MIDI Control

ARRI Companion App

WORKFLOW GUIDELINE

Date: 08th July 2026

1 Version History

Version	Author	Change Note
2025-10-15	Simon Duschl	First Version
2026-07-08	Simon Duschl	Added details for MIDI Mapping, Global/Dialog Actions and Single/Multi Camera View

2 Disclaimer

This document is intended for ARRI Companion App users who wish to configure and control the application via MIDI. It describes setup procedures, configuration steps, and best practices. Functionality, naming, and user interface may change with future software updates.

3 Table of Contents

4 Introduction

MIDI (Musical Instrument Digital Interface) is a widely adopted communication protocol primarily used in the music industry to connect hardware devices such as keyboards, drum pads, or controllers. The ARRI Companion App supports MIDI to allow external control of camera operations, offering users an extended and customizable workflow.

Please note: To get the MIDI controls, you need the Premium License for the ARRI Companion App.

In case you have further questions, please refer to our ARRI Companion App FAQ.

5 Supported Controllers

MIDI control in the ARRI Companion App works with a variety of devices. While most controllers are compatible, some require specific configuration software. Examples include:

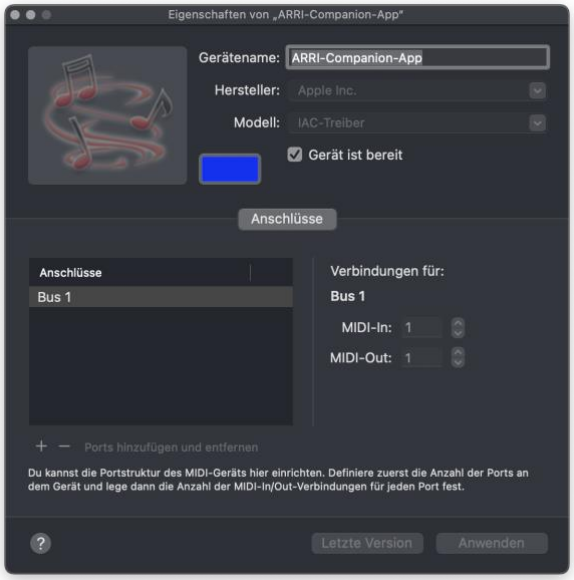
Manufacturer	Product	Website	Note
Arturia	BeatStep	https://www.arturia.com/	used for development
MIDI Fighter	MIDI Fighter	https://www.midifighter.com/	
Monogram	Monogram Creative Console	https://monogramcc.com/	
Loupdeck	Loupedeck CT	https://loupedeck.com/	with MIDI plugin
Elgato	Stream Deck	https://www.elgato.com/	with Stream Deck Midi Plugin
Tangent	Element	https://www.tangentwave.co.uk/	

6 Setting Up MIDI on macOS

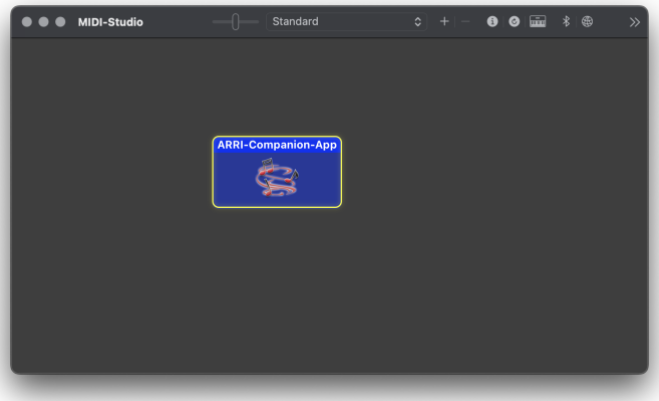
To use a MIDI controller with the Companion App on macOS, connect the controller via USB and configure the IAC Driver in the macOS utility ‘Audio MIDI Setup’. This enables internal MIDI routing between applications.

6.1 Steps in macOS

- Open the “Audio-MIDI-Setup” application



- Choose ‘Window → Show MIDI Studio’
- Double-click the IAC Driver icon
- Activate ‘Device is online’ checkbox
- You can add a custom name for the device e.g. “ARRI-Companion-App”
- Close the dialog and ensure the IAC device appears as available



7 Controller Configuration

The Controllers must be configured to send Control Change (CC) messages, not Note messages. The combination of MIDI Channel and CC number uniquely identifies a control element. The ARRI Companion App works with CC values. The pair of MIDI Channel and CC value will be used to identify the control and maps it into a function in the ARRI Companion App. The CC value (which is in the range of 0-127) defines the state of the control.

7.1 Button Configuration / Modes

Buttons should send values > 64 for 'ON' and < 64 for 'OFF'. Two modes are supported:

- Gate: Sends ‘ON’ when pressed and ‘OFF’ when released
- Toggle: Alternates between ‘ON’ and ‘OFF’ with each press

7.2 Knob Configuration

Knobs must be set to 'Relative' mode, so turning right sends values > 64 and left sends values < 64.

Please note: Avoid 'Absolute' mode, as it is not supported by the ARRI Companion App.

7.3 CC Value Assignment Notes

Please be aware that some MIDI controllers do not allow full flexibility in how specific CC values can be configured. These controllers follow the requirements of the standardized MIDI CC list. In this case, some CC numbers may work as expected and others may not.

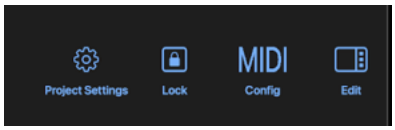
At a minimum, CC values in the range 102–119 are defined as "Undefined" by the MIDI standard and should be freely configurable on most controllers. For additional flexibility, test which CC values your specific controller supports.

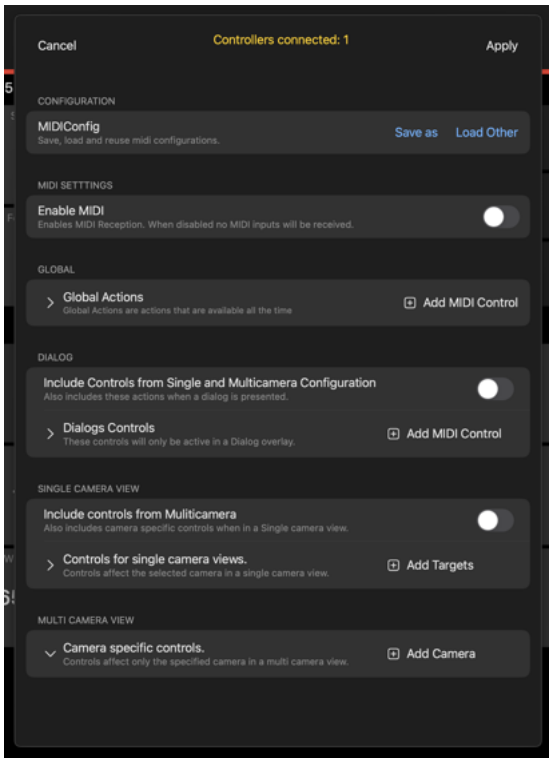
8 Configuration in the ARRI Companion App

The MIDI menu in the Companion App allows mapping of physical MIDI controls to on-screen functions. To access it, click the 'MIDI' button in the top-right corner of the application window.

8.1 Enabling MIDI

Ensure the 'Enable MIDI' toggle is set to ‘ON’. Without enabling, no MIDI messages will be recognized.

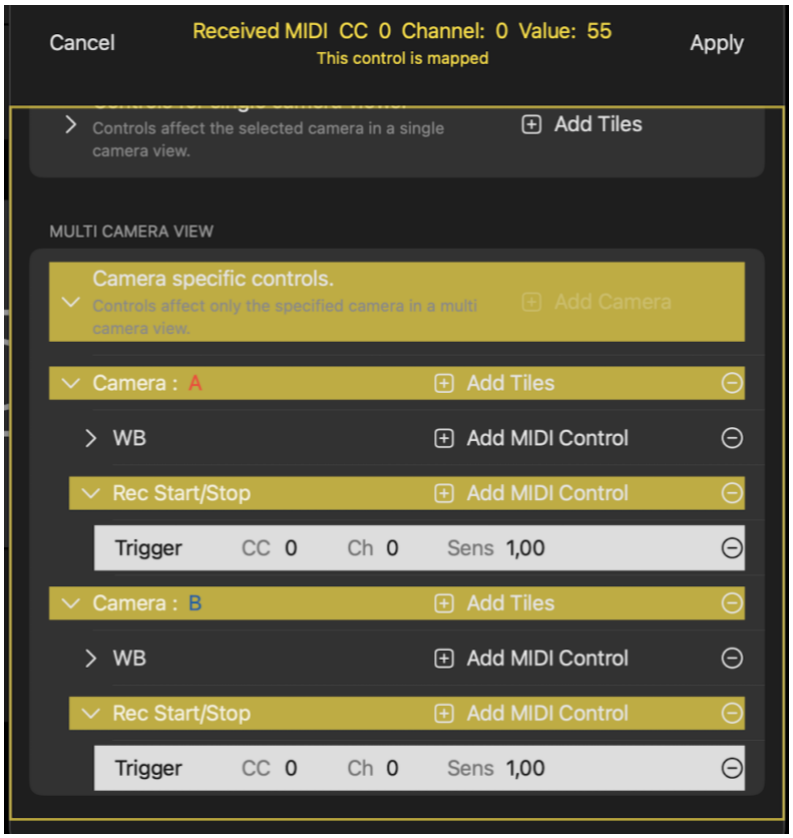


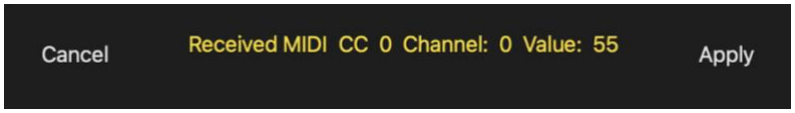

Cancel
Controllers connected: 1
Apply
CONFIGURATION
MIDIConfig
Save, load and reuse midi configurations.
Save as
Load Other
MIDI SETTTINGS
Enable MIDI
Enables MIDI Reception. When disabled no MIDI inputs will be received.
GLOBAL
Global Actions
Global Actions are actions that are available all the time
Add MIDI Control
DIALOG
Include Controls from Single and Multicamera Configuration
Also includes these actions when a dialog is presented.
Dialogs Controls
These controls will only be active in a Dialog overlay.
Add MIDI Control
SINGLE CAMERA VIEW
Include controls from Muliticamera
Also includes camera specific controls when in a Single camera view.
Controls for single camera views.
Controls affect the selected camera in a single camera view.
Add Targets
MULTI CAMERA VIEW
Camera specific controls.
Controls affect only the specified camera in a multi camera view.
Add Camera

8.2 Mapping Controls

Select a function (e.g., 'Lock' in Global Actions) and click the corresponding row to activate learning mode. When the row turns blue, press the desired button or turn the knob on your MIDI controller. The app will automatically map the input e.g. if you are sure your controller is recognized, you can start hitting buttons and knobs, which you have previously configured on the controller. You should see a message(s) saying:

“Received MIDI CC <Num> Channel: <Num> Value:<Num>”





Please note: If a warning message “No controllers connected” at the top of the sheet appears, please check the connection of your controller to the device.

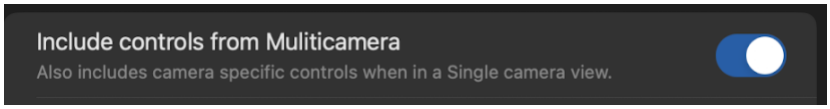
8.3 Configuration Sections

There are four main sections for configuration:

- Global Actions (always active)
- Dialog Actions (active within pop-up dialogs)
- Single Camera View
- Multi Camera View

Each section can include or inherit actions from others using the 'Include controls from…' toggle. This function can be used to include controls from the

- ‘Multicam’ configuration only
- ‘Single’ and ‘Multicam’ configuration



8.3.1 Global Actions

Global Actions are always active, regardless of which view or dialog is currently displayed in the app. This section is the recommended starting point for any MIDI configuration. The following actions are available:

- **Lock:** Maps to the Lock button. When activated, disables all MIDI and on-screen interaction with the app (except the Lock button itself).
- **Activate:** Activates all MIDI controls currently visible on screen in one action. If no Activate control is defined anywhere, MIDI controls are active by default.
- **To <Tab Name>:** Navigation actions to switch to a specific tab. One action per tab in the current project (e.g., 'To Default' for a new single-tab project).

Each mapped action row displays the following fields from left to right:

- **Action Name:** The name of the mapped function (e.g., "Lock").
- **CC:** The CC number assigned to this action.
- **Ch:** The MIDI Channel assigned to this action.
- **Sens:** Sensitivity - defines the magnitude of effect for knob-based controls.
- **T (Type):** Type - must match the button mode on the controller: Gate or Toggle. A mismatch causes unexpected behavior (e.g., Toggle on controller + Gate in app = must press multiple times; Gate on controller + Toggle in app = must hold button to activate).

Please note: Actions that remain unconfigured (no CC and Channel assigned) are automatically removed when you save and reopen the MIDI configuration.

8.3.2 Dialog Actions

The Dialog section contains MIDI actions that are only active when a pop-up dialog overlay is open in the app - for example, when tapping an FPS or White Balance tile to open its adjustment overlay. These actions are general and not tied to a specific tile type or camera. The following actions are available:

- **Knob:** Controls the circular virtual knob in the dialog overlay.
- **Second Knob:** Currently used exclusively in the White Balance overlay to control Tint.
- **Switch:** Button alternative to Second Knob - switches the primary knob between the main parameter and Tint.
- **Play/Pause:** Play and pause in the Playback overlay.
- **Skip Fwd:** Skip to end of clip or next clip in Playback.
- **Skip Back:** Skip in the opposite direction in Playback.
- **Fwd Frames:** Jump a defined number of frames forward. Number of frames set via Sensitivity.
- **Back Frames:** Jump a defined number of frames backward. Number of frames set via Sensitivity.

Please note: For Fwd Frames and Back Frames, the Sensitivity field defines the number of frames to jump. You can create multiple instances with different Sensitivity values -for example, one button that jumps 50 frames and another that jumps 1000 frames. The same applies to Knob actions: multiple instances with different sensitivities allow coarse, regular, and fine adjustment.

8.3.3 Single Camera View

Actions in the Single Camera View section are more specific than Dialog Actions, as they are mapped to a specific tile type (e.g., FPS, White Balance, Playback, ND Filter). They remain camera-independent — the mapped control always applies to whichever camera is currently active in the view.

To add a tile type, click "Add Targets". The menu shows all tile types present in the active tab of your UI. The following actions are available per tile type:

- **Knob:** Adjusts the primary parameter of the tile.
- **Secondary Knob:** Controls Tint (e.g., in White Balance tile).
- **Swap:** Switches the Knob between primary parameter and Tint.
- **Play/Pause:** Play and pause in the Playback tile.
- **Skip Forward:** Skip to end of clip or next clip.
- **Skip Backward:** Skip in opposite direction.
- **Skip Frames Fwd:** Jump defined frames forward (set via Sensitivity).
- **Skip Frames Back:** Jump defined frames backward (set via Sensitivity).
- **Selector:** For list-based controls (e.g., ND Filter): moves up or down through list values.
- **NextInList:** Moves to the next value in a list-based control.
- **PrevInList:** Moves to the previous value in a list-based control.
- **SetValue:** Sets a specific parameter value directly. The value is defined in the Sensitivity field. See parameter-specific rules below.
- **Activate:** Activates MIDI controls for this tile. If not defined, the tile is active by default (unless globally Locked).
- **Dialog:** Triggers the dialog overlay for this tile.

SetValue - parameter-specific value rules:

- ND Filter: Value × 1000. Examples: ND 0 → 0, ND 0.6 → 600, ND 1.2 → 1200, ND 1.8 → 1800, ND 2.1 → 2100.
- Exposure Index (EI): Enter the value directly. Examples: EI 800 → 800, EI 1600 → 1600. On ALEXA 35 with ESM mode, add 0.5 (e.g., EI 6400 ESM → 6400.5).
- Focus: Value in millimetres. Examples: 1 m → 1000, 10 m → 10000.
- Iris: 1000 code values per stop, starting at f/0.7. Examples: f/0.7 → 0, f/1.0 → 1000, f/1.4 → 2000, f/4 → 5000, f/8 → 7000, f/16 → 9000.
- Zoom: 1000/mm. Example: 35 mm → 35000.
- List-based tiles: the value must exactly match a value present in the list - otherwise the action has no effect.

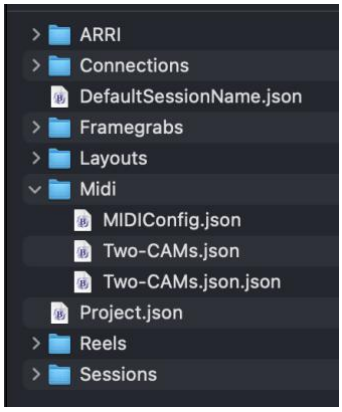
8.4 Configuration File Management

MIDI configurations are stored in JSON files within the project's MIDI folder and can be manually accessed from there. The structure contains sections for Global, Dialog, Single, and Multi Camera configurations, each defining associated CC and Channel values.

Users can load, save, and share these setups between projects. The default configuration file name is 'MIDIConfig' in the 'Midi' folder.

The project folder for ARRI Companion App on macOS is in:

/Users/[Username]/Library/Containers/Companion/Data/Documents/Projects/[Project Name Folder]



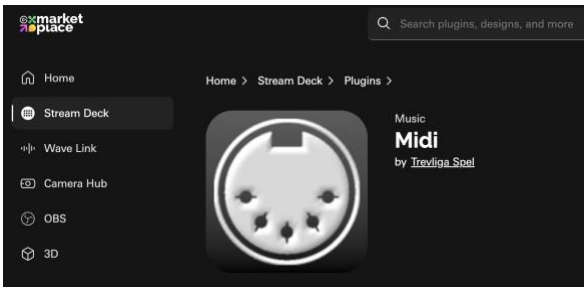
9 Best practice

This chapter will show you some “Best practice” and examples for MIDI control.

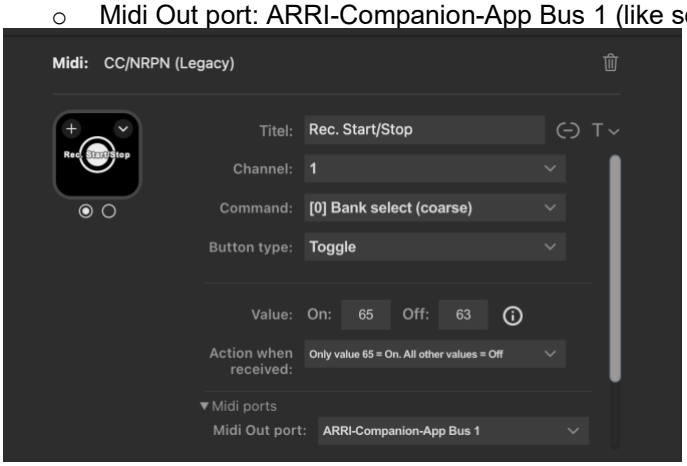
9.1 Mapping MIDI controls for Rec. Start/Stop | Elgato Stream Deck

The Elgato Stream Deck can be integrated using the free 'MIDI Plugin by Trevliga Spel'. This allows Stream Deck buttons to send MIDI CC commands directly to the Companion App.

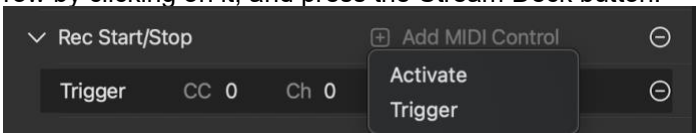
- Connect your Stream Deck to your Mac.
- Open 'Audio MIDI Setup' on macOS and ensure the IAC Driver is active (see above)
- Open the Stream Deck software and install the ‘MIDI plugin’ by Trevliga Spel from the Elgato Marketplace.

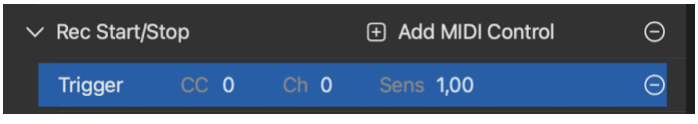


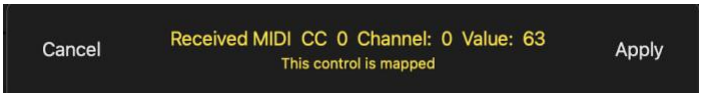
- Assign a 'CC/NRPN (Legacy)' command to a Stream Deck button and set CC/Channel values e.g.
  - Titel: Rec. Start/Stop
  - Channel: 1
  - Value On: 65
  - Value Off: 63
  - Command: [0]Bank select (coarse) (default)
  - Button Type: Toggle
  - Midi Out port: ARRI-Companion-App Bus 1 (like set in macOS ‘Audio-MIDI-Setup’)



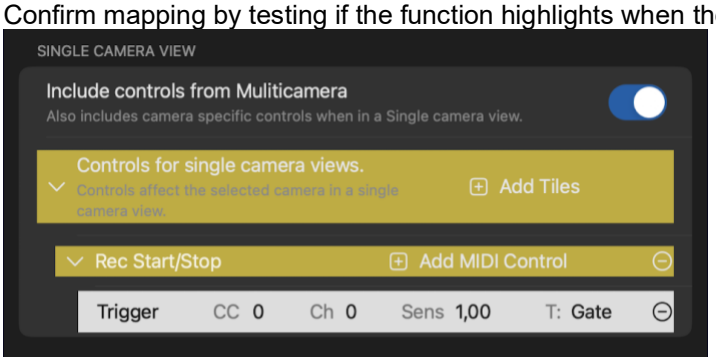
- In the Companion App, open the MIDI menu and enable MIDI.
- In the ‘Single Camera View please select a function (e.g., Rec Start/Stop), activate the blue learning row by clicking on it, and press the Stream Deck button.







- Confirm mapping by testing if the function highlights when the button is pressed.

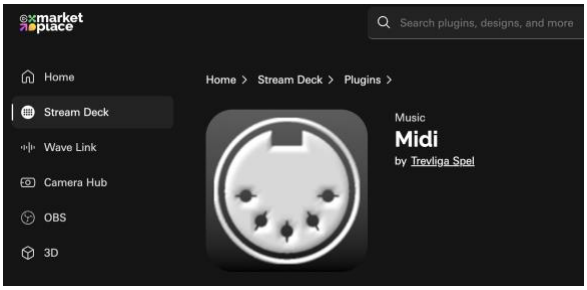


- In the ‘Tile’ view the corresponding function, in this case the “Rec.” Tile should be highlighted blue. By pressing the “Rec. Start/Stop” button on the Stream Deck the camera should start recording. By another button press, the recording should stop.

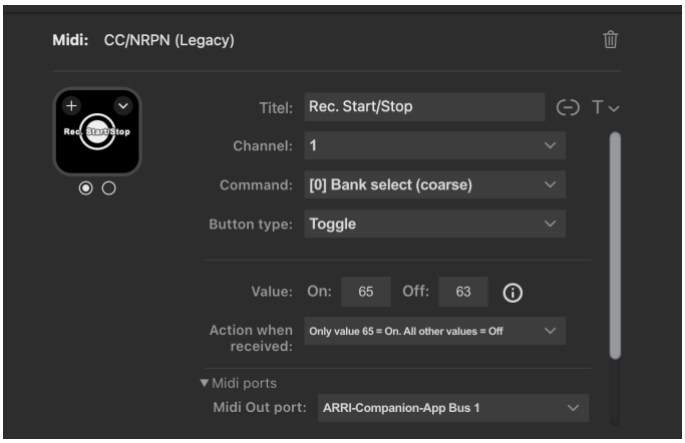
9.2 Mapping MIDI controls for Rec. Start/Stop with “Multicamera” functionality | Elgato Stream Deck

The Elgato Stream Deck can be integrated using the free ['MIDI Plugin by Trevliga Spel'](). This allows Stream Deck buttons to send MIDI CC commands directly to the Companion App.

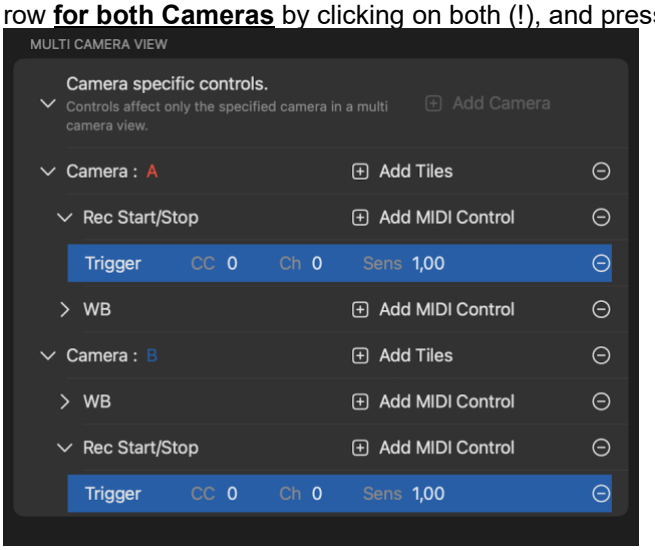
- Connect your Stream Deck to your Mac.
- Open 'Audio MIDI Setup' on macOS and ensure the IAC Driver is active (see above)
- Open the Stream Deck software and install the [‘MIDI plugin’ by Trevliga Spel]() from the Elgato Marketplace.



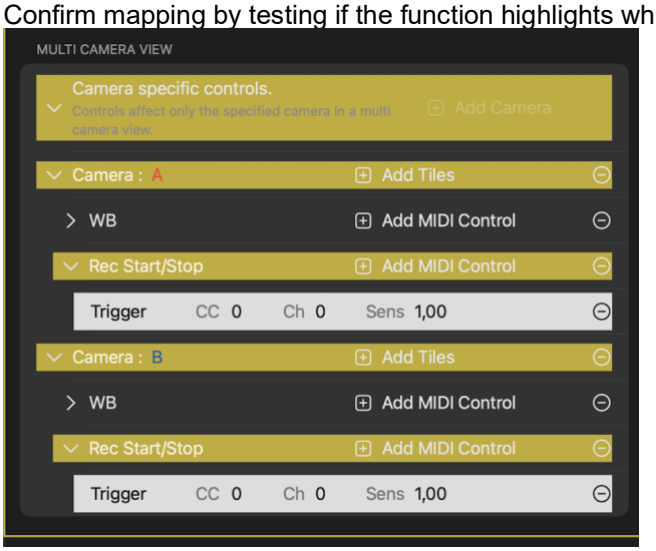
- Assign a 'CC/NRPN (Legacy)' command to a Stream Deck button and set CC/Channel values e.g.
  - Titel: Rec. Start/Stop
  - Channel: 1
  - Value On: 65
  - Value Off: 63
  - Command: [0]Bank select (coarse) (default)
  - Button Type: Toggle
  - Midi Out port: ARRI-Companion-App Bus 1 (like set in macOS ‘Audio-MIDI-Setup’)



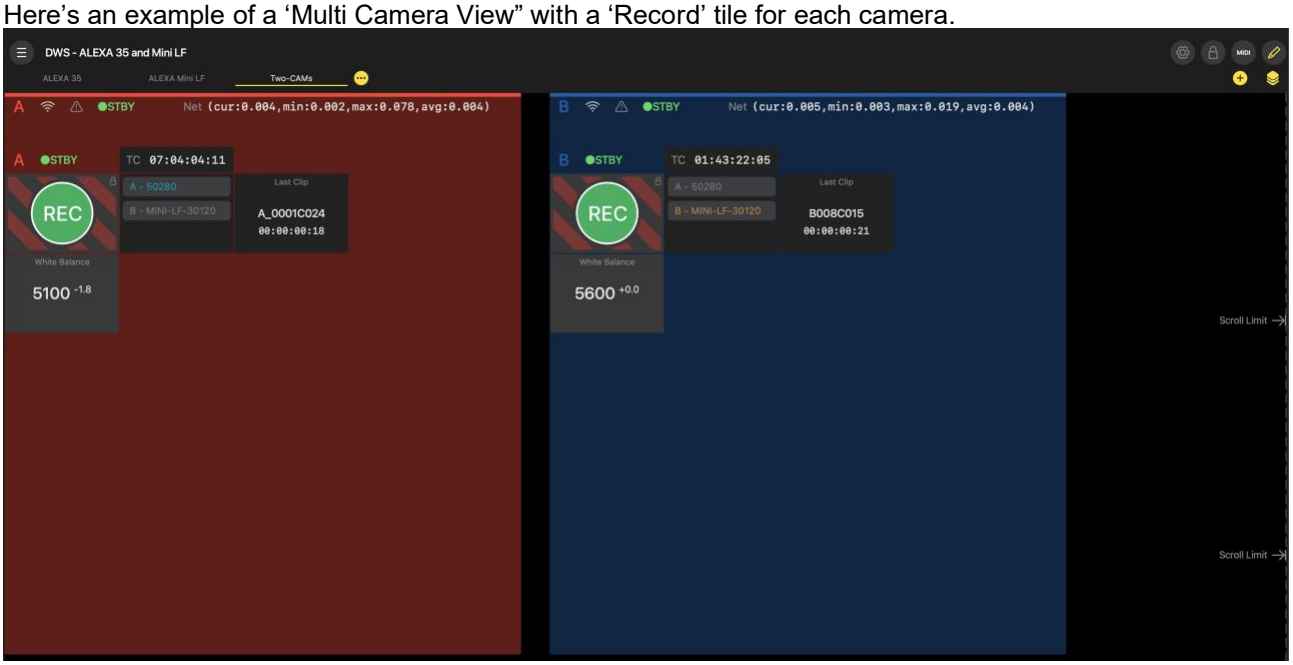
- In the Companion App, open the MIDI menu and enable MIDI.
- In the ‘Multi Camera View’ please select a function (e.g., Rec Start/Stop), activate the blue learning row **for both Cameras** by clicking on both (!), and press the Stream Deck button.



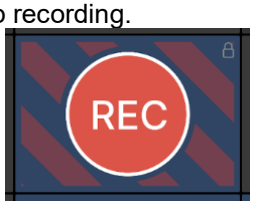
- Confirm mapping by testing if the function highlights when the button is pressed.



- For simultaneous recording, please set up a mixed/multi camera view with two cameras in one ‘Tile View’ e.g. A Camera = ALEXA 35 and B Camera = ALEXA Mini LF. You can edit the views by pressing the ‘Edit Button’ in the right-upper corner.
- Next press the “Add Tile” button and select the “Record” button and drag and drop it two times into each ‘Camera Control View’ (Camera A & Camera B).
- Here’s an example of a ‘Multi Camera View” with a ‘Record’ tile for each camera.



- If everything is set up correctly, you can press the ‘Rec. Start/Stop’ MIDI button on your MIDI device and both cameras should start and stop recording.

-> press button ->


-> press button ->


10 Downloads

- Companion App on Apple App Store
- ARRI Companion App – Offical Website
- ARRI Companion App – FAQ
- Sample Project for ARRI Companion App [DWS - ALEXA 35 and Mini LF.zip]

11 Contact

In case you have questions or recommendations, please contact the Digital Workflow Support group within ARRI via email: digitalworkflow@arri.de or companionapp@arri.de