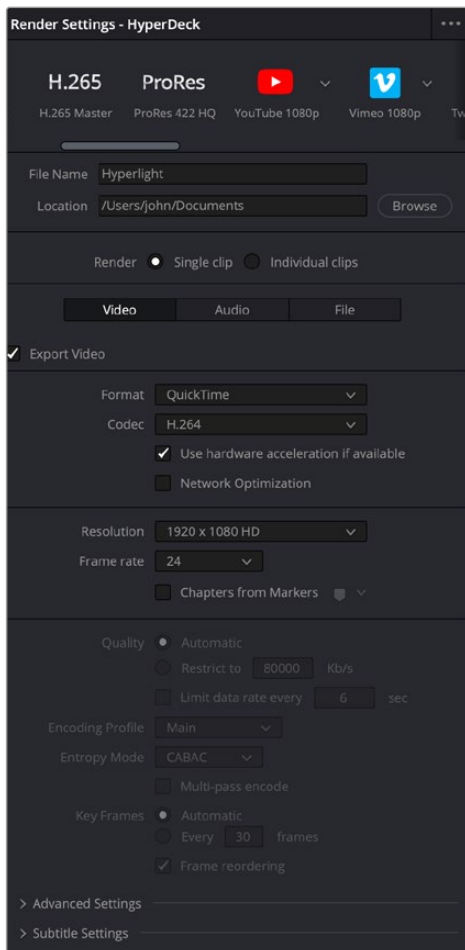
The Deliver page

For more information about using the Deliver page, see *Chapter 186, "Using the Deliver Page."*

The Render Settings List

The Render Settings list contains the customizable settings that affect how media is rendered out of DaVinci Resolve.

These settings are covered in more detail later in “Output Scaling.” The Render Settings you can choose from for outputting from DaVinci Resolve appear in three panels, separating the Video, Audio, and File information-based settings in a logical fashion. By default, this list shows only the most important criteria necessary for defining a render. However, additional controls can be exposed by clicking the “Advanced settings” disclosure triangle at the bottom of each group of settings.



Render settings

The Deliver Page Timeline

The Timeline mirrors the Timeline seen in the Color page. You can use the Timeline in the Deliver page to turn off tracks with clips you don't want to include in the operation, define the range of clips you want to render or output to tape, and to choose which versions for each clip you want to output. You also have the option of switching the Deliver page Timeline to look like the Color page Timeline instead, if that's what you're more comfortable with.

The Deliver page Timeline also has the Timeline Filter drop-down at the right-hand side of the toolbar. Using this drop-down to filter the contents of the Timeline lets you restrict the range of media you want to output in different ways. For example, if you've already rendered a timeline, but you've since made some changes, you can use the “Show Modified Clips” option to display only the clips that have

changed within a particular timeframe. Another possibility is to choose the “Show Unrendered Clips” option to show all clips that have not yet been rendered.

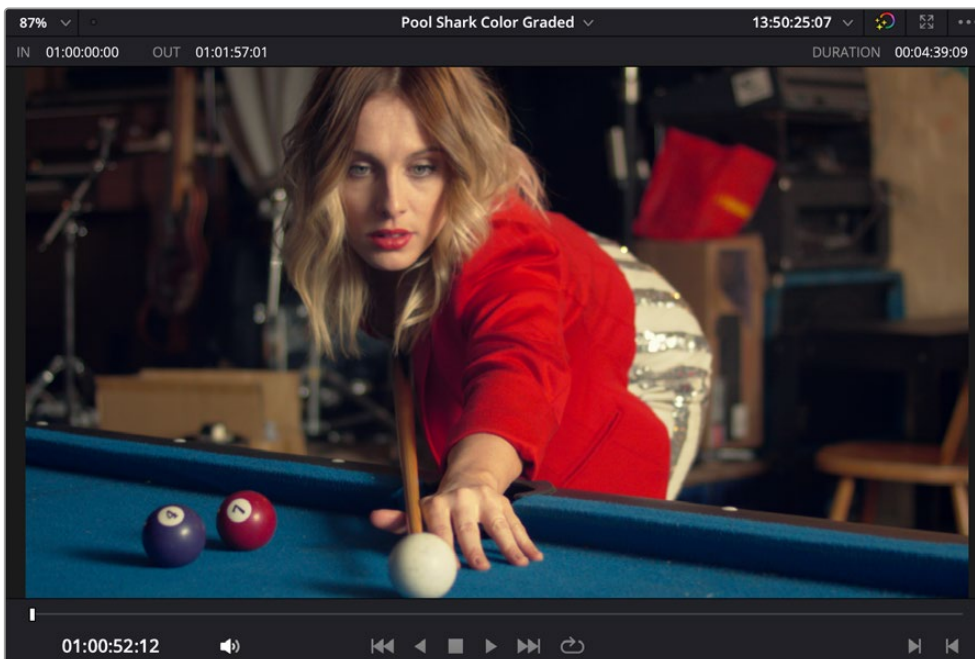


The Deliver page’s Thumbnail and Mini-Timeline match the Color page

The Viewer

When rendering file-based media, the Viewer shows you exactly how the media being output will look using the current settings, and the transport controls move the playhead throughout the current Timeline. Audio levels can be adjusted by right-clicking on the speaker icon, and dragging the slider.

When outputting to tape, the Viewer shows you the tape output so you can set up insert or assembly edit points, and the transport controls move the tape in the deck if device control is enabled. You can also put the Viewer into Cinema Viewer mode by choosing Workspace > Viewer Mode > Cinema Viewer (Command-F), so that it fills the entire screen. This command toggles Cinema Viewer mode on and off.

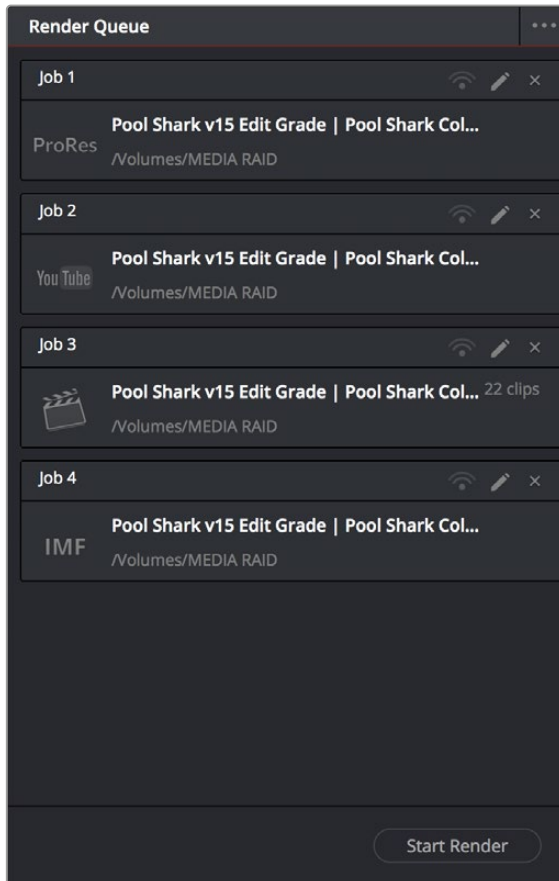


Deliver page Viewer

The Render Queue

The Render Queue is a list of all the jobs you've queued up for file-based rendering. Each job can have an individualized range of clips and render settings, which you can use to render multiple sections or clips of a timeline, the same timeline output to multiple formats, or multiple timelines.

The Render Queue also has the option to show either just the jobs within the current project, or jobs queued up and saved within all projects for the current user.



The Render Queue displays all jobs

Using the DaVinci Resolve User Interface

This chapter provides an overview of the various unspoken conventions and interaction methods employed by the DaVinci Resolve graphical user interface (GUI).

These include how the various buttons of your mouse, pen and tablet, or trackpad are used by different windows and interface widgets, how commands are distributed throughout the application using the menu bar, contextual menus, and option menus, and how to interact with fields and other controls.

While many of these conventions overlap with common user interface conventions found in the file system of your platform of choice, and with other media applications, some of these are unique to DaVinci Resolve, so this chapter is worth reviewing even if you consider yourself an expert user of other applications.

Contents

Basic Documentation Terminology	49
What Is the “UI” or “GUI”	49
What Is “the Pointer”	49
About Keyboard Shortcuts	49
Customizing the DaVinci Resolve Interface	50
Working Full Screen vs. Within a Floating Window	50
Panels and Panel Focus	50
Showing and Hiding Panels Using the Interface Toolbar	51
Showing and Hiding Panels in the Workspace Submenu	52
Adjusting the Size of Different Panels	52

Using Single vs. Dual Monitor Layouts	54
Video Clean Feed (Studio Version Only)	56
Saving Custom Screen Layouts	56
Resetting to the Default Layout	56
Undocking Specific Panels of the Interface	56
DaVinci Resolve User Interface Conventions	58
Contextual Menus	58
Drop-down Menus	59
Adjusting Parameters	60
Using a Mouse or Other Input Device	61
Mouse, Trackpad, and Tablet Behaviors	63
Timeline Scroll Behavior	63
Viewer Behavior	64
Keyboard Shortcuts	65
Undo and Redo in DaVinci Resolve	65

Basic Documentation Terminology

Here is a brief word about some of the basic terminology used in this manual for brand new users.

What Is the “UI” or “GUI”

In this documentation, UI refers to “user interface,” while GUI refers to “graphical user interface.” This refers to the windows, screens, and controls that let you create in DaVinci Resolve. If you didn’t know this, don’t be embarrassed, you’d be surprised how many times this question gets asked.

What Is “the Pointer”

Whenever this documentation refers to “the pointer,” the reference is to the on-screen arrow you use to click on elements of the user interface, which is controlled by the mouse, trackpad, pen and tablet, trackball, or any other device you may be using. Because there are so many different ways to control computers, simply referring to “the mouse” is inaccurate.

About Keyboard Shortcuts

This manual presents all keyboard shortcuts using the macOS conventions of the Command key and the Option key. For compatibility with Windows and Linux, the Control key in macOS is not used by default for any keyboard shortcuts (although it can be assigned if you customize your keyboard shortcuts).

All keyboard shortcuts that use the Option key in macOS use the ALT key in Windows and Linux, and all keyboard shortcuts that use the Command key in macOS use the Control key in Windows and Linux.

Customizing the DaVinci Resolve Interface

While the DaVinci Resolve interface may not seem very customizable at first, there are actually many ways in which you can tailor the panels found within each page to your specific needs.

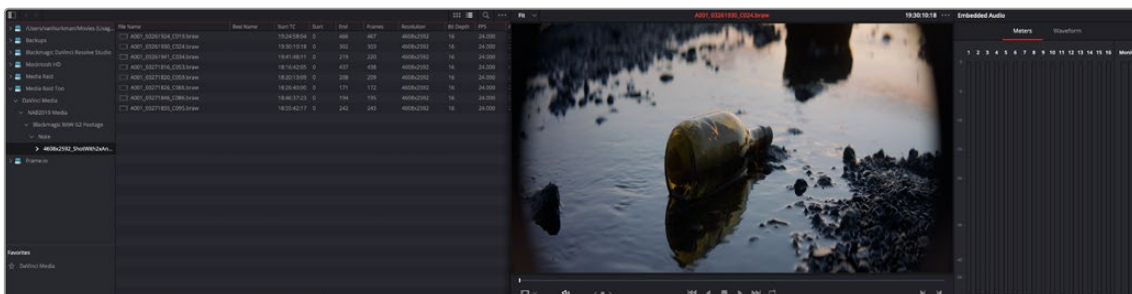
Working Full Screen vs. Within a Floating Window

Depending on how you like to work, you can choose to work with DaVinci Resolve in a floating window with a title bar that can be resized, moved, minimized, and used alongside other windows. Or, you can choose Workspace > Full Screen to put DaVinci Resolve into Full Screen mode, where the title bar disappears and DaVinci Resolve takes up the full dimensions of your computer display.

Editors may prefer to work within a window if they're working among multiple applications. Colorists and mixers may prefer Full Screen mode as it hides the light-colored title bar that some find distracting and provides a tiny bit more screen real estate for the rest of the application.

Panels and Panel Focus

Each page of DaVinci Resolve consists of multiple panels. Each panel contains all the controls and information necessary for a particular aspect of that page's functionality. In the following partial screenshot of the top of the Media page, the Media Storage panel lets you browse files, the Viewer is a panel that lets you watch video, and the Audio panel lets you see the strength of audio playing back via a set of audio meters. Each of these panels has separate controls, but they all appear within the main window of the DaVinci Resolve user interface.



Three panels side by side on the Media Page, showing Media Storage, the Viewer, and the Audio panel

Each panel you use has “focus,” meaning that clicking an item or control within a particular panel makes that panel the active panel, which serves to direct keyboard shortcuts that are shared among many panels to the particular panel you're using. If you want to see which panel is in focus, you can turn on the “Show focus indicators in the User Interface” checkbox in the UI Settings panel of the User Preferences. When on, a red line at the top of the active panel indicates that it has focus.



A red line at the top of the Media Pool in the Edit page shows that it has focus

Showing and Hiding Panels Using the Interface Toolbar

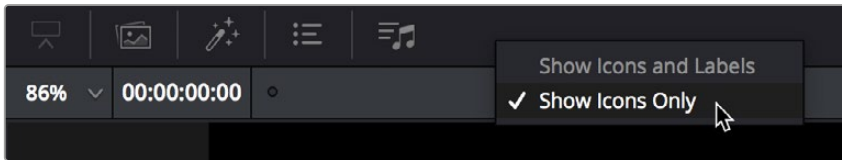
Each page in DaVinci Resolve has an Interface Toolbar that runs along the top. This toolbar contains buttons that let you show and hide different panels of functionality to accomplish different things:

- You can show panels that aren't displayed by default, since most pages have many available panels of functionality that are hidden until you need them.
- You can assign keyboard shortcuts to show and hide individual panels in your workspace for instant configuration of the UI. Keyboard shortcuts to toggle these panels on or off can be assigned using the Keyboard Customization window.
- You can switch which panel appears within a particular geographical location of the UI, for example switching between showing the Media Pool or Effects in the upper-lefthand corner of the Cut or Edit pages.
- You can hide panels you don't need in order to create more room in the specific panels you're working within.



The Interface toolbar for the Color page lets you customize the Color page controls

If you right-click anywhere within the UI toolbar, two options appear: "Show Icons and Labels" and "Show Icons Only." If you show icons only, the UI toolbar becomes less cluttered.



The UI Toolbar for the Edit page, showing icons only, to save space

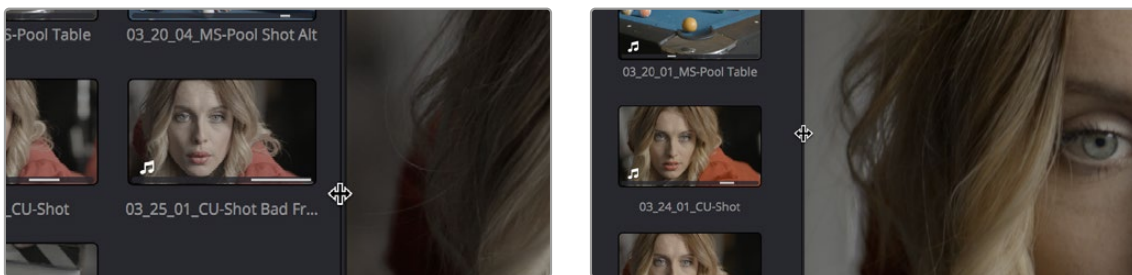
Each page has a different set of options that reflect the capabilities of that page.

Showing and Hiding Panels in the Workspace Submenu

This function provides the ability to turn on or off panels by choosing them in the Workspace > Show Panel in Workspace drop-down menu. The exact panels, such as Inspector, Media Pool, Metadata, etc., are dependent on which page you are working in. Alternatively, you can assign these panels keyboard shortcuts as well.

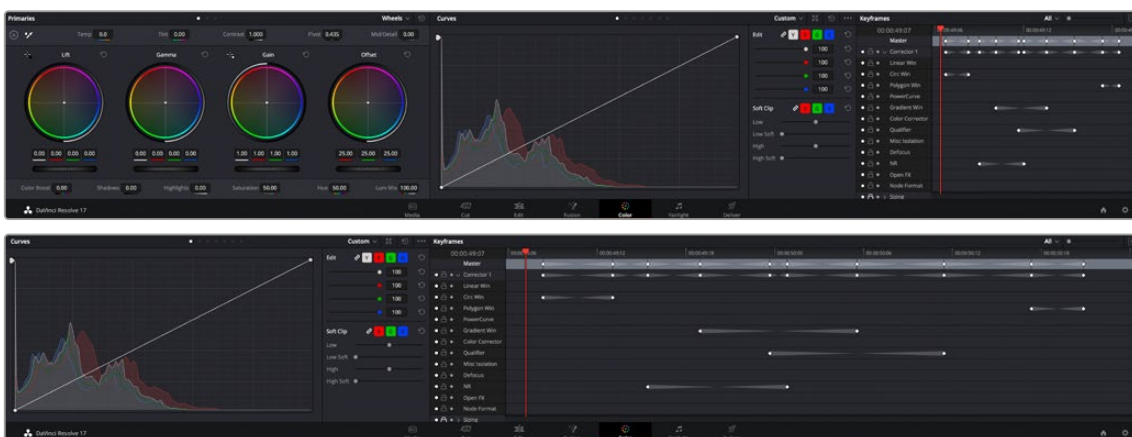
Adjusting the Size of Different Panels

You can resize adjacent panels in the interface by positioning the pointer at the border between any two panels, and dragging it to enlarge one and shrink the other.



(Before/After) Resizing UI regions

Certain panels and palettes can be expanded, in the process rearranging another part of the UI, by clicking a small gray Expand button. For example, an expand button at the top right of the Keyframe Editor in the Color page can be clicked to make the Keyframe Editor wider, while at the same time hiding controls at the center to make room.



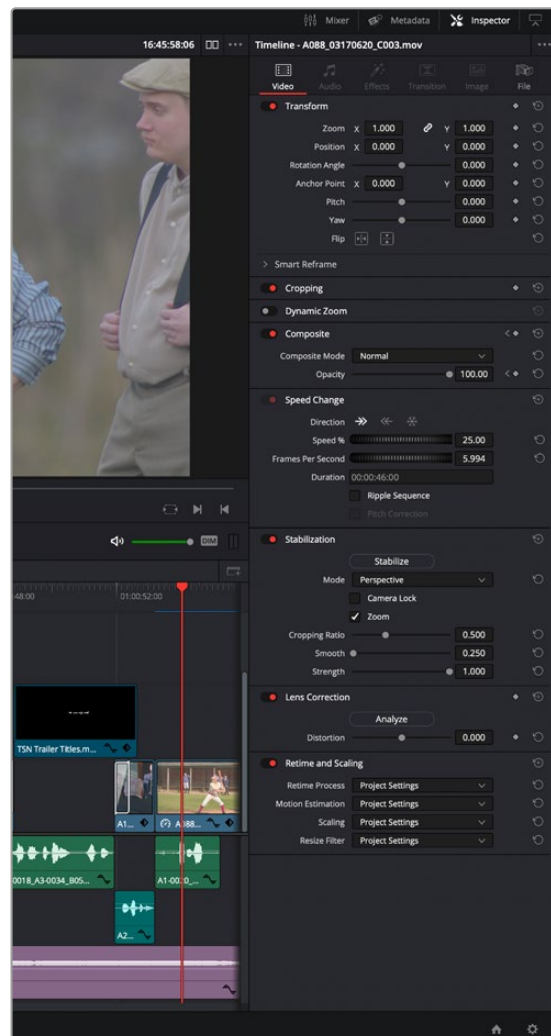
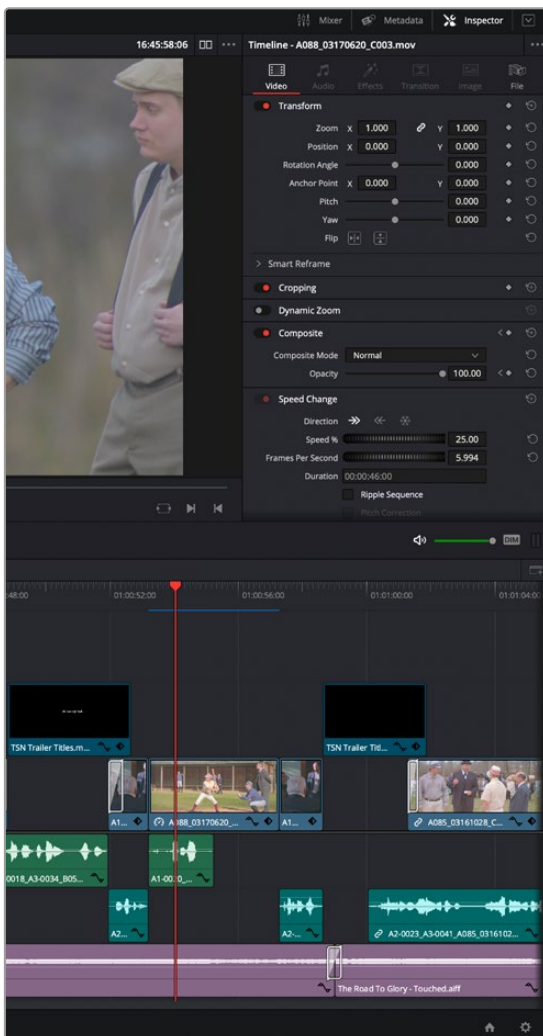
(Before/After) Expanding the Keyframe Editor

Certain vertically oriented panels, such as the Media Pool, Effects Library, Metadata Editor, and Inspector, can be set to either half-display-height or full-display-height sizes to quickly create more or less room for contents or controls whenever necessary. This is done by clicking a small button in the UI toolbar that toggles between expanding or contracting the UI element it controls.



(Left) The button for expanding a panel to full height, (Right) The button for contracting a panel to half height

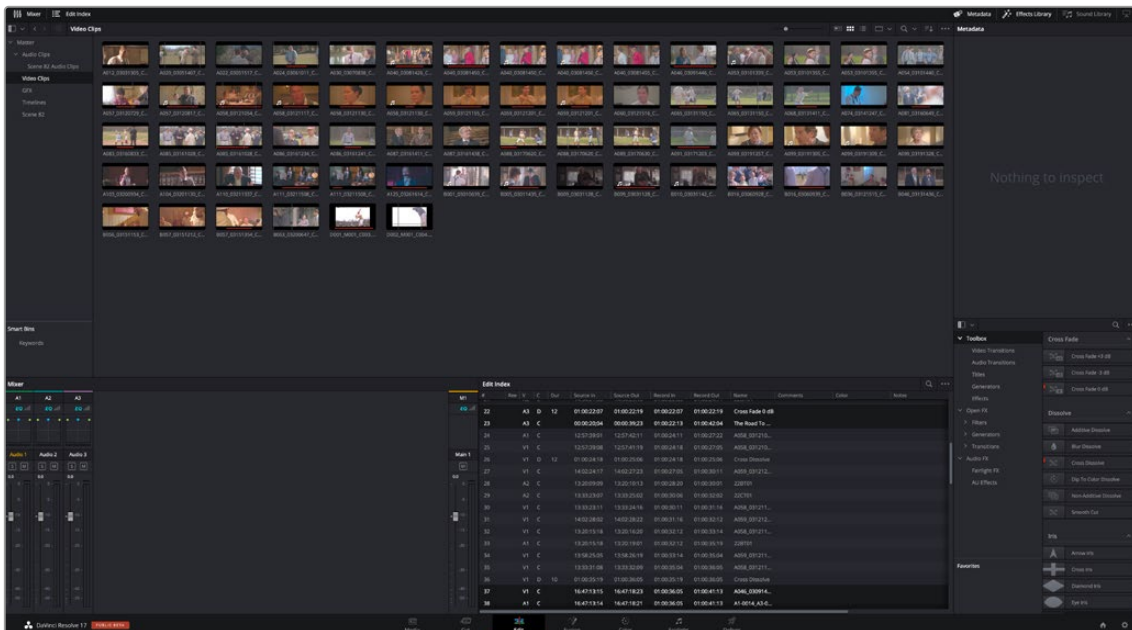
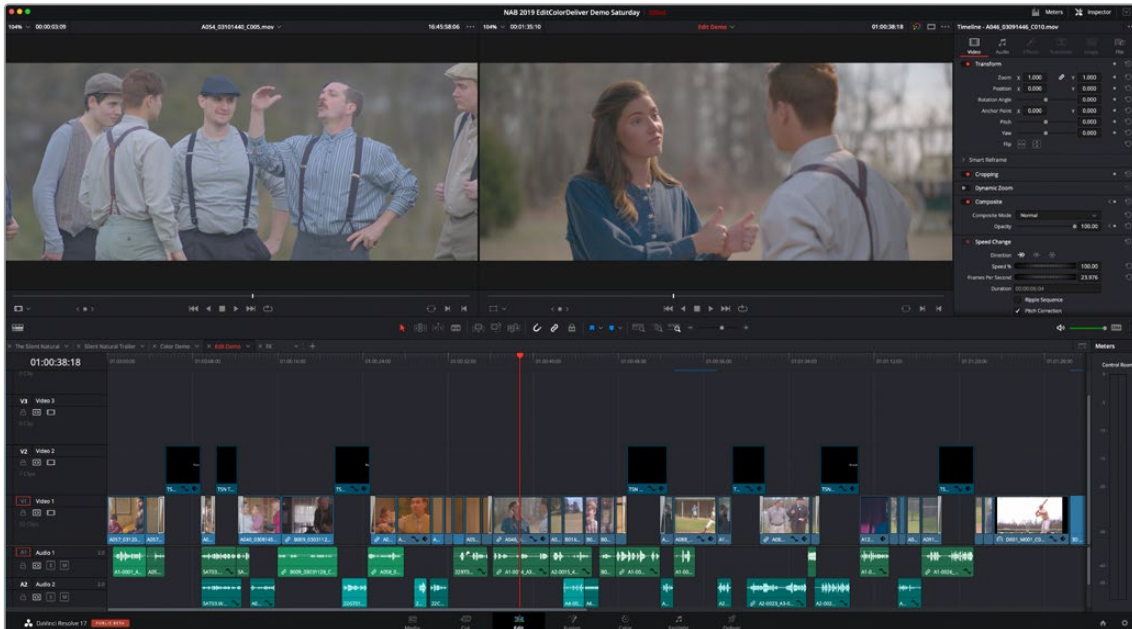
The result is that the panel in question expands or contracts. The following screenshots show the Inspector of the Edit page in half height mode, where the Timeline is given room to expand, and in full height mode, where the Timeline becomes shorter, but there's more room in the Inspector to see all of the controls.



(Left) A half-height Inspector with more room for the Timeline, (Right) A full-height Inspector with more room for controls

Using Single vs. Dual Monitor Layouts

The Media, Edit, Color, and Fairlight pages can be switched between single screen and dual screen layouts by choosing Workspace > Dual Screen > On. Each dual-screen layout makes it possible to see many more controls at once, often in a larger workspace that lets you manage more clips, more Gallery stills, etc.

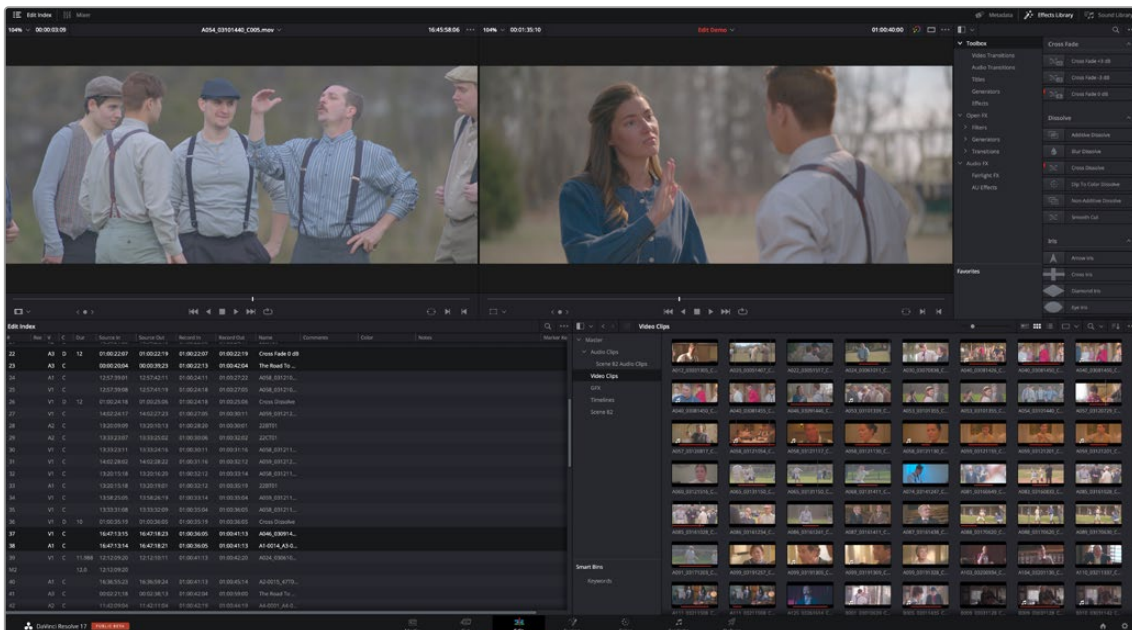
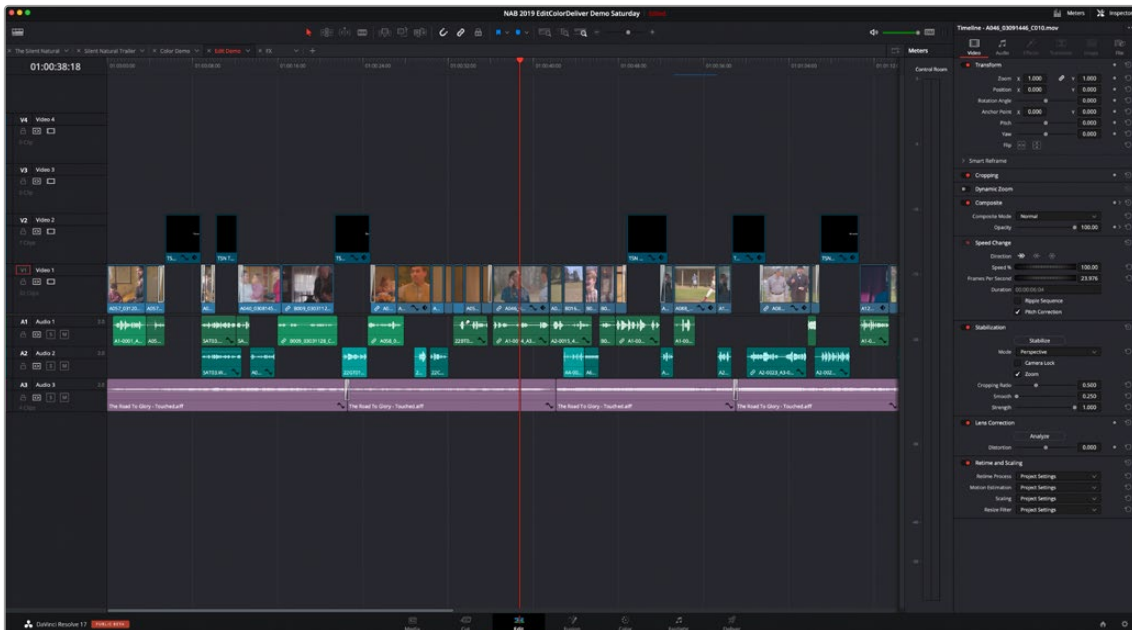


The Edit page in Dual-screen mode

In Single-screen mode, you can choose which display shows the DaVinci Resolve UI by choosing Workspace > Primary Display > (Monitor Name). In Dual-screen mode, this reverses the contents of both monitors.

Using the Full Screen Timeline Option in the Edit Page

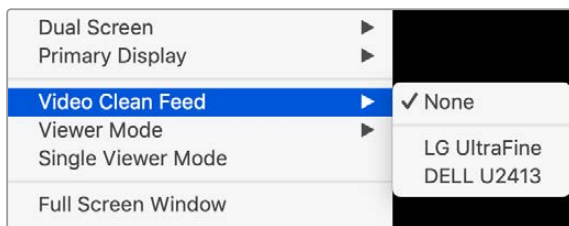
If you're working in the Edit page in Dual-screen mode and you need the biggest timeline you can get for working through your program, you can choose Workspace > Dual Screen > Full Screen Timeline to expose a layout with one large full screen timeline, and all the other Edit page panels on the other screen.



The Edit page in Dual-screen Timeline mode

Video Clean Feed (Studio Version Only)

A full screen Viewer for a secondary monitor connected directly to your computer is now available. To activate this monitor select Workspace > Video Clean Feed, and select your display in the submenu.



Selecting a secondary monitor for full screen display

Saving Custom Screen Layouts

If you've created a particular set of resized panels that you'll want to use often, you can save it, alongside other frequently useful screen layouts you may have saved.

Methods of working with custom screen layouts:

- **To save a custom screen preset:** Customize the various pages of DaVinci Resolve for the purpose at hand, then choose Workspace > Layout Presets > Save Layout As Preset. Enter a name into the Save Layout as Preset dialog, and click OK.
- **To choose a previously saved screen preset:** Choose Workspace > Layout Presets > LAYOUT NAME > Load.
- **To update a previously saved screen preset:** Choose the layout you want from the Workspace > Layout submenu, make your changes, and then choose Workspace > Layout Presets > LAYOUT NAME > Update Preset.
- **To delete a screen preset:** Choose Workspace > Layout Presets > LAYOUT NAME > Delete Preset.
- **To export a screen preset for use on another DaVinci Resolve installation:** Choose Workspace > Layout Presets > LAYOUT NAME > Export Preset.
- **To import a screen preset:** Choose Workspace > Layout Presets > Import Layout as Preset.

Resetting to the Default Layout

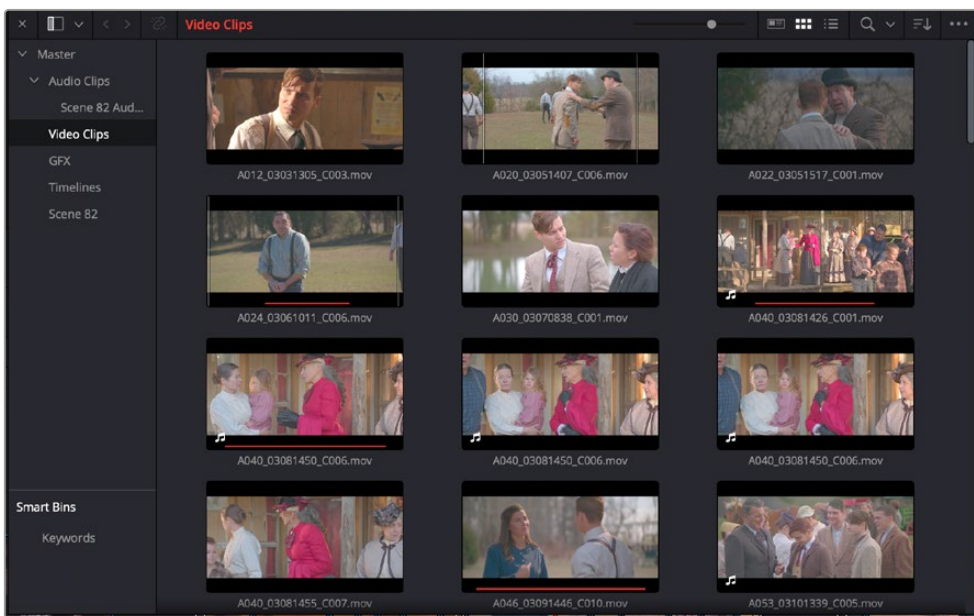
If you don't like the current layout and you want to go back to the default, choose Workspace > Reset UI Layout.

Undocking Specific Panels of the Interface

There are certain interface elements that can either be docked in their respective pages, or opened in separate windows.

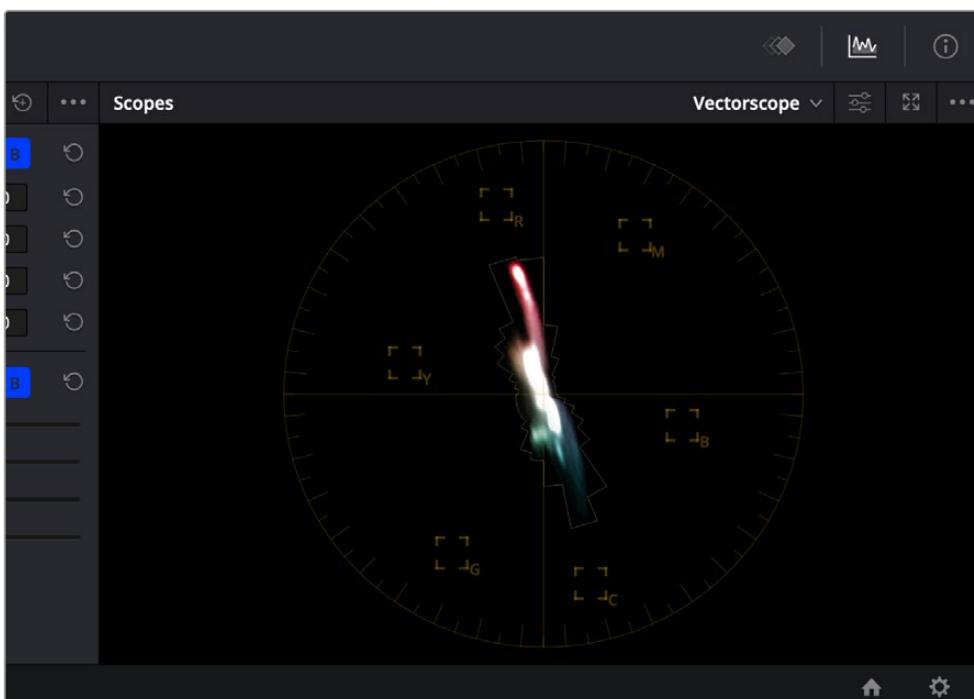
Media Pool bins can be opened into floating windows simply by right-clicking on the bin and choosing Open As a New Window in the contextual menu. Even though you're opening up the contents of the selected bin, you're really creating another Media Pool, complete with Bin list, Browsing area, and all of the organizational controls found in the docked Media Pool. You can have as many floating Media

Pools as you like. They can be dragged to other monitors, and they can be closed via a button at the upper left-hand corner of the title bar.



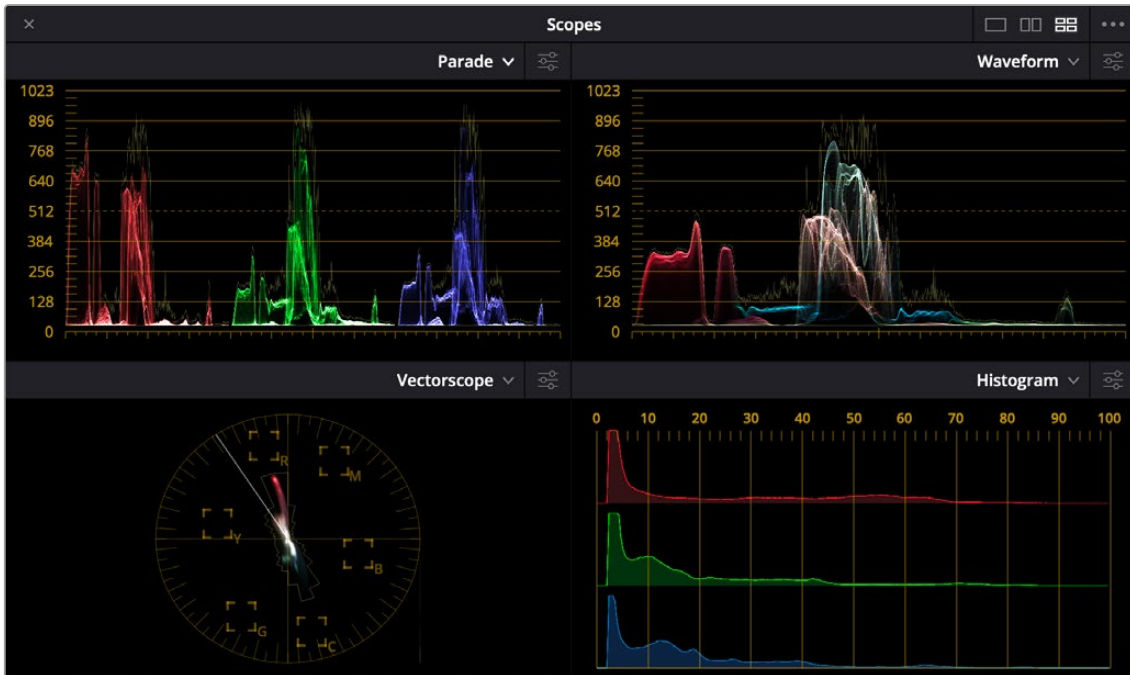
A floating Media Pool window

The video scopes let you precisely analyze the color and contrast of clips in the Color page. They can be exposed in their docked position to the right of the Color page palettes by clicking the Video Scope button in the Color page toolbar.



The video scope, docked next to the other palettes at the bottom of the Color page

Optionally, you can click the expand button at the top right of the video scope to open the video scopes into a floating window, within which you can display all four video scopes together, or individually, on any monitor connected to your workstation.



Video scopes in a floating window

Additionally, the Audio Mixer and video scopes are available in many of the dual-screen layouts available in DaVinci Resolve. The video scopes aren't just available in the Color page. They're also available in the Media and Deliver pages for whenever you need to evaluate the video signal more objectively, such as when you're setting up to capture from tape or scan from film, or when you're setting up for output.

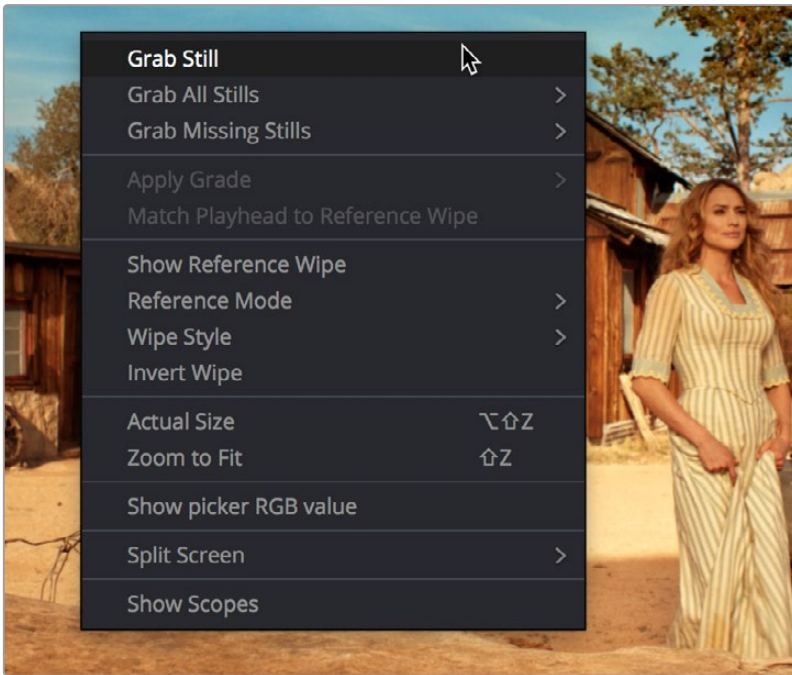
In the DaVinci Resolve single screen layout, the Audio Mixer and video scopes can be moved to a second computer display if one's available, and both disappear temporarily if you change pages or switch to another application.

DaVinci Resolve User Interface Conventions

While each chapter covers the unique onscreen controls found in each page of DaVinci Resolve, this section summarizes how to use some of the more common controls you'll see.

Contextual Menus

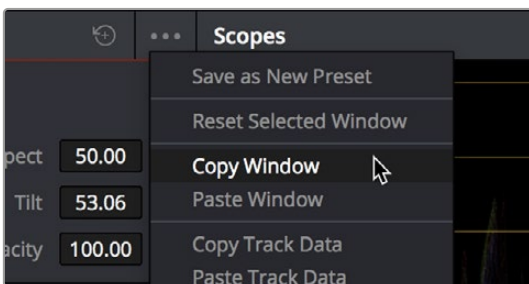
Nearly every panel on every page exposes additional functionality via contextual menus, which appear when you right-click on the appropriate item. Sometimes, different commands become available depending on whether you right-click the background of a particular panel, or directly on an item such as a still or node.



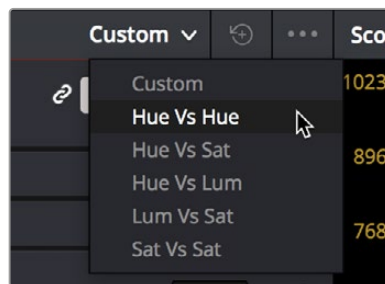
Contextual menus expose additional controls in the Color page Viewer

Drop-down Menus

Most of the buttons and drop-down menus that appear in various toolbars are activated with a single click. For example, many panels, palettes, and windows expose an Option menu, that appears as three horizontal dots (people like to refer to these as the “three dot menus,” but they’re option menus), which expose additional options and/or commands that are related to that particular panel’s function.



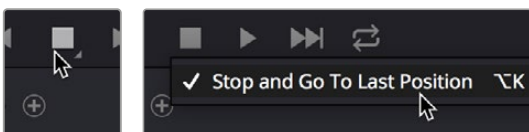
Option menus



Mode drop-down

Additionally, many (but not all) panels and palettes appear with a “Mode” drop-down at the upper right-hand corner that lets you choose a different type of function within that palette.

Some buttons, such as transport controls and toolbar icons, display a little downward facing arrow when you hover the pointer over them, to indicate that you can right-click on these controls to access checkmark options that govern the functionality of those controls.



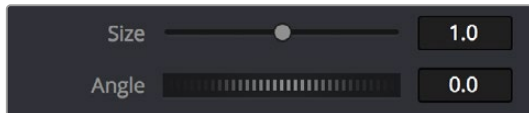
(Left) Hovering over a button to reveal it has a hidden menu, (Right) Right-clicking a button to reveal options in a drop-down menu

Adjusting Parameters

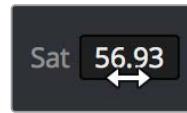
Numeric parameters can usually be edited in a few different ways.

Sliders and Dials

Sliders can be dragged to change the value of a parameter within a specific range. If you see a dial, that means a value can be endlessly edited with no restrictions to the value. Sliders are typically best for making large coarse adjustments to parameters. The “virtual sliders” described next let you make finer adjustments.



A slider and a dial with their accompanying number fields



Using virtual sliders

Virtual Sliders and Fields

When number fields appear, they can be used as a “virtual slider” by hovering the pointer over them until you see the “virtual slider cursor” and then clicking and dragging to the right to raise the value, or to the left to lower the value (white arrows indicate the direction of change). Typically, using a field’s virtual slider lets you make more precise adjustments than the actual slider to the left.

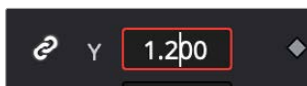
Double-clicking fields containing most number values highlights the number so that you can type a new value using the keyboard, pressing Return to confirm the change.

Editing of Number Field Values Using Arrow Keys

You can manually edit numerical parameter values by using the arrow keys to navigate and make adjustments to the decimal level in number fields.

To use the arrow keys to adjust numerical parameters:

- 1 Double-click to select a numeric value in a field, and a highlight appears around that value.
- 2 Use the left/right arrows to navigate the cursor to the right of the decimal value you want to adjust.
- 3 Use the Up/Down arrows to change the value of that decimal place.
- 4 If you select the entire number, the Up/Down arrows will adjust the minimum value.



This cursor is in place to adjust the tenths position using the Up and Down arrows.

Copy and Pasting of Number Field Values in Virtual Sliders

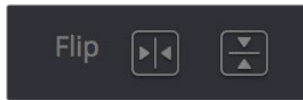
You can do standard copy/paste functions of any value in a field to any other field.

To copy and paste numerical parameters from a field:

- 1 Right-click on the source field and choose copy (Command-C) from the drop-down menu.
- 2 Right-click on the destination field and choose paste (Command-V) from the drop-down menu.

Icons and Buttons

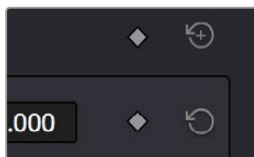
Some controls are exposed as icons and buttons, which you simply click to invoke whatever functionality they encompass.



A pair of buttons with icons to illustrate their functionality

Resetting Parameters

To reset any editable parameter to its default setting, double-click its text label, or click the reset button, if one appears. Master reset buttons, typically found in the headers of groups of controls, reset all controls in that group. Individual reset controls that appear to the right of parameters typically only reset that one parameter. If you don't see a reset control, then double-clicking the name of the parameter should work.



Reset button

Using a Mouse or Other Input Device

Resolve uses all three buttons of a multi-button mouse, or the three buttons available on other type of input devices, when available. This section provides a brief summary of all the different ways these three mouse buttons can be used.

Left Button

The left button is always referred to as a click, as in, “click the auto select button.” You click to turn buttons or other controls on or off, to make selections, and to give areas of the Resolve UI focus so that keyboard shortcuts will do whatever is specific to that panel or area of the user interface.

Double-clicking the left button usually opens items that are openable, such as opening a clip from the Media Pool into the Source Viewer. You can also use double-clicking to do things like selecting nodes in the Node Editor of the Color page.

Right Button

The right button is referred to as a right-click, as in, “right-click a clip in the Media Pool.” Right-clicking an item or area of the Resolve interface usually opens a contextual menu, exposing additional commands that are specific to the item or area you’ve right-clicked.

However, some areas of the UI use right-clicking in special ways. For example, when you’re using a color adjustment curve in the Curve palette of the Color page, right-clicking a control point deletes that point.

Middle Button

The middle button (usually the scroll wheel button, but you may have to turn this on in the Mouse panel of the System Preferences) is referred to as a middle-click, which does different things in different places.

- In all pages, rolling the scroll wheel while the pointer is within a viewer lets you zoom into and out of the image being displayed when you need to do more detailed work.
- In all pages and panels, pressing and holding middle-click and dragging inside a panel allows you to scroll the view of the panel’s data in the direction that you drag.
- In the Color page, you can move the pointer over the Thumbnail timeline and roll up to scroll to the right or roll down to scroll to the left. You can also roll the scroll wheel while the pointer is within the Mini-timeline to zoom into or out of the currently displayed area. Rolling up zooms out, while rolling down zooms in.
- Middle-clicking and dragging within a viewer lets you drag the image to pan it around, which is useful after you’ve used the scroll wheel (or scroll behavior) of your mouse to zoom in.
- You can middle-click and drag within the Edit page Timeline to quickly pan around your edit.
- You can also use middle-click to copy a grade in the Thumbnail timeline of the Color page, by first selecting the clip that you want to copy TO (with a simple click) and then middle-clicking the clip or gallery still you want to copy a grade FROM.
- Lastly, if you’re drawing a Bezier window in the Color page Viewer using the Window palette, then middle-clicking a control point will delete that point.

TIP: If you’re using a pointing device that lacks a third button option, check to see if there are any third party utilities or drivers that can enable this for you.


















Mouse, Trackpad, and Tablet Behaviors

Different input devices use different gestures to trigger specific behaviors in DaVinci Resolve. Here is a current breakdown of these gestures and the behaviors that they control.

Timeline Scroll Behavior

	Standard Mouse	Mac Magic Mouse	Trackpad	Tablet and Pen
Scroll timeline vertically	  Scroll	  Magic Mouse 1 Finger Pan Vertical and Horizontal panning	  2 Finger Pan Vertical and Horizontal panning	—
Scroll timeline horizontally	  command ⌘ Scroll	  Magic Mouse 1 Finger Pan Vertical and Horizontal panning	  2 Finger Pan Vertical and Horizontal panning	—
Zoom timeline width horizontally With ability to zoom where cursor points Can be enabled in User Workspace preferences	  alt option Scroll	—	—	—
Zoom timeline track height vertically Zooms Video and Audio section separately	  shift Scroll	—	—	—
Drag Timeline with Hand Tool	 Middle Mouse Button	  shift  alt option Left Button	—	—

Viewer Behavior

	Standard Mouse	Mac Magic Mouse	Trackpad	Tablet and Pen
Zoom towards mouse pointer Can change in preferences	  Scroll	—	 Pinch to Zoom  2 Finger Pan	 Press and hold the middle pen button While moving it left and right on the tablet.
Free Pan	 Middle Mouse Button	 Magic Mouse 1 Finger Pan	 2 Finger Pan	 Press and hold the middle pen button Lift the pen nib a few millimeters above the pad, moving the pen will move the frame in the viewer.
Pan with Hand Cursor	 Middle Mouse Button	 shift alt option Left Button	—	 Press and hold the middle pen button Lift the pen nib a few millimeters above the pad, moving the pen will move the hand in the viewer.
Tilt Up and Down	 command ⌘ Scroll	—	—	—
Pan Left and Right	 shift command ⌘ Scroll	—	—	—
Context Menu	 Right Button	—	 2 Finger Touch	 Right button on the pen.

Gestures used in DaVinci Resolve for common input devices

Keyboard Shortcuts

Since the majority of DaVinci Resolve users are on macOS, this manual presents all keyboard shortcuts using the macOS conventions of the Command key and the Option key. For users of other systems, all keyboard shortcuts that use the Option key in macOS use the ALT key in Windows and Linux, and all keyboard shortcuts that use the Command key in macOS use the Control key in Windows and Linux.

TIP: To keep controls identical between macOS, Windows, and Linux, the Control key in macOS is not used by default for any keyboard shortcuts. However, you can assign your own keyboard shortcuts to the Control key if you like, opening up a whole new set of keyboard shortcuts for your own use on macOS.

Undo and Redo in DaVinci Resolve

No matter where you are in DaVinci Resolve, Undo and Redo commands let you back out of steps you've taken or commands you've executed, and reapply them if you change your mind. DaVinci Resolve is capable of undoing the entire history of things you've done since creating or opening a particular project. When you close a project, its entire undo history is purged. The next time you begin work on a project, its undo history starts anew.

Because DaVinci Resolve integrates so much functionality in one application, there are three separate sets of undo "stacks" to help you manage your work.

- The Media, Edit and Fairlight pages share the same multiple-undo stack, which lets you backtrack out of changes made in the Media Pool, the Timeline, the Metadata Editor, and the Viewers.
- Each clip in the Fusion page has its own undo stack, so that you can undo changes you make to the composition of each clip, independently.
- Each clip in the Color page has its own undo stack, so that you can undo changes you make to grades in each clip, independently.

In all cases, there is no practical limit to the number of steps that are undoable (although there may be a limit to what you can remember). To take advantage of this, there are three ways you can undo work to go to a previous state of your project, no matter what page you're in.

To simply undo or redo changes you've made one at a time:

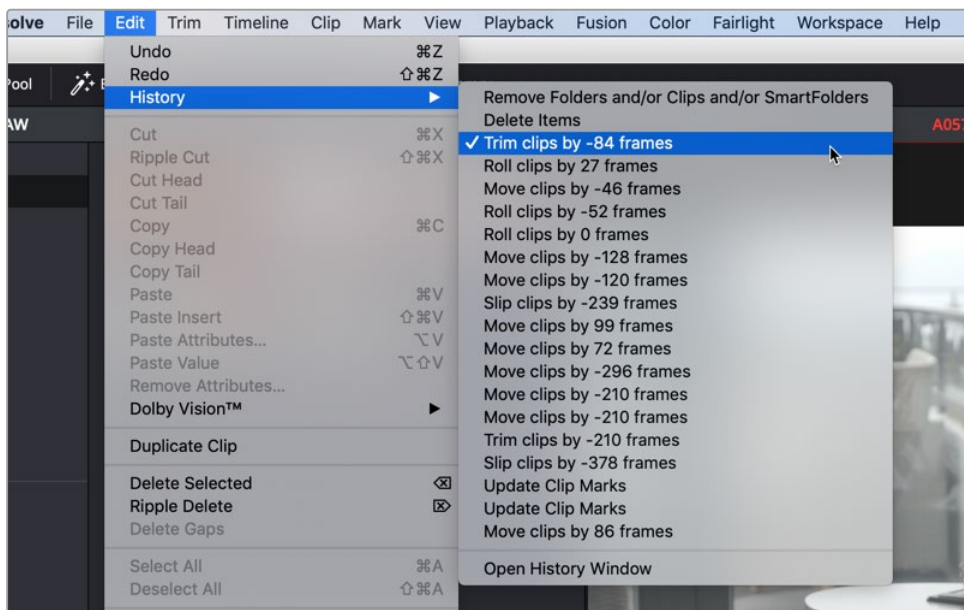
- Choose Edit > Undo (Command-Z) to undo the previous change.
- Choose Edit > Redo (Shift-Command-Z) to redo to the next change.
- On the DaVinci control panel, press the UNDO and REDO buttons on the T-bar panel.

TIP: If you have the DaVinci control panel, there is one other control that lets you control the undo stack more directly when using the trackballs, rings, and pots. Pressing RESTORE POINT manually adds a memory of the current state of the grade to the undo stack. Since discrete undo states are difficult to predict when you're making ongoing adjustments with the trackball and ring controls, pressing RESTORE POINT lets you set predictable states of the grade that you can fall back on.

You can also undo several steps at a time using the History submenu and window. At the time of this writing, this only works for multiple undo steps in the Media, Cut, Edit, and Fairlight pages.

To undo and redo using the History submenu:

- 1 Open the Edit > History submenu, which shows (up to) the last twenty things you've done.
- 2 Choose an item on the list to undo back to that point. The most recent thing you've done appears at the top of this list, and the change you've just made appears with a check next to it. Steps that have been undone but that can still be redone remain in this menu, so you can see what's possible. However, if you've undone several changes at once and then you make a new change, you cannot undo any more and those steps disappear from the menu.

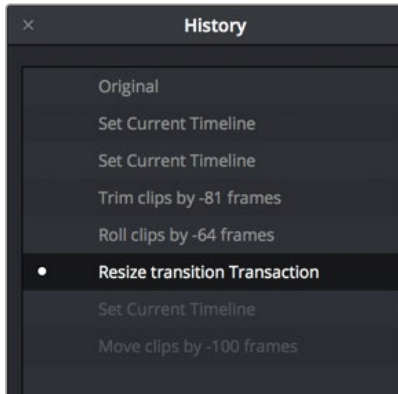


The History submenu, which lets you undo several steps at once

Once you've selected a step to undo to, the menu closes and the project updates to show you its current state.

To undo and redo using the Undo window:

- 1 Choose Edit > History > Open History Window.
- 2 When the History dialog appears, click an item on the list to undo back to that point. Unlike the menu, in this window the most recent thing you've done appears at the bottom of this list. Selecting a change here grays out changes that can still be redone, as the project updates to show you its current state.



The Undo History window that lets you browse the entire available undo stack of the current page

- 3 When you're done, close the History window.