User Manual

Reeltime PRO

Table of Contents

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Getting Started

The Main Screen

The main screen of Reeltime Pro contains all the primary controls for operating the software.

You can, for example, control recording and playback, change the internal routing between slots, apply and configure filters and composite layouts, fill in global metadata, and browse and maintain the recorded clips in the clip library.

All controls in the main window can also be found in the main menu and can be triggered by keyboard shortcuts or associated Stream Deck controller actions. Some elements offer a context menu with additional options on a right-click (or option-click), for example, clips in the clip library.
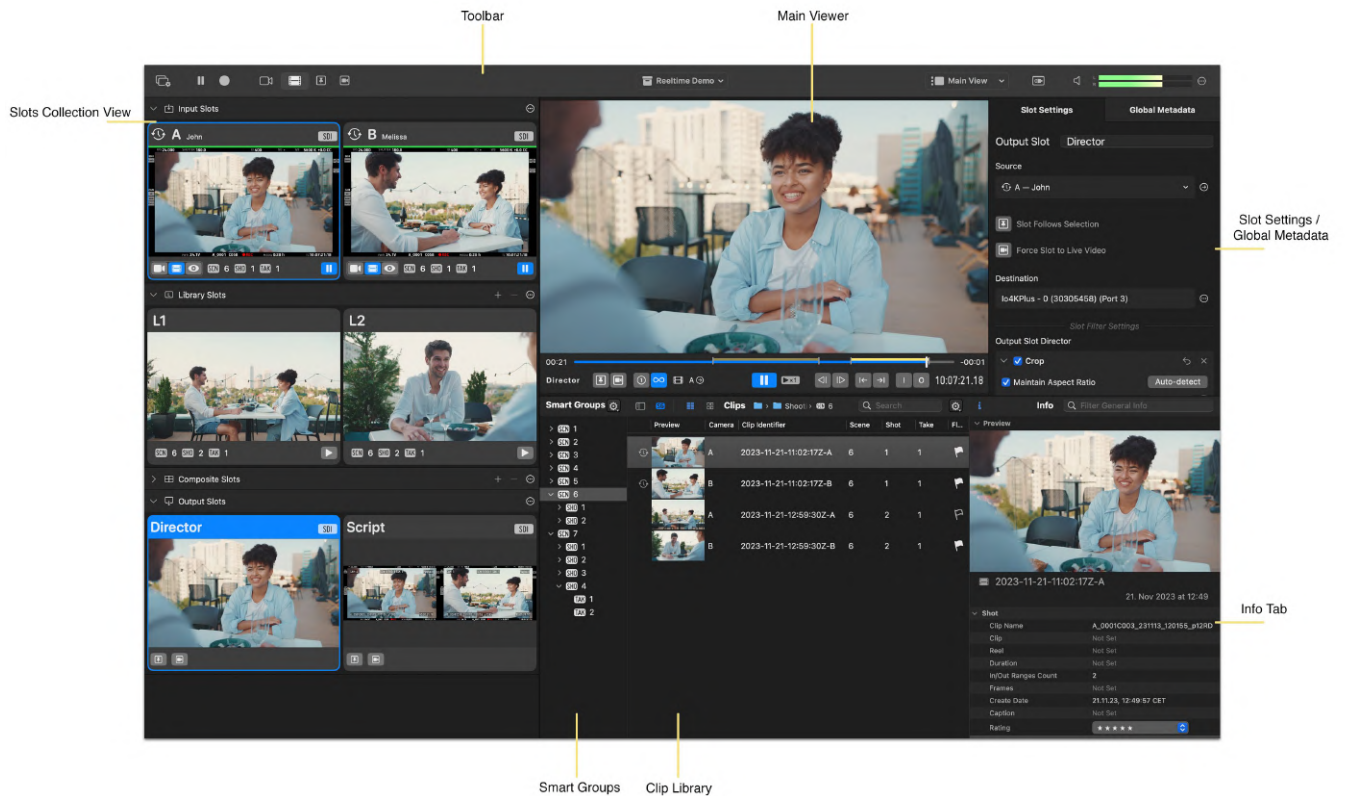
Main View window layout

Main View Layout

The main view provides all essential controls and UI elements you need for your video playback related tasks. You can see all configured slots in a slots collection view, and you can control and view the selected slot's content in the main viewer. Furthermore, you can change the settings of the selected slot and have access to all the clips you recorded in the clip library.

TOOLBAR:

The toolbar at the top of the interface is available in all window layouts and contains buttons for the most common global actions. You can customize the toolbar with the contextual "Customize Toolbar…" menu item (right-click / opt-click on toolbar) and drag and drop more actions into the toolbar or change the position of the buttons.

SLOTS COLLECTION VIEW:

Slots are represented in the user interface as individual slot cards in the slot collection view on the left of the main window. The slots are grouped by the slot types input slots, library slots, composite slots and output slots. Library slots and composite slots can be added and removed within the main window directly. For managing input slots and output slots and configuring devices you can open the slot manager (via a toolbar button or options menu button the slot overview). In the options menu you can also choose the slot card size. The slot cards have various labels and indicators that help to keep track on the slot's status. Learn more about slots in the article [Manage Video Signals With "Slots"](#).

MAIN VIEWER:

The main viewer in the upper middle of the interface displays the image of the currently connected slot and provides either playback controls in the playback slot mode or recording controls in the live slot mode. Recording controls provide controls for triggering recording actions in a single slot or timecode-synced groups of slots. Furthermore, recording controls allow setting multiple in and out ranges while recording. Playback controls provide flexible options for playing back single recordings or timecode-synced group recordings. Furthermore, playback controls allow navigating within the recording/s and editing or adding in/out ranges. Most of the viewer controls apply to the current group – for playback: all clips from the currently loaded group, for recording: all armed input slots. The current group is indicated by the sync info label.

SLOT SETTINGS:

The slot settings in the config panel of the right-hand side of the interface display settings for the currently selected slot based on its slot type. In an input slot you can configure the slot mode, add and edit filters, or inspect source, the loaded clip or the currently configured destinations. In a library slot you can add and edit filters, or inspect the loaded clip, or the currently configured destinations. In a composite slot you can choose from different composite layout modes, configure source slots for the composite, and inspect or edit related filter settings. In an output slot you can configure the source slot, set quick-routing options "Slot Follows Selection" and "Force Slot to Live Video", or add and edit filters, and inspect or edit related filter settings.

GLOBAL METADATA (MAIN VIEW):

The global metadata tab in the config panel lets you inspect and edit metadata that is valid for all currently configured input slots. Global metadata fields are slate info fields such as scene, shot and take, production info fields such as location and crew unit, or general info fields such as time and date. The global metadata is stored together with the slot specific metadata such as clip name and timecode in each clip entry of the clip library.

You can configure the global metadata field with the options menu button to include only fields required by your production.

CLIP LIBRARY:

The clip library contains all recordings made throughout a project. It offers various tools to reveal a required clip quickly. A library outline allows you to sort recordings into folders and bins manually. The smart groups tab lets you outline and filter the library with flexible hierarchies based on the existing clip metadata (e.g., Scene/Shot/Take). You can view clips in a tabular form in the clips table, which displays all clips and their metadata in customizable column layouts. The collection view displays each clip with a large thumbnail and provides a visual search with a skimming mechanism, allowing you to find a specific action within a clip quickly. A text search allows you to search for specific terms to quickly display matching clips in the clips table or collection view. Furthermore, an info tab shows the metadata of one or more selected clips in a detail view and allows you to inspect and (multi-)edit the clip metadata. To learn more about the clip library, read the article Clip Library and Metadata.

Multi View Layouts

Apart from the main view window layout, there are also multi view layouts that offer a reduced set of UI elements and represent each slot in its own viewer. Multi view layouts are optimized to ensure efficient work also on small screen sizes.
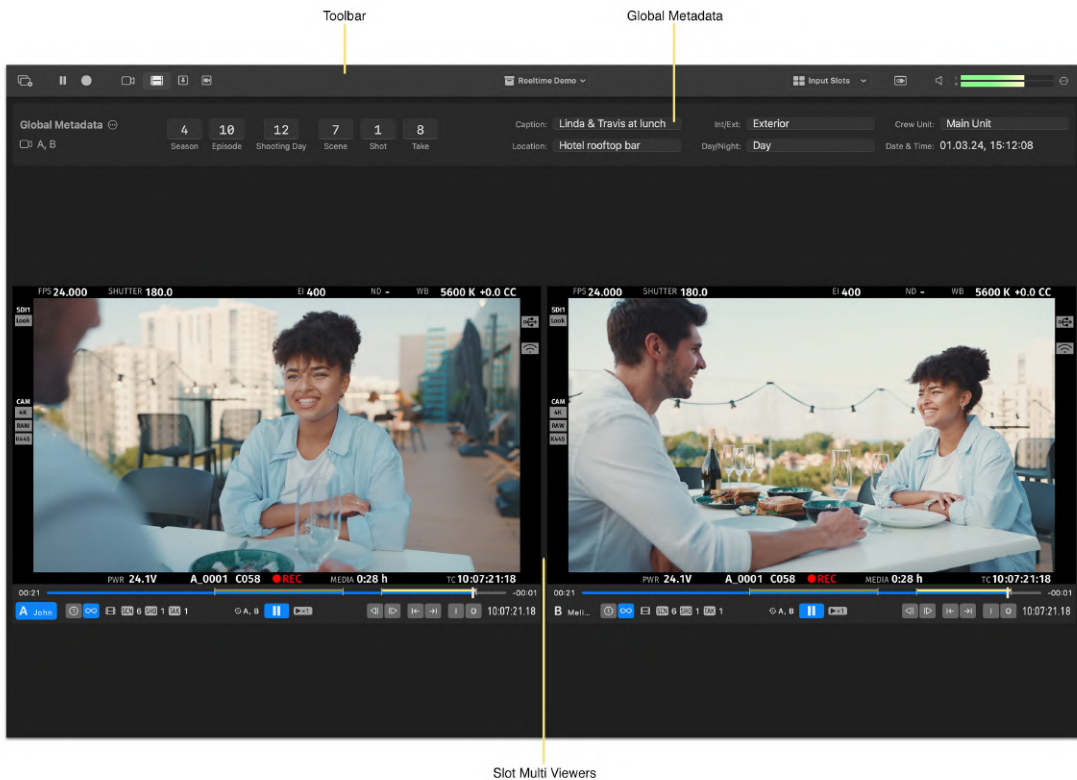
Multi View window layout

SLOT MULTI VIEWERS:

The slot multi viewers work the same way as the main viewer but display each currently configured slot in its own viewer window. There are dedicated multi view layouts for the slot types: input slots, library slots, and output slots. Multi view layouts automatically adapt their sizing and grid layout depending on the number of configured slots. The multi view layouts can display up to 3×3 (9 slots).

GLOBAL METADATA (MULTI VIEW):

The global metadata panel in the multi view layouts works similarly to the global metadata panel in the main view layout but uses a horizontal layout with larger text boxes. You can increase the values in a text box with the arrow up/down keys and navigate back and forth between fields with a tab or shift tab.

Primary Features

Manage Video Signals With "Slots"

Slots are a flexible and transparent way to manage and route live and playback video signals to various destinations.

Each slot is a container for either a signal input, video playback, video output or a composite of other slots. You can connect slots to each other to create internal video routing setups from simple to complex structure.

Slots are represented in the user interface as individual slot cards in the slot overview on the left of the main window. Slots are grouped in the slot overview by type. Slots of the "Input Slot" type can have further modes. Slot types and slot modes are explained in more detail below.
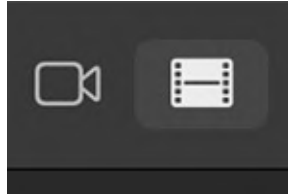
- **Slot types** are input slots, output slots, library slots, composite slots
- **Input slots** allow you to**:**
  - Associate your input slots with the video inputs installed on your system (such as SDI input ports) in order to monitor, record and distribute all your incoming signals
  - Play back the clips that were recorded in the associated source input slots
  - Consequently, input slots have three different **slot modes:**
    - the **Live** mode – for monitoring and recording the live signal from a camera
    - the **Playback** mode – for playing back the recorded clips from the associated source camera (recorded clips are loaded into their source input slot by default)
    - the **Reference** mode – for comparing live and playback signal with various layout options:
      - Side-by-Side: For creating a side-by-side view of the slot's live and playback signal
      - Swipe: For comparing the content of the slot's live and playback signal with a horizontal or vertical swipe
      - Overlay: For creating an instant mix and overlay composite of the slot's live and playback signal, (e.g., to match the framing)
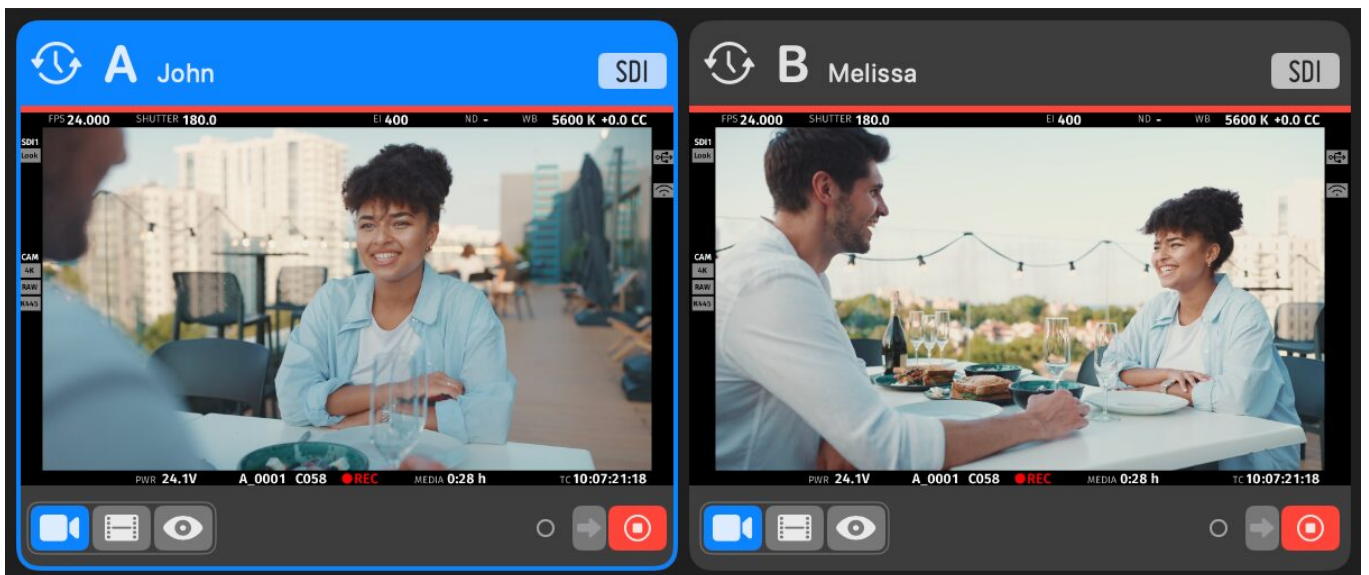
Input Slots in "Live" slot mode during group recording

- There are dedicated buttons in the toolbar for **switching all input slots to live/playback** slot mode, (e.g., switch all input slots to live lets you quickly resume to the live signal if shooting continues)

Toolbar buttons for switching all inputs slot to "Live"/"Playback" slot mode

- **Output slots** allow you to:
  - Associate your output slots with the video outputs installed on your system (such as SDI output ports) in order to distribute the signals from input slots, library slots, and composite slots to various destinations
  - You can configure the source of an output slot in the slot settings, which are located on the right-hand side of the main window. As a source, you can configure any available input, library, or composite slots.
  - Create a filtered, composited view tailored for the associated watcher or specific use case with individual filters and appearance settings and flexible routing options (e.g., the director wants to see a cropped image from camera A, while Script Continuity wants to see an un-cropped side-by-side view of camera A and B)
  - Additionally, the **output routing options** allow you to temporarily switch an output slot's source signal:
    - Force Slot to Follow Live Video – for forcing an output slot to always show the live signal of its configured input source (= the input slot's live slot mode)
    - Set Slot to Follow Selection – for automatically setting the input/library/composite slot that is selected in the slot overview UI as the source for the output slot ("what you select is what you get")
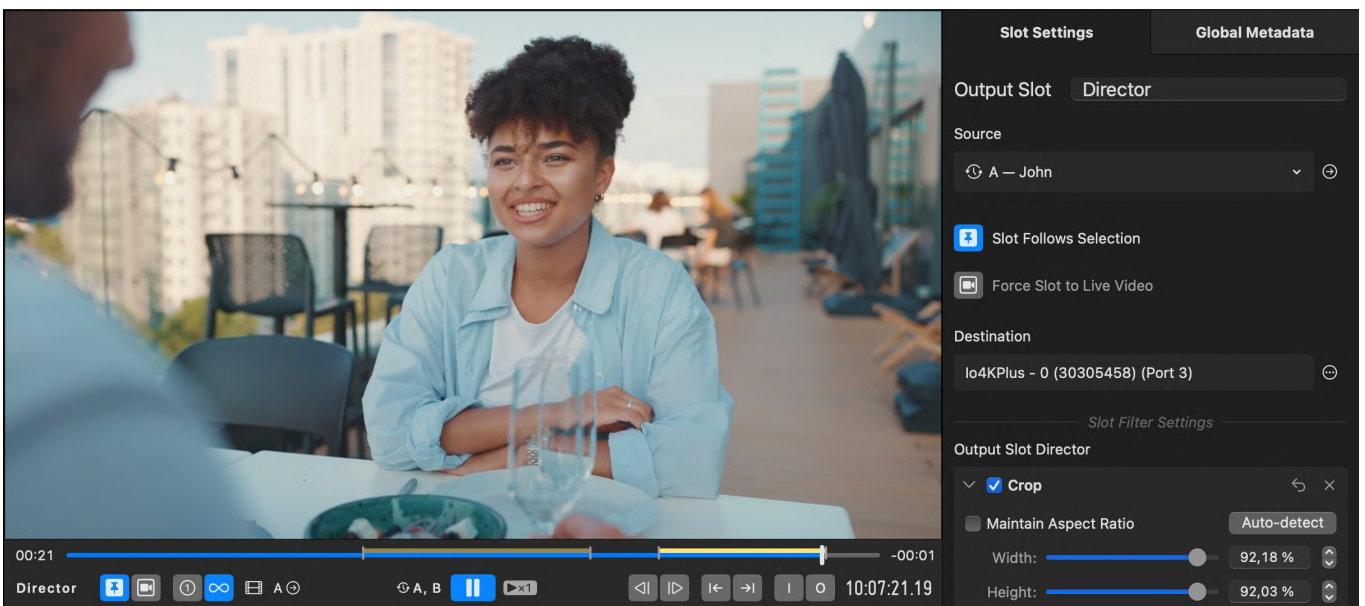
Output slot viewer and settings

- You can add or remove input and output slots and associate them with your connected devices in the **Slot Manager** window (e.g., via the button from the main window's toolbar)
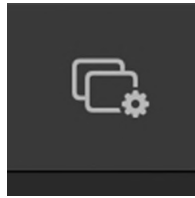
Toolbar button for opening slot manager

3CH

You can add up to 3 input slots and up to 6 output slots with the Reeltime Pro 3-Channel option

6CH

You can add up to 6 input slots and up to 9 output slots with the Reeltime Pro 6-Channel option

- Within the slot manager, you can associate input sources (e.g., SDI input ports) from any compatible device that is connected to your machine with an input slot and, in the same way, destinations (e.g., SDI output ports) with output slots
  - The video format of the incoming video signal sets the video format of your device automatically.
  - The video format of outgoing signals usually derives from the input and my not be editable. However, with some devices, the output's video format can be set manually.
  - To receive the camera's ANC metadata correctly and triggering recording based on the record flag embedded in teh SDI signal, ensure setting the appropriate camera type and your preferred record trigger method
  - In rare cases you can also change the decoding levels from legal to full, for example if you receive an ungraded signal from a Sony camera that outputs an SDI signal in extended range.
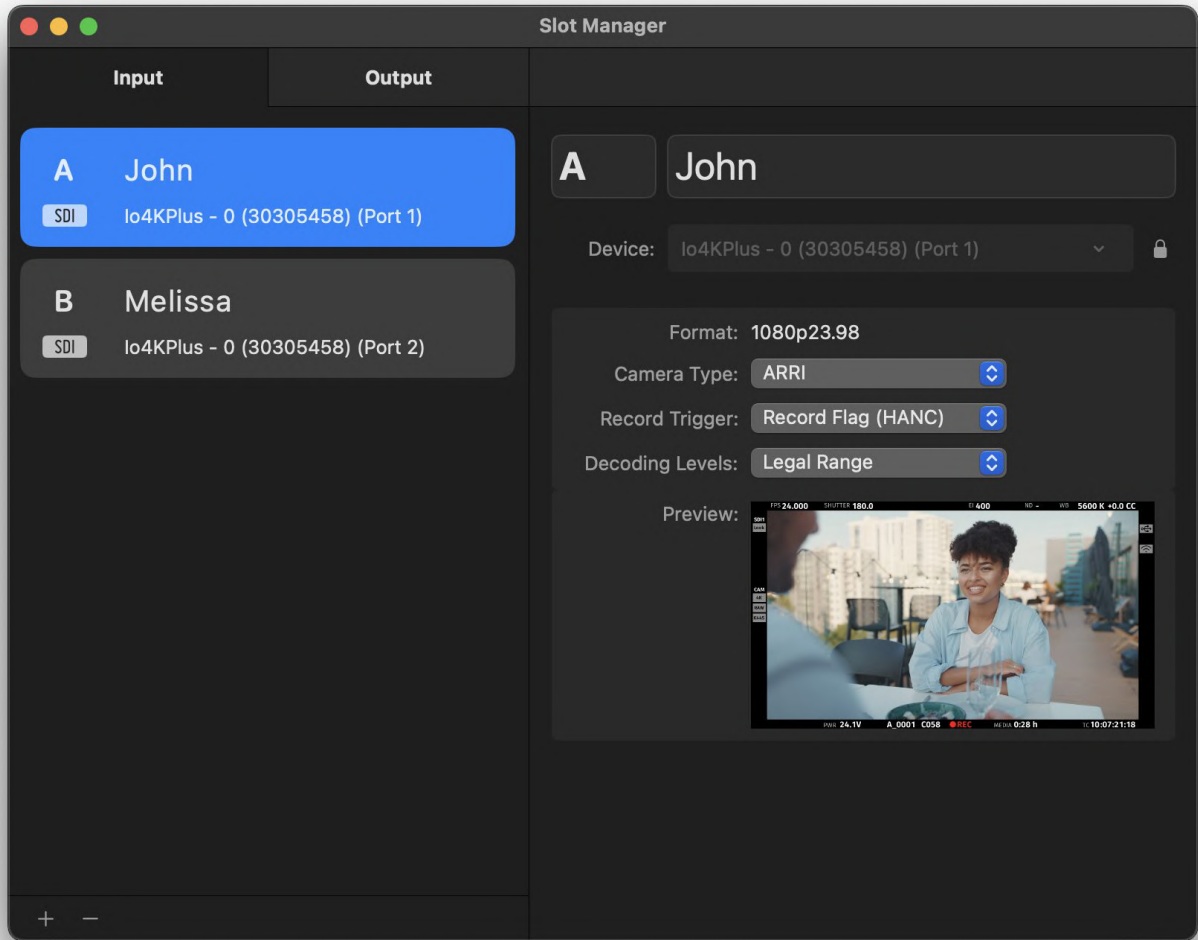
Slot manager with SDI device configuration for an input slot

- **Library slots** allow you to**:**
    - Find a specific clip by browsing the library – library slots **auto-load the selected clip in the library** for instant review and playback
    - Compare shots or compare different play positions with
        - an **independent library selection per library slot**, (e.g., different folder/bin/smart group levels) and/or
        - an independent playhead position per library slot, (e.g., two different ranges within the same recording)

> **Tip:** To play back multiple library slots from their current playhead position simultaneously, you can use the "Toggle Playback in All Library Slots" menu item or the associated Stream Deck controller action. There is also a dedicated "Play All Library Slots" toolbar button that you can add to your toolbar layout when customising the toolbar (right-click or option-click on the toolbar).

3CH

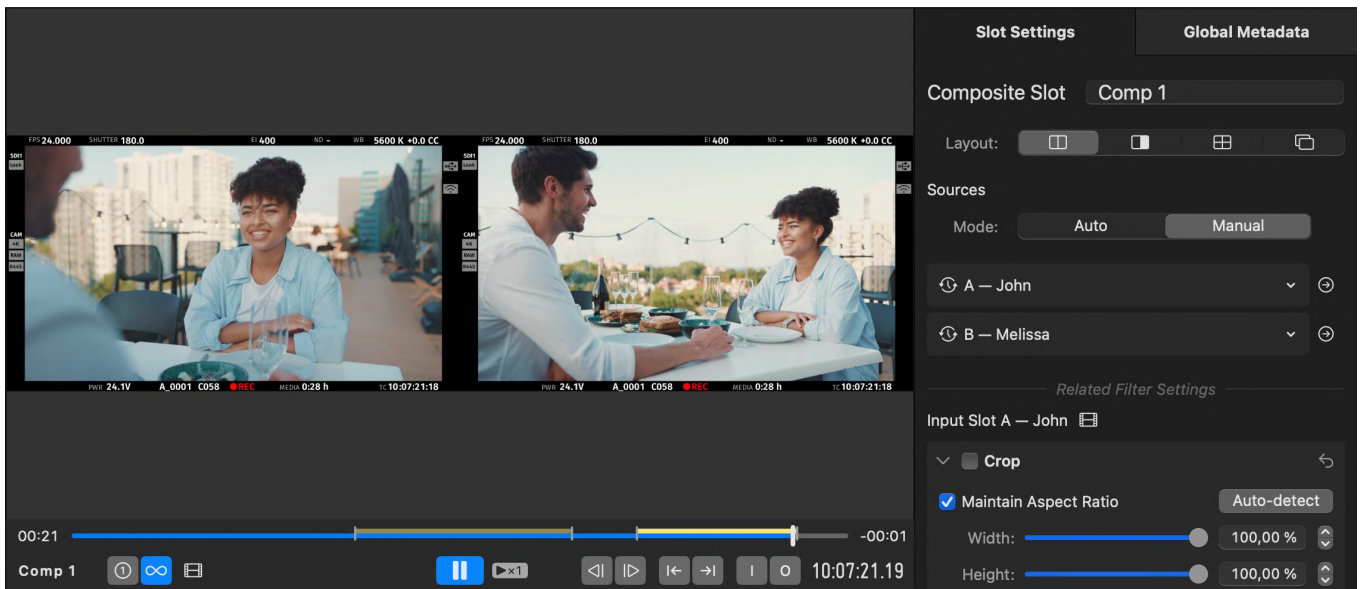You can add up to 6 library slots with the Reeltime Pro 3-Channel option

6CH

You can add up to 9 library slots with the Reeltime Pro 6-Channel option

- **Composite slots** allow you to:
  - Compose a view from multiple input and/or library slots with live and/or playback signals:
  - Choose from a range of **layout options** for your compositing (similarly to the reference mode of the input slots):
    - Side-by-Side: Create a side-by-side view of 2 slots
    - 2×2 Grid: Create a grid view of up to 4 slots
    - Swipe: Compare the content of two slots with a horizontal or vertical swipe
    - Overlay: Mix and overlay the content of two slots (e.g., to match the framing of two shots)
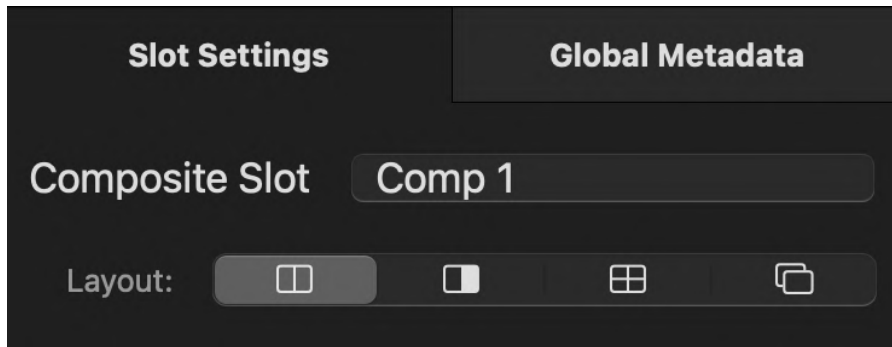
Composite slot layouts

  - Combine a composite slot's source selection with the input slot modes "Live/Playback/Reference", "Switch All Inputs Slots to Live Video/ to Playback", and the output routing option "Force Slot to Follow Live Video", (e.g., you can let the composite slot always show the signal of the active input slot mode, or force it to show always the live signal of the configured input slots)
  - Auto-configure the input source for a composite slot using the **Auto mode** in the composite slot settings by letting you configure the source with (option-click) on the desired input slots

Composite slot viewer and settings with side-by-side layout configured

In addition to the composite features, you can choose from various video filters to create tailored views for the different watching roles on set. Read more about working with filters in the article Create Tailored Views With Video Filters.

12

`3CH`

You can add up to 2 composite slots with the Reeltime Pro 3-Channel option

`6CH`

You can add up to 4 composite slots with the Reeltime Pro 6-Channel option

Recording and Playback

Reeltime Pro provides a highly performant video pipeline and a modern recording and playback engine allowing for simultaneous TC-synced group recording of up to six camera signals (in HD resolution at up to 60 fps).

> **Note:** Interlaced video formats are not supported

`BETA`

4K support in beta: Higher resolutions such as UHD (3840×2160) are generally supported but do not yet offer all ANC metadata features, video I/O device support, and performance optimization

RECORDINGS WITH MULTIPLE IN AND OUT RANGES

- There are several ways to **create single recordings and TC-synced group recordings:**
  - You can create a **single recording** from a single camera's live signal with the record button in the individual slot card or the associated menu item or Stream Deck controller action
  - You can create a **timecode-synced group recording** from all currently armed input slots
    - with the record button in the viewer controls (a sync info label indicates which slots are currently synced and will be included in the group recording)
    - or with the "record all" button in the toolbar, or the associated menu item or Stream Deck controller action
  - Generally, all "armed" input slots are recorded in the upcoming group recording. However, you can un-arm slots you want to exclude from the next group recording with the arrow button beside the record button in the slot UI.
  - You can enable and disable recording for a slot by clicking the arrow button beside the record button in the slot UI. When set, the slot is "armed" for the upcoming group recording. For example, if you shoot one scene with three cameras and the next scene will only be shot by two cameras, you can keep your third input slot and un-arm the third slot for that scene.
  - You can set **multiple in and out ranges** during recording for marking several actions within one take
  - The clip name and SMPTE timecode that is embedded in SDI camera signals are stored together with the global metadata for each recorded clip (SMPTE timecode only works with the "Original Timecode" recording setting)

Recording controls with multiple in and out ranges

- In the **recording settings,** you find advanced options to customize settings and behaviors related to recordings:
  - **Timecode:**
    - You can sync by using the **original timecode** embedded in the SDI signal (make sure to jam-sync cameras to create timecode-synced groups using SMTPE timecode)
    - Alternatively, you can sync multiple incoming signals in your group recording by using the **current time as timecode**
  - **Auto Record:** You can trigger start/stop recording based on the **record flag embedded in SDI** camera signals
    - You can choose between different **Trigger Record Behaviours** and **Trigger Stop Behaviours** (e.g., if you can only receive a record for one camera in your setup, you can choose that this camera should trigger start/stop recording for all cameras)
    - If your production requirements allow the use of **RecRun timecode,** you can choose that option as an alternative way to use auto record (e.g., if you cannot receive a record flag via SDI). The RecRun auto record mechanism triggers start/stop recording based on if the timecode is running or not. Consequently, you need to ensure that all cameras are set to RecRun timecode.
  - You can add **multiple "media folders"** to flexibly add additional media storage space
    - Define one media folder as the current "record folder"
    - Learn more about media folders in the article Projects and Media Management.

> **Note:** Blackmagic capture devices do not support receiving the record flag in HANC metadata so that auto record via the HANC record flag is only possible with AJA capture devices.

AUDIO RECORDING AND PLAYBACK

- **Audio recording and playback:** You can connect any audio source that is supported by macOS and include its audio in your recordings
  - The audio settings allow selecting multiple audio input devices and mixing their channels into one dual-mono audio output signal for recording and monitoring
  - The system's audio output device is used for monitoring and playback

> **Note:** Only devices with an input sample rate of 48 kHz are supported. You can configure most audio devices' sample rates via the Audio MIDI Setup app built into macOS. Please avoid changing output devices while recording to avoid gaps in the audio signal.

- The **audio meters** in the toolbar visualize the active audio in green (for playback), blue (for monitoring), and grey (if the audio is muted)
- There is a **global mute button** and an option to always mute live audio within the audio settings panel
- You can add an **audio delay** to the audio recording to keep it in sync with the video signals

SYNCED GROUP PLAYBACK WITH "JKL" NAVIGATION

- There are several ways to load and **playback single clips or TC-synced group recordings**:
  - You can load a synced group recording from the library into the source slots by double-clicking a clip from that group or with the "Load Group of Selected Clip into Source Slots" menu item (or the associated Stream Deck controller action)
  - You can load a single clip from the library into the currently selected slot with the "Load Selected Clip into Current Slot" menu item (or the associated Stream Deck controller action)
  - New recordings are loaded into their source slots for instant playback (you can disable this behavior by checking "Disable automatic loading of new clips for playback" in the recording settings)
- Industry-standard **"JKL" keyboard shortcuts** let you navigate conveniently within clips:
  - Toggle playback (Space)
  - Play forwards/backward (L/J)
  - Play faster (press L/J multiple times to increase playback speed)
  - Play slower (Shift-L/Shift-J, and press multiple times to decrease playback speed)
  - Step to next/previous frame (hold K and press L or J)

> **Tip:** You can control playback with "JKL" controls also with a Stream Deck controller. The Stream Deck buttons behave the same as the keyboard shortcuts. For example, pressing the "L – Forward" button once starts playback forward at normal speed, pressing the button a second time speeds up playback forward to 2X speed, etc.

- Various controls and actions let you **navigate through and edit in and out ranges:**
  - Jump to next/previous in/out point (cycle through)
  - Set In / Set Out: Move in/out point of the nearest range, or add a new range after the last existing range of the clip
  - Clear nearest range, clear all ranges (only via menu or controller actions)
  - Add a new range between two existing ranges (only via menu or controller actions)

- **Ranges playback and looping options** allow you to play back only the marked ranges in a group or single clip:

    - Playback (and loop) the entire clip

    - Playback (and loop) current range

    - Playback (and loop) all ranges

Playback controls with editing options and enabled ranges playback and loop playback

Clip Library and Metadata

Reeltime Pro stores all your recordings in a comprehensive clip library including clip-based and global metadata. The clip library and its underlying media file management (media folders and record folder) is project-dependent so that you can have a dedicated library with individual media file management for each of your shoots.

Manage Clips in the Clip Library

Over the course of a project the clip library grows to a comprehensive log of all shots and rehearsals that can be accessed anytime for review.

Adding Clips to the Libary:

You can add clips by creating recordings manually or automatically using the auto-record mechanism (e.g. following the record flag in SDI signal's ANC metadata).

Additionally, an "Import Movies Into Library…" menu item in the library menu lets you import QuickTime movies in a ProRes codec as a reference.

All clip entires combine the clip specific metadata (such as clip name and timecode from the ANC metadata in the video signal) with the currently filled in global metadata fields which helps later to find clips using the smart groups and/or the text search, etc.

Loading Clips for Playback:

By default recorded clips are automatically loaded for playback into the associated source slot when recording has stopped. If you wish you can disable this behaviour in the recording settings.

Additionally, you can also load a clip manually by double-clicking the clip in the library:

- If the clip is a single recording the clip is loaded into the currently selected slot
- If the clip is in a group the whole group is loaded into its associated source slots for TC-synced group playback, (e.g., the clip from camera A into slot A, the clip from camera B into slot B, etc.)

Using the "Load Selected Clip into Current Slot" menu item or controller action you can also load a single clip form a group into the currently selected slot.

Managing Groups:

You can select the whole group of a clip by option-clicking one clip of the group, (e.g., to edit the metadata for all selected clips in the info tab, see below). Furthermore, you can remove a clip from a group or merge clips into a group, (e.g., if you finished recording in one of the slots accidentally and then restarted recording a second "part" of a clip you will need to add the second part to the group).

> **Note:** Groups are synced through their SMPTE timecode track. When merging groups make sure the timecode of the clips are overlapping.

Applying Clip-Specific Metadata and Global Metadata

Each recording comes with clip-specific metadata fields such as timecode, clip name and camera (slot character). Global metadata are metadata fields that are valid for all recordings in a group, for example slate info fields (scene, shot, take, etc.) and production info fields (shooting day, location, crew unit, etc.).

Clip-specific metadata fields are usually auto-populated based on the metadata in the SDI signal and the slot configuration.

You can fill-in the global metadata fields in the global metadata panel. There is a vertical panel in the upper right hand side of the main view layout or a horizontal panel between the toolbar and viewers in the multi-view layouts. By default the take fields is increased automatically after recording stopped (except for single recordings triggered directly from the slot card). You can disable the automatically increasing for the take field in the recording settings.
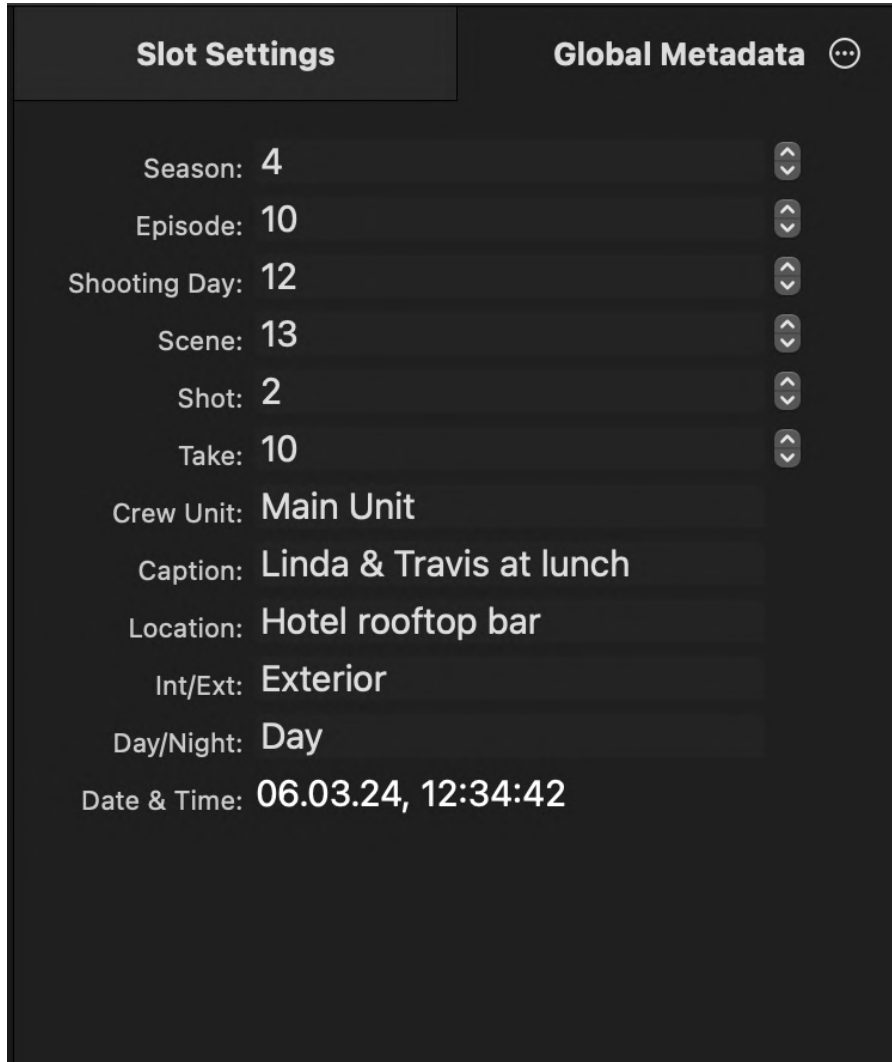
Global Metadata panel in main view window layout

You can set your preferred behaviour (e.g., how the scene field should increment) in the slating settings.

The "Take" field is increased automatically after a recording stopped (you can disable this behaviour by checking "Disable increase of take number after recording has stopped")

The Clip Library's UI Elements

The clip library has multiple UI elements helping you the manage and inspect your clips in your preferred appearance and structure.

CLIP LIBRARY OUTLINE (Folders and Bins):

Clips always reside in bins, and bins can be grouped in folders. Folders and bins can be used to give your project a logical structure by for example grouping shots in shooting days, cameras, units, or scenes. You can create bins and folders with the corresponding buttons above the clip library. Drag and drop bins for grouping bins in folders or reordering bins and folders. You can hide the clip library outline column (e.g., if you prefer to browse the library only using smart groups)

SMART GROUPS:

There is an advanced "Smart Groups" view accessible from the clip library window, that displays a hierarchical structured outline of the currently selected folder level of the shot library. Smart groups are auto-generated based on clip metadata. You can define the hierarchy levels for the outline in an option menu, that provides the metadata fields "Season", "Episode", "Flagged", "Label", "Crew Unit", "Shooting Day", "Scene", "Shot", "Take", "Camera", "Caption", "Location" and "Rating" to choose from. You can also choose from predefined smart group layouts or save and apply custom layouts. You can hide the smart groups column, (e.g., if you want to the clip library outline instead or need more space to view your table content or collection view content.)

> **Note:** Smart groups are pre-filtered by the selected folder/bin in the shot library sidebar. When you want to view all available items in the library, make sure to select the "Library" home folder in the shot library sidebar.

Library with "Scene" > "Shot" > "Take" smart groups

CLIPS TABLE:

The clips table displays the clip entries of the currently selected bin or folder in the clip library.

A clip's metadata is displayed as columns that you can sort by or edit clicking into the field. You can change the list's shown columns with the options menu on top of the clips table. You can also reorder the table columns by dragging them. If you want to use multiple column layouts for different use cases or projects you can save a column layout and/or restore one of the saved column layouts. Furthermore, a text search field lets you display only clip entries that match the currently entered text string.

CLIPS COLLECTION VIEW:

The clips collection view is an additional view in the clip library that visually represents clips with a large thumbnail, the clip's name and rating and flagging properties. By hovering over a thumbnail you can skim through the clip's content and load the clip at the current skim-head position by double clicking. You can use the text search field to display only clip entries that match the currently enters text string.

Tip: You can use the skimming mechanism to find a specific action within a clip. By double-clicking you can directly load the selected clip or group at the skim head's position to start playback at the intended position.

INFO TAB:

The info tab in the lower right-hand side of the interface lets you inspect and edit the metadata of the selected clip in the clip library. If you select multiple clips you can also inspect fields with matching values or multi-edit metadata fields for all selected clips at once.

Tip: Select a whole group with option-click on on of the clips and use the info tab to edit metadata such as rating or flagging for all clips in the group at once

Create Tailored Views With Video Filters

In addition to Reeltime Pro's composite features (available in composite slots and the reference mode of input slots), you can choose from various video filters to create tailored views for the different watching roles on set. For example, the Director my prefer a clean image where the camera's metadata HUD is cropped, while for Script/Continuity seeing the camera's metadata is essential and in addition they would like to see a metadata overlay with the camera name and the slate info. You can flexibly add filters to your slots to serve everyone's needs.

> **Tip:** Consider if it makes sense to apply a filter to an input slot or an output slot. For example, if you want to ensure that everyone sees a look from a LUT filter, you can apply the filter to the input slot. However, if only some watchers want to see metadata overlays, apply the metadata overlay filter individually per output slot.

- **Available Filters:** The application provides the following filters for input slots, library slots, or output slots:
  - **Crop** with offset and rotation parameters and an auto-detection to crop out the black-bordered status info from a camera HUD
  - **Flip** for flipping the image horizontally/vertically
  - **Image Overlay** with offset, scale, and opacity parameters, (e.g., for adding a logo or watermark)
  - **Metadata Overlay** with parameters for the metadata fields Camera, Slate Info, Slot Mode (Playback/Live), Clip Name, and Timecode
  - **LUT** for loading a 3D LUT in a .cube format (e.g., for applying a look if you receive an ungraded signal)
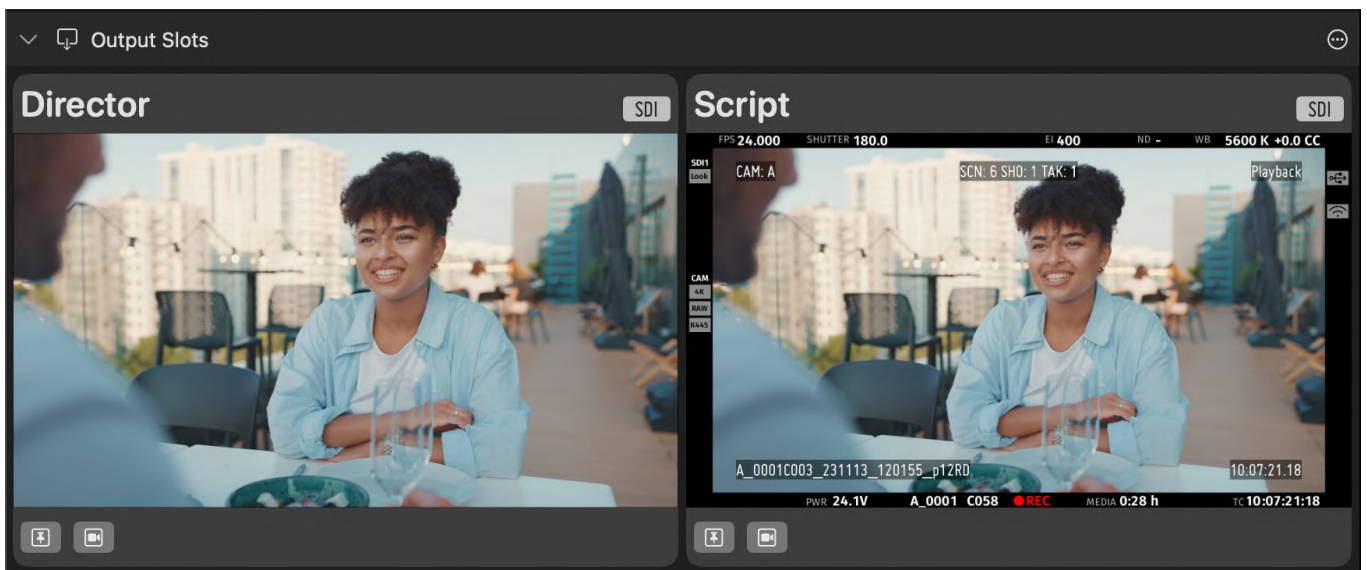
Tailored views configured with individual filters per output slots

- **Filter Settings:**
  - You can inspect and edit filter settings in the settings tab of each slot
  - There are consistent layout options in composite slots and the reference mode of input slots (Side-by-Side, Swipe, Overlay)
  - Filter settings of all currently connected slots are accumulated (for example, an output slot shows filter settings for itself but also for the connected input slot(s) under "Related Filter Settings").
  - Dedicated menu items and controller actions allow you to copy and paste filters and their settings between slots or remove all filters from the selected slot
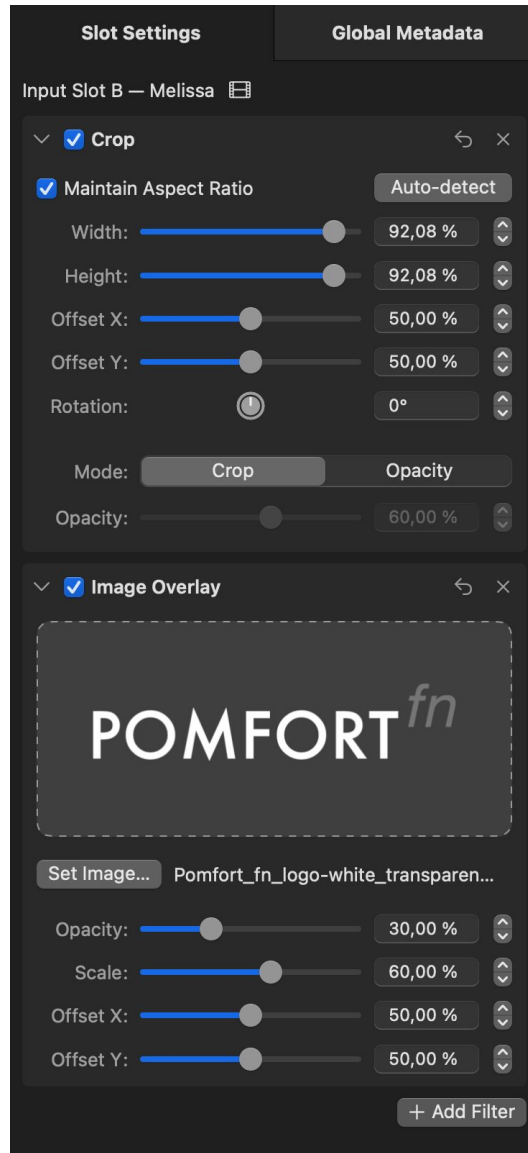
Configured filter settings with crop and image overlay filter

Projects and Media Management

Reeltime Pro allows managing your shoots in separate projects. Each project has its own clip library that stores all clips you record during your shoot with all clip-based or global metadata you applied. Furthermore, each project has an individual media management (with project-dependent media folders and record folder).

> **Note:** The slot and device configuration is a global setting and, hence, not based on the project.

Project Management

Using the "Projects" toolbar button, you can

- create a new project via a "Create Project" window,
- switch to an existing project via a "Manage Project" window,
- or rename the current project

Project-dependent Media Management

Media files recorded within Reeltime Pro are stored in a designated "Media Folder". Each project uses one media folder as the current "Record Folder." When you import create new recordings or import movies, the corresponding media files are saved into the currently set record folder.

Media folders and the current record folder are project-depending settings. Consequently, it makes sense to use a separate media folder/record folder for each project.

You can set the record folder when creating a new project or change the record folder in the "Recording" settings. The default parent directory for project Media is "Reeltime Media" in ~/Movies.
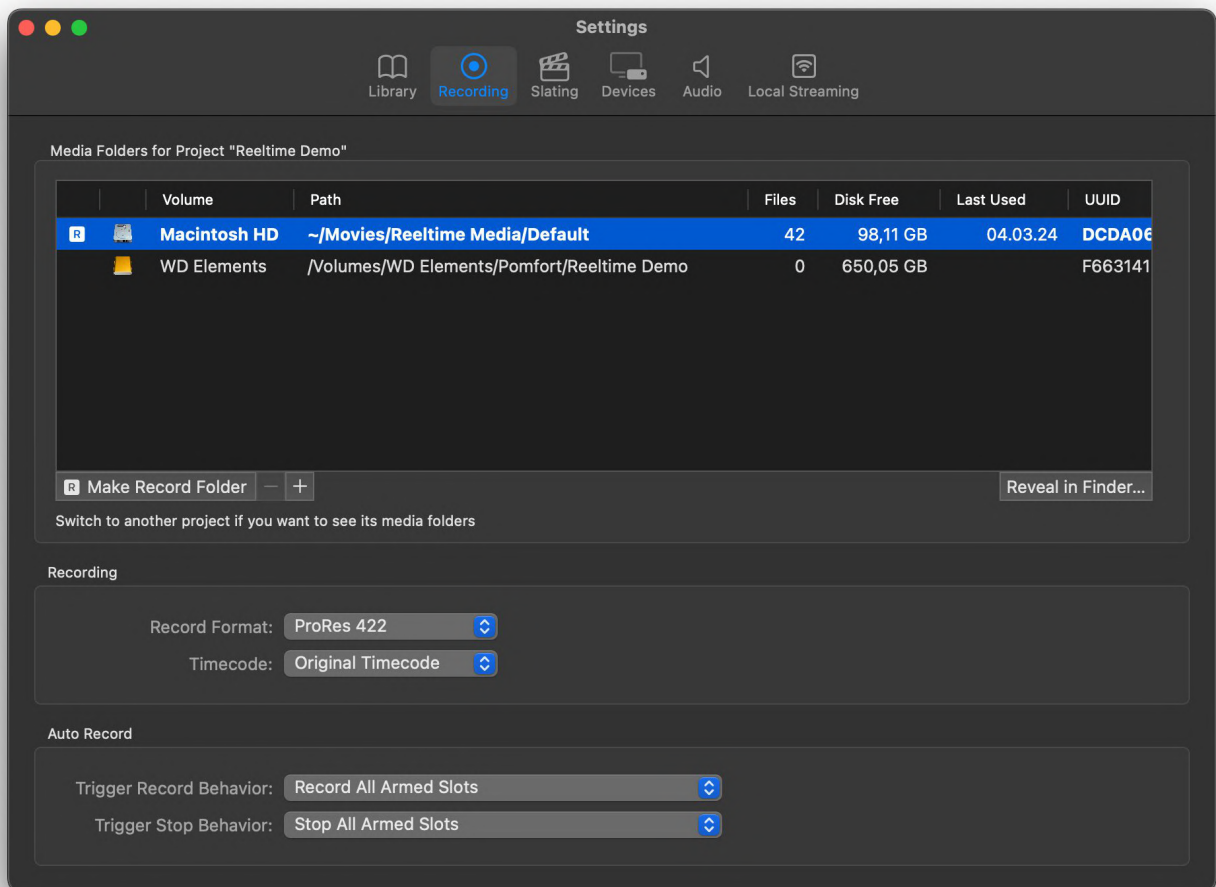
Recording settings

Unique media folder references and media status

Each media folder contains a JSON file holding a UUID for unambiguously referencing.

> **Note:** Reeltime Pro detects a media folder by reading the UUID stored in the JSON file of the folder. Make sure that the corresponding JSON file always remains in its media folder.

Multiple media folders

You can add multiple media folders to the same project. In the media folders table of your project's recording settings you can add and remove media folders. One media folder can be made the current record folder. You can remove all media folders with the exception of the currently set record folder.

> **Note:** When adding a media folder from another project to your project's recording preferences and you delete shots and the associated media files within one of the projects, the files will be offline in both projects

Handling media files

- **Delete Clips:** When deleting clips, you will also delete the associated media file.
- **Reveal In Finder:** A "Reveal In Finder" item in the contextual menu of the clip library lets you quickly reveal the associated media file of a selected clip in its media folder in the Finder.

Device Integrations

Hardware Setup Options

Reeltime Pro allows routing, capturing and playback of SDI video signals on-set. The application comes with built-in integrations for

- video I/O devices by AJA and Blackmagic,
- video routers by AJA and Blackmagic,
- Stream Deck USB controllers,
- and allows connecting any compatible audio interfaces through the macOS system settings

`3CH`

You can add up to 3 input slots and up to 6 output slots with the Reeltime Pro 3-Channel option

`6CH`

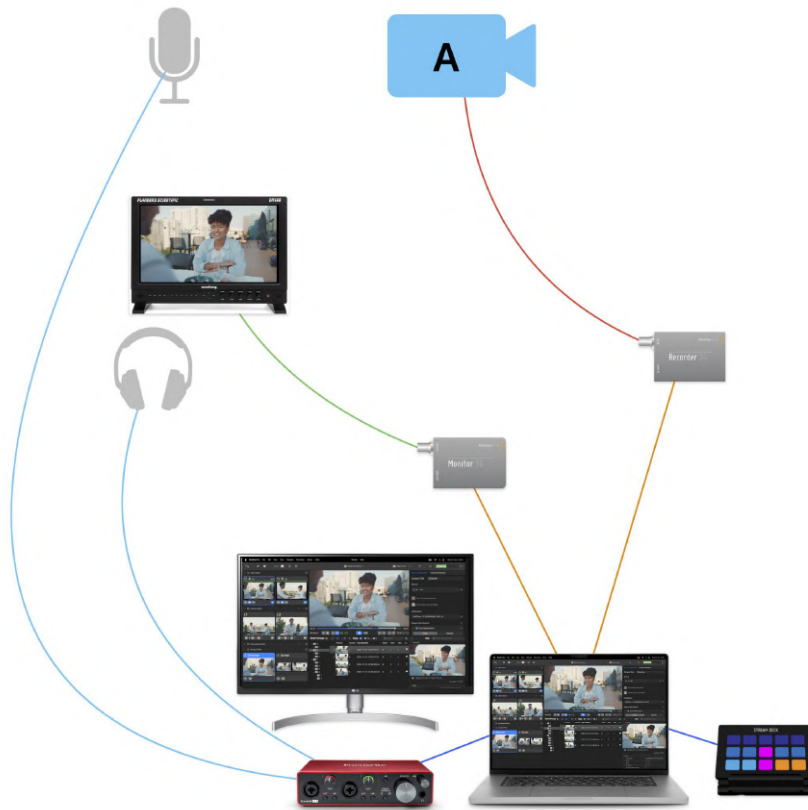You can add up to 6 input slots and up to 9 output slots with the Reeltime Pro 6-Channel option

This article explains typical hardware setups with diagrams of four example setups.

Basic hardware setup (1 camera / 1 monitor)

This is a low-budget setup for a single camera shoot with one SDI monitor. You can increase the number of cameras if you add more devices with SDI input ports, and you can increase the number of monitors if you add more devices with SDI output ports, or a video router for splitting up one outgoing signal to multiple destinations.

Tip: You can use multiple units of the same device type, e.g., two Blackmagic UltraStudio Recorder 3G. Furthermore, you can also use video I/O devices from different manufacturers simultaneously.
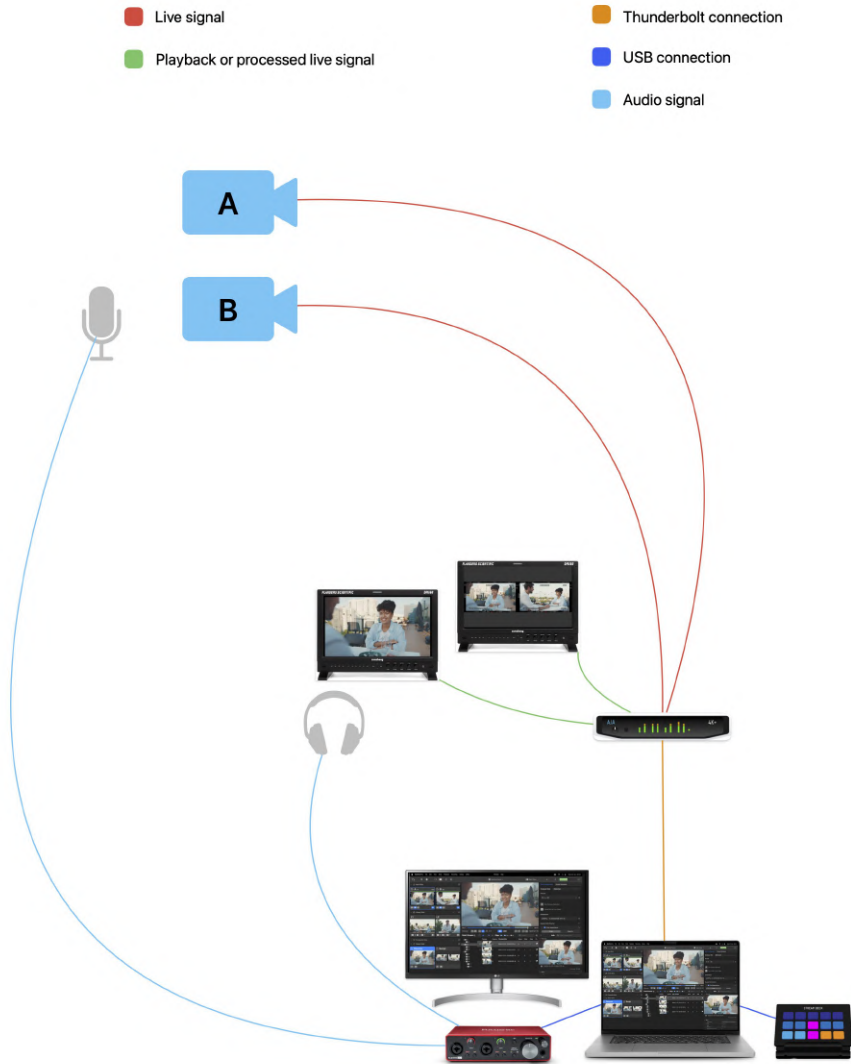

Basic hardware setup with 1 camera and 1 monitor

Basic hardware setup (2 cameras / 2 monitors)

This is a basic setup for a two-camera shoot. In this example, there are two monitors that can either be used as a pair for the same watcher (to show each camera signal on a separate monitor), or they can be used by two separate watchers, e.g., one for the Director and the other for Script/Continuity. Since the AJA Io 4K Plus has 4 bi-directional SDI ports it can handle two inputs and two outputs simultaneously.
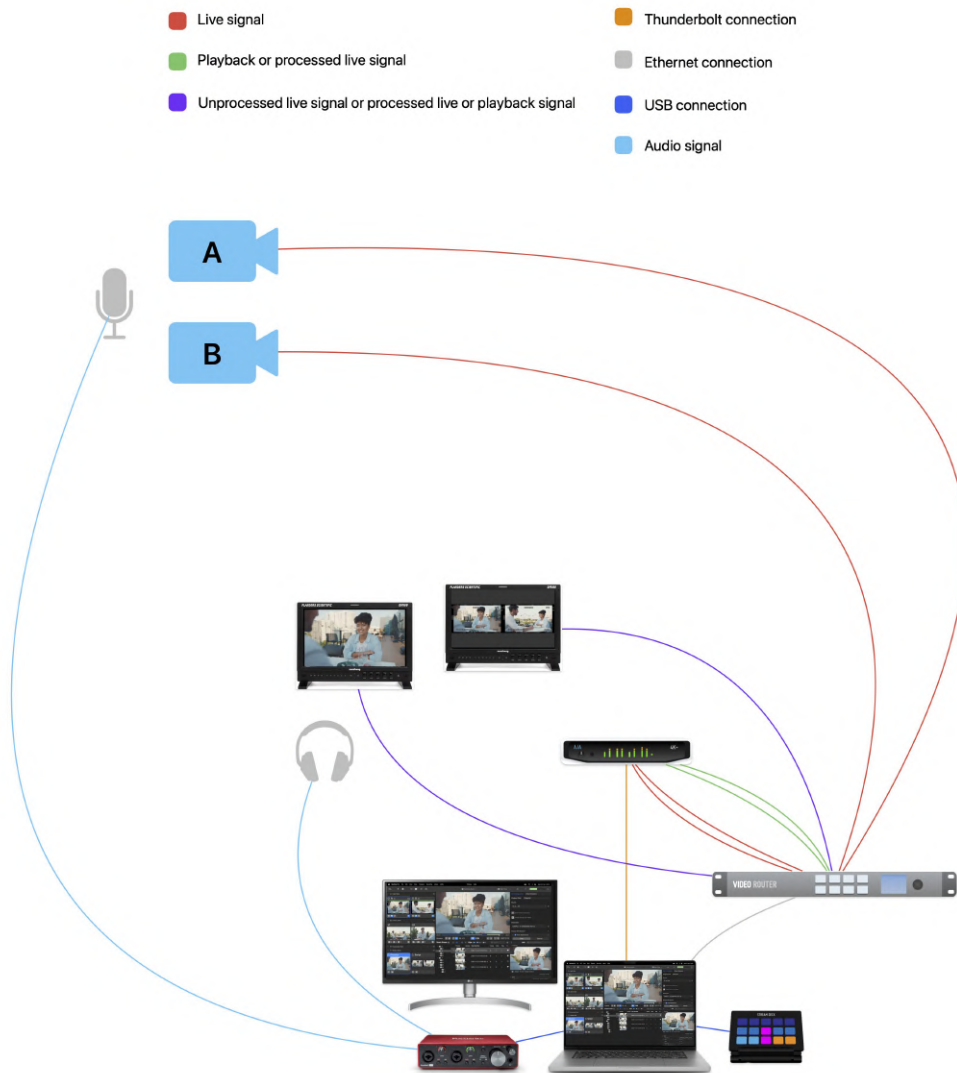

Basic hardware setup with 2 cameras and 2 monitors

Advanced hardware setup with external video router (2 cameras / 2 monitors)

This is an advanced setup with external video roter for a two-camera shoot.

The video router allows for more flexible video routing options. For example, you can set up a video routing configurations that routes the live signal directly to the monitors for lowest latency as possible. Another video routing configuration routes the signal through the software in order to show playbacks, or processed live signals.

> **Tip:** Automations allow you to trigger video routing configurations automatically based on specific events, read the article Manage Configurations for an External Video Router.

Advanced hardware setup with an external video router, 2 cameras and 2 monitors

Advanced hardware setup with Livegrade (3 cameras / 2 monitors)

This is a typical setup for shoots where the DIT in the camera department adds live color to the unprocessed signal using Pomfort Livegrade and LUT boxes. The graded signal is then routed to the video playback station.
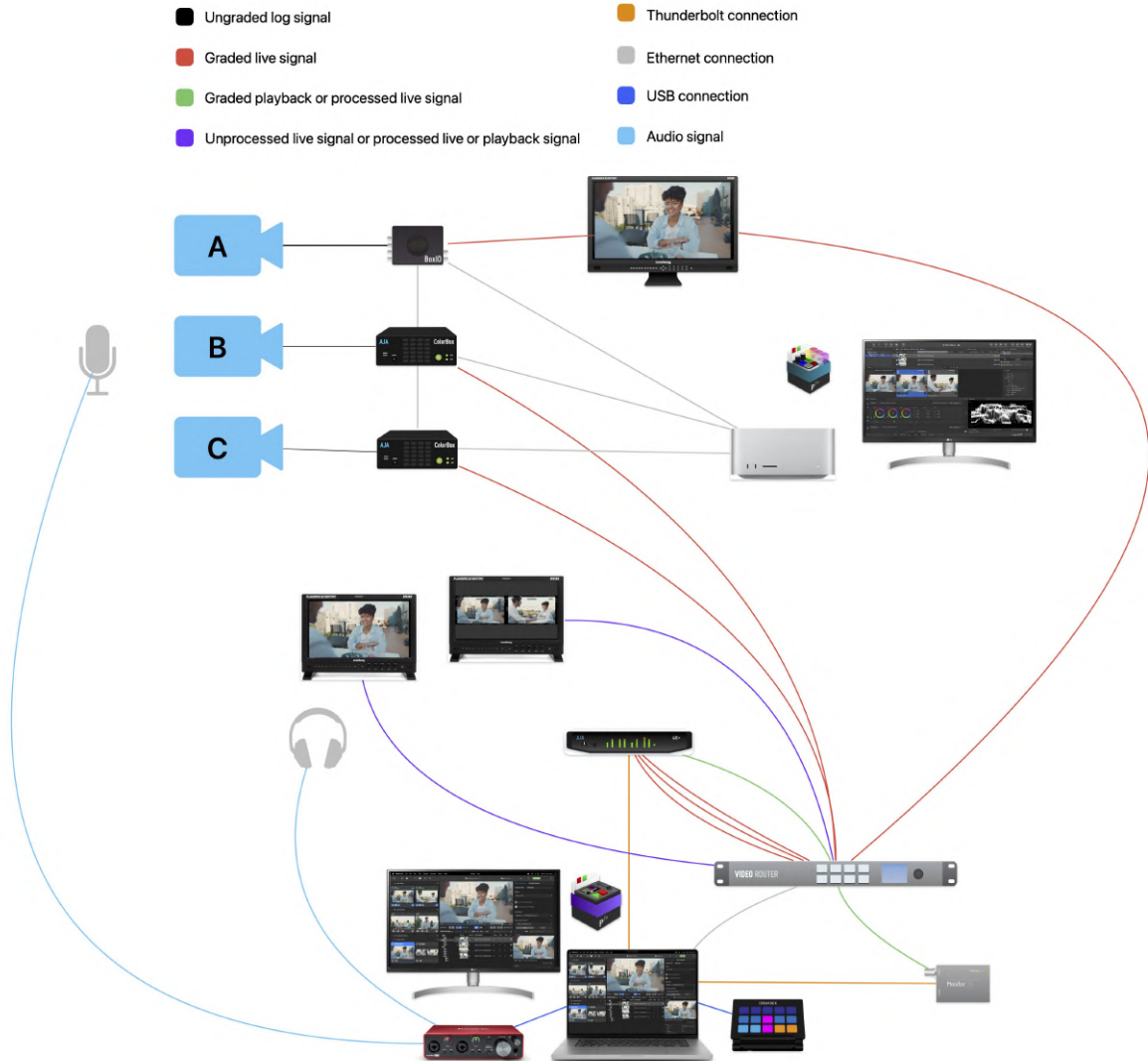

Advanced hardware setup with a Livegrade station, and 3 cameras and 2 monitors at the video playback station

Manage Configurations for an External Video Router

Video routers often sit at the core of a flexible video playback station. Video routers have multiple input and output ports and allow to easily switch the connections between these ports. Reeltime Pro comes with the ability to control a video router and to apply pre-defined configurations of connections – either manually or on certain events such as switching slots in the application's user interface.

The various hardware setup options with Reeltime Pro are described in the article Hardware Setup Options.
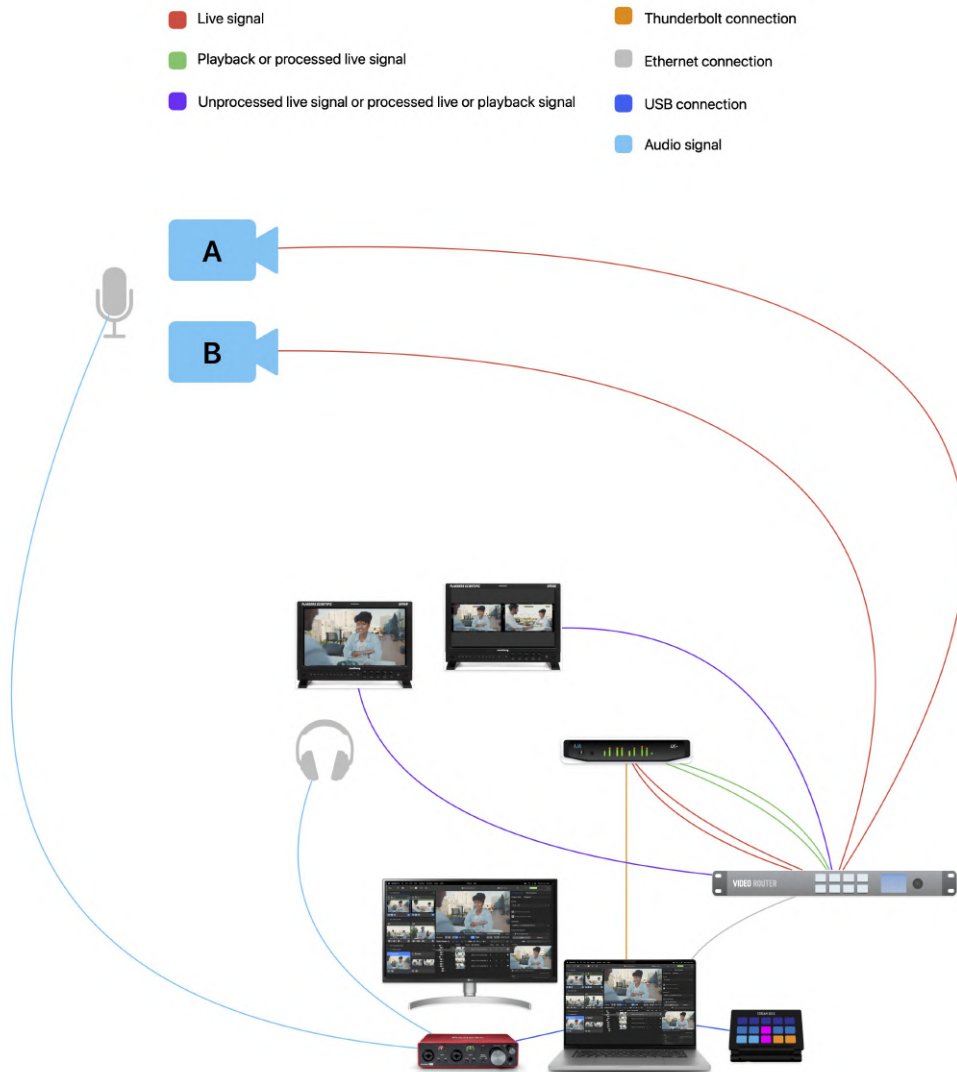
Hardware setup with an external video router, 2 cameras, and 2 monitors

Reeltime Pro has an additional, dedicated view for directly controlling a video router and monitoring routings visually. See Interactive Router Control for detailed information.

You need a working network connection between the computer running Reeltime Pro and the video router. For setting up the network, please refer to your video router's manual.

Managing Video Routing Configurations

You open the Video Routing Configurations window from the main menu by choosing "Configure Video Routing" > "Manage Configurations…" from the application menu.
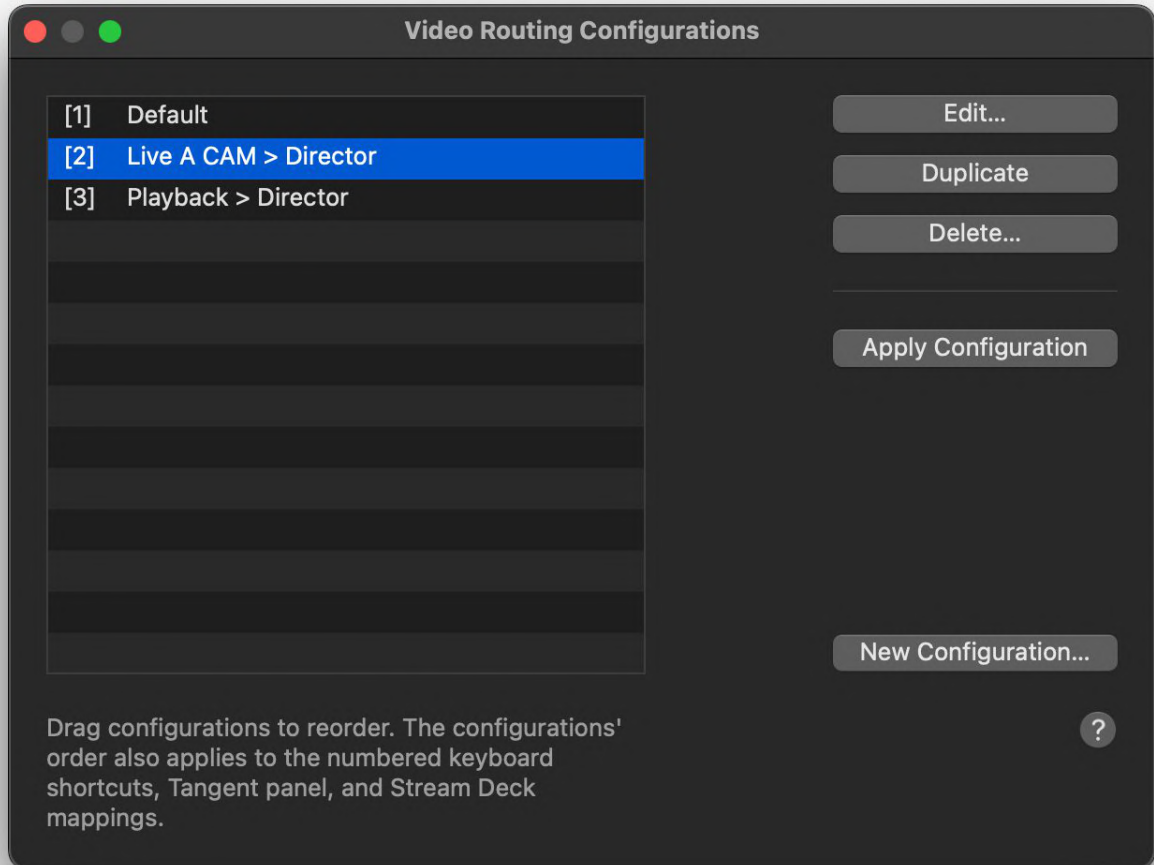
Video Routing Configurations window

The Video Routing Configurations window shows a list of configured configurations and options to edit, duplicate, and delete a selected configuration. You can also test the selected configuration by clicking the "Apply Configuration…" button.

You can rename a configuration by double-clicking the entry in the list.

The configurations have an automatically assigned index number for easier referencing (e.g. when using Stream Deck devices to apply configurations remotely).

You can change the order of the configurations by dragging and dropping a configuration entry in the "Manage Configurations" window.

Creating a new video routing configuration

By clicking the "New Configuration…" or choosing "Configure Video Routing" > "New Configuration…" from the application menu, you open the dialog for creating a new video routing configuration.

To create connections between the in and out ports of your router, you need to connect to the router first. This is needed so the application can fetch a list of ports and their names from the router.

Choose an auto-detected router in the "Router" popup button, or choose the router model family you have (AJA Kumo or Blackmagic Design Smart VideoHub) and enter your router's IP address or hostname. Click the "Fetch IN/OUT Information" button. If the router's information has been fetched successfully, the controls below the connection table get enabled, and you can start creating new connections.

Editing a video routing configuration

Click the "+" button to create a new connection and "-" to remove the selected connection.

When clicking the "+" button below the connection table, you can choose which input (IN) port should be connected to which output (OUT) port. Choose the ports according to your setup and click "Add". You can edit the connection at any time by double-clicking the connection.

Only connections of shown OUTs will be changed when the routing configuration is applied. All other output ports of your router will remain unchanged when applying this configuration.

You can test your current configuration by clicking the "Apply Configuration" button. The configuration will become active in the connected video router.

You can sort the connection table by IN our OUT ports and choose if the selected column is sorted by name or port number with the "Sort Criteria" controls below the table.

When clicking "Load All Connections…" you can fill the connection table with your video router's current, complete routing configuration. This can be useful as a starting point for complex routing configurations with lots of connections.

When clicking "Save…", you will be prompted with a name for the video routing configuration, and the configuration appears in the list of configurations in the Video Routing Configurations window.

Applying video routing configurations via the menu and keyboard shortcuts

Once a video routing configuration is saved, it will also appear in the "Video Routings" submenu of the application menu. When choosing one of the stored configurations in the menu, the configuration gets applied to the connected router.

You can assign keyboard shortcuts to the menu entries for individual video routing configurations with the Keyboard Shortcuts Manager. This allows you to switch between video routing configurations with keyboard shortcuts easily.

See the article about the [Working With Keyboard Shortcuts](#) for more information.

Applying video routing configurations from Stream Deck

You can also apply up to 20 video routing configurations from Stream Deck devices using the Stream Deck plugin. There is a dedicated "Routing" page in the default profiles.

Automating video routing configurations

You can automate video routing configurations by using them as actions in the Automation Manager. This allows you to automate the change of the routing configuration based on a specific event. For example, you can apply different configurations based on whether an output slot receives a live or playback signal to ensure the Director always receives a live signal as a direct feed from the camera without latency.
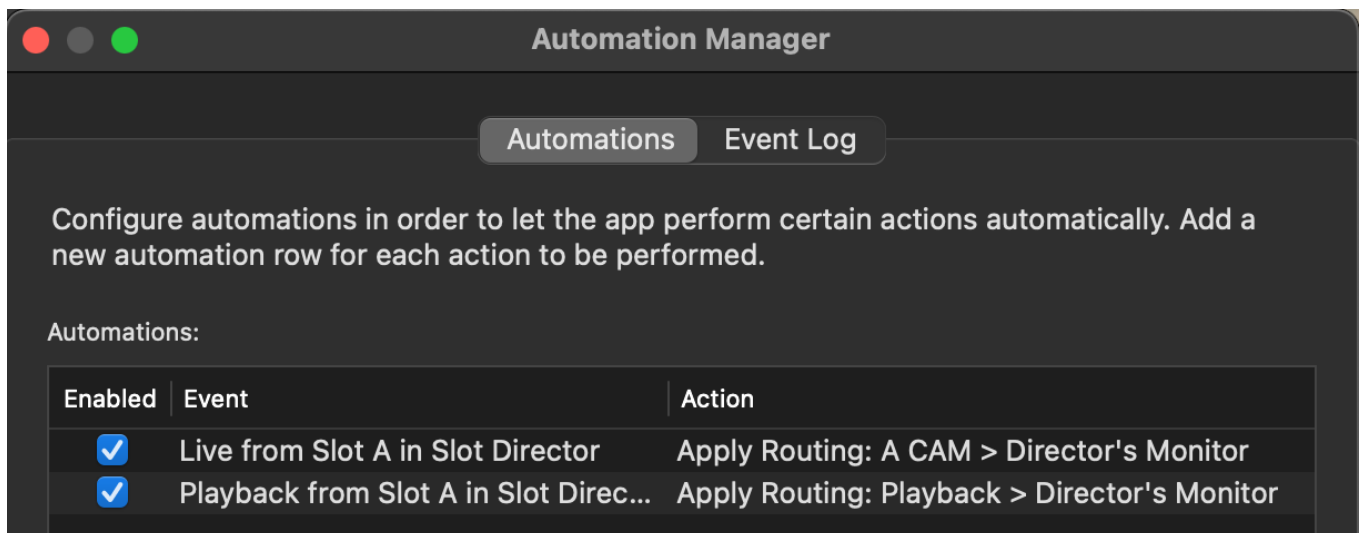

Automation Manager with configured automations to trigger video routing configurations

Interactive Video Router Control

In addition to defining routing presets (see Manage Configurations For An External Video Router for more information) Reeltime Pro has a dedicated view for directly controlling a video router and monitor routings visually.

The video router view displays all inputs and outputs of a connected video router, and lets you interactively change routings.

You can open the video router panel with a dedicated button in the toolbar, or via the application menu "Video Router…".
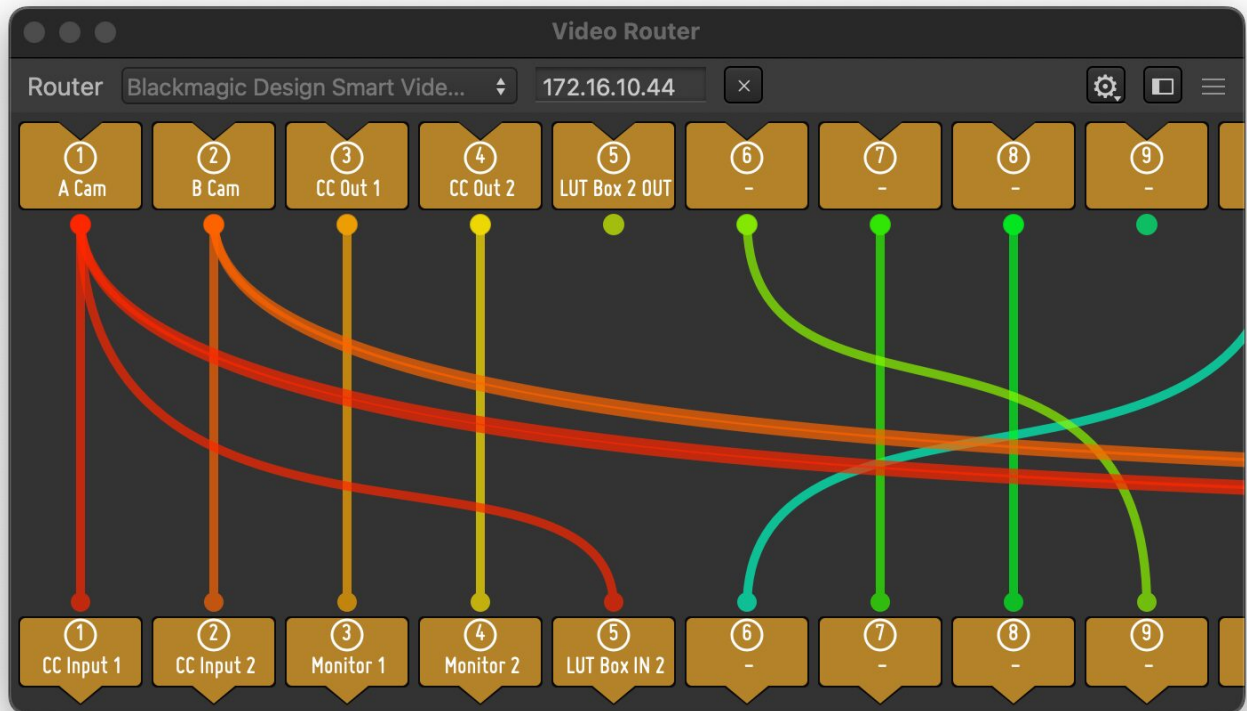
Interactive video routing panel

Connecting to a Video Router

Choose an auto-detected router in the "Router" popup button, or choose the router model family you have (AJA Kumo or Blackmagic Design Smart VideoHub), enter the IP address or hostname of your router and click the connection button besides the field for the IP address. You can disconnect the video router anytime by clicking the connection button again.

Managing Connections

The Video Router view displays all connections between input ports and output ports currently active in the connected video router.

Usually, an input port can be connected to multiple output ports, but an output port can only be connected to one input port. Connections between ports are displayed as colored lines.

Input ports are displayed on the top of the view (on the left in vertical layout), output ports are displayed on the bottom of the view (on the right in vertical layout). The ports display the port number in the router (the circled number) and one or two rows of the name of the port.

Port names can be configured in your video router's administration interface. Please refer to your router manual to learn how to do that.

When connections change (either from within the application or from outside, e.g., by using a hardware control panel or the web UI), they flash in white to indicate the change.

Changing Connections via Selecting Ports

You can select a port by clicking on it. The port and it's current connections get highlighted. You then can click on one of the ports of the other port type to change a connection:

For example, when an input port is selected first and an output port is selected second, the output port changes its connection to the selected input port. You can achieve the same effect by selecting an output port first and the input port second.
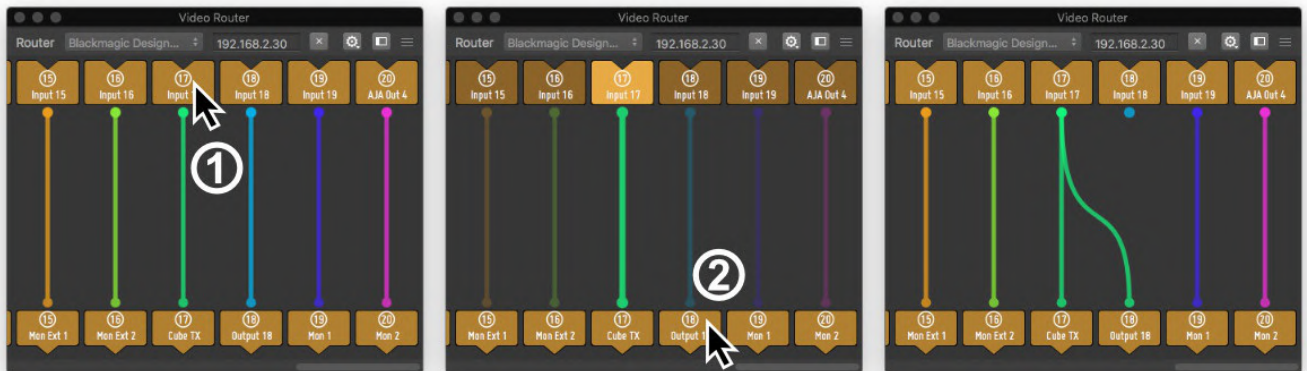
Changing video routing connections by clicking on ports

You can select ports also from the utility menu in the wedge button in the header bar of the Video Routing view, or from the main menu by choosing one of the entries in the "Interactive Video Routing" submenu of the "Video Routing" menu in the application menu.

You can also right-click on each port button to inspect and change the connected port(s).

Changing Connections via Drag-and-Drop

Each port has a small colored circle besides it. You can drag a line from this circle to the port that you want to make connection with.

Video Routing Configurations

You can set up video routing configurations as shortcuts to change one or more connections. See Manage Configurations For An External Video Router for more information.

Configured video routing configurations appear as menu items in the wedge button in the header bar of the Video Routing panel.

You can also use the current state of the video router with all its connections as a starting point for a new configuration. Choose "Save Current Connections…" in the menu of the wedge button in the header bar of the Video Routing view.

Configuring the Video Routing Interaction

You can view connections either in horizontal layout or vertical layout. Choose "View in Vertical Layout" or "View in Horizontal Layout" menu items in the wedge button in the header bar of the Video Routing view to change the layout.

Distributing Local Streams for Companion Apps

Reeltime Pro lets you distribute local streams for the companion apps Reeltime Cinema and Reeltime Viewer. The video streams you distribute from Reeltime Pro in the local network are protected using industry-standard encryption to fulfill your production's security guidelines.

Like all other outgoing signals, you can configure local streams in the output slots. The current version of Reeltime Pro supports up to 9 output slots. Consequently, you can distribute up to 9 different local streams (if you do not need further outgoing signals such as SDI outputs to monitors).

> **Tip:** Reeltime Pro's filter and compositing options let you optimize the appearance of your streams according to the production's guidelines and the individual use cases of the watching roles. For example, you could add an image overlay filter to all streams if your production's security guidelines require that. Or you can create one stream with a clean image for the Director and another with metadata overlays for Script / Continuity.

To give your crew access to the local streams, you can set a password in Reeltime Pro's local streaming settings and share the password with your team members. Additionally, you can display a QR code that links to the companion apps in the App Store or copy the link to share it with other team members.
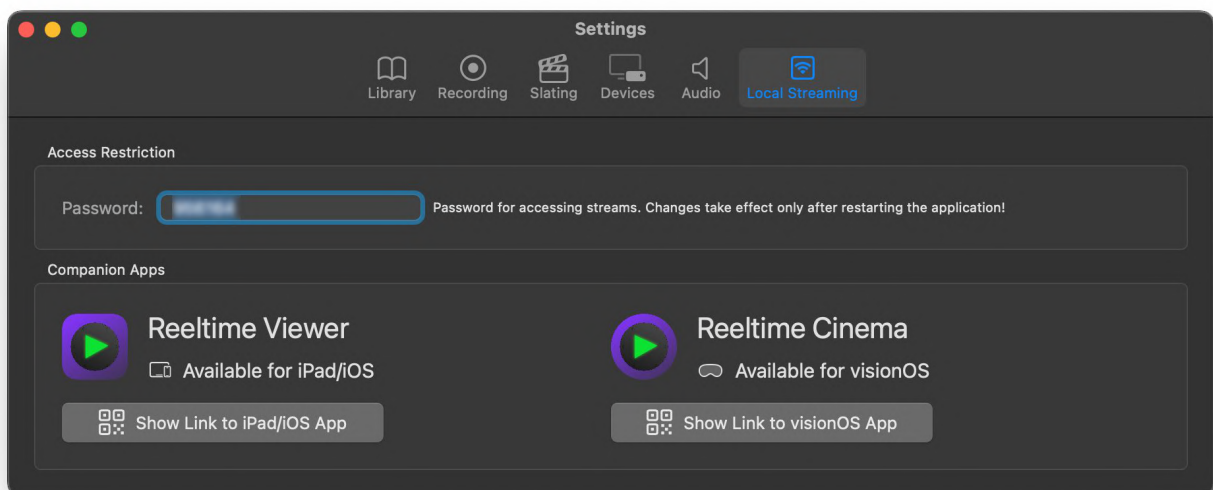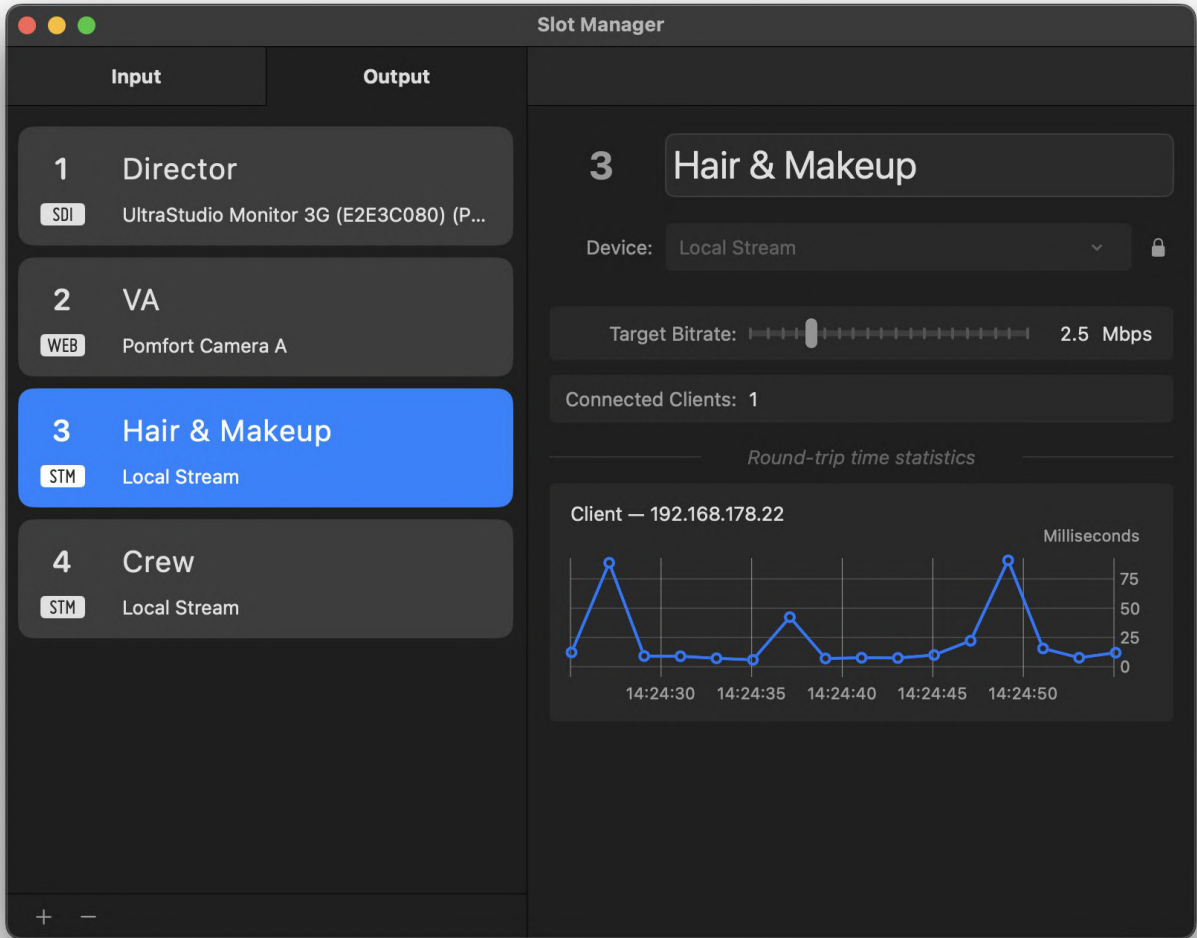

Local streaming settings

To add another output slot as a local stream, open the slot manager and add an output slot in the "Output" tab. Choose "Local Stream" under "Device" and name the output slot as intended.

> **Note:** The output slot's name will appear as the stream's name within the companion app. So, remember that the name should be meaningful and self-explanatory for everyone with access to the local streams.

You can modify the target bitrate in the output slot settings and inspect how many clients are connected to the stream (output slot). Furthermore, a diagram visualizes the round-trip time statistics for each connected client so that you can monitor the connection quality if needed.
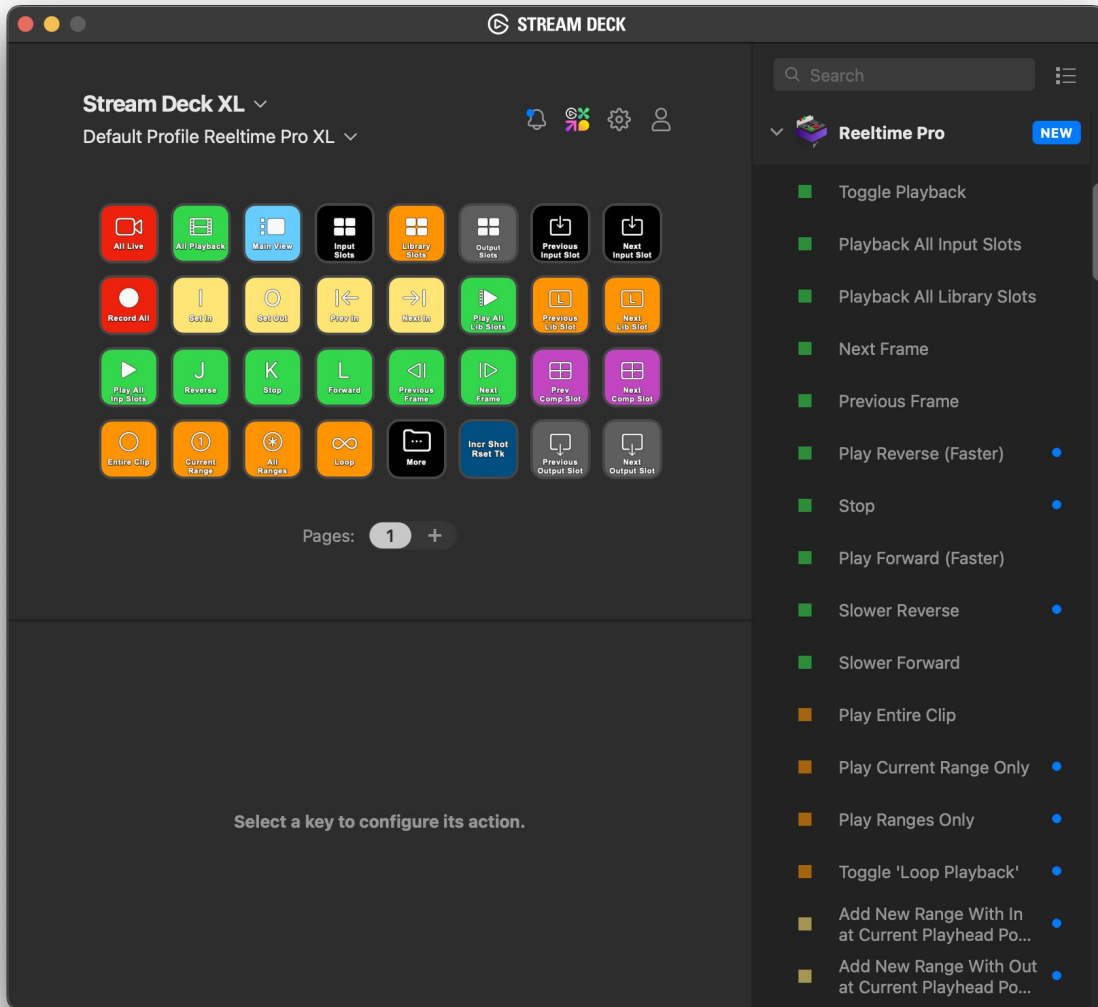

Setting up local streaming through an output slot in the slot manager

Setting Up Stream Deck Controllers

Reeltime Pro integrates with Elgato's Stream Deck devices. There are pre-configured profiles for

- Stream Deck Classic
- Stream Deck XL

devices.

Stream Deck configuration app with installed Reeltime Pro profile

Installation of Your Stream Deck Device(s)

To get started with your Stream Deck device(s),

- download and install the latest Stream Deck configurations app from Elgato's website,
- attach all Stream Deck device(s) you want to use with your computer and
- open Reeltime Pro and choose the menu item "Reeltime Pro" > "**Install Stream Deck Plugin…"**

Reeltime Pro will then install

- **Actions** for Stream Deck devices

- **Default profiles** with recommended configurations for all currently attached Stream Deck devices

Add another Stream Deck Device

If you already installed a Stream Deck device on your computer and want to use another one, attach it via USB to your machine and click *Reeltime Pro* > ***Install Stream Deck Plugin…*** to add default profiles for your attached Stream Deck device.

Configure and Manage profiles

After installing the Stream Deck plugin, open the configuration app and configure the profiles to your personal needs. You can assign, move, or delete actions to the buttons of your Stream Deck.

Troubleshooting

"My Stream Deck buttons show ? question marks."

A re-install of the Stream Deck plugin most often helps.

- Make sure that you are on the latest Reeltime Pro version
- Close Reeltime Pro
- Uninstall the Reeltime Pro plugin in the Stream Deck configurations app by right-clicking on one of the Reeltime Pro actions and choosing "Uninstall…"
- Open Reeltime Pro and go to "Reeltime Pro" > "**Install Stream Deck Plugin…"**

"I updated to a new Reeltime Pro version, and some Stream Deck Actions don't work anymore"

Re-install the Stream Deck plugin via your updated Reeltime Pro app.

- Close Reeltime Pro
- Open Stream Deck configurations app and backup your Stream Deck profiles if you have customized profiles
- Uninstall the Reeltime Pro plugin in the Stream Deck configurations app by right-clicking on one of the Reeltime Pro actions and choosing "Uninstall…"
- Open Reeltime Pro and go to "Reeltime Pro" > "**Install Stream Deck Plugin…"**
- Check if your profiles work again, and if necessary replace non-working actions with a new action
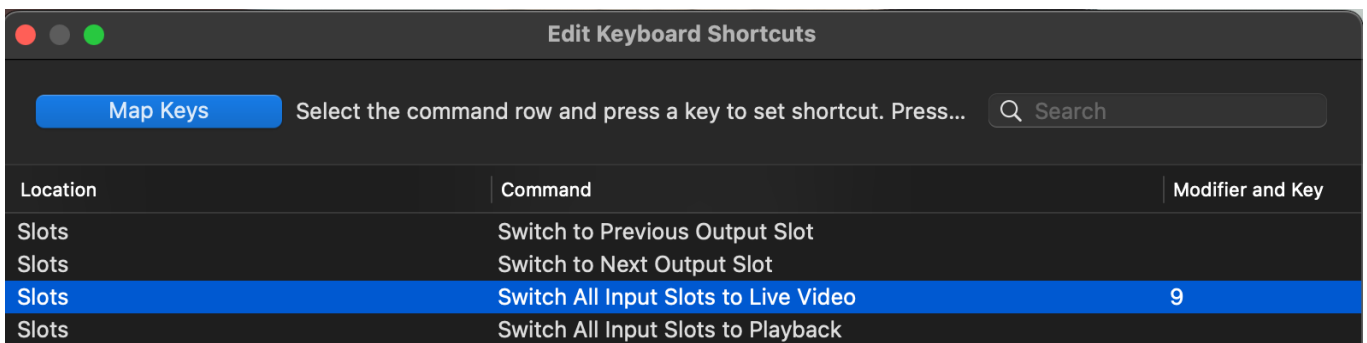
Additional Settings

Working With Keyboard Shortcuts

There are a variety of keyboard shortcuts available for commands in the main menu of the application. Keyboard shortcuts help you to boost your productivity by offering direct physical buttons to features of the application.

Some shortcuts are already predefined. You can also set shortcuts for selected commands that you perform quite often in order to memorize the interaction with the application more easily.

To inspect the exact list of available keyboard shortcuts go to **"Keyboard Shortcuts"** in the application menu. This will open the Keyboard Shortcuts Editor.

Location	Command	Modifier and Key
Slots	Switch to Previous Output Slot	
Slots	Switch to Next Output Slot	
Slots	Switch All Input Slots to Live Video	9
Slots	Switch All Input Slots to Playback	

Keyboard shortcuts editor

Listing and Searching Keyboard Shortcuts

The keyboard shortcut editor shows a table with list of all actions in the main menu with their currently set keyboard shortcuts. You can search the list by typing into the search bar on top of the table.

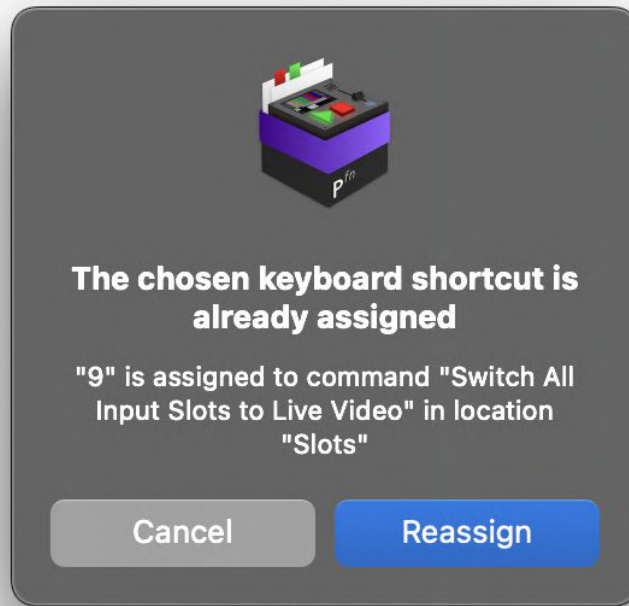**Edit Keyboard Shortcuts**

To edit a keyboard shortcut:

1. Select "Map Keys" to allow changes on the key mapping list.
2. Choose the command row.
3. To set or modify a shortcut press the key or keys to use as the new keyboard shortcut. You can use modifiers, numbers, letters and characters individually or in combination.

To remove the associated shortcut permanently press ⌫ (delete / backspace) button.

Close the Edit Keyboard Shortcuts window when you are done.

If you choose a shortcut already assigned to a command, a warning dialog box will be displayed that shows which command already used the chosen shortcut.

Alert if a key is already assigned

Select "Cancel" and choose another key for your current command, or select "Reassign" which removes the shortcut from the old command and sets it for the selected command.

Restoring Sets of Keyboard Shortcuts

You can reset all keyboard shortcuts to latest version of defaults by clicking "Restore defaults…".

> **Note:** Restoring keyboard shortcuts requires a restart of the application.

Exporting and Importing of Keyboard Shortcuts

The "Export Keyboard Shortcuts…" menu item lets you export your current mapping to a keyboard shortcuts (.rtkeys) file to disk. In the same way, the "Import Keyboard Shortcuts…" menu item lets you import a previously saved keyboard shortcuts (.rtkeys) file.

Multiple Window Layouts

Reeltime Pro has multiple window layouts, each providing different UI elements optimized for typical activities and common setups.

- The **"Main View" window layout** allows access to all components in the application, such as
    - the slot column with sections for input slots, library slots, composite slots, and output slots,
    - the "Main Viewer" with recording and playback controls for the currently selected slot,
    - the global metadata,
    - and the clip library
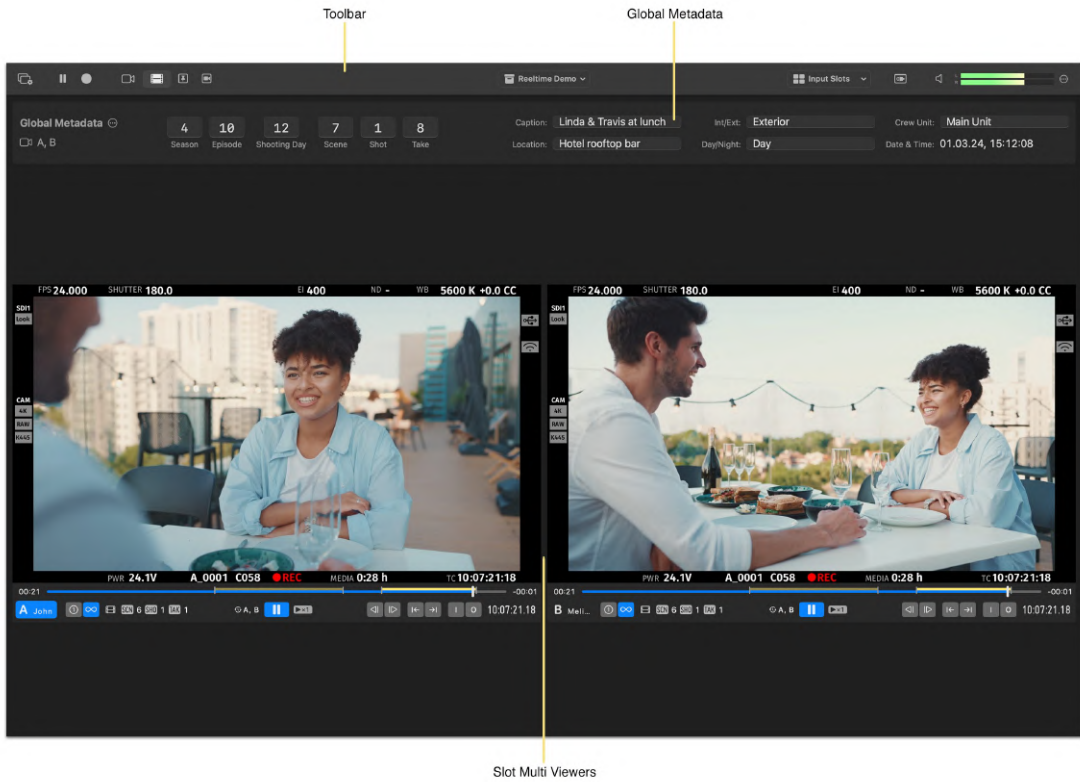

Main View window layout
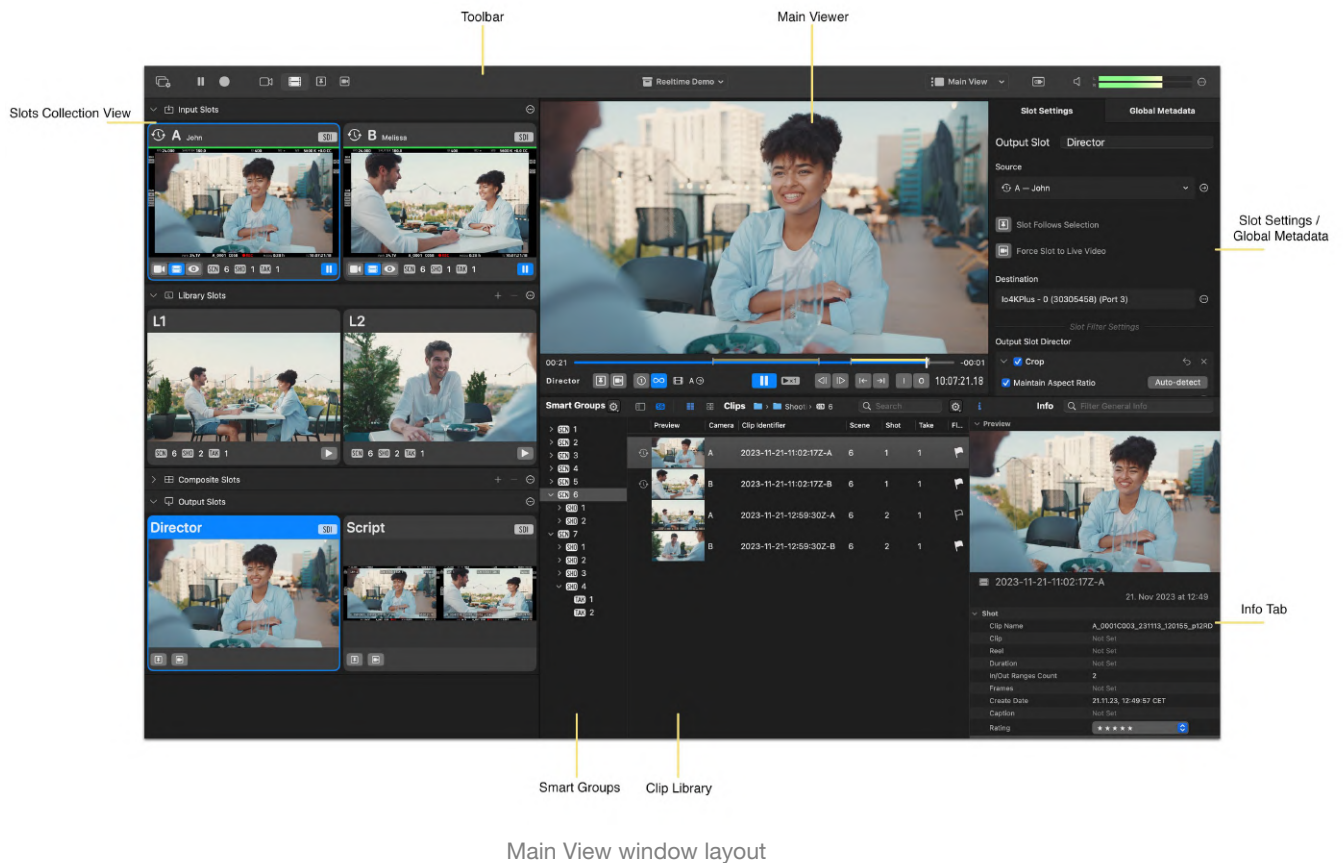
- The **"Multi View" window layouts** are designed to allow viewing and controlling multiple slots simultaneously and provide viewers with controls for all active slots based on the slot types:
    - Input slots (multi view)
    - Library slots (multi view)
    - Output slots (multi view)

> **Tip:** The multi view layouts are optimized to view all your camera feeds simultaneously, also if you work on a small screen, and you do not have a dedicated SDI monitor at your workstation

Multi view layouts automatically adapt their sizing and grid layout depending on the number of configured slots. The multi view layouts can display up to 3×3 (9 slots).

The global metadata panel in the multi view layouts works similarly to the global metadata panel in the main view layout but uses a horizontal layout with larger text boxes. You can increase the values in a text box with the arrow up/down keys and navigate back and forth between fields with a tab or shift tab.

Multi View window layout with two input slots

A picker in the toolbar and associated Stream Deck controller actions let you quickly switch between window layouts.
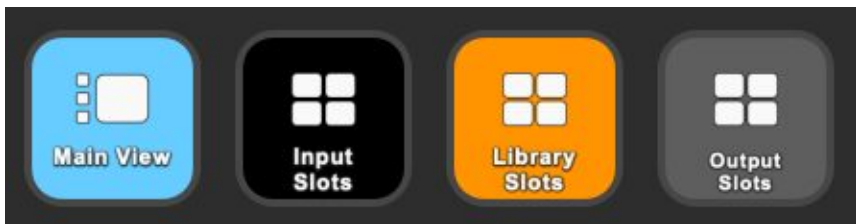

Stream Deck actions allow switching between window layouts

Customizable Toolbar

The toolbar is available in all window layouts and contains buttons for the most common global actions. You can customize the toolbar with the contextual "Customize Toolbar…" menu item (right-click / opt-click on toolbar) and drag and drop more actions into the toolbar or change the position of the buttons.
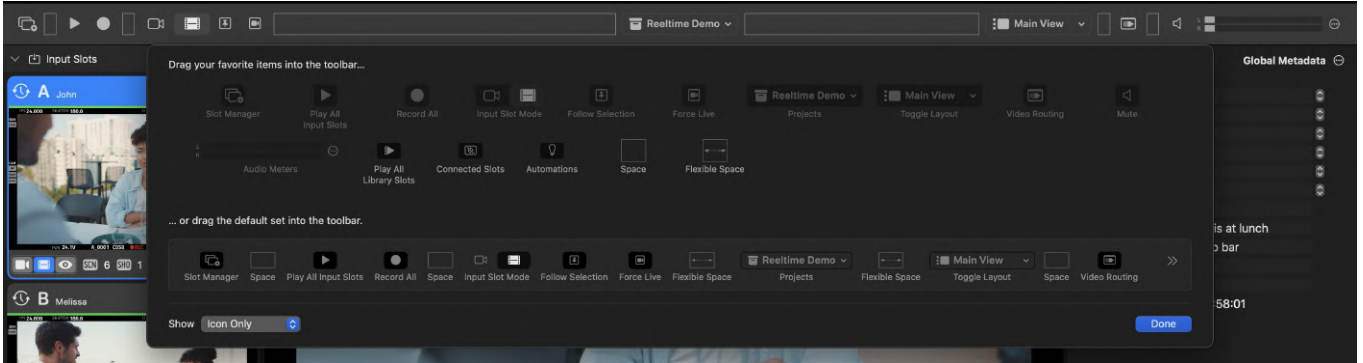
Customizable Toolbar

There are buttons for the following actions:

- **Slot Manager**
    - opens the slot manager window
- **Play All Input Slots**
    - toggles playback for all input slots
- **Record All**
    - toggles recording for all armed input slots
- **Input Slot Mode**
    - switches the slot mode of all input slots (Live/Playback)
- **Follow Selection**
    - sets all output slots to follow the slot selection
- **Force Live**
    - forces all output slots to the live signal (live slot mode)
- **Projects** (picker)
    - allows switching the project,
    - creating a new project,
    - or renaming a project
- **Toggle Layout**
    - allows choosing the window layout:
        - Main view layout
        - Input slots (multi view) layout
        - Library slots (multi view) layout
        - Output slots (multi view) layout
- **Video Routing**
    - opens the interactive video router control panel
- **Mute**
    - globally mutes audio monitoring and playback
- **Audio Meters**
    - visualize the audio level of the current audio signal
    - an options button lets you open an audio pop-over where you can see the current audio configuration and set the audio delay
- **Play All Library Slots**
    - toggles playback for all library slots

44

- **Connected Slots**
    - visually highlights the connected slots of the currently selected slot (e.g., for seeing quickly which source/s are configured to an output slot)
- **Automations**
    - enables/disables all configured automations

Troubleshooting

Troubleshooting Issues With The Software

The application does not start

If the application does not start due to a crash or hang, you should first try to

- unplug all the connected devices and re-open application,
- restart your machine

If that does not help, and Reeltime Pro still doesn't launch on your computer, you can reset the preferences for a clean restart of Reeltime Pro.

> **Note:** Resetting the preferences results in losing your customized settings and slot/device configuration. If you want to keep your current preferences, you can rename or copy (and backup) the preferences; see below.

Follow the below instructions to reset the preferences of Reeltime Pro:

- Quit Reeltime Pro
- Create a copy/backup of the following file (optional)

```
~/Library/Preferences/com.pomfort.ReeltimePro.plist
```

The Library folder is hidden by default. You can open it in Finder by opening the "Go" menu and holding the "option" key. You will see an extra entry, "Library," in the "Go" menu. Choose this entry, and a Finder window will open with the Library folder.

- Open up the Terminal application (type terminal in your spotlight or navigate within the Utilities folder of your application folder)

- Type the following command in your terminal window

```
defaults delete com.pomfort.ReeltimePro
```

- Start Reeltime Pro,
  now Reeltime Pro should again start as usual.

If the problems persist, please contact our [support team](#).

The application hangs, or crashes repeatedly

In the rare case that Reeltime Pro hangs or crashes repeatedly, you can send automatically created reports to our support. You can do this by:

- Choosing "Contact Support" in the "Help" menu of Reeltime Pro.
- Enter your personal information (name and email) so that we can get back to you.
- Enter a short description:
  - What steps do you perform in the software that lead to the problem,
  - what happens when you perform these steps, and
  - what you would expect the software to do instead.

The form will include crash reports, log files, and system information in addition to your message, which will help our support trace possible bugs.

The video signals are stuttering

Under some circumstances the application's performance may not be as good as expected, and the video in the input and/or output may stutter or show other undesired effects. Try the following to troubleshoot the issue:

- Restart the application
- Avoid performing demanding tasks in other applications while working in Reeltime Pro; (if possible, close applications that you do not need)
- Restart your machine
- Close application, unplug connected devices and re-open application
- Check for a newer driver version of your video I/O devices
- In rare cases, resetting the application preferences can resolve the issue (see above)

> **Note:** Removing devices while the application is running may lead to performance issues; therefore hot-plugging devices is currently not recommended.

Known Issues and Limitations

Known Issues

- 4K (6G/12G) SDI input/output with AJA Io 4K Plus is not supported
- The AJA Io XT is not supported
- Ancillary metadata for 6G/12G SDI signals is limited
- Offline media is not handled
- Removing devices while the application is running may lead to performance issues; therefore hot-plugging devices is currently not recommended

Limitations

- Interlaced video signals are not supported