SOFTRON
record stream play

M|Replay 2

User Manual

M|Replay User Manual

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About M|Replay

M|Replay is invaluable as a replay server for video production or as an adjudication system for referees. While recording, use on-screen controls, keyboard shortcuts, or hardware controllers to immediately playback an action that just happened. Select the camera you want to output and adjust the playback speed. M|Replay provides a playlist editor to assemble the highlights of your recording or any other imported footage for immediate playout. M|Replay is a software solution that runs on your Mac and with standard video devices from AJA, Blackmagic Design or Deltacast and it is the most flexible and affordable solution on the market.

Simplicity
Simply drag and drop the inputs and outputs to the viewer you want to assign it to, or select it from the drop-down menu. The user interface accommodates for many inputs and outputs that you can arrange the way you want. Use the on-screen controls, keyboard shortcuts or a jog shuttle to instantly go backwards on all the viewers simultaneously. Locate the important moment you want to replay, select the angle you want to show and play it back at the appropriate speed. You can even change the input while it is playing. All that is made to be quick and easy-to-use.

Flexibility
Enable the number of inputs and/or outputs you need and start working right away.

As you can use the video device of your choice, you can adapt to every situation depending on the need of each production. Get the number of licenses that you need and connect the device that suits you best to your Mac. Create markers to instantly "jump" to an important moment and replay it using the angle you want. Create clips to build a playlist so you can chain different moments, from different angles and at the playback speed you want. You can even import video clips from the Finder to play in your playlist.

Security
M|Replay is based on a macOS architecture which is known for reliability and flexibility. All solutions developed by Softron Media Services are fully tested and approved before released. Prompt and personalized support is also what we do best.

....

M|Replay 2.2 is a very intuitive program with a lot of features and functions. What follows is a brief explanation of how to use the application, beginning with installation instructions, followed by a description of the User Interface and then with instructions on how to get the most from the application.

In addition to this user manual, you can also find a lot of information:

- on our website: www.softron.tv; at the bottom of the M|Replay page you will find:
  - http://softron.tv/downloads: to download the latest version of OnTheAir Video.
  - Tech Specs: where you will find recommendations on what you need, what drivers to use, what video cards and codecs are compatible, etc.
- in our Release notes.
- on our support desk, there a lot of information is available in the help center.
- on our YouTube channel,
- and don't forget to follow us on Twitter and Facebook for the latest Softron news

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What's new in M|Replay 2.3 ?

With the release of M|Replay 2.3, important changes were made:

- **Session:** Added the ability to create HFR inputs and outputs. Simply select multiple inputs/outputs, and select "Create HFR input/output". You can then use it as you would with any other input/output... And also added the ability to pause and resume the recording on multiple sources.
- **Export:** Added an "Export Status" window to show clips that are being exported, and their status. You can cancel the export, reorganize the order of the exports, etc... And also added multiple export locations, with tokens to automatically export clips matching some strings.
- **Playback Control:** Added the ability to set the behavior when double-clicking on a clip or marker (keep playback status or pause)
- **REST API:** Added the ability to modify clips and markers using our REST API.

The High Frame Rate (HFR) option

This version of M|Replay adds the support for High Frame Rate capture. It is still work in progress, so use this version with care. Backup your previous sessions before opening them with this version. Indeed, when reopening a session, we will rewrite timestamps of the file, and it won't be possible to revert back.

Requirements

- Requires all incoming signals to be genlocked, using the same format and frame rate.
- Requires timecode embedded in the SDI signal. This may be challenging, but is the only way to be 100% sure of the sync between all the signals.

Limitations

- Currently this feature only works with Blackmagic-Design devices. Other devices will be supported later on.
- The number of formats and frame rates is currently limited (see screenshot). Ask us if you need to support one that is not currently in the list, as we will be adding more.

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Installing the Drivers for your Video Device

If you use a video device from AJA, Blackmagic Design or our M|Family, make sure that the device is physically connected. Double check that all cables and hardware are installed correctly.

Also check that you have the appropriate version of the driver and OS:

1. On the Softron website, check which driver and OS is recommended for the card you use.
2. Download the appropriate driver from the AJA, Blackmagic Design or Deltacast website.
3. Make sure you use a compatible version of macOS

Once the drivers are installed, verify the settings of your card using the Preference pane or control application (if applicable) included with the hardware. For example, with the M|8R, (or when using a Blackmagic-Design Quad 2 card), you may want to modify the "Connector Mapping" to make sure you can use all 8 connectors independently.

In terms of licenses, you will need one license per channel. And each channel can be either in or out, so there is a lot of flexibility depending on the type of use that you want to have.

Software Installation

1. Download the M|Replay software from our website .
2. Unzip the downloaded file.
3. Drag and drop the M|Replay.app file in your Applications folder.

First Start

1. Start the application: **Double click on the M|Replay icon** in your Applications folder

2. When prompted with the message "The "M|Replay.app" is an application downloaded from the Internet. Are you sure you want to open it?", Click on **Open**.

3. A license agreement window will open. Enter your First and last name and a valid email address. Tick the check-box and click on "**Accept**"

4. Enter an **admin password**, to install the required components

5. **If you have a dongle connected** to the computer with valid licenses for M|Replay, the application will start right away.

6. **If you do not have a dongle connected**, a license window will open to offer you 3 choices:

   - **Register:** if you own a serial number, click on this button and follow the procedure to activate it. You can read more about the activation procedures on our support desk.
   - **Buy:** if you don't have a serial number, but want to buy one, click on that button.
   - **Demo:** if you want to try the application in DEMO mode, click here. In DEMO mode, M| Replay can only create new Live sessions, it can not reopen an archived session. When a new Live session is created, there will be blue frames recorded in the files as well as blue frames outputted to the outputs.
   - Note that the license window will only open the first time you start the application. If you want to add a license, and upgrade or option later on, you can access the license window in the Menu "M|Replay > Licenses…"
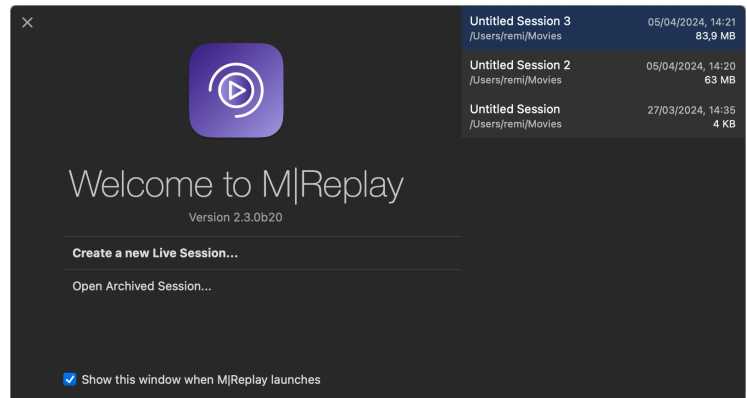
7. That's it — you are ready to use M|Replay!

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1. Creating a New Live Session

When you start M|Replay, a "Welcome window" is displayed.

From this window you can either

- "**Create a new Live Session...**" if you want to start recording and replaying a new session.
- "**Open Archived Session...**" to reopen a session that has already been recorded.

You can also see the list of sessions recently created or opened on the right, with their creation date, and size. If you right-click on any of these you can select to "Show in Finder" to be able to see where those sessions are saved and eventually delete them if you don't need them anymore.

When you click on "**Create a new Live Session...**", this window will open:

- **Name:** for your Live Session
- **Record to:** Select your folder (make sure to have enough disk space available)
- **Pre-allocate SAN storage if possible:** Some SAN Volumes allow for pre-allocation (such as Xsan). If possible we will try to preallocate the storage, so only one write request is done to the SAN. Note that this won't actually write or use the storage, it is "just" doing just one request at start, instead of a request overtime we need to write to the disk.
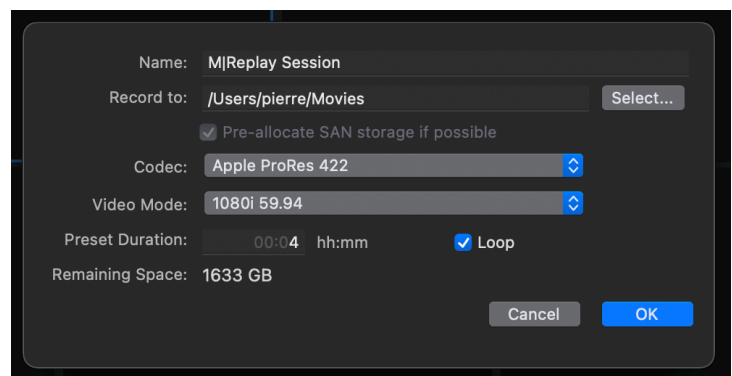

- **Video Mode**: This will set the format of all the inputs and outputs. With some video cards, additional options will show up, such as if you want to use quad link or single link for 4K.
- **Preset duration**: When you enable an input, we will start recording right away and create a "Classic" movie file (as in MovieRecorder) of the duration you specify here. Note that if your recording session is longer than that, we will extend the duration up to 25 hours which is the maximum duration of a recording session (because of a limit to the duration of QuickTime movies). When your session reaches 25 hours, recording will stop.
- **Loop:** Sets if you want to record your session in Loop. When Loop mode is enabled, you can replay 24/7 with a single session. Once the Preset duration is reached, M|Replay will start writing again at the beginning of the file, erasing the first frames recorded up until you stop the recording session. Note that if you had created clips, they will be deleted once we start erasing the first frames. You can export the clips before that to keep a track.
- **Remaining Space:** Already shows you how much disk space you have left on the selected destination.

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2. Enabling Inputs and Outputs

In the left pane you will see all the **Inputs** and **Outputs** that are available on your Mac:
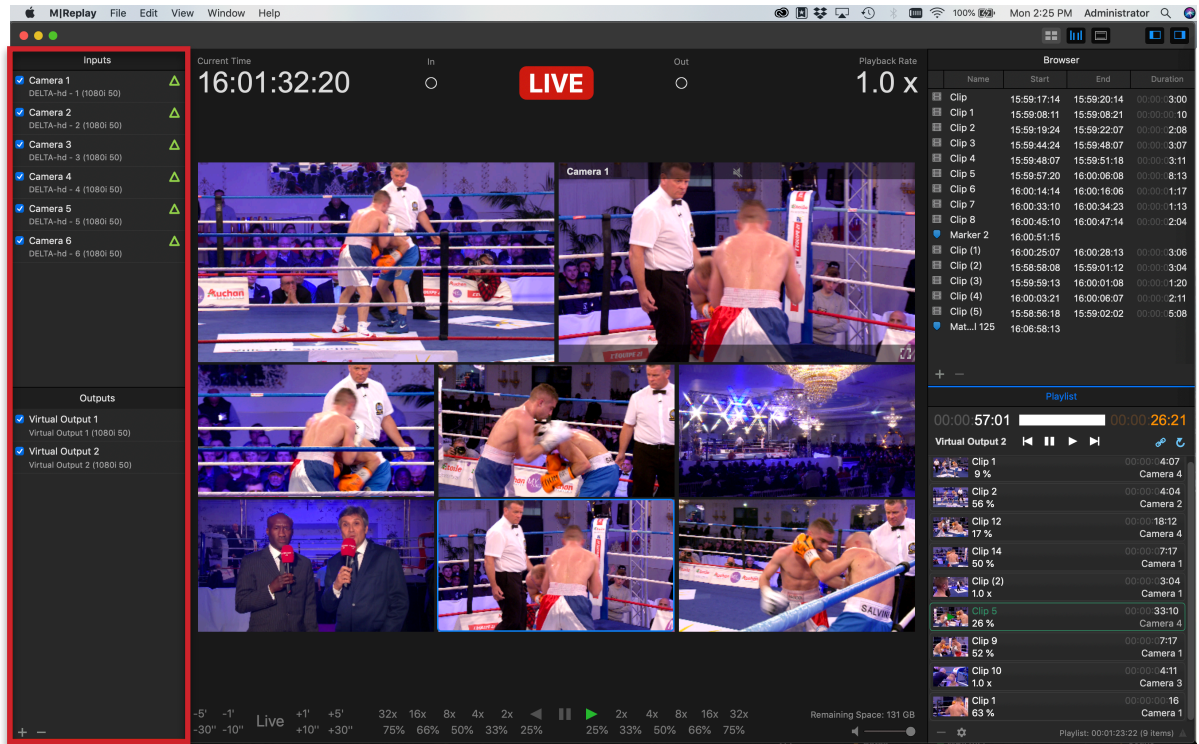
Depending on which video device you use, you will be able to see more or less of them. Note that for some devices (such as with the Decklink Quad 2), if you enable for example the Input 1, you won't be able to enable the corresponding Output 1 as these Inputs or Outputs share the same connector.

If you use the M|8R or a Decklink Quad 2 or Duo 2, make sure to read the article of our knowledge base that explains the things to know about the "Connector Mapping"

As soon as you enable an Input (by ticking the checkbox in front of it), the recording starts, there is no Start Record Button. If you want to stop recording on that specific input, just disable it. To enable an Input, you can also simply drag and drop it on any of the Viewers in the central Viewers area.

You can also enable the outputs that you need for the production simply by enabling the checkbox or drag-and-dropping the output on any of the Viewers.

Note that you can also create "**Virtual Outputs**" simply by clicking on the "**+**" icon at the bottom of the list. Delete them using the - icon. Note that "Virtual Outputs" are used rather for testing purposes, or for example to preview a playlist on screen, without using a "Real video output".
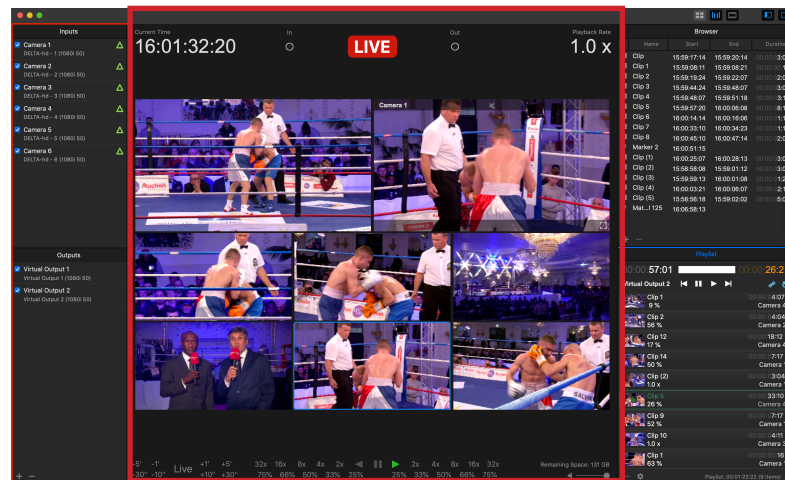
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3. The Viewers Area

The Viewers area is the main area with a number of important elements:

|	
The Current Time	The Delay
The In and Out Point Controls	The Playback Rate
The Viewers	The Playback Controls

..As well as a few other **UI Controls**.

Each of these elements is described below. This screenshot shows the **Current Time**, the **Delay**, and the **In and Out Point Controls**:
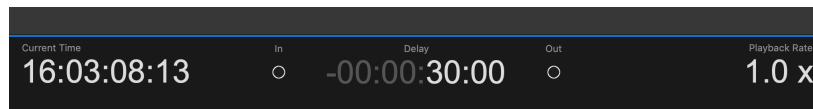
- **Current Time**: This is the actual current time.

- **Delay**: This shows the number of hours, minutes, seconds, and frames behind the Current Time, and is displayed when the clip has been rewound. Note that while the clip is Delayed, it is still recording Live. If the clip is *playing* Live in the Viewers, this display will show "Live," rather than as a Timecode display.
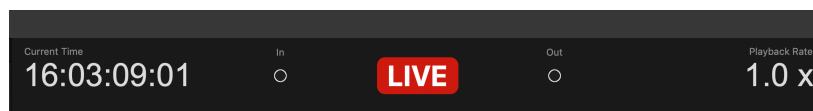
- The **In and Out Point Controls**: Flanking the **Delay** display are two round buttons, the one on the left labeled "**In**" and the one on the right labeled "**Out**." Clicking the **In** button will begin recording multiple clips — one per **Input** — and clicking on **Out** will stop the recording. While the clips are being recorded, the **In** button will be a solid white color, rather than an empty circle. Once the recording is stopped, the clip will appear in the **Browser** panel to the right of the **Viewers**. You may also use keyboard shortcuts to start and stop recording a clip: "I" to set the In Point, and "O" to set the Out Point.

- The **Playback Rate**: This is the rate in which the **Viewers** are displaying the playback of the video inputs. The **Playback Rate** is set using the **Playback Controls** at the bottom of the **Viewers** panel.

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3.1. Assigning Inputs or Outputs to Viewers

Each **Viewer** may be set up to view an **Input** or an **Output**. When **M|Replay** is first opened, each **Viewer** will be dark, with the **Softron** logo and a prompt in the upper left-hand corner asking you to "**Select a Source…**"

You may click on the prompt and select the **Input** or **Output** source from the selection offered, or you may simply drag and drop an **Input** or **Output** source from the appropriate panel to the left.

3.2. Selecting an Input for an Output

If a source is assigned to a Viewer, you will also see a popup menu at the top right that allows you to select the input that is "sent" to that output. You can simply change the assigned input by selecting if from the list.
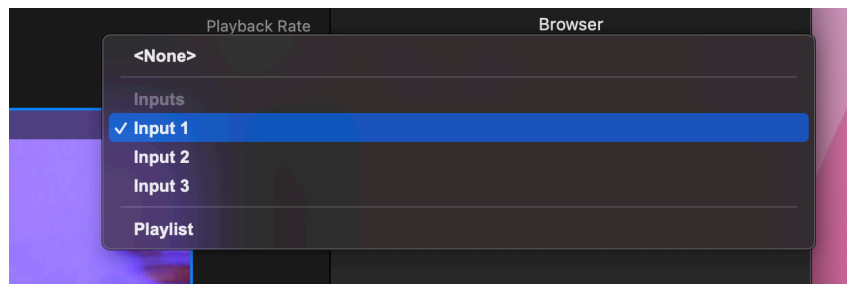
You can also change that using keyboard shortcuts:

- First make sure that the "**Viewers**" are is the active one (*it has a blue bar above*)
- Then make sure that the output you want to control is selected (*it will be circled in blue*). For that you need to either:
   > Click on it
   > Use the keyboard shortcuts "1, 2, 3…" to select the first Viewer, the second, etc…
- Then once the viewer is selected, either:
   > Use "option + click" on the viewer of an input to "**assign it**" to the selected output
   > Use the keyboard shortcuts "alt + 1, 2, 3…" to assign the input in the first Viewer, the second, etc… to the selected Output.

Once your sources have been selected, the **Viewers** will display the **Input** or **Output** at whatever **Playback Rate** you select, and the **Source** name will be displayed at the top of the **Viewer**. Also present on each viewer is a speaker icon, where you may turn the volume on or off.
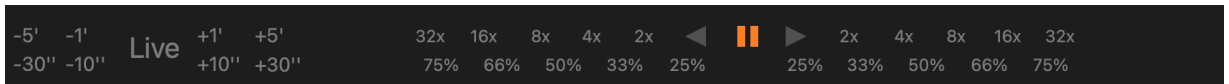
3.3. Playback controls in the Viewers Area

You can control the playback in the **Viewers** area in one of these manners:

- At the bottom of the user interface are some playback controls to play forward, backward, or at variable speed.


- Use the keyboard shortcuts. For example the standard JKL, space bar, left, right arrows and "P" to go back in "Live". (See a more complete list in chapter Keyboard Shortcuts)
- Use a hardware controller (SKAARHOJ "Time Spin", Contour SHUTTLEPro, or Elgato Stream Deck)

Note that when you use those playback controls, all the Inputs will be controlled in sync, so you can see what happens on all angles at a specific moment.

3.4. Swapping Viewers

You may simply click on a viewer and drag it over another viewer, release the mouse, and the two viewers will change position.
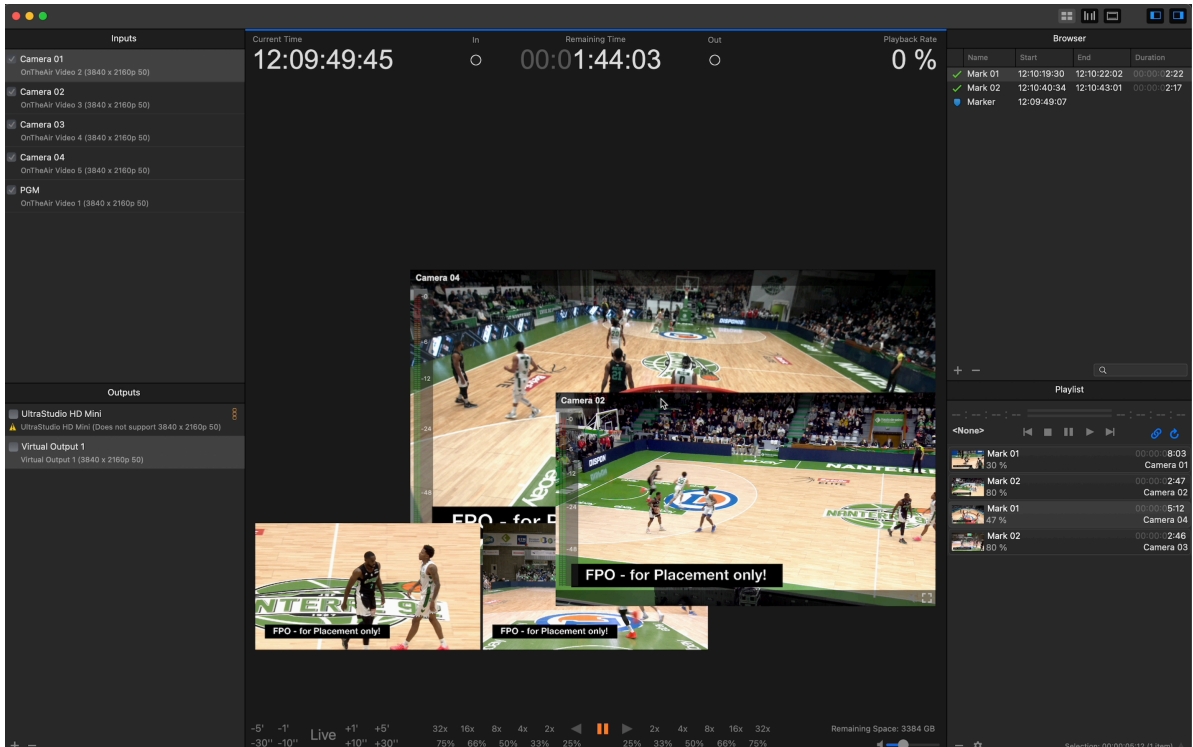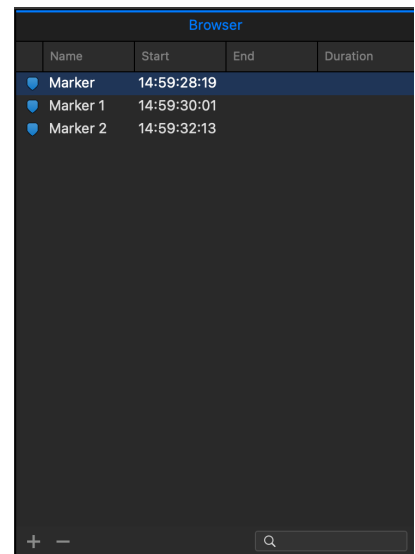

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4. Clips and Markers

The **Browser** panel shows the **Clips** you have created by using the **Input and Output Controls**. It also shows any **Markers** you have created (by hitting "M", or by clicking on the "+" button at the bottom left of the panel).

- **Name:** the name of the Clip or Marker, which can be modified by highlighting and then clicking on the name, and then typing in the new name.

- **Start:** the start time of the clip.

- **End:** the end time of the clip

- **Duration:** the Duration of the Clip in *Hours: Minutes: Seconds: Frames*.
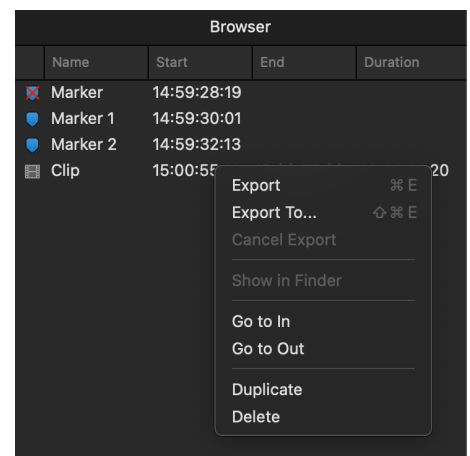
Note that Markers do not show an End time or Duration. The Marker presents only the time that it was created. Clips are identified with a film strip icon to the left of the name, while Markers are identified with blue pointer icons.

4.1. Pop-Up Menus

- "Right-clicking" **on a Clip** opens a pop-up menu that allow you to:

    > *Export* (to the destination presented in the Settings tab of the Menu)

    > *Export To...* (a destination chosen when you select this item)

    > *Cancel Export*

    > *Show in Finder* (shows the location of the exported files in Finder)

    > *Go to In (*takes the Viewers to the In Point of the Clip)

    > *Go to Out* (takes the Viewers to the Out Point of the Clip)

    > Delete (deletes the Clip)

- "Right-clicking" **on a Marker** opens a pop-up menu that allows you to:

    > Go to In (takes the viewers to the In Point of the Marker)

    > Duplicate (the Marker you selected)

    > Delete (deletes the Marker)

- "Double-clicking" **on a Clip** takes the Viewers to the In Point of the Clip, and the Viewers will play until it reaches the Out Point, at which time the Viewers will Pause.

- "Double-clicking" **on a Marker** takes the Viewers to the In Point of the Markers, and the Viewers will play from that point.

You may delete any Clip or Marker by selecting it and then clicking on the "-" button at the bottom left of the panel (or by right-clicking on it and selecting Delete on the pop-up menu).

4.2. Creating Clips and Markers

To create Clips and Markers, make sure that the "Viewers" area is active, then go to the position you want and use the following keyboard shortcuts:

- "I" to create an In Point
- "O" to create an Out Point
- "M" to create a Marker

Note that when you have set an In Point the 'In' icon will be shown:
- If you use try to set an In point again, the In Point value will be modified.
- Then if you set an Out Point, the clips will be immediately created.

You can also use the following keyboard shortcuts:
- "option + I" (or "O") to clear the in or out point.
- "option + x" to clear both in or out points.
- "shift + I" (or "O") to go to the in or out point.

4.3. Modifying Clips and Markers

To modify a clip and marker, you can :
- Click on its name to modify its Name
- Click on its In or Out Points to modify manually their value

4.4. Using Clips and Markers

From the Clips and markers are, you can:
- Double-click on a clip to start playing it back from its In Point. If you hit play it will play until its Out Point.
- Double-click on a Marker to start playing from that point.

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5. Create a Playlist

You can drag and drop clips to the Playlist area. You can use clips from the clips and markers area above, or other clips from your storage.

When a clip is in the playlist area, you can select the "angle" that you want to play out as well as the playback speed.

To play the playlist, you need to make sure that an output is selected for that playlist:
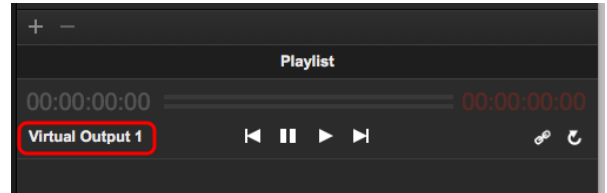
5.1. The Playlist Window

1. There is two **Timecodes:**

   > The one on the left shows the time played on the currently playing **Clip**.

   > The one on the right shows the time remaining for the entire **Playlist**.

2. **The Select Output button:** Clicking on it allows you to select the Output on which you would like to play out the Playlist.

3. **The Standard Playback Controls:** *(Play Previous Clip, Pause, Play, and Play Next Clip)*, and then buttons to **Chain** the clips (*play each clip in sequence*) and to **Loop** the clips (replay the selected clip over and over, or to replay the entire Playlist if both the **Chain** and **Loop** buttons are active).

4. **The Playback Controls:** the clips you have dragged from the **Browser**. Each Clip has a thumbnail to the left, the **Playback Rate** below the name (*adjustable by highlighting the clip and then clicking on it, which opens a window with a sliding bar and numeric indicator, both of which can used to adjust the Playback Rate*).

5. **The Clip Duration** is displayed, below which is shown the selected camera-angle (which may be changed by clicking on and then selecting the Input you would like to use).

   Right-clicking on a Clip opens a window that allows you to **Export Playlist** (*to the default destination determined in the Settings menu*), **Export Playlist To...** (*a destination chosen when you select this item*), or to **Cancel Export**.

6. In that **Playlist Panel**, two buttons: a **"-" and a Gear**. The "-" button allows you to delete a clip (by selecting the clip and then clicking the "-" button). Clicking the Gear button opens the same **Export** window accessed by right clicking on a clip.
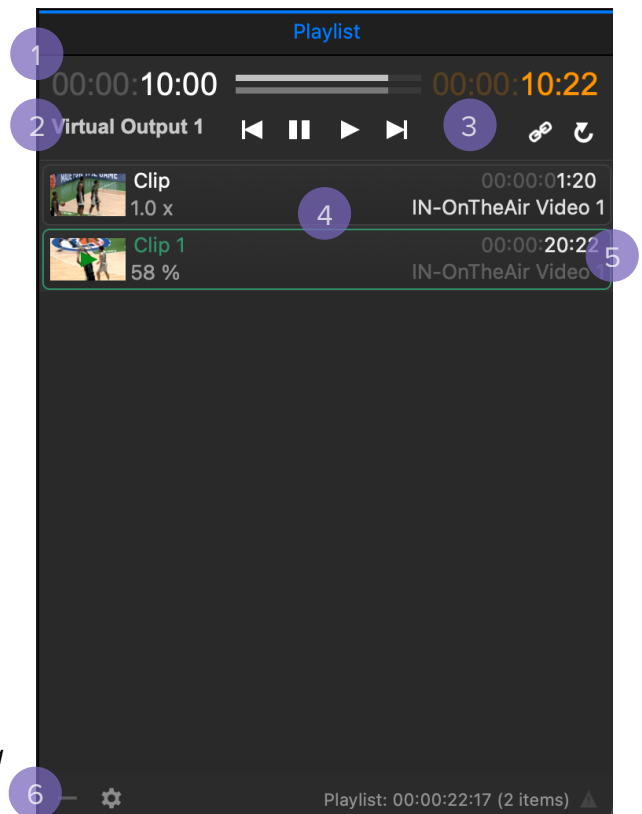
6. Exporting Clips and Playlists

You can export clips and playlists so they can be reused later on. Since M|Replay 2.3 you can export at multiple destinations within the same project. To do so, you can set up each of your destinations and use tokens to export automatically your clips.

6.1. Changing the Export Settings

As we want to go quick during a live session (with no menu asking for settings), the Export Settings are done in the Settings of the application. Go to the top menu "Settings > Export":
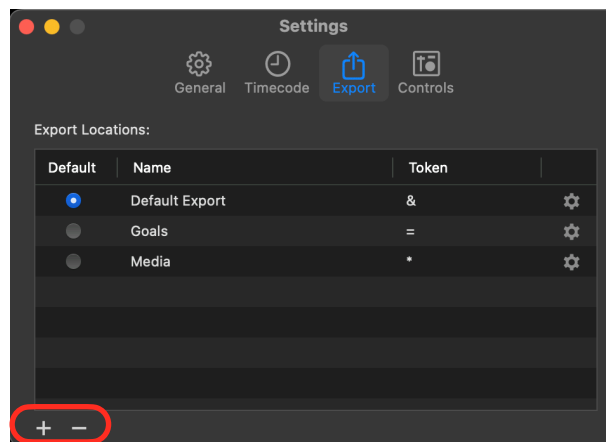
You can set multiple Export destinations clicking on the "+". To remove one click on the "-". A new window will pop up with these options:
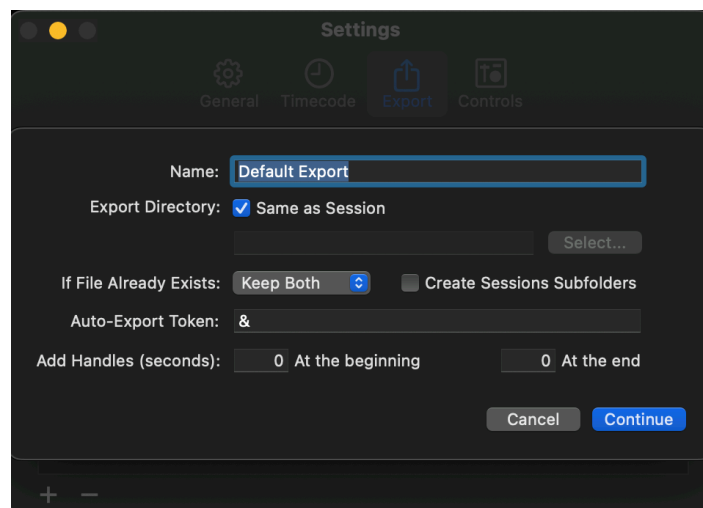
- **Export Directory:** set where the clips will be exported.
- **If File Already Exists:** when two clips have the same name, decide if you want to Keep Both clips, Replace the old clip, Skip the export or Stop the export.
- **Auto-Export Token:** Select a character for your destination. When you rename a clip on the "**Browser**" (after In and Out point) with the same character, it will automatically export on that destination.
- **Add Handles:** set the number of seconds you want to add before and after your In/Out point to the exported clip.

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6.2. Exporting Clips

- From the "**Browser**" area, select the clips you want to export.

- Then right click on it and select "**Export**" from the drop down menu. The export will start right away. Note that all angles of the clip will be exported.

- Select "Export To…" to export the clip at the destination you choose. You can set multiple destinations from the "Settings > Export" window.
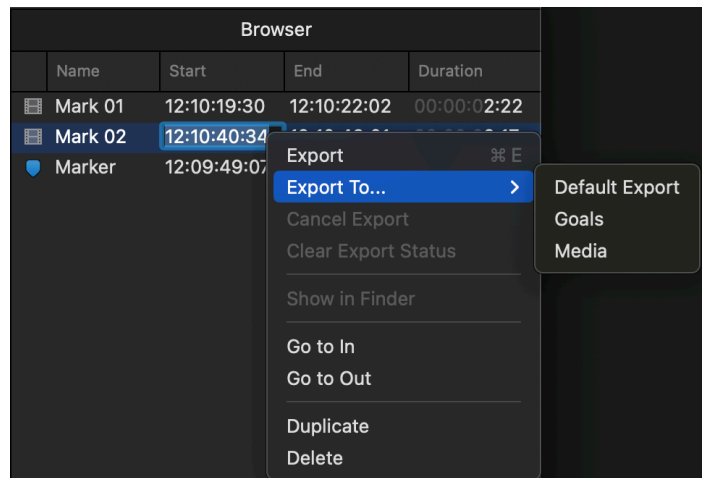

- You can cancel the export of one or more clips by selecting the clips for which you want to cancel the export, right click on it and choose "**Cancel Export**".

6.3. Exporting Playlists

- Note that currently only clips from the recorded angles will be exported. External clips will be skipped during export.

- The method to export playlists is the same as the one for clips. Note that the if you modify the playlist after you have started an export, it won't reflect in the exported file, you will have to export again the playlist.

- You can change the "**Rate**" for each clip. It will determine the speed of your clip. The "**Clip duration**" shows you the updated duration of your clip while modifying it.

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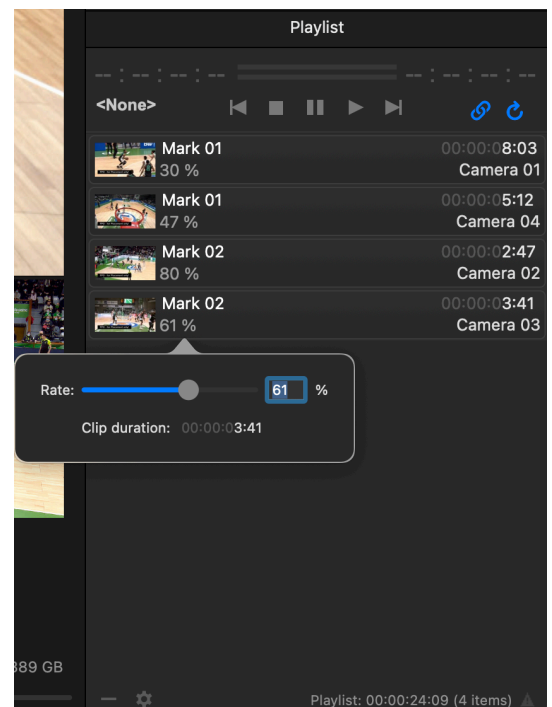
6.4. Export Status Window

Since M|Replay 2.3, we added an "Export Status" window to show clips that are being exported, and their status. To open it:

- Go to the top menu "Window > Show Export Status"
Or
- Click on "⇧ + cmd + e"

This "Tasks" window will pop with the list of your exports (playlists, markers and clips). You can also see the multiple camera angles :
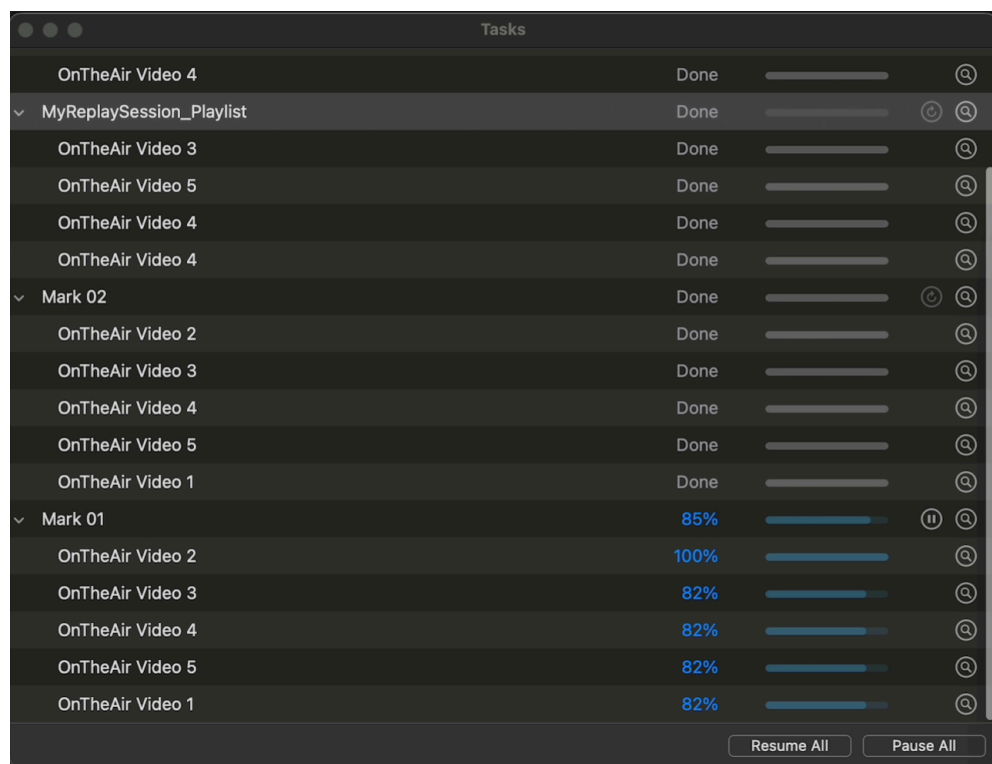
Here you can:
- **Cancel the export** of a playlist or a clip

- **Reorganize the order of the exports** just by making a drag and drop. If you have long clips (heavy files), it allows you to export in priority the ones you need first.

- **Pause** one or all the export.

- **Resume** to continue the export.

- **Refresh** to start over the export by clicking on the refresh logo.

- Click the **Loop** to open the destination folder.

7. Control with the Contour ShuttlePRO v2

With M|Replay you can control the software using mouse and keyboard, but it is much more efficient to use a dedicated hardware controller. We support three controllers:

- SKAARHOJ's "Time Spin" (Previously known as XC8) is the most versatile one. It has buttons to create markers, set in/out points, and to select the angle to be used; and a jog shuttle wheel and a T-bar to control the playback speed.
- Contour Design's ShuttlePro has buttons to create markers and set in/out points, and a jog shuttle wheel to control the playback speed.
- Elgato's Stream Deck has only buttons to create markers or to control the playback. It is very limited for playback control, so the best usage of this product is to create markers, which can be customized and the buttons can be labeled.

7.1. Viewers Area

Certain functions of the controller depend on the user's current workspace in M|Replay. There are three areas - the views, the clips and markers, and the playlist. Below are the triggers that are active application-wide.
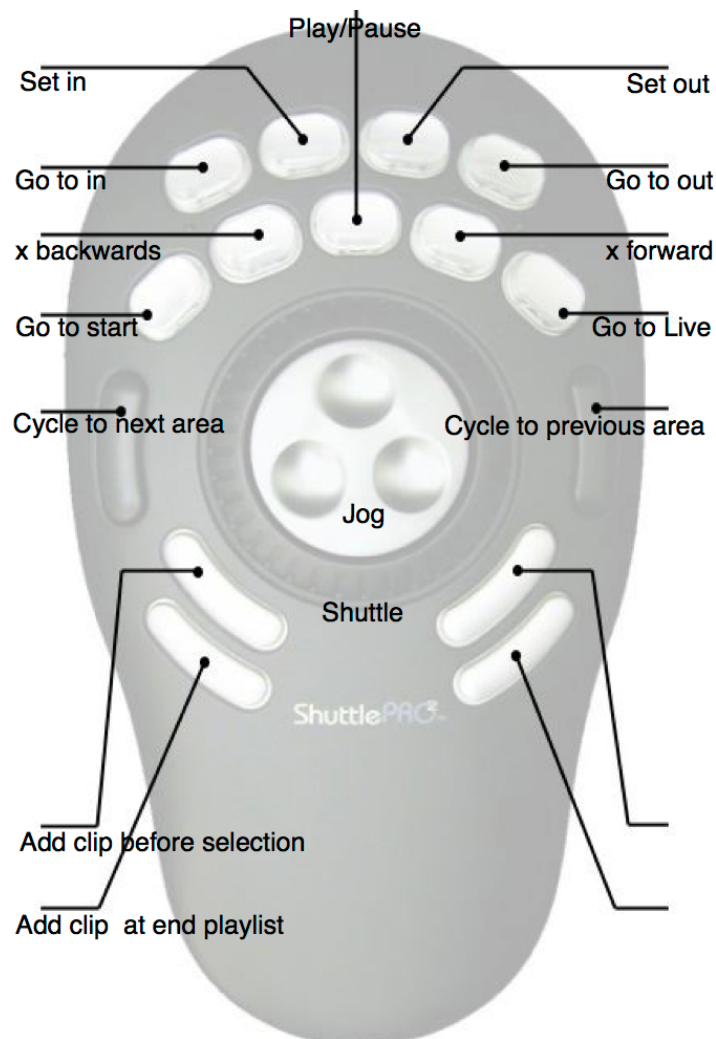
7.2. Clips and Markers Area

7.3. Playlists Area

Play/Pause

Skip to previous

Skip to next

x backwards

x forward

Go to start

Go to end

Cycle to next area

Cycle to previous area

Jog

Shuttle

ShuttlePRO3

Add clip before selection

Select Previous clip

Add clip at end playlist

Select Next clip
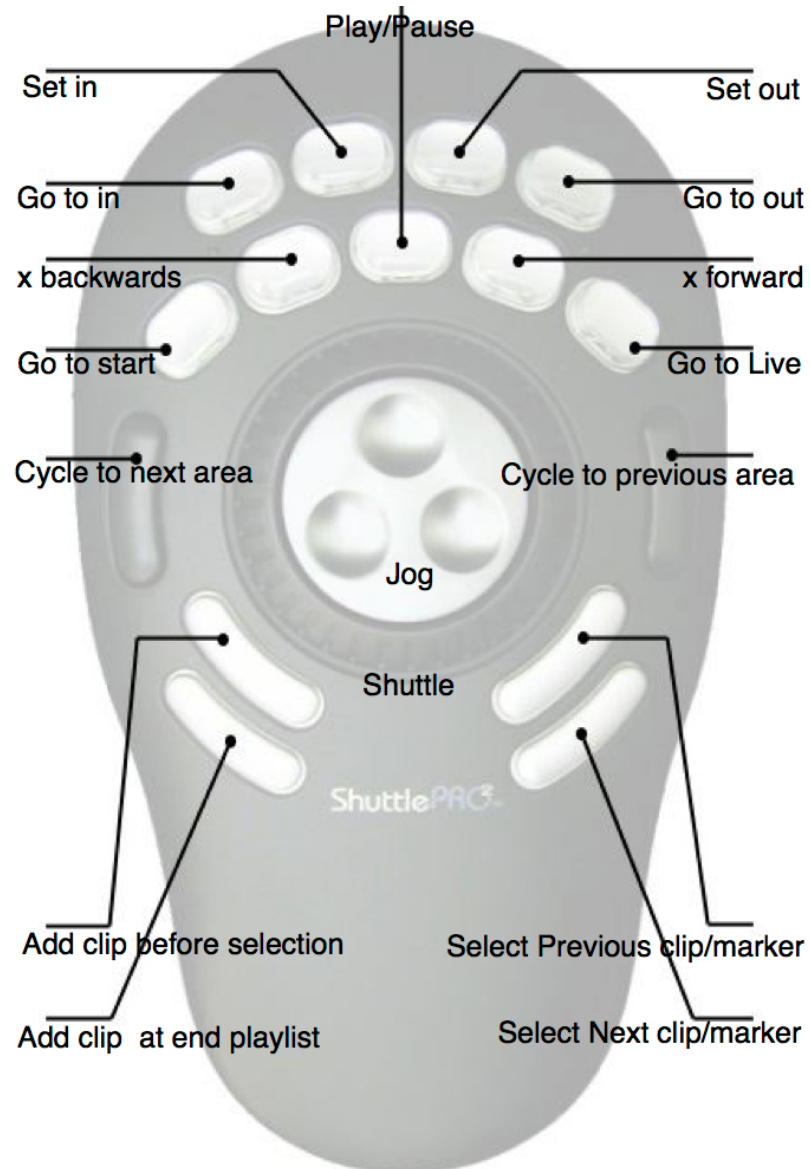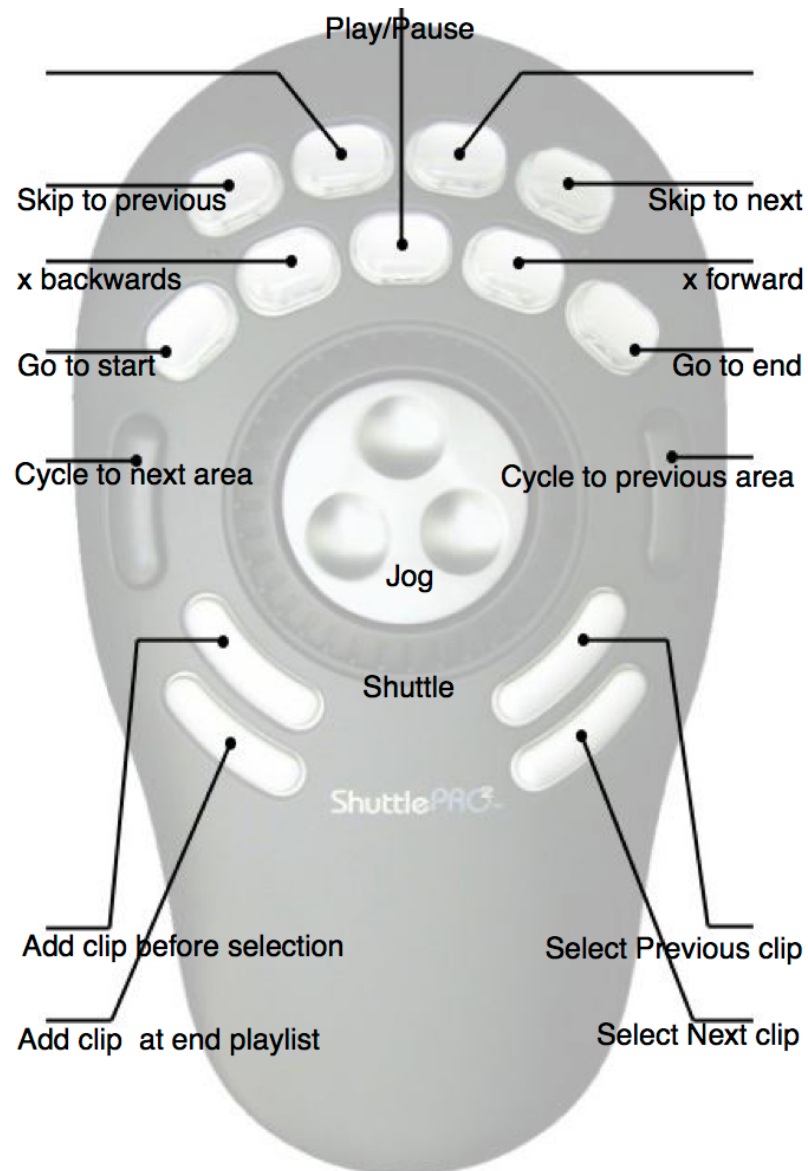
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8. Set Up the SKAARHOJ's "Time Spin"

M|Replay supports also SKAARHOJ's "Time Spin". It is the most versatile one. It has buttons to create markers, set in/out points, select the angle to be used, a jog shuttle wheel and a T-bar to control the playback speed.

Depending on when you purchased your "Time Spin", you may have a different model, with different setup procedure:

- Purchased before September 2023, the device will not have "**Blue Pill Inside**", you can read our website article: HOW TO: Configure SKAARHOJ's "Time Spin" (XC8) WITHOUT 'Blue Pill Inside' (Legacy Models).

- Purchased after September 2023, the device will have "Blue Pill Inside", and you can read our website article: HOW TO: Configure SKAARHOJ Time Spin (XC8) with BluePill Inside (New models).

⚠️ There are compatibility issues with some network ports. The 10Gb port of the iMac Pro and Mac mini are currently not compatible with the "Time Spin". So you will need to use a USB to Ethernet adapter to use a "Time Spin" on these computers.

8.1.1.   Cores vs Raw Panel

If you are familiar with SKAARHOJ, you may know that they are using the concept of "Cores", which are basically the ability to control other devices. SKAARHOJ's controllers can be used in many ways, and one device can sometimes control multiple pieces of equipment. All this needs to be configured. The idea that they had is that you configure your device on their website, add "Cores" (such as a Core to control an ATEM, one to control a Camera), then setup what each button will do on your SKAARHOJ's device. Then once you have configured it, you save a firmware that is then loaded on your device.

This is very nice in terms of flexibility, but at Softron we try to do things that are "plug and play". So this is why we have not implemented Cores, and have done all the work for you. ;-) Once the panel is configured as a Raw panel, we will just control it, there is nothing that you need to setup. But don't search for Softron's core then...

8.1.2.   Troubleshooting

If after you have followed the steps above, you still can not control it, check the following:

- double-check that it is configured as a "Raw Panel"

- make sure of your network connections. Check the IP of your computer, then check what you have set in the "Unisketch Raw Panel" preference in SKAARHOJ App > IP Configuration. The 2 must match. If they match, make sure that you can "ping" the "Time Spin" from your computer, there might be a network issue. Don't forget that M| Replay connects to the "Time Spin" with Ethernet, not with USB.

- a reminder that currently the 10Gb ethernet port of the iMac Pro and Mac mini is not compatible with the "Time Spin". So you will need to us an adapter.

9. Using SKAARHOJ's "Time Spin"

Once the "Time Spin" is setup and configured, when you start M|Replay, you should see some buttons lighting up, as well as the screen. It is important to know that, as with the other controllers, depending on which area of M|Replay is active (the sources, viewer, browser or playlist), buttons and controls may have different "roles". Also, different buttons may light up or not (if some buttons don't show up immediately, don't hesitate to push again on them).

9.1. Overview

There are 6 main areas on your "Time Spin" that we'll refer to in this manual:

- **Top buttons:** Select which output is selected in the Viewers area and which input is assigned to it.
- **T-bar:** Control the playback speed
- **Vertical NKK buttons:** Perform different actions such as go to live, select the active area, or the shift key
- **Display:** Shows the selected output and each assigned input.
- **Horizontal NKK Buttons:** Set in/out points, mark, play/pause
- **Jog/Shuttle:** Depending on the active area, it will either control the playback, or allow to select a clip in the browser or playlist.
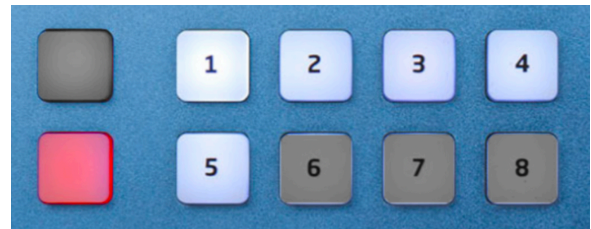
More information just below…

9.2. Top Buttons

This is where you will be able to set:
- The selected output
- Which input is assigned to it
- The behaviour of these buttons do not change depending on the active area, they always control the selected outputs and inputs of the Viewers area.

Note that the number of the input or output is depending on the order in which they show up in the Inputs and Outputs panes.

9.2.1. Set the Active Output

The active output is the one that is highlighted in blue. In the screenshot below, it's the top left viewer:

You can also see which output is active in the Display, it's the one highlighted. In the screenshot below, it's "Output 2":
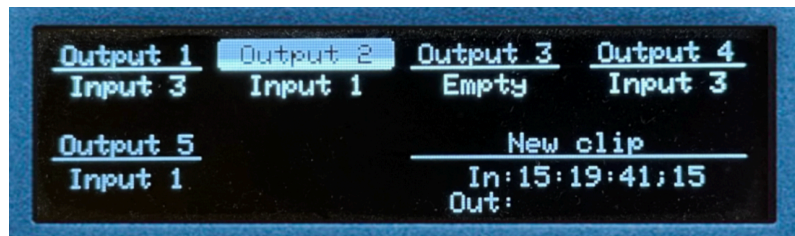
To change the active output with the "Time Spin", hold the SHIFT button down (at the bottom of the vertical NKK buttons), the buttons at the top will be white to show the numbers of output available and the active one will be blue. Just push on the output number you want to select.

9.2.2. Set the Assigned Input

You can view which input is assigned to an output in the user interface of M|Replay (if the overlay option is set to always display the input/output overlays). In the screenshot below, input 1 is assigned to output 1:

You can also view this in the "Time Spin" display. In the screenshot below, Input 3 is assigned to Output 1:
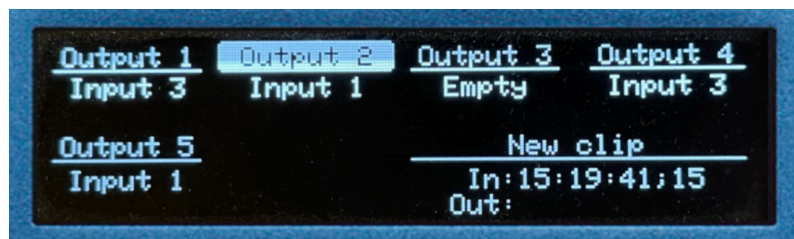
And finally one of the top buttons will be red to show the assigned input of the active output.

To change which input is assigned to the active output, simply push on the number of the input that you want to assign it to.

To assign the playlist, push on the bottom left button, one without number. In the screenshot below, it's the playlist that is assigned to the active output:
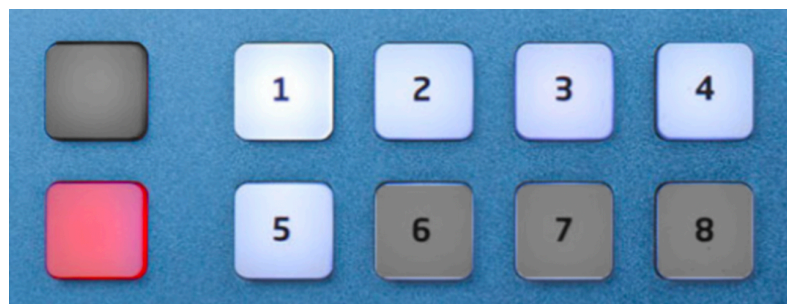
9.3. T-Bar

The T-bar controls the playback speed of the active output in the Viewers. As with the top buttons, the behaviour does not change depending on the active area of the M|Replay user interface, it will always (and only) control the playback of the active source in the Viewers.

When the T-bar is at the bottom, playback speed is set to zero (stop), and when it's at the top, playback speed is 1 x (play).

Note that it currently only works if it's an input that is assigned, not if it's a playlist.

9.4. Vertical NKK Buttons

There are different actions that can be done with these buttons.

- The most important one is the "LIVE" button at the top. It allows you to go back to Live for the active output. The button will be red when you are Live.
- Then the **SHIFT** button at the bottom is a button that you can use to use the secondary functions of the buttons (the one showing up in Blue on the buttons). Hold the **SHIFT** button down to use the secondary functions.
- The remaining 3 buttons. Without the **SHIFT** button pushed allow you to select the active area:
  > **VIEWR:** select the Viewer as the active area
  > **BROW.:** select the Browser as the active area
  > **PLST:** select the Playlist as the active area
- Note that depending on which area is active, one or the other of these buttons will be lit.
- With the SHIFT button pushed:
  > **LIVE IN:** not available currently
  > **APPEND:** Add the selected clip in the browser at the end of the playlist
  > **INSERT:** Add the selected clip in the browser above the selected clip in the playlist. If no clip is selected, it will at at the end.
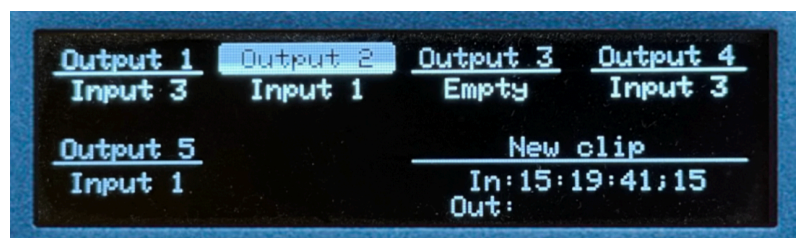
9.5. Display

The display shows a few information. It shows the list of outputs, which one is active (the one highlighted) and which inputs are assigned to it. When either an in or out point is selected, it shows the set timecode

9.5.1. Horizontal NKK Buttons

- The most important one here is the play/pause button. Depending on the active area, this button will either control the playback of the active output in the viewer (If the viewers area is active), or the playlist (if the playlist area is active).
- The other four buttons, without the SHIFT button pushed:
    > **IN:** Set an in point at the current playback position in the Viewers area (even if the Viewer area is not active)
    > **OUT:** Set an out point at the current playback position in the Viewers area (even if the Viewer area is not active)
    > **MARK:** Add a marker at the current playback position in the Viewers area (even if the Viewer area is not active)
    > **NEXT:** Skip to the next clip in the playlist (even if the Playlist area is not active)
- With the SHIFT button pushed:
    > **GO TO IN:**
        - If the Viewers are is active and an in point is set, goes to the in point.
        - If the Browser area is active and a clip is selected, goes to the in point of the selected clip.
    > **GO TO OUT:**
        - If the Viewers are is active and an out point is set, goes to the out point.
        - If the Browser area is active and a clip is selected, goes to the out point of the selected clip.
    > **GO TO TC:** Allow you to type (on your keyboard) a timecode so the playback position goes to that TC (even if the Viewer area is not active).
    > **NEXT:** Skip to the next clip in the playlist (even if the Playlist area is not active)

9.6. Jog/Shuttle Wheel

The jog shuttle wheel allow for different actions, depending on the active area:
- If the "**Viewers**" area is active, the jog and shuttle control the playback of the active output
- If the "**Browser**" area is active, only the jog allows you to select a clip in the list
- If the "**Playlist**" area is active, only the jog allows you to select a clip in the playlist

10. Elgato Stream Deck

M|Replay can be controlled simply using a Stream Deck from Elgato. Two options exist :
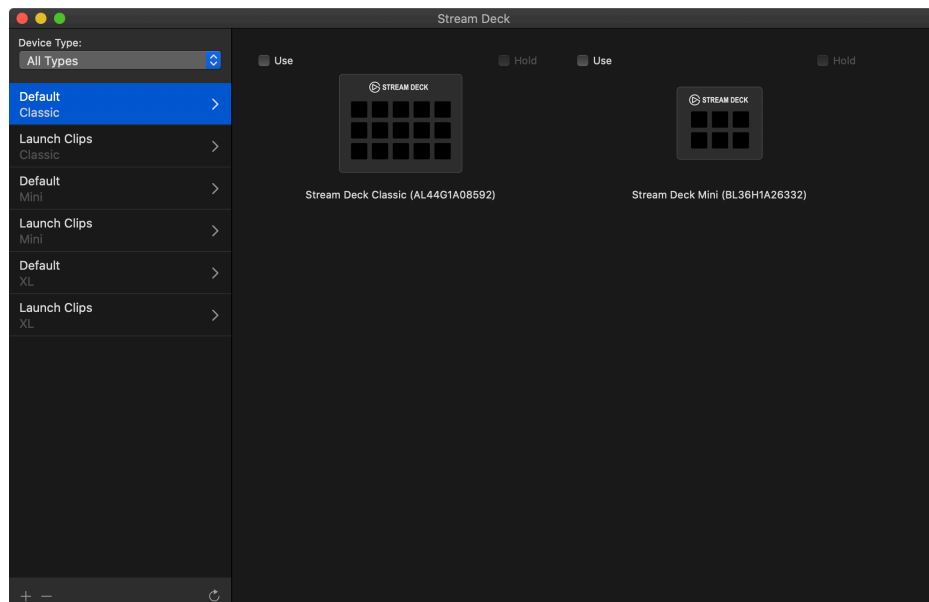 • Use the integration that we have built in our software,
 • Or use the software that Elgato is providing,
It will be one or the other.

10.1.1. Softron Integration

First, start your Softron application. Depending on the application that you use, you will have different layouts.
If you go to the menu "Window > Show Stream Deck window", you should see a window such as this one:

There are two sections in the window:
 • To the left is the list of available pages, with their names and which kind of Stream Deck device they are for.
 • To the right is the list of Stream Deck devices that are connected to your computer. On the screenshot above, there is a "Classic" and a "Mini"

As we wanted to allow you to select which device you want to use for each application. Before you can start using your Stream Deck, you have to drag and drop at least one page from the list on the left on to one of the device on the right.

You can also decide to enable the "**Hold**" option. This option is important for two things:

- if you want to be able to trigger your Softron application, even when using a different application
- if you are using multiple Stream Decks and you want each to use a different application

In order to be able to use the Softron integration, you need to make sure that the "Stream Deck" software is not running. If it is running, it will prevent us to access the Stream Deck. So make sure that it is not set to automatically launch at startup.

If you need help, check our webpage explaining how to use a the Stream Deck Controller

10.1.2. Customizing the Pages

You can create new pages by clicking on the "+" icon at the bottom of the pages list:

Each page can also be modified. For this, right-click on any of the page, and select "**Edit**":

Or you can click on the triangle.
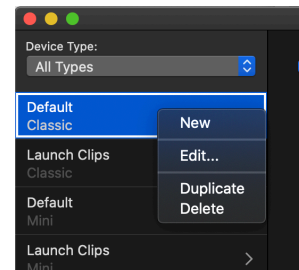
When you are editing a page, you will see the device in big, with the list of possible actions on the right:
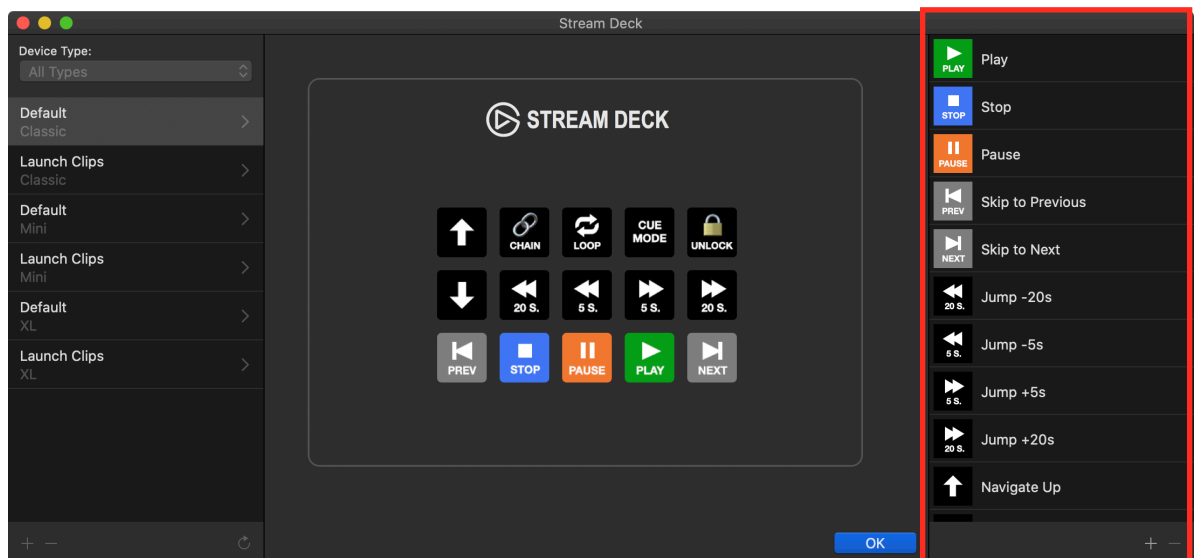
You can drag and drop actions from one button to another to move them, or from the list to a button. Click on "**OK**" when you are done.

10.1.3. Customizing the List of Actions

In the edit window, you can create a new action by clicking on the + icon at the bottom of the list. You can also select an action, right click and select either "**New**" or "**Duplicate**" (note that you can not edit the default actions).

After a new action is created (or duplicated), click on the "*wheel*" icon to edit it (or right-click and select "**Edit**"). This should open a window:
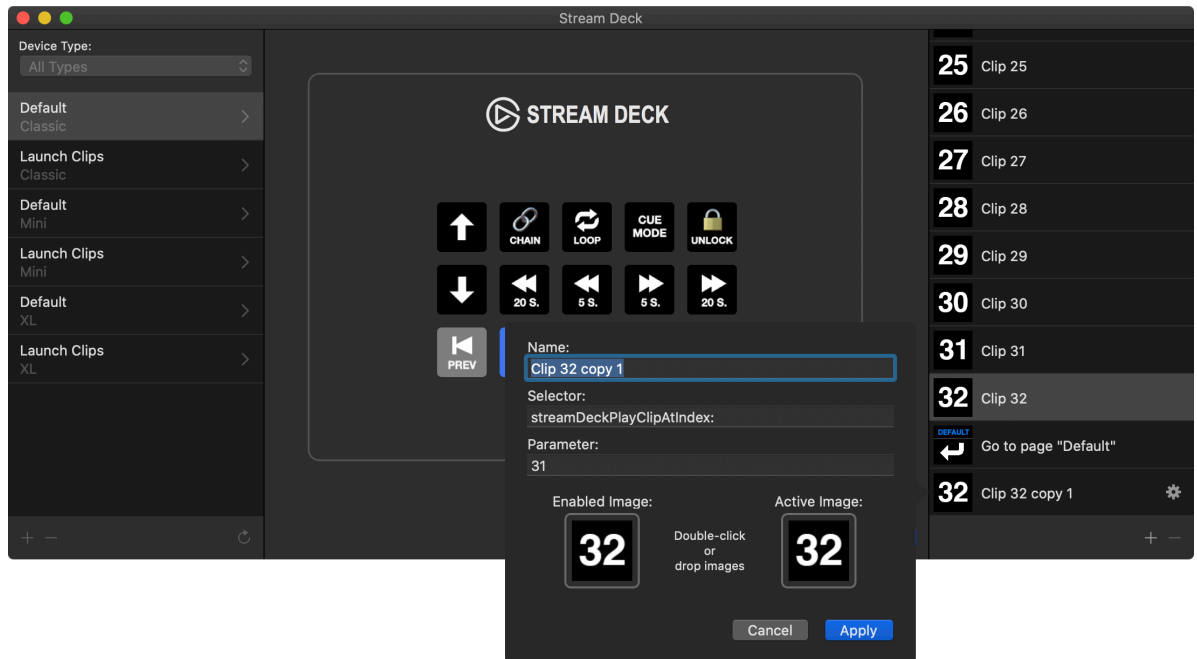
You can set:
- **Name**: This is the name displayed in the list
- **Selector**: This is the "action" that will be made. We recommend that you duplicate an existing action and then edit the parameter, as all possible actions are listed in the list, there are no other.
- **Parameter**: Only certain actions support a parameter. This is true for example in OnTheAir Video to start playing a specific clip.
- **Enabled Image**: It's the image that is used when the action is not active.
- **Active Image**: It's the image that is used when the action is active. For example if a source is recording in MovieRecorder.

10.1.4. Restore to Defaults

The "**Restore to defaults**" button can be used if you want to restore to the default configuration.

Note that this can be useful also if you want to use new features or buttons that were done in a new version of the application. It will also copy the new images to the folder.
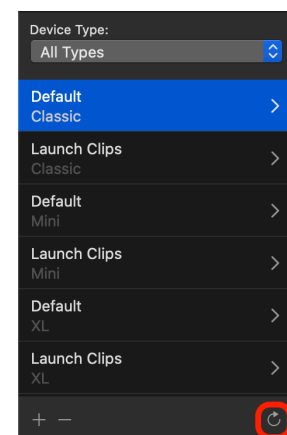
10.1.5. StreamDeck Application

We won't go into too much details, as you can find a lot of info on Elgato's website or on the web about this, but the idea is that you should first <u>download</u> and install the Elgato Stream Deck software.

Again if you use the Softron integration, you should NOT start the Stream Deck software as it will prevent us to access the Stream Deck. It can be present on the computer, but not running.

Once installed, you will be able to configure the buttons.

For an integration with the Softron software, you will have to either:
- send REST requests (you will have to know <u>how our REST API works</u>)
- emulate keyboard shortcuts (you will have to know the keyboard shortcuts that you can use in our application)

The advantage of the keyboard shortcuts, is that it's way easier to do, but the downside is that you will have to make sure that the application is the front application for the keyboard shortcut to work. If it's not the front application, the keyboard shortcut might do something different. The REST requests are a little harder to setup, but will work wether the application is front or not. All the steps are explained in <u>our online article</u>.

11. Using REST API to Control MｌReplay

With MｌReplay, you can create markers in the user interface but also using a REST API. This means that you can create markers remotely from simple web page.

Currently the only thing you can do with the REST API is to add new markers. If you have any additional request, please let us know.

MｌReplay uses port 8082 by default, but this can be configured in the Settings of MｌReplay.

11.1. Creating Markers

To add a marker, you need to use the POST method and pass a json dictionary with "name" to set the title of the marker. The marker will be added at the same position that the "playhead is". So if the user is playing back something in the past, it will use the current TC, not the "Live" TC.

```
POST markers
    {
        "name" : "This is my Marker"
    }
```

About the authentication

If the user has enabled the option to require a password, then you need to specify it with your requests. The default password is "1234".

```
POST markers?password={password}
    {
        "name" : "This is my Marker"
    }
```

11.2. Retrieving Markers

You can also retrieve the list of markers that were already created:

```
GET markers
```

This will return a dictionary with the list of sources available for a MovieRecorder, which should look like this:

```
[
    {
        "name": "My First Marker",
        "start": 511090399.1733954
    },
    {
        "name": "My Second Marker",
        "start": 511090848.9727454
    },
        "name": "My Third Marker",
        "start": 511090850.8913287
    },
]
```

12. Keyboard Shortcuts

Note: On some keyboards "option" is indicated as "alt", "Command" is indicated as "cmd" and "control" is indicated as "ctrl". A number of keyboard shortcuts are available to control the UI, in addition to Mouse and other controls (see below for available Controllers).

Viewers area - Playback Controls

Shortcut	FUNCTION
J	Cycle through the different playback speed going backwards
K	Pause
L	Cycle through the different playback speed going forward
Space bar	Play/Pause
G	Go to "Live"
control + G	Go to "Specific Timecode" (enter TC)
+	Go to "+ x time" (enter TC)
-	Go to "- x time" (enter TC)
Home	Go to beginning of Session
End	Go to end of session
➡	+ 1 frame
⬅	- 1 frame

Viewers area - Selecting Viewers and assigning inputs

Shortcut	FUNCTION
Shift + 1, 2, 3,..	Select the viewer you want to control
1, 2, 3,...	Assign the input located in the corresponding viewer to the selected output

Clips and markers

Shortcut	FUNCTION
I	Set an in point
O	Set an out point
Shift + I	Go to in point
Shift + O	Go to out point
option + I	Clear the in point

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Shortcut	FUNCTION
option + O	Clear the out point
option + X	Clear both in and out points
E	Append selected clip(s) to the end of the current playlist
W	Insert selected clip(s) before the selected clip of the current playlist
command + E	Export the selected Clips to the location defined in the settings
command + shift + E	Export the selected Clips to a location that you will define

Playlists

Shortcut	FUNCTION
space bar	Play/Pause
option + space bar	Force cue of selected clip
option + ➡	Skip to next
option + ⬅	Skip to previous
option + command + ➡	Go to 5 seconds before the end of the current clip
option + command + ⬅	Go to 5 seconds before the end of the previous clip
shift + O	Go to out point of selected clip
option + L	Toggle the playlist Loop mode
option + C	Toggle the playlist Chain mode
command + E	Export the selected Playlist to the location defined in the Settings
command + shift + E	Export the selected Playlist to a location that you will define

UI Navigation

Shortcut	FUNCTION
⇥	Cycle in the different areas going forward
⇧ + ⇥	Cycle in the different areas going backwards
S	Go to the Sources Pane
V	Go to the Viewers area
B	Go to the Browser area
P	Go to the Playlists area

13. When Something Goes Wrong…

While we strive to ensure that M|Replay be as stable a platform as is humanly possible, there is a lot of interaction between our software and other pieces of your workflow (your MacOS, video card drivers, switchers, etc.), and so we must constantly evolve our product to adapt to changes made in those applications. As such, bugs do sometimes sneak up on us. Should any issues arise while utilizing M|Replay the first place to look for answers to potential causes is our white pages on our Softron Support Desk website.

Keeping an eye on the **Performance Gauges** in the Activity & Logs window (accessed via "Window > Show Activity & Logs Window") is also a valuable resource.

The Performance Gauges show the performance of your computer as it runs the application, and may prove a useful indicator as to what could be causing issues. See our Troubleshooting: The Log Window Explained article for details.

And also keep in mind that for the life of the product, your application includes our support service. The best way to reach us is via "Help>Contact Support" in the user interface of the application (see below for image). Through that button you can collect the technical logs from the application and open a support ticket on our Support Desk. It is important that when opening a ticket that you supply as much information as possible, including the date and time of the incident(s).