REMOTO | PLAYBACK

User Guide Version 1.5



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Guide v1.5 October 9, 2025.

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Part 1: Introduction to Remoto Playback

Chapter 1: Welcome to Playback

Playback enables global creative teams to securely collaborate and create together live, in real time, with a studio-quality experience that feels like you're working together on-site. All you need is a computer; no other hardware required. Playback is a desktop application that enables you to stream and receive high quality audio and video; a companion web application allows streams to be viewed in popular browsers from a windows PC system.

Playback's Desktop application includes the following features:

- Real-time streaming of video and audio content from any DAW, NLE or application source available on your computer;
- Robust conferencing features including built-in video chat so there's no need to manage a separate video call;
- Timecoded markers that can be imported via MIDI or .csv to your DAW of choice;
- Multi-channel streaming capabilities to transmit up to 16 channels* of audio;
- MPA compliance, supporting the security standards adopted by all major studios, networks, post production houses and content creators around the world including video game developers and advertising agencies. Security features include:
 - Instantaneous Media Handling;
 - Secure Connection Assurance;
 - Role-based user security, including secure log in controlled session scheduling/starting, waiting room, chat with participants, mute/unmute audio and on/off video:
 - End-to-end and advanced encryption: streams are AES 256 encrypted and watermarked; this robust approach ensures all communications are secure and uniquely identifiable;
 - Individual guest admittance by the host to eliminate the risk of password sharing
 - TPN, CDSA, GDPR, and HIPAA compliant cloud infrastructure for real-time; communications and live streaming: Playback was deliberately designed to align with the MPA's rigorous guidelines and exclusively uses cloud infrastructure that meets these standards. For more information please see the <u>"Security White</u> <u>Paper"</u> on our website.

^{*}Available for Desktop-to-Desktop streaming only

Playback Desktop vs. Web

Playback comes in both a desktop application version and a web application version. The two versions do not offer the same capabilities; the web application is a "lite" version that can be used to join a session on the go from any device with a web browser, but with limited functionality.

Playback Desktop

The desktop version of the app contains the full feature set and is used by Organizers to schedule, manage and host streaming sessions. Playback Desktop is available for Mac-based computers only (Intel or Apple chips). For Guest users, joining the session from the Desktop application provides the most complete experience, with full conferencing abilities and desktop-only features like:

- Create timecoded markers
- Receive multi-channel audio
- Adjust A/V sync

Playback Web

The web version can be used by Guests to join sessions. Functionality includes limited conferencing capabilities via video chat and conferencing audio, the ability to view a stream and receive 2 channels of audio. If more than 2 channels of audio are being streamed, they are folded down to stereo. This browser-based experience enables a Guest to join a streaming session from either a PC or a Mac device.

Remoto User Account Types: Organizer and Guest

A Remoto account is what brings users into the Remoto ecosystem. First-time Remoto users looking to purchase or "Test Drive" Playback must create a Remoto account. Those looking to join a session as Guest to view a stream, may be asked to create an account. Credentials (username and password) are used to log into Playback, and the type of account determines what functionality is available within the application.

Organizer Account

If a user purchases a Playback subscription, a single session, or has signed up to "Test Drive" Playback, an Organizer license is tied to the user's account. This enables the ability to schedule and host streaming sessions via Playback Desktop. A user with an Organizer account can still join sessions as a Guest from the same account.

Guest Account

Guests who have been invited to a Playback streaming session but are not Remoto customers or subscribers may be prompted to create a free account. The session Organizer, responsible for inviting Guests, has the option to require all session participants to log in with an account for enhanced security and access control, or can choose to allow participants to join without requiring an account.

Guests who join by logging in with their free Remoto Guest Account are able to join any session they've been invited to that are available on their dashboard, but not schedule any sessions.

If the session Organizer has enabled the option to join the session without needing an account, invited participants can join the session using Playback Desktop or Web by entering their name only. Guests joining in this manner can only access the session they were invited to via the join link in the email invitation.

When a user with a Guest account purchases a Remoto product (or signs up for a test drive), their account is converted to an Organizer account, allowing them to schedule sessions and invite guests.

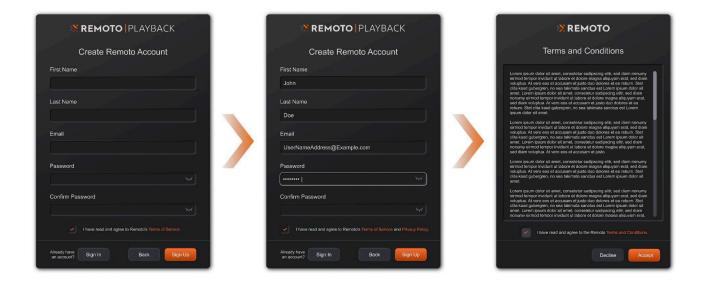
Single Sessions (including test drive sessions): Organizer privileges apply to the purchased sessions only. When a one time session is purchased, it auto populates on the user's dashboard. If a set of test-drive sessions are purchased, 3 test drive sessions auto populates on their dashboard. These sessions can then be scheduled and hosted by the account holder.

Subscription: The account holder can now schedule and host sessions against a subscription, meaning sessions can be created and scheduled directly through Playback Desktop using subscription parameters. Additional one time sessions can be purchased and scheduled.

Remoto Account Creation

The account creation process can be accessed in several ways:

- A) By signing up for a Playback Test Drive as a first time Remoto user. The resulting account is an Organizer account.
- **B)** By purchasing a product (A single session or a subscription) as a first-time Remoto user. The resulting account is an Organizer account.
- **C) Guest invitation**. When invited to a Playback streaming session for the first time as a non-account holder, guests may be prompted to create an account before joining the session. The resulting account is a Guest account.



How to Create a Remoto Organizer Account:

Upon selecting a product on Remoto's website, the user is prompted to create a Remoto account online before being directed to the payment portal.

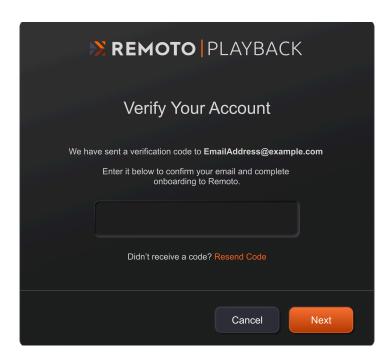
Step 1: Enter first name, last name, and email, then create and confirm a password. The password must contain at least:

- 8 Characters
- 1 Lowercase character
- 1 Uppercase character
- 1 Special character

1 number

NOTE: If you are having password issues and you are using a third-party password manager to generate your passwords, please be aware that your password manager might suggest (auto-populate) a password that is not compliant with Remoto.

- Step 2: Read and accept Remoto's "Terms of Service" and "Privacy Policy".
- **Step 3:** Click "Sign Up". At this point, a verification code is sent to the account email.
- **Step 4:** Verify the email and account by entering the verification code that was sent to the account email.



Click "Next" to be brought to the login page. At this point, the account is created.

Step 5: Continue the login process, and save the password to a preferred password manager (such as MacOS Keychain) to use when logging into the desktop application.

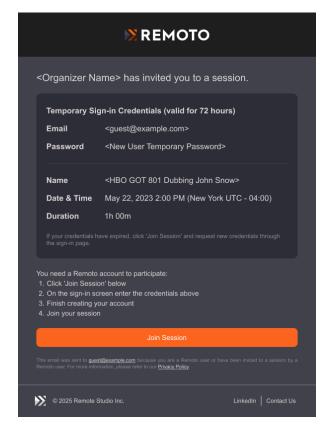
NOTE: If you are having password issues and are using a password manager like MacOS keychain, and you're invited to different sessions through different emails, your password manager may auto-populate a "correct" password but for the wrong email login. Please check your password manager to ensure the right information is being populated.

When creating an account as part of the purchasing process, successfully logging into Remoto Web redirects to the payment portal. Signing up for a Free Test drive and creating an account also redirects to the payment portal. Though the Test Drive is free, payment info is required for identify verification purposes.

How to Create a Remoto Guest User Account:

When a Guest receives an email invitation to join a Playback streaming session for the first time, they may be prompted to create an account before joining the session. This depends on how the session Organizer has set up access to the session, as they have the option to be able to require all guests havea Remoto Account to join for security purposes, or can elect to allow joining without an account.

If the invited Guest does not have a Remoto account, but the session they have been invited to requires them to need to log in with an account to access it, the guest receives an email invite and a temporary password:



Note: This temporary password expires 72 hours after it was sent. If account creation hasn't been completed and the temporary password has expired, a code can be requested from the login screen on the desktop and web app to complete the process.

Step 1: To complete the account setup, click on the "Join Session" button in the email, which opens a new browser tab; the account creation proceeds as follows:

Step 2: Sign in using the email address that received the invitation and the temporary password provided .

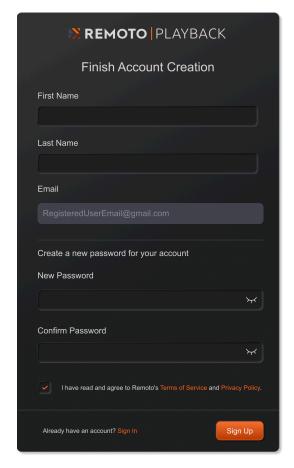
If it's not working, or can't be found, click on "here" at the bottom of the window to issue a new temporary password.

Step 3: In the account creation window, enter first name, last name, and create and confirm a password. Please note the password must contain at least:

- 8 Characters
- 1 Lowercase character
- 1 Uppercase character
- 1 Special character
- 1 number

NOTE: If you are having password issues and you are using a third-party password manager to generate your passwords, please be aware that your password manager might suggest (auto-populate) a password that is not compliant with Remoto.





Step 4: Read and accept Remoto's "Terms of Service" and "Privacy Policy".

Step 5: Click "Sign Up". The account is now confirmed.

Once account creation is complete, the user is redirected to a webpage with links to join the session via the browser-based web app or the Remoto Playback Desktop application. If the Desktop application is chosen, it opens the application if installed, or prompt download and installation.

NOTE: If you are having password issues and are using a password manager like MacOS keychain, and you're invited to different sessions through different emails, your password manager may auto-populate a "correct" password but for the wrong email login. Please check your password manager to ensure the right information is being populated.

Remoto Account Password Reset

There are two different types of passwords for Remoto: a one-time password used to initiate account creation, and the user password that is set by the user during account creation. The one-time password is issued by Remoto via email to support account creation, and expires after 72 hours. A new temporary password can be requested:

Resend One-Time Password:

If the one-time password that was issued for account creation can't be found, or if it is expired, a new one can be requested.

Step 1: Click on the link in "Click <u>here</u> to receive new ones" and enter the email address to receive another temporary one-time password.

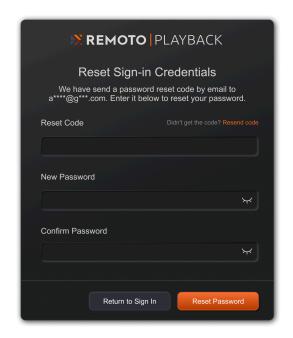


Step 2: Clicking "Send" leads to the sign in page, and an email with a new temporary password is sent to the provided email address.



Step 3: Sign in using the email address and the temporary password received via email.

Follow the instructions in the <u>"Remoto Account Creation"</u> section of this guide to finish creating the account.



Password Reset

A user password can be reset at any time.

Option 1: Reset from the login screen

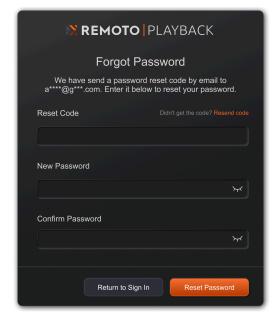
Step 1:Select "Forgot Password." Enter the email address associated with the account.



Step 2: Click "Submit" redirects to a page confirming that a password reset code has been issued to the email associated with the account; enter the issued password reset code; enter and confirm a new password.



Step 3: Clicking "Reset Password" completes the password update; a confirmation message appears.



Option 2: Reset via Remoto User Profile (Desktop App only)

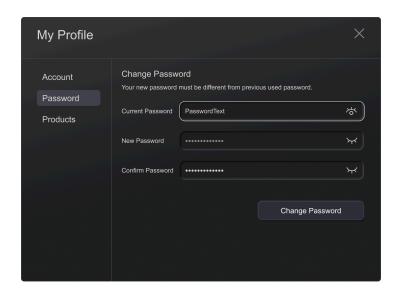
Once logged into Playback, the password can be reset from the Profile window.

Step 1)

In Playback's main interface, click on the Profile button at the top right of the interface:



Step 2)In the Profile window, navigate to the Password Tab:



Step 3)

Enter the current password, and then enter and confirm a new one.

Playback System Requirements and Compatibility

Playback Desktop

Playback Desktop is compatible with Apple® computers only; the system requirements for using it differ depending on whether the computer is being used as a session Organizer or as a Guest participant. Minimum system requirements support the capabilities of Playback; suggested system requirements provide an optimal experience.

Playback Desktop: Organizer/Streaming System Requirements:

Minimum Requirements:

- Operating System: macOS Monterey® 12.1 or later*
- Processor: Intel® core i5 or Apple silicon M1 chip or higher
- RAM: 4 GB
- Disk Space: 1.5 GB needed for installation
- Internet Connection: Required for installation, application use, and streaming

Suggested:

- Operating System: macOS Ventura® 13.1 or later*
- Processor: Intel® Xeon W 8-core or higher; or Apple silicon M1 chip or higher
- AMD® Radeon Pro 580X with 8GB of GDDR5 memory or higher
- RAM: 8 GB or higher recommended
- Disk Space: 1.5 GB needed for installation
- Internet Connection: Required for installation, application use and streaming (A hardwired connection is recommended).

Playback Desktop: Guest Participant System Requirements:

Minimum Requirements:

- Operating System: macOS Monterey® 12.1 or later
- Processor: Intel® core i5 or Apple silicon M1 chip or higher
- RAM: 4 GB
- Disk Space: 1.5 GB needed for installation
- Internet Connection: Required for installation, application use, and streaming

Suggested:

^{*}Application capture is available for MacOS 12.3 and later. For more information, please see Apple's <u>website</u>.

- Operating System: macOS Ventura® 13.1 or later
- Processor: Intel® Xeon W 8-core or higher; or Apple silicon M1 chip or higher
- AMD® Radeon Pro 580X with 8GB of GDDR5 memory or higher
- RAM: 8 GB or higher recommended
- Disk Space: 1.5 GB needed for installation
- Internet Connection: Required for installation, application use and streaming (A hardwired connection is recommended).

Application Compatibility

Playback is application agnostic as there is no direct communication with a host DAW, NLE or other creative tools. Audio and video are sourced at the operating system level through multiple video and audio capture methodologies; timecode is captured via MTC. However, Playback has been tested and verified with the following programs:

- Pro Tools®
- Reaper®
- Logic Pro®
- Adobe Premiere Pro®
- Media Composer®
- DaVinci Resolve®
- Final Cut Pro®

Playback Web

Playback Web can be used on either macOS or Windows systems with the following browsers:

• Google Chrome®/Chromium®

Network Configuration

Refer to Appendix A of this guide for more information.

Playback Product Types

Playback purchase options were designed to suit the different needs and budgets of users across the globe. Unlike most software used for media creation collaboration, Playback offers single sessions, monthly subscriptions, or custom contract pricing. We also offer a free trial "Test Drive" to try out the Playback experience before deciding a plan.

Single Session Options:

Playback "Test Drive"

Playback "Test Drive" is a free option with limited features that provides the basic Playback experience.

The "Test Drive" provides three 1-hour HD sessions, with up to 3 guests, Full HD video resolution (1920x1080) with a chroma subsampling rate of 4:2:0, 30 fps, and stereo audio.

Each Remoto account is limited to one free "Test Drive" session "purchase" (3 sessions).a

Playback Single Sessions

are ideal for users who prefer to spin up sessions on the fly as needed. These sessions are customizable, allowing session quality, guest count, and technical specs (video resolution, chroma, audio channel count, and quality) to be adjusted to suit specific needs. Currently, Single Sessions are the only option that support streaming audio formats greater than 5.1, making them essential for advanced multichannel workflows.

Customizing a single session begins with selecting a template that most corresponds to the desired use-case. This configures technical settings with the recommended specifications for the use case, which the user can further adjust. The "Custom Configuration" template defaults to the highest technical specifications available. As changes to the specifications are made, the price of the session is updated automatically and dynamically.

See below for a comparison table of the available starter templates and their default specifications. Session Duration and Guest count are not listed as they do not have a default value.

Single Sessions						
Template Name	Resolution	Chroma	Audio Channels	Audio Quality		
Picture Editorial	FHD (1080p)	4:2:0 or 4:2:2	2	Opus		
5.1 Audio	FHD (1080p)	4:2:0 or 4:2:2	6	Opus		
Atmos Mix	FHD (1080p)	4:2:0 or 4:2:2	16	Opus		
Color Review	4K	4:2:0 or 4:2:2	2	Opus		
Custom Configuration	4K	4:2:0 or 4:2:2	16	Opus		

The specifications purchased set the maximum value available for the session. Users are free to use a purchased single session with a lower guest count, shorter duration, and/or lower technical specifications. However, all sales are final and, not making maximal use of a purchased session's available duration, guest count or technical specifications does not result in a refund. Higher quality specifications or guest counts than purchased is not available for configuration in session settings.

Fifteen minutes before the time limit of a one time session is reached, a counter appears to display how much time remains and offers to extend the session through an additional purchase of a session of the same type via the Remoto Store. If the existing session has not reached its time limit, the transition to the newly purchased extension is seamless. Once the time limit has been reached for the single session, the stream automatically turns off. However, the session and videoconferencing remain active for an additional 15 minutes.

Playback Subscription Offerings

Playback Subscription offerings are ideal for users who regularly organize sessions and value the flexibility of not having to predetermine the duration of a session. Subscriptions remove session duration limits and provide options to add more streaming hours, more guests, or both. All subscription plans support **Full HD** video and 6 audio channels (5.1) only. For audio formats exceeding 5.1 channels (e.g., 7.1 or immersive formats), contact Remoto Sales to explore custom subscription options tailored to those requirements.

Subscriptions are offered based on two different templates. Once a template is chosen, different bundles of session hours and guest capacity are available to customize the subscription according to specific workflow needs. The specifications represent the max limits that can be used with the subscription.

Subscriptions						
Template Name	Resolution	Chroma	Frame Rate	Audio		
Picture Editorial &						
5.1 Mix	Full HD (1920×1080)	4:2:0	30 fps	5.1 Channels		
Color Review						
(Coming Soon)	UHD	(Coming Soon)	(Coming Soon)	(Coming Soon)		

Session Hours + Guest Packages				
Session Hours	Guest Count			
20	10			
20	15			
30	2			
30	5			
30	10			
50	5			

When a session nears the limit of available time in the subscription, a countdown timer appears and provides the option to augment the subscription, adding time to keep the session active. The timer appears fifteen minutes before the time available on the subscription is exhausted.

Purchasing Playback Single Sessions and Subscriptions

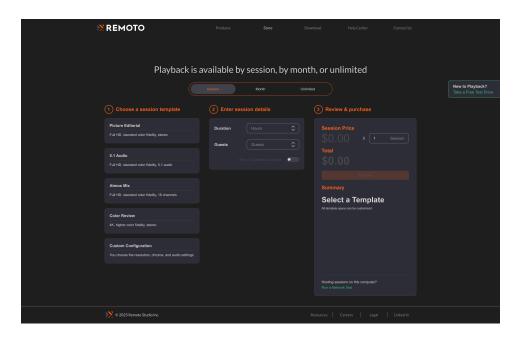
The Playback Desktop software is free to download via https://remotopro.io/download. Guest users can always join a streaming session through the downloaded application for free, but creating and scheduling streaming sessions requires the purchase of a product (or signing up or a free test drive).

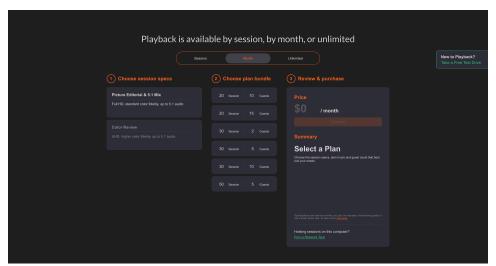
To purchase a Playback session or subscription, or to sign up for our free "Test Drive:"

- Choose a product option;
- Log In/Create an Account;
- Complete a purchase.

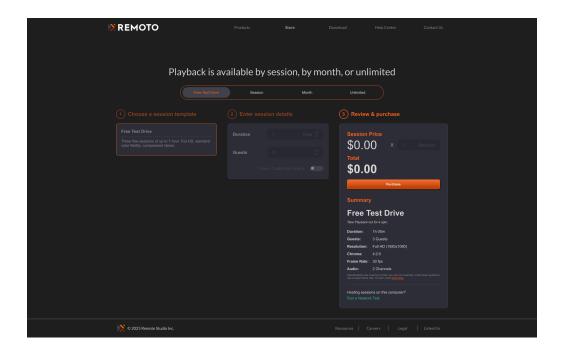
Choosing a Product Option

Navigate to the Remoto "Buy Now" page at https://remotopro.io/store. Pricing for Single Sessions appear by default; click the toggle to display pricing for Subscriptions. Free Test Drive can be selected by clicking on the banner button on the right of the screen. Choose a preferred option (don't worry, selections can still be modified before purchase).





The "Free Test Drive" option is always available in the hover banner at the right of the page.



Once a product is selected, logging in or creating an account is required to complete a purchase.

NOTE: If the available plans do not meet specific requirements, a customized subscription plan can be created. Contact Remoto Sales (sales@remotopro.io) to learn more.

Log In/Create an Account

Please see <u>Part 1: Chapter 1: How to Create a Remoto User Account</u>. Logging in redirects to the payment portal.

Make a Purchase

Make a purchase via the Remoto payment portal.

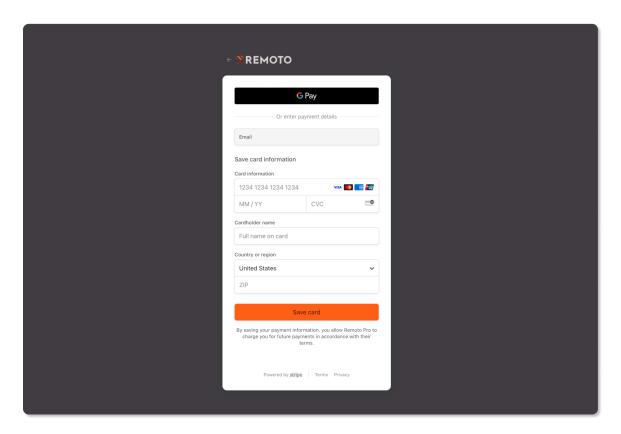
Payment information supplied for the purchase of a Single Session and Free Test Drives is saved as the default payment method for future single product purchases. Payment information supplied for the purchase of subscriptions is retained for automatic processing of monthly payments, but is not saved as the default payment method for future purchases.

Note: Credit card information is not stored within Remoto, it is stored in Stipe.

Single Session Checkout Process

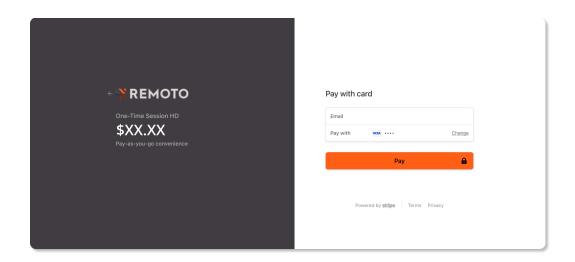
First Time Purchase:

First time customers of one time products are prompted to enter and save card information for their first purchase and future use:



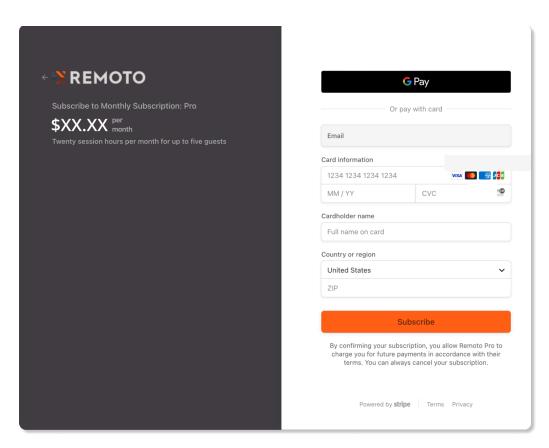
Returning Customers

Returning customers are not prompted to enter and save payment details. Instead, they are directed to the Payment page to confirm their purchase using the previously entered payment information, or change payment details:



Subscription Checkout Process

Customers purchasing a Playback subscription are always prompted to enter payment info and subscribe:



Subscription payments are automatically debited from the provided payment method every month. However, payment information is not made available for the purchase of One Time Sessions. Subscribers are prompted to enter payment information for One Time product purchases.

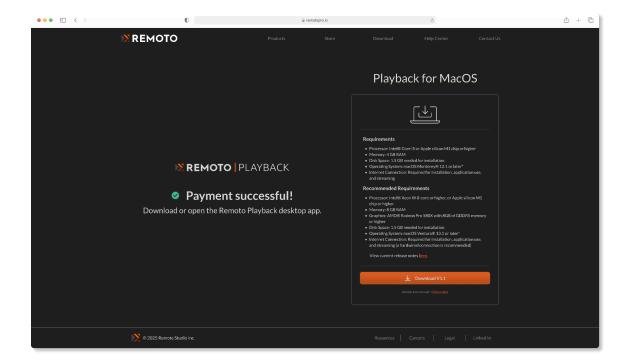
Invoices can be accessed via the Stripe Customer Portal. Remoto does not supply invoices.

Free Test Drive Sign Up

When signing up for a Free Test Drive, once the banner is clicked, the user is asked to sign in or <u>create an account</u>. Once completed, the user is re-directed to Stripe, where they are asked to "complete order" at \$0. No credit card information is required for the Test Drive.

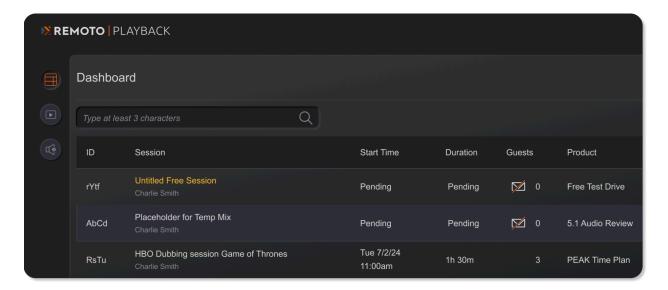
Purchase Confirmation and Download Page

No matter what type of product is purchased (or signed up for), the Playback Download page is displayed upon completion of the order, as well as a "Payment Successful" message:

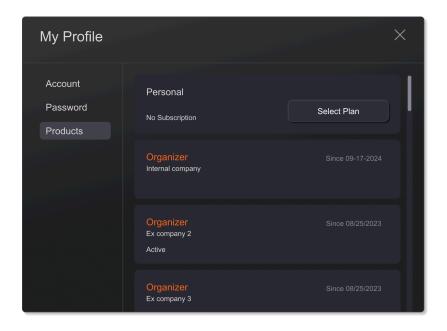


New users can click "Download" to download the installer, which supports both Intel and Apple Silicon chips. Existing users can skip this step and launch the Playback Desktop application.

Purchased Single Sessions or "Free Test Drive" sessions are displayed in the Dashboard, ready to be scheduled and configured.



Subscription details appear in the account profile under the "Products" tab.

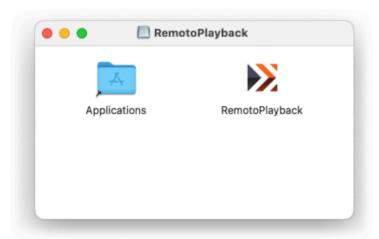


Playback Installation

The Playback Desktop software is free to download via https://remotopro.io/download. Guest users can always join a streaming session through the downloaded application for free, but creating and scheduling streaming sessions requires the purchase of a product (or signing up or a free test drive).

Before installing, ensure at least 1.5GB of free space is available on the system's hard drive.

- 1. Download the most recent version of Playback at https://remotopro.io/download
- 2. Navigate to the installer in the "Downloads" Folder
- 3. Click to open the installer:



4. Click and Drag RemotoPlayback to the "Applications" folder.

Playback is now available in the "Applications" folder.

NOTE: macOS "Privacy & Security" - Playback doesn't have control over when you are prompted to set MacOS privacy and security settings for Playback. To avoid needing to restart Playback at an inopportune time, it's a good idea to set these before you open the application for the first time: in macOS "Privacy & Security" Settings (Apple Menu > System Settings > Privacy & Security) make sure Playback is enabled for Microphone, Camera and Screen Recording.

Playback Software Updates

Playback software can be updated two ways: Automatic Update and Manual Update. Automatic updates present themselves when the application is launched, and a manual update can be checked at any time.

If an update is available, a message appears:



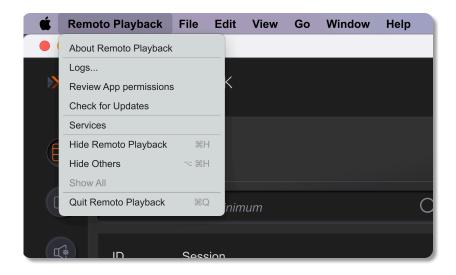
Automatic Updates

Playback automatically checks for updates upon launch of the application. There are two types of automatic updates:

- Regular: A regular update can be skipped
- **Important:** An important update is required and cannot be skipped, and includes the message "Remoto Playback x.x is not available you have y.y. This is an important update; would you like to download it now?"

Manual Updates

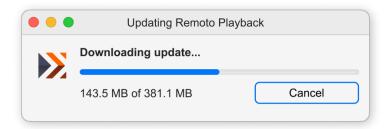
A manual update can be initiated at any time with the application open, by clicking on "Remoto Playback" > "Check for Updates":



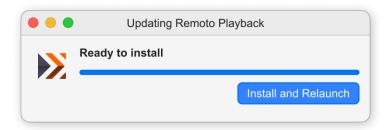
If an update is available, it can either be skipped, or "Install Update" can be clicked to download the update.

Selecting "Skip Version," ignores the message.

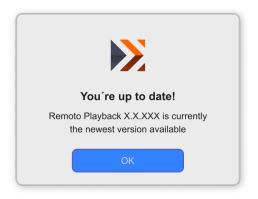
Selecting "Install Update" launches the download of the update; a progress bar appears:



Once the download is complete, a prompt appears stating "Version x.x.x is ready to install." Select "Cancel" or "Install and Relaunch." Clicking the latter installs the downloaded update and then quit and relaunch Playback.



If no update is available, a notification that the application is up to date appears.



Chapter 2: Playback Concepts

Before using Playback for the first time, it's helpful to review Playback concepts. These concepts are the foundation of how Playback functions and operates.

Playback Desktop

Playback Desktop is an Apple only application that is the full-featured version of Playback, through which Organizers can schedule, host, and manage streaming sessions, and Guests can add timecoded markers during live streams. It also delivers full conferencing abilities with video, audio, and text chat.

Playback Web

Playback Web is a light, web-based version of Playback, designed for Guests to view streams and participate in conferencing. Playback Web can only deliver stereo audio; if a multichannel stream (up to 6 channels) is sent, it is downmixed to stereo. Playback Web does not support timecoded markers. Conferencing functionality is video and audio chat only. Playback Web can be used on any device/operating system with a web browser (for more information check System Requirements and Compatibility), and is best suited for on-the-go stream viewing where an ideal listening environment is not required.

Session

A Session is a scheduled meeting with conferencing capabilities, with the potential for streaming audio and/or video content to Guests. A Session has one of the following states: Scheduled, Active, or Finished. When a Session has been Scheduled, the attributes of that session are accessible via the Session Dashboard. These attributes are not stored locally on the computer.

A session that is created against a Single purchased session remains active for the amount of time purchased, meaning the stream stops once the time duration has been reached. A warning message and countdown that appears when there are 15 minutes left, which also provides instructions on how to extend the session if needed. If the session is not extended, the stream ends while the conference call remains live for an additional 15 minutes. Single sessions expire 90 days after purchase.

A session created against a subscription remains active for as long as the subscription has the available time. If a live session using a subscription is in progress, and the subscription is nearing the end of its available minutes, a warning message and countdown appears when there are 15 minutes left. Instructions are provided on how to upgrade the subscription to secure additional time. If the subscription is not upgraded, the stream and the conference call end and the session is closed.

Stream

A Stream refers to the audio and/or video content that is streamed to Guests. Video content may be streamed in either HD or UHD, and up to 16 channels of audio content can be streamed (with "Desktop Only" streaming type).

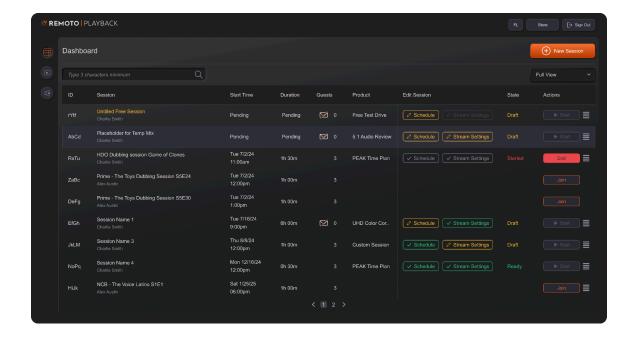
Dashboard

The Dashboard is where streaming sessions are scheduled, displayed, accessed and configured. This is also where the session state is displayed (Scheduled, Active or Flnished).

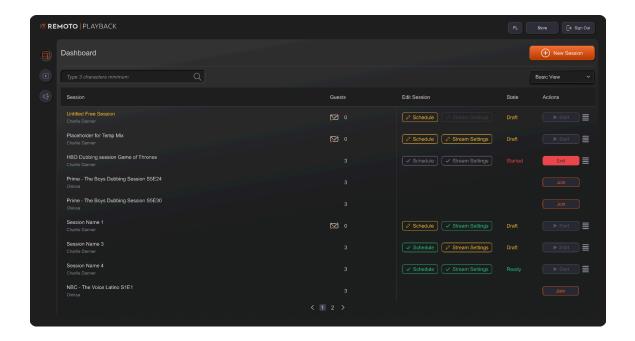
There are 3 available dashboard views:

- Full View,
- · Basic View, or
- Guest View:

Full View: All Dashboard columns are visible



Basic View: Basic columns are visible: Session Name, Guests, Edit Session, State and Actions.



Guest View: This is the default view for Guest Accounts only, and is also available to Organizers when they join a session as a Guest. Columns visible are: Session Name, Organizer, Start Time, Duration, Guests, Actions.

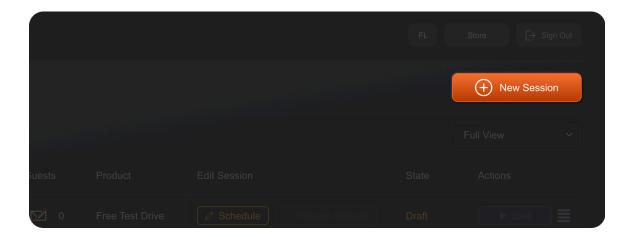
Session Details

Session details provide an overview of session settings. There are 3 windows:

- Session Details Overview
- Edit Session Details 1 of 2: Schedule
- Edit Session Details 2 of 2: Stream Settings

The "Session Details" window is a summary of both Schedule and Stream details. The "Edit Session Details 1 of 2: Schedule" and "2 of 2: Stream Settings" can be accessed and edited by clicking the pencil button in "Session Details", or by clicking on the respective buttons in the "Edit Session" column.

A Session Organizer with a subscription plan can schedule a new streaming session by clicking the "+ New Session" button in the upper right of the Dashboard view,:

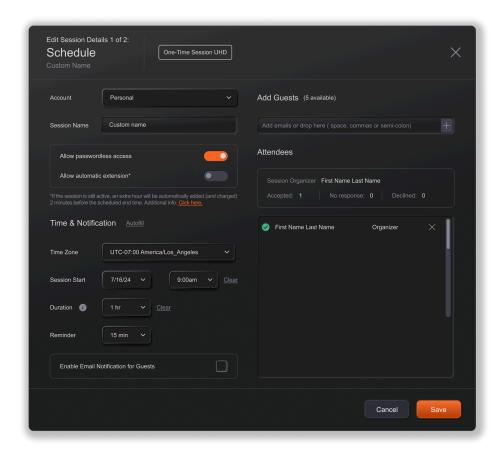


Clicking this button brings up "Edit Session Details 1 of 2: Schedule". When creating a session, the Organizer is asked to schedule the session, then be directed to configure session settings through "Edit Session Details 2 of 2: Stream Settings". Once the session has been scheduled, Session Details can be accessed by clicking on the session name, which shows both the Schedule and Stream settings, or by clicking on the detail types under the "Edit Session" column.

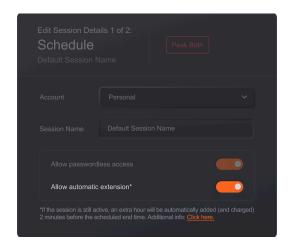
An Organizer who has purchased a Single session or signed up for a free test drive, can schedule a session by clicking on "Schedule" in the edit session column to configure "Edit Session Details 1 of 2: Schedule"; once scheduled, configure session settings through "Edit Session Details 2 of 2: Stream Settings". Once the session has been scheduled, Session Details can be accessed by clicking on the session name, which reveals both parts, or by clicking on the different detail types under the "Edit Session" Column.

Edit Session Details 1 of 2: Schedule

This is the session scheduler where the name, date, start time, duration, session reminders can be set, and Guest participants can be invited. There is also an additional toggle, if turned on, that allows guests to join the session without needing to log in (passwordless access). Clicking "save" schedules the streaming session. Email invites and notifications are not sent to invited Guest participants until "Enable Notifications" is checked.



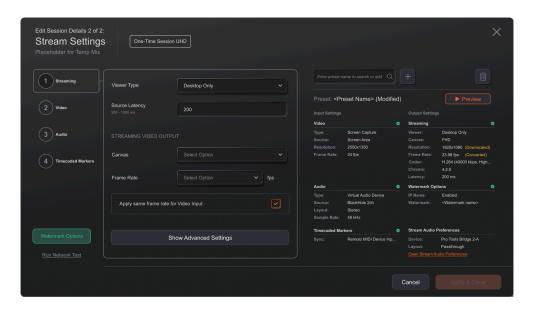
For Single sessions, an additional toggle to set the automatic session extension behavior is presented. If toggled "on", an additional hour is purchased two minutes prior to the session's expiration to extend it.



Once saved and closed, this window can be recalled by clicking on the session name in the Dashboard.

Edit Session Details 2 of 2: Stream Settings

The Stream Settings panel is where the technical aspects of the streaming session are configured: streaming method, video source, audio source, timecoded markers, and optional settings such as watermarks. A Settings Summary of all selected configurations is displayed on the right side of the window. Session settings can be saved and recalled using user-enabled presets. The stream can also be previewed from this panel, allowing media sources to be verified and proofed before the session begins.



Studio: Playback Studio

The Studio is where the live session is viewed. This live session view is also where the Organizer admits or refuses Guest participants, reviews the list of participants, engages in live video conferencing and chat, starts and stops the stream, enters and reviews timecoded markers, views stream and conference audio status, and adjusts stream and conference audio levels.

Preferences: Call and Stream Preferences

The Preferences section refers to local audio and video settings for participants conferencing microphone and video sources, speaker destinations for conferencing audio, and streaming audio speaker destinations. Participants can test their microphone, speakers, and video feed before entering a live Streaming Session. This can also be accessed at any time, in a session or not.

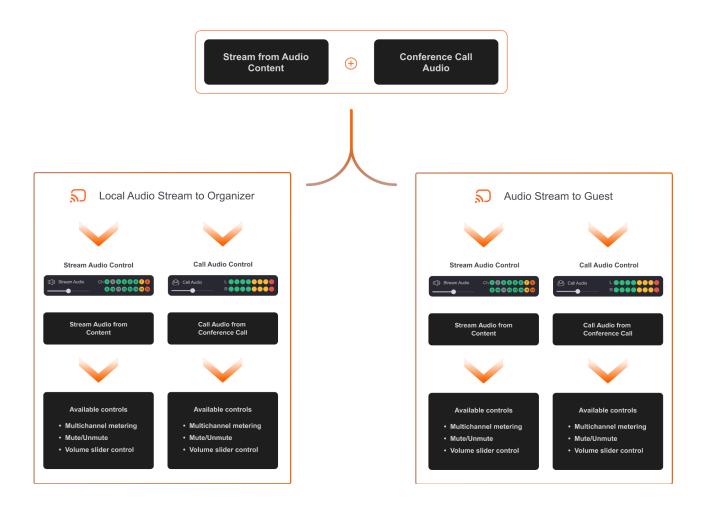
Alternate Speakers

Please view <u>Appendix B</u> for more information.

Local Audio Controls

Playback's Studio view offers a Local Audio Controls section where stream audio can be managed independently from conference call audio. The streaming format of the source is displayed, along with the local playback format being monitored. Additionally, the output destination and format for both the stream and the call can be adjusted independently. By default, the output destination of the stream is linked to the call output, but this linkage can be modified as needed.

This panel functions similarly to an audio mixer—volume adjustments affect only how the participant hears the stream and do not impact the audio stream being sent by the Organizer.



Video Streaming

Playback allows users to stream video from any source available to the computer that the software is installed on. The type of stream being transmitted varies depending on what "Viewer Type" is selected in the Streaming section of Session Settings. Video is not hosted within Playback, and Playback does not interact with the video source directly; instead Playback captures the stream at the operating system level.

If Desktop Only streaming is selected, Guests will only be able to view the stream through Playback Desktop and won't be able to join the session via Playback Web. Desktop also provides Guests with the capability to use timecoded markers and includes a higher audio channel count. When this viewer type is chosen, video is streamed through a protocol called SRT.

If "Desktop & Web" is selected, Guest participants can view the stream from either Playback Desktop or Playback Web. When this viewer type is chosen, video is streamed with a protocol called SRT/WHEP.

For more information on video streaming, please see <u>Streaming Settings</u>.

Note: 16 channels of audio is only available for "Desktop only" streaming.

Audio Streaming

Playback enables audio to be streamed from any source available to the computer the software is installed on. Audio is not hosted within Playback, and Playback does not interact with the Audio Source directly; instead, Playback captures the stream at the operating system level or from a supported 3rd party hardware device. For more information please see <u>Audio Streaming settings</u>.

Synchronization

Playback does not need to be synchronized to any source for proper video playback and streaming. However, if streaming video from a DAW, it's important to configure timecoded markers in Session Settings in order for timecoded markers to line up with the video timeline that is being streamed via the "Remoto MIDI Device Input Port" option. Once the host DAW has been configured correctly*, and the Sync Input Type in Playback has been defined, Playback chases and displays the timecode of the host DAW using the MTC protocol. For more information, please refer to https://www.midi.org/specifications/midi1-specifications/midi-1-0-core-specifications/midi-time-code.

*Please visit our knowledge base for in-depth guides on DAW configuration for this function.

Timecoded Markers

Playback offers the ability to enter timestamped markers that reference the timecode fed by the DAW or NLE. If sync is established between Playback and the source DAW/NLE (see "<u>Timecoded Markers and Export Options</u>" in this guide), a timecoded marker is associated with the SMPTE timecode at which it was entered. Thus, the timecode of the comment entered in the stream in Playback matches that of the source timeline in the DAW/NLE. The comments can then be exported from Playback and imported into the DAW/NLE as markers, automatically appearing in the correct timeline location. Using this feature requires the host DAW/NLE to be capable of generating and outputting MTC which can then be received by Playback.

Surround Sound

There are multiple types of surround sound formats, with varying channel counts, from LCR to 5.1, to 7.1, to Dolby Atmos®. With Desktop Only streaming enabled, Organizers can transmit up to 16 discrete channels of audio (depending on the product purchased) to participants via Playback. With Desktop & Web Streaming enabled, Organizers can transmit up to 6 discrete channels. In capable environments, these discrete channels can be routed to a surround sound system with matching speaker count to enable the experience of the full immersive audio mix.

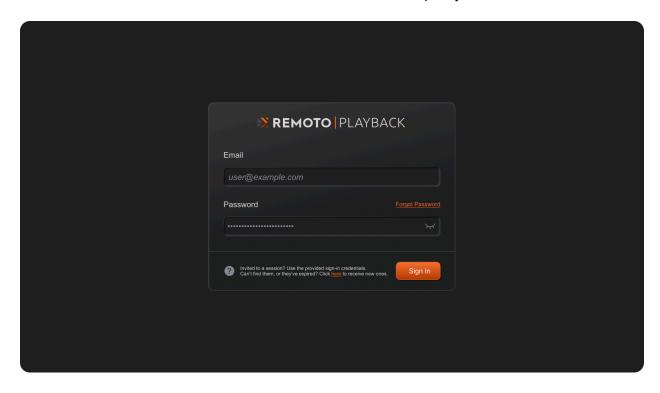
Part 2: Playback Organizer Mode

Chapter 3: Playback Desktop Windows

Playback presents a single window interface with multiple functions that can be navigated through tabs and button clicks.

Log In Screen

Launching Playback leads to the login screen, prompting authentication by email and password. Password reset and login code request can be accessed from this screen, and a link to a network test that evaluates internet connection quality.

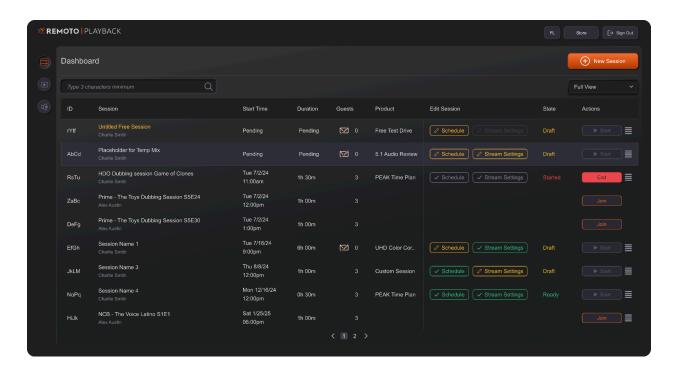


NOTE: If you are having password issues and you are using a password manager like macOS keychain and you are invited to different sessions through different emails, your password manager may auto-populate a password that matches an alternate email address. Please check your password manager to ensure the password that matches the login email is being populated.

The software version of Playback Desktop is displayed in the upper right corner of this window.

Playback Main Interface Overview

After successfully logging in, Playback's main interface is displayed, which defaults to the "Full View" of Dashboard view.



The interface has a size limit of 800 by 600 pixels.

Top Right Navigation Buttons

There are three navigation buttons found in the upper right hand corner:

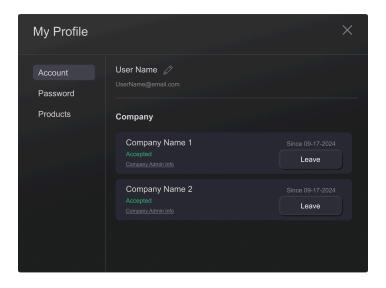


1. Profile

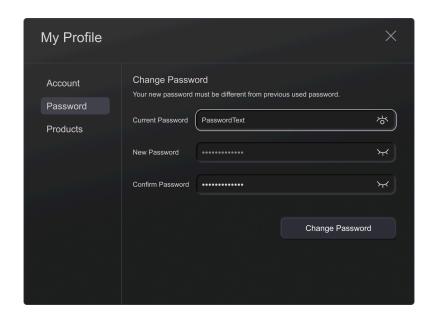
The "Profile" button accesses the Remoto user's profile, password info, and products associated with the account, if any.

The "Account" tab displays the name and email associated with the Remoto account.

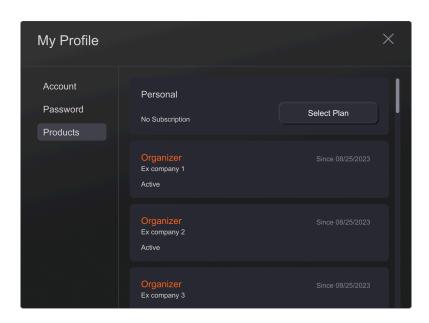
It also displays what companies, if any, the account is associated with.



Password reset can be accessed via the "Password" tab, prompting authentication with the current password before entering and confirming a new password.



The "Products" tab displays what Playback Subscription plan is tied to the account, as well as its status.



2. Store

This button redirects to the Remoto Online Store, where new purchases or plan upgrades/downgrades can be selected.



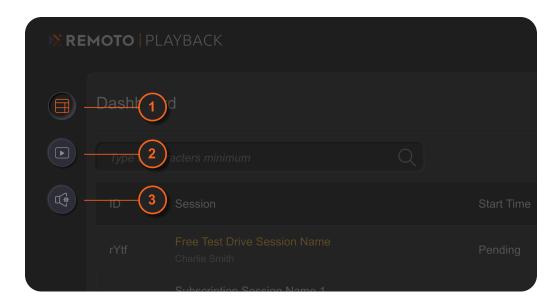
3. Sign Out

Clicking on the Sign Out button logs the user out of Playback Desktop.



*Note: Signing out or quitting the application does not close an active session.

Left Side Navigation Buttons





 Dashboard: The "Dashboard" button toggles the Dashboard view, which is the default view of Playback. This is where sessions are scheduled, started and ended, and where session details and session configuration settings are accessed.



2. **Studio:** The "Studio" Button toggles the live session view and is active only when a live session is being hosted or viewed.



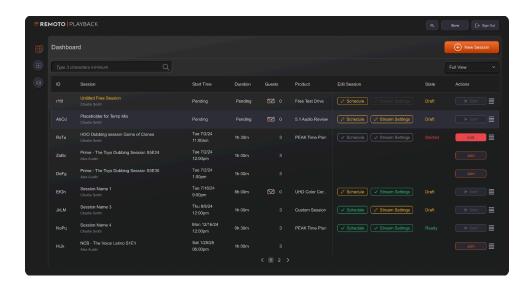
3. **Preferences:** The "Preferences" button toggles access to local settings for video conferencing, call audio and stream audio.

Dashboard View

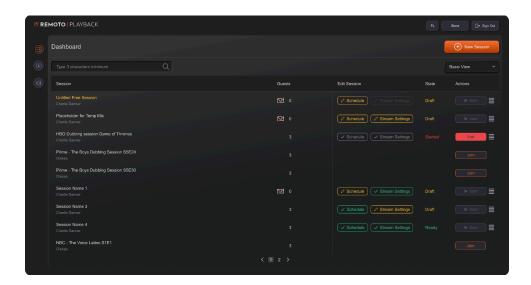
Upon successfully logging into Playback with an Organizer account, the default view of "Dashboard" is displayed in "Full View".

There are 3 available dashboard views: Full View (Default), Basic View or Guest Sessions Only View:

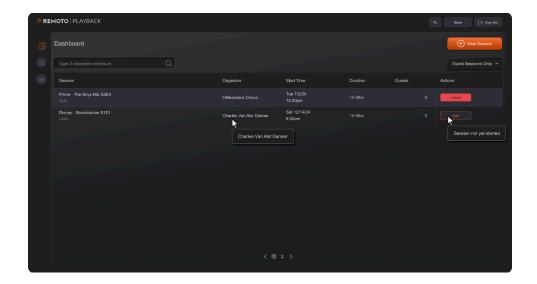
Full View: All Dashboard columns are visible:



Basic View: Basic columns are visible: Session Name, Guests, Edit Session, State and Actions.

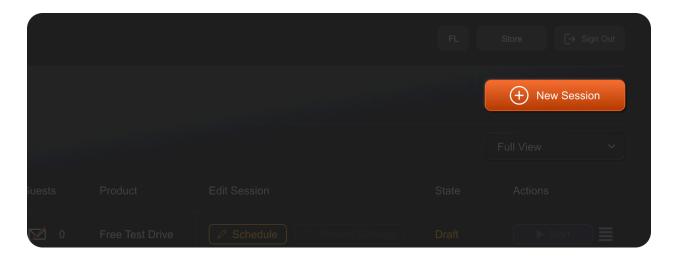


Guest View: This view filters the dashboard to show only sessions to which the user has been invited to as a Guest. Columns visible are: Session Name, Organizer, Start Time, Duration, Guests, Actions.



The Dashboard window grants access to the following actions:

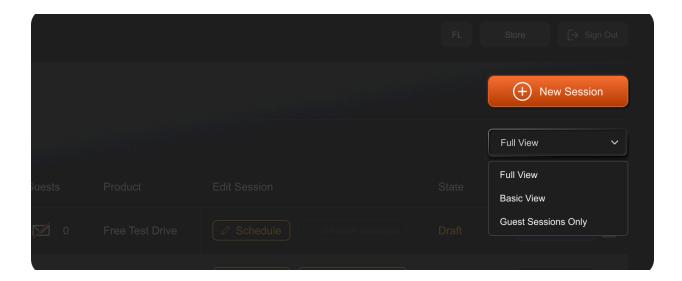
- Viewing a list of scheduled sessions, including the user's scheduled sessions, sessions the user has been invited to, and/or purchased single one-time sessions that are available for scheduling or configuration;
- Scheduling a new streaming session against a subscription plan by clicking the "+ New Session" button (not available in Guest View);



- Scheduling a new single one-time session by clicking on the session name;
- Accessing Session Details by clicking on the Session Name, or by clicking on "Schedule" under the Edit Session column:
- Accessing Session Settings by clicking "Stream Settings" under the Edit Session column

Session Dashboard Columns

Playback's "Dashboard" view displays the list of scheduled sessions created as an Organizer or invited to as a Guest, with session information organized into columns. There are three different dashboard views, which can be chosen through the dashboard view dropdown:



- Full View
- Basic View
- Guest Sessions Only

Depending on the view chosen, different columns are visible.

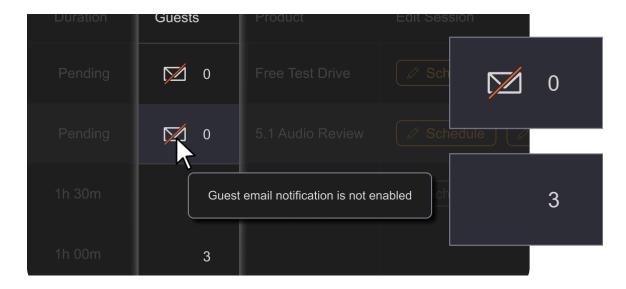
Session Dashboard Columns - Full View:



- Session ID: This column contains an ID that is unique to that scheduled session.
 This may be helpful for troubleshooting. Hovering over the session ID reveals a tooltip with the following info: Session Name, Session Organizer, Session status (draft, ready, finished), reminder settings. Clicking on the session ID reveals the Session Details Overview window.
- 2. **Session:** This column displays the session name, and lists the session Organizer's name underneath it. Hovering over the session name reveals a tooltip with the following info: Session Name, Organizer, Status, Session ID, Start

Time, Duration, Type and Reminder setting. Clicking on the Session Name reveals the Session Details Overview window.

- 3. **Start Time:** This column lists the date and time of the scheduled session.
- 4. **Duration:** Designates the scheduled duration of the session.
- 5. **Guests:** This column displays how many participants are invited to the session. Clicking on the number opens the Guest List window, where an Organizer can review who has been invited to the session. To the left of the participant count, the envelope icon displays one of two states:



Envelope crossed out (default): Email notifications have not been enabled (are turned off) for this session.

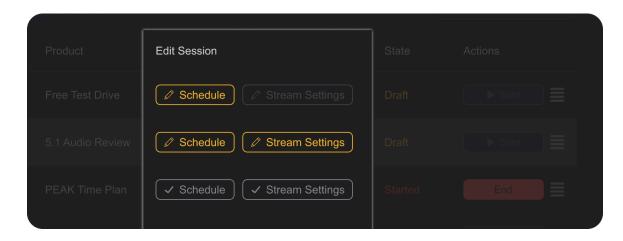
Hovering over this button reveals a tooltip to clarify status (enabled/disabled).

Clicking on the envelope opens "Edit Session Details 1 of 2: Schedule", enabling adjustment of this setting: Enable Email Notifications for Guests.

Envelope not present: If the envelope is not present, email notifications have been enabled (turned on) for this session.

Notifications must be enabled in order for a session to be started.

- Product: This column designates the type of session: A free Test Drive, a single
 one time session (based upon Template purchased), or a session created from a
 Subscription plan, which will not have a type listed.
- 7. **Edit Session:** This column contains two buttons with statuses: Schedule, and Stream Settings:



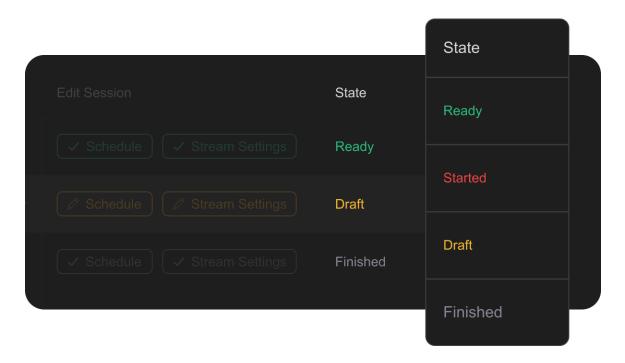
The **Schedule button** displays one of three statuses: Grey, green and yellow

- Grey: The session is finished. These session details cannot be modified, but they can still be accessed and viewed by clicking on the button.
- Green: The session has been scheduled. The details can be accessed and modified by clicking on the button.
- Yellow: Applicable only to single one-time sessions, yellow means that the session needs to be scheduled.

The **Stream Settings button** has three statuses: Grey, green and grey

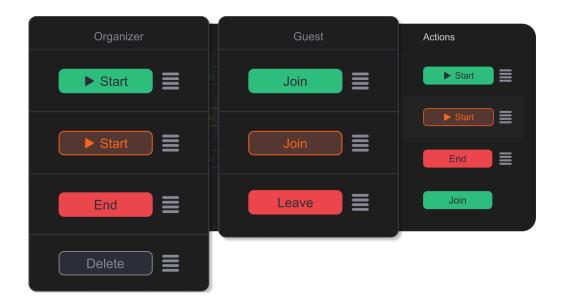
- Grey: The session is finished. These session details can not be modified, but they can still be accessed and viewed by clicking on the button.
- Yellow: Required streaming settings have not yet been configured and saved by clicking on the button.
- Green: Required streaming settings have been configured and saved. The details can be accessed and modified by clicking on the button.

8. **State:** This column displays one of 4 session states: "Ready", "Started", "Scheduled", and "Finished".



- Ready: The session has been scheduled and email notifications to Guests have been enabled, all required Session Settings have been configured, and the streaming session is ready to be started;
- ii. **Started:** The session has been started and is active;
- iii. Scheduled: Session Settings have not been fully configured; the Session State does not reflect "Ready" until all required Session Settings have been configured;
- iv. **Finished:** The streaming session has ended, and has been closed; it can no longer be accessed;
- v. **Draft:** The session is not ready to be started: The session may be either a Free Test Drive session, or a single one-time session that is yet to be scheduled, or a scheduled session that does not yet have it's stream settings configured, or email notifications have not been enabled.
- 9. **Actions:** There are two states for the session actions: Active (Default) or Disabled (Greyed out with an orange outline and text).

If the session has not been started yet, the hamburger menu next to the Action presents the option to "Delete Session".



1) Start (Organizers only):

- Default: The streaming session has been properly configured and can be started by pressing this button.
- Disabled: Session Settings have not been properly configured, and the streaming session cannot be started.

2) Join (Guests only):

- Default: Pressing this button sends a "join session request" to the Organizer of the session, and initiates conference call audio and video checks.
- Disabled: The session has not been started by the Organizer, is not active, and cannot be joined.

3) Leave (Guests only):

 Default: This button appears when a session has been joined; pressing this button exits the active session.

4) End (Organizers only):

 Default: The streaming session is live; pressing End presents a window asking for confirmation. Confirming ends and closes the streaming session. A copy of .csv timecode markers is automatically distributed to all session participants as an attachment to the "Session is Over" email. If MIDI markers are needed, return to the studio to export them before stopping the session. Once the session has ended, MIDI markers cannot be accessed.

5) Delete (Organizers only):

 Default: This appears in a grayed out state after the session has been stopped; pressing it permanently deletes the session and any files associated with it.

Session Dashboard Columns - Basic View:

Basic view is an abbreviated version of full view for Organizers.



- 1) Session: This column displays the session name, and lists the session Organizer's name underneath. Hovering over the session name reveals a tooltip with the following info: Session Name, Organizer, Status, Session ID, Start Time, Duration, Type and Reminder setting. Clicking on the Session Name reveals the Session Details Overview Window.
- **2) Guests:** This column displays how many participants are invited to the session. Clicking on the number opens the Guest List window, where an Organizer can review who has been invited to the session. To the left of the participant count, the envelope icon displays one of two states:



Envelope crossed out (default): Email notifications have not been enabled (are turned off) for this session.

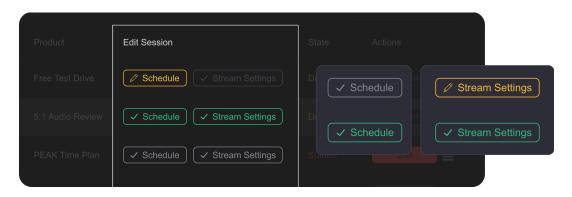
Hovering over this button reveals a tooltip to clarify status (enabled/disabled).

Clicking on the envelope opens "Edit Session Details 1 of 2: Schedule", enabling adjustment of this setting: Enable Email Notifications for Guests.

Envelope not present: If the envelope is not present, email notifications have been enabled (turned on) for this session.

Notifications must be enabled in order for a session to be started.

3) Edit Session: This column contains two buttons with statuses: Schedule, and Stream Settings:



The **Schedule button** displays one of two statuses: Grey and Green

i. Grey: The session is finished

ii. Green: The session has been scheduled

The **Stream Settings button** displays one of two statuses: Yellow (with pencil icon) and Green (with checkmark)

- Yellow: Required streaming settings have not yet been configured and saved
- ii. Green: Required streaming settings have been configured and saved
- **4) Status:** This column displays one of 4 session states: "Ready," "Started," "Finished" and "Draft":
 - Ready: All required Session Settings have been configured, and the streaming session is ready to be started
 - Started: The session has been started and is active
 - Finished: The streaming session has ended, and has been closed; it can no longer be accessed
 - Draft: The session is not ready to be started: The session may be either a Free
 Test Drive session, or a single one-time session that is yet to be scheduled, or a
 scheduled session that does not yet have it's stream settings configured, or email
 notifications have not been enabled.
- **5) Actions:** There are two states for the session actions: Active (Default) or Disabled (Greyed out with an orange outline and text).

If the session has not been started yet, the hamburger menu next to the Action presents the option to "Delete Session".



1) Start (Organizers only):

 Default: The streaming session has been properly configured and can be started by clicking this button. Disabled: Session Settings have not been properly configured, and the streaming session cannot be started.

2) Join Session (Guests only):

- Default: Clicking this button sends a "join session request" to the Organizer of the session, and initiates conference call audio and video checks.
- **Disabled:** The session has not been started by the Organizer, is not active, and cannot be joined.

3) Leave Session (Guests only):

• **Default:** Appears when a session has been joined; pressing this button exits the active session.

4) End (Organizers only):

Default: The streaming session is live; clicking End presents a window asking for confirmation. Confirming ends and closes the streaming session. A copy of .csv timecode markers is automatically distributed to all session participants as an attachment to the "Session is Over" email. If MIDI markers are needed, return to the studio to export them before stopping the session. Once the session is stopped, MIDI markers cannot be accessed.

5) Delete (Organizers only):

 Default: Appears in a grayed out state after the session has been stopped; pressing it permanently deletes the session and any files associated with it.

Session Dashboard Columns - Guest Sessions Only View:

Guest View Only is the default view for users logging in with a Guest account; it is also available for Organizer accounts.



- Session: This column displays the session name, and lists the session
 Organizer's name underneath it. Hovering over the session name reveals a
 tooltip with the following info: Session Name, Organizer, Status, Session ID, Start
 Time, Duration, Type and Reminder setting. Clicking on the Session Name
 reveals the session details window. Underneath the session name, the Session
 ID is listed, which may be helpful for troubleshooting purposes.
- 2. **Organizer:** Lists the name of the Organizer of the session.
- 3. **Start Time:** This column lists the (local to viewer) date and time of the scheduled session.
- 4. **Duration:** Designates the scheduled duration of the session.
- Guests: This column shows how many participants are invited to the session.
 Clicking on the number displays the Guest List window, where the names of invited participants who have accepted the session invitation can be viewed.
- 6. **Actions:** There are two states for the session actions: Active (Default) or Disabled (Greyed out with orange outline and text).



Join (Guests only):

- Default: Pressing this button initiates conference call audio and video checks for the session.
- Disabled: The session has not been started by the Organizer, is not active, and cannot be joined.

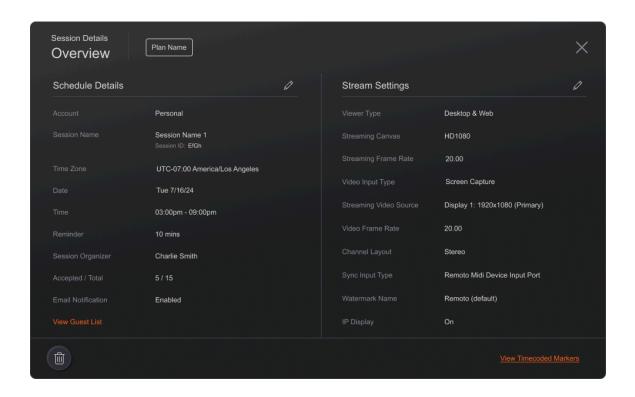
Leave (Guests only):

o **Default:** This button appears when a session has been joined and

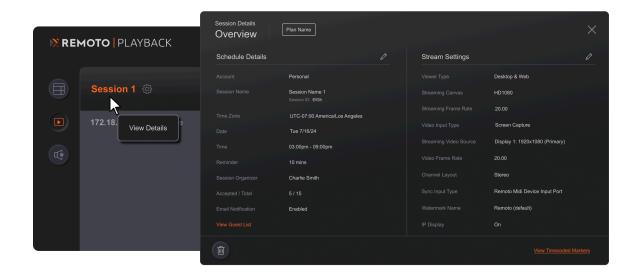
Session Details Overview Window

The Session Details Overview Window consists of two sections: "Schedule Details" and "Stream Settings", which are accessible in 3 different ways.

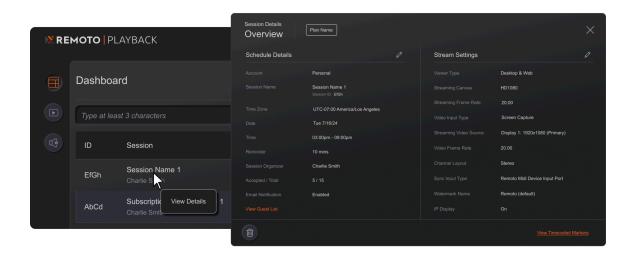
1) By clicking on the Session Name in Dashboard View:



2) By clicking on the Session Name in Studio View:

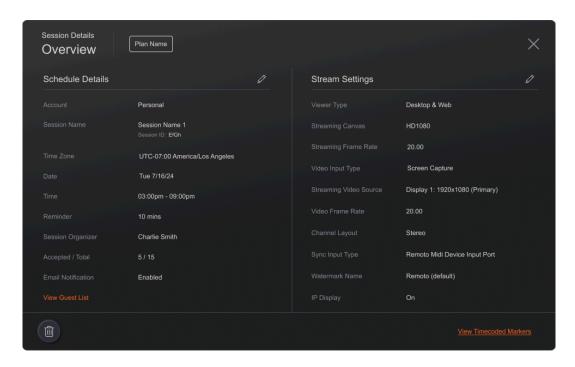


3) By clicking on the "Session ID" (Organizers Only)



The Session Details Overview Window displays different information depending on what type of account is logged in (Organizer or Guest account), or the role of the user (Guest or Organizer). When accessing a single one-time session that has not yet been scheduled, all fields are blank, and can be configured by clicking on their respective pencil icon.

If accessed by the Session Organizer:



The Session Details Overview window includes both Scheduling Details and Stream Settings Details in one view.

The bottom right displays a trashcan lcon, when pressed, the session is permanently deleted and removed from the dashboard.

If the Session Details Overview window is accessed while in a live session, the bottom right of the window displays a link: "View Timecoded Markers". Clicking on this brings up the Timecoded Markers list where markers can be viewed and exported.

Clicking on the pencil icon in either section brings up the corresponding "Edit Session Details" window, either "Edit Session Details (1 of 2): Schedule" or "Edit Session Details (2 of 2): Stream Settings".

Left Side - Schedule Details:

- Account: "Company" that owns the session or subscription. If not associated with a company, this displays as "Individual"
- Session Name, with the session ID beneath it
- Time Zone: Displays the timezone the session has been scheduled in
- Date: Displays the date of the session in MONTH/DAY/YEAR format
- Time: Displays the start and end time of the scheduled session
- Reminder: Displays the setting for a reminder email to be sent out to Guests about the session
- Session Organizer: Displays the Name of the session Organizer
- Accepted/Total: Displays the number of participants who have accepted their invitations vs. total number of invited participants
- Email Notification: Displays whether or not email notifications have been enabled for the session
- View Guest List: Clicking on this brings up the Guest List window.

Clicking on the pencil icon opens "Edit Session Details 1 of 2: Schedule" enabling modification if the session has not yet been started.

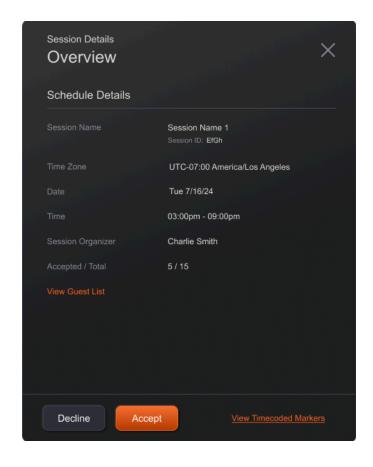
Right Side - Stream Settings:

- Viewer Type: Displays the streaming method chosen for the session (Desktop Only or Desktop & Web)
- Streaming Canvas: Displays the chosen streaming resolution for the session
- Streaming Frame Rate: Displays the chosen streaming frame rate for the session
- Video Input Type: Displays the chosen video input type for the stream
- Streaming Video Source: Displays the chosen video source for the stream
- Video Frame Rate: Displays the frame rate of the streaming video source
- Channel Layout: Displays the audio format of the stream (stereo or multichannel)
- Sync Input Type: Displays feedback that Playback's MTC receiver has been turned on
- Watermark Name: Displays the watermark setting chosen for the session (if any)
- IP Display: Displays whether IP overlay has been turned on or off for the session

Clicking on the pencil icon opens "Edit Session Details 2 of 2: Stream Settings" for modification.

If accessed by an invited Guest:

Only Schedule Details are displayed:



- Session Name, with the session ID beneath
- Time Zone: Displays the timezone the session has been scheduled in (local the the viewer)
- Date: Displays the date of the session in MONTH/DAY/YEAR format
- Time: Displays the start and end time of the scheduled session
- Reminder: Displays the reminder setting for an email to be sent out to Guests about the session
- Session Organizer: Displays the Name of the session Organizer
- Accepted/Total: Displays the number of participants who have accepted their invitations vs. total number of invited participants
- Email Notification: Displays whether or not email notifications have been enabled for the session
- View Guest List: Click to bring up the Guest List window.

If the Session Details Overview window is accessed while in a live session, the bottom right of the window displays a link: "View Timecoded Markers". Clicking on this brings up the Timecoded Markers list where markers can be viewed and exported.

When accessed before a session is live, "Decline" and "Accept" buttons are displayed, allowing a guest to notify the session Organizer whether the invitation is accepted.

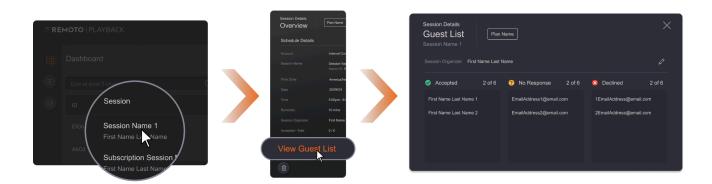
Session Details Guest List Window

The Guest List Window can be accessed in 5 different ways:

1) By clicking on the Session ID number in the Dashboard to reveal the Session Details Overview Window and clicking on "View Guest List" in the lower left:



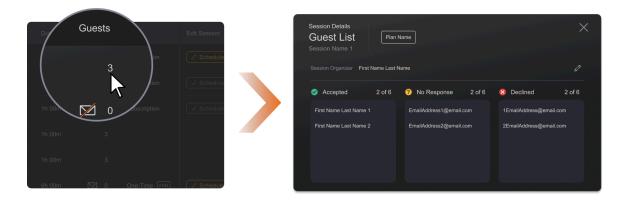
2) By clicking on the Session Name in the Dashboard to reveal the Session Details Overview Window and clicking on "View Guest List" in the lower left:



3) By clicking on the Session Name in Studio View to reveal the Session Details Overview Window and clicking on "View Guest List in the lower left:

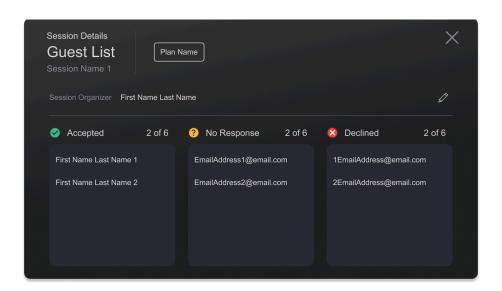


4) By clicking on the number of Guests in the Guests column:



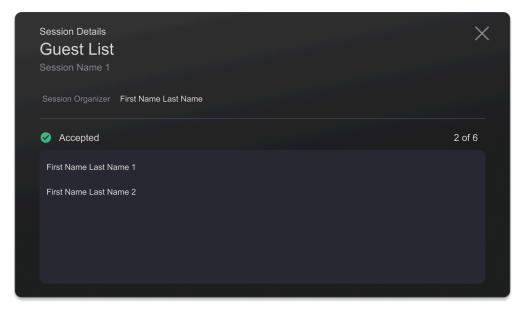
There are two available views of the Session Details Guest Window:

Organizer View:



Session Organizers are able to view the Guest list displayed in 3 sections: Accepted, No Response, and Declined where corresponding invited emails are displayed.

Guest View:



If viewing the Session Details Guest Window as an invited Guest, only the Accepted section is visible, displaying the names of Guests who have accepted the invitation.

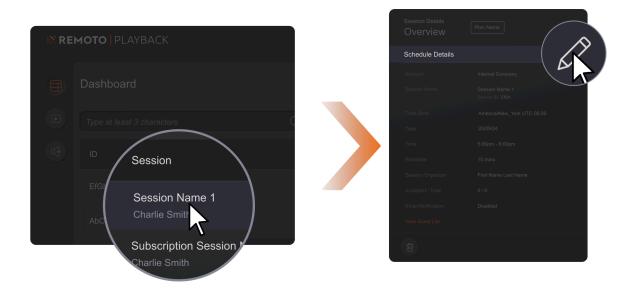
Edit Session Details 1 of 2: Schedule

This window can be accessed by session Organizers in 6 ways:

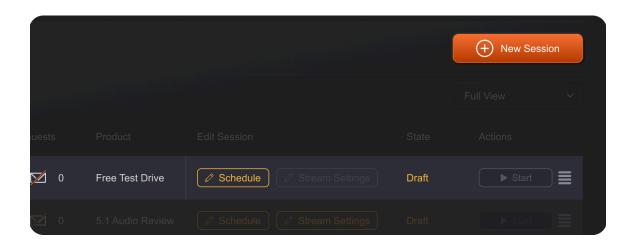
• By clicking on the "+ New Session" button in the upper right of the Dashboard:



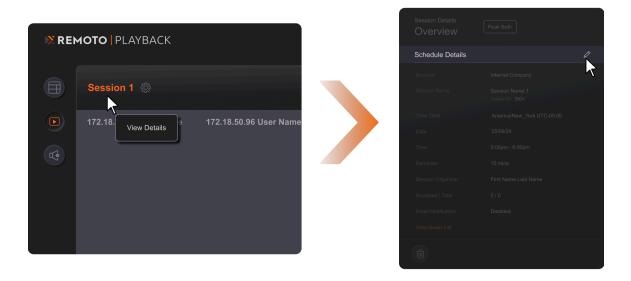
• By clicking on the Session Name in the dashboard to reveal the Session Details Overview Window and clicking on the pencil icon next to "Schedule Details":



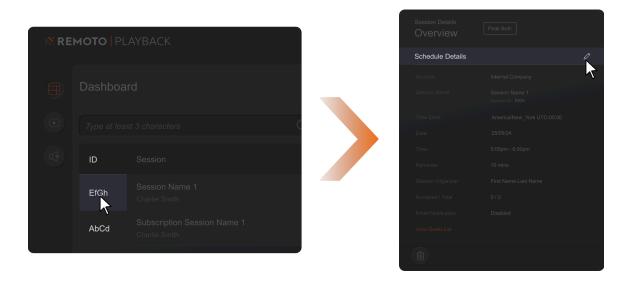
 By clicking on the "Schedule" button in the Edit Session Column in the Dashboard:



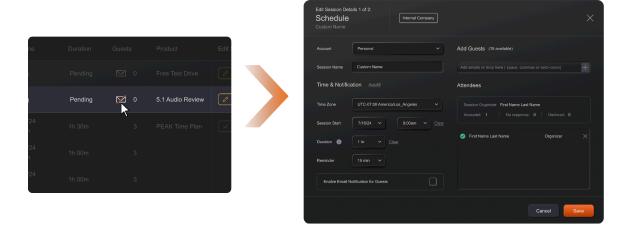
• By clicking on the Session Name in studio view to reveal the Session Details Overview and clicking on the pencil icon next to "Schedule Details":



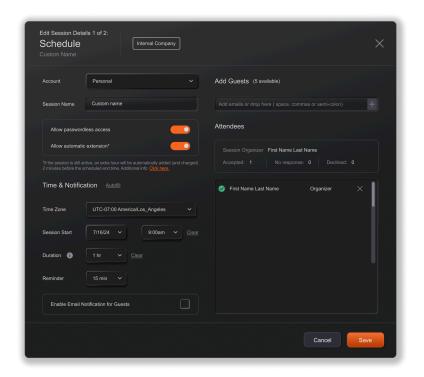
 By clicking on the Session ID in dashboard view to reveal the Session Details Overview and clicking on the pencil icon next to "Schedule Details":



 By clicking on the crossed out envelope icon in the Guest column in the dashboard:



The information displayed pertains to scheduling, including details about who has been invited to the session.

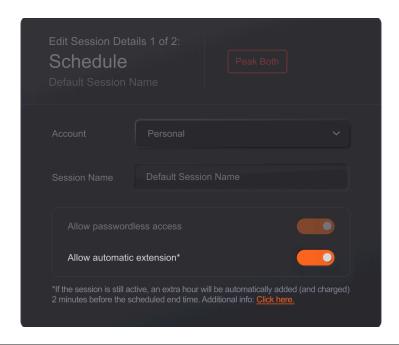


The fields presented are:

- Account: "Company" that owns the session or subscription. If not associated with a company, this displays as "Individual"
- Session Name, with the session ID beneath

- "Allow passwordless access" toggle: enabling this toggle allows invited
 participants to be able to join the session without needing to log in or have a
 Remoto account.
- Time Zone: Displays the timezone the session has been scheduled in
- Session Start: Displays the date of the session in MONTH/DAY/YEAR format
- Time: Displays the start and end time of the scheduled session
- Duration: Displays the length of the scheduled session. What can be selected here directly correlates to the limits of the purchased single one-time session or subscription.
- Reminder: Displays the reminder setting for an email to be sent out to Guests about the session
- Enable Notifications for Guests (checkbox): If unchecked (default), session
 invitations and updates are NOT sent to invited Guests. Once checked, this
 checkbox cannot be unchecked, and session invitations and subsequent session
 related updates will be sent to invited Guests. Enabling these notifications is a
 requirement in order for the session to be started.
- Add Guests (x of x): Displays how many Guests have been invited to the session against the total number of Guests allowed by the session type or subscription. The field below is where Guest emails are entered into the Guest list, confirmed by pressing "+". Emails can be entered manually, or, a single or multiple emails can be dragged into this field from an external list.
- Attendees: Displays the name of the session Organizer, as well as how many Guests have accepted, declined, or not responded to their invitation. The complete guest list including status icons to easily see who has accepted, who is pending, and who has declined, is displayed below.

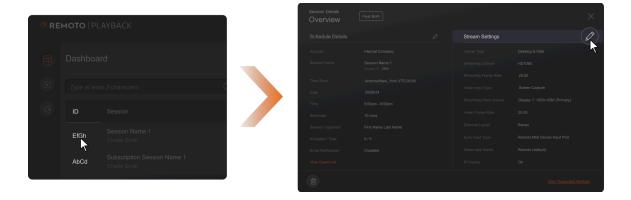
If the session is a single one time session, an additional toggle appears under the session name field to set the <u>automatic session extension</u> status. The default is "off". If toggled on, an additional hour will automatically be added to the stream if the stream is still active 2 minutes before it's scheduled end time.



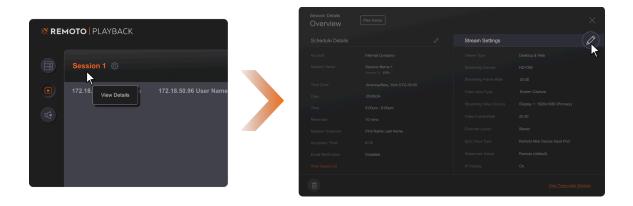
Edit Session Details 2 of 2: Stream Settings

Stream Settings must be configured before a streaming session can be started. Session Settings are configured through the "Edit Session Details 2 of 2: Stream Settings" window. The settings available depend on the parameters of what is allowed by the subscription or single one-time session that it is scheduled against. As part of this window, it is also possible to to view a settings summary in regards to which aspects have been configured and which aspects have not, as well as be able to access a preview of the stream to be able to proof the media before the session is started and live. As the session Organizer, this window can be accessed in 4 ways:

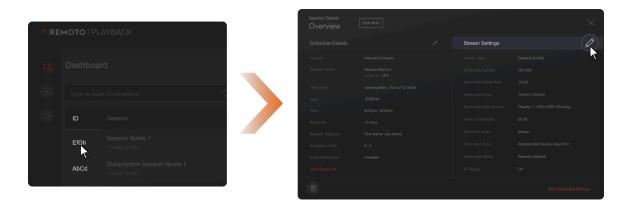
• By clicking on the Session Name in the dashboard and clicking on the pencil icon on the right side of the "Stream Settings" header:



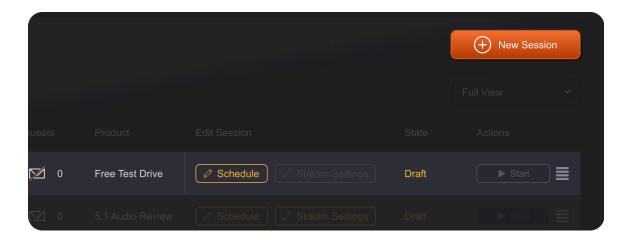
• By clicking on the Session Name in studio view to reveal the Session Details Overview and clicking on the pencil icon on the right side of "Stream Settings":



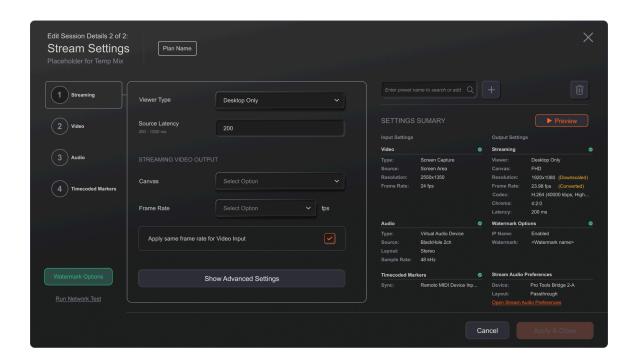
 By clicking on the Session ID in dashboard view to reveal the Session Details Overview and clicking on the pencil icon on the "Stream Settings" side:



• By clicking on the "Stream Settings" button in the Edit Session Column in the Dashboard:



The session settings window presents multiple tabs, each containing multiple fields. The right side of the window includes a Settings Summary which lists all selected settings and configurations:



In the top part of the settings summary window to the right, is a "Preview" button.

Sections 1, 2, 3 and 4 on the left must be configured in order for the session to enter the "Ready" state. Once a section has been configured, a green check mark is displayed next to it.

The lower right of the window offers two optional utilities:

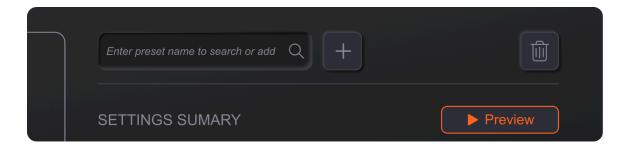
"Watermark Options": This reveals optional watermark settings.

"Run Network Test": This opens a browser link to https://remotopro.io/test.

The right side of the window provides a summary of chosen settings and configurations, the "Settings Summary." This view also notes any downscaling of the original video source, or if the frame rate is being cross-converted.

Stream Preview

The Stream Preview button is located in Edit Session Details 2 of 2: Session Settings, in the top right of the session Settings Section. If illuminated, this can be clicked to open a preview of currently configured audio and video sources, enabling the media sources to be verified during setup, or anytime before the session is started.



When Preview is clicked, a Preview window is displayed:



If the source media is open and playing in the background, this window will display the selected visual media source, and also play the chosen audio source with visual metering. If a watermark has been configured, this will display as well. If the DAW or non-linear editor is able to provide MTC for Remoto to chase and this has been configured, timecode will chase in preview mode as well. The Preview window can also be viewed in full screen. To exit preview mode, click "Close".

Session Settings Presets

The "Session Presets" section is accessed at the top of the "Edit Session Details 2 of 2: Stream Settings" window. Here, user settings can be saved, recalled, and deleted.



To save a preset, click into the "Enter preset name to search or add" field, and enter a name, and click on the [+] to save the preset.

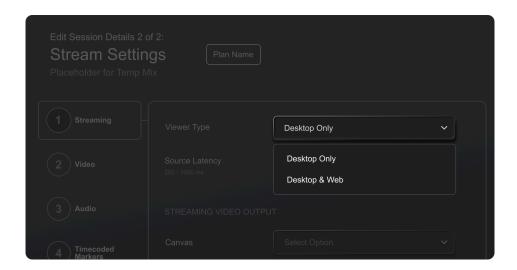
To recall a preset, click the "Enter preset name to search or add" field and click to select an available preset from the revealed drop-down.

Streaming Settings

The Streaming Settings tab determines the streaming method and how Guests are able to view the stream; and is also where streaming canvas and frame rate of the audio and video media being streamed during the session is determined.

The fields change depending on the Viewer Type chosen:

- Desktop Only
- Desktop & Web



The option chosen determines how the session is streamed and how Guests are able to access the stream.

"Advanced Settings" offers advanced video encoding controls and is revealed by clicking "Show Advanced Settings".

Note: This is the only settings tab that can not be changed while you are in a live session.

Viewer Type: Desktop Only

Desktop Only viewing requires all Guests to download and login to Playback Desktop on an Apple computer in order to join the stream. This is the best option for a full-featured experience, including:

- SRT Streaming Protocol;
- Ability to transmit and receive multichannel audio (up to 16 channels) for studio-to-studio streaming;
- Ability for Guests to create timecoded markers;
- Full-featured conferencing with video, audio, and chat functionality.

Desktop Only Streaming introduces a minimum of two seconds of latency to help compensate for network quality variations. The latency in the stream can be manually corrected, see the section on latency below for more information.

Choosing Desktop Only as the viewer type, the following fields are revealed:

- Latency
- Streaming Canvas
- Streaming Frame Rate

Additionally, a checkbox is available to apply the same frame rate to the Video Settings tab automatically.

Viewer Type: Desktop & Web

Desktop & Web streaming allows Guests to join a streaming session from either Playback Desktop or Playback Web. This option is best for situations where Guests are "on the go" or joining from a Windows PC system. Desktop & Web streaming features:

 SRT/WHEP Streaming Protocol playable on Playback Desktop and Playback Web:

- For Desktop users, the ability to transmit and receive multichannel audio (up to 6 encoded channels);
- For those joining with the Web application, stereo-encoded audio only;
 multi-channel streams are mixed down to stereo;
- For those joining with the Web application, conferencing functionality is limited to audio and video only (there is no text chat);
- The ability to create timecoded markers is available only for the session host/Organizer.

Desktop & Web provides a streaming experience with nearly imperceptible latency (less than 2 seconds) for those joining through the Web application, but with lower audio quality than those joining through the Desktop application. This provides high flexibility, allowing Guests to join from any device with a qualified web browser.

Choosing Desktop & Web as a viewer type reveals the following fields:

- Streaming Canvas
- Streaming Frame Rate

Latency

This field is only available when "Desktop Only" Streaming has been selected. The Latency setting allows the Organizer to manually adjust streaming latency for Desktop viewers if desired.

Since Desktop Only streaming utilizes an SRT streaming protocol, it's possible to compensate for a Guest's potential poor network quality by adding a buffer of additional latency (in milliseconds) using this field. Adding latency to the stream before it reaches the SRT gateway provides more time for the stream to be processed before it's transmitted to the Guest(s). This reduces the chance of packet loss, and results in a larger buffer period to manage poor network conditions. The same amount of latency/buffer is added between the gateway and the guest(s). For example, if the Latency field is adjusted to 300ms, 300ms is added between the Organizer and the gateway, and another 300ms between the gateway and the Guest(s); the total latency from Organizer to Guest would be 600ms.

Adding latency does increase the delay between the Organizer and the Guest, but ultimately results in improved stream quality and reliability for the Guest(s).

The default Latency value is 200ms.

Streaming Canvas

The "Streaming Canvas" field allows the Organizer to set the resolution of the video stream that is transmitted during the session. This resolution is the number of pixels displayed on the screen, and determines the video quality of the stream. The following common resolutions are available:

- High Definition (HD): Usually 720p (1280x720 pixels) or 1080p (1920x1080 pixels). HD streams are a significant step up in quality from SD, providing clearer and more detailed images.
- Full HD (FHD): Equivalent to 1080p (1920x1080 pixels), offering even higher quality video suitable for detailed viewing on larger screens.
- 2K (QHD): Equivalent to 2K (2048x1556) and 2k DCI (2048x1080).
- Ultra HD (UHD)/4K: While this is available in the dropdown, it can only currently be used for single one-time UHD sessions.

The optimal choice of resolution for a live stream depends on various factors, including the network bandwidth available to both the Organizer and the Guest, the type of content being streamed, and what devices Guests will use to watch the stream. Higher resolutions provide better quality but require more bandwidth and processing power for encoding and decoding.

If streaming from an application or from a screen capture, and/or are unsure what to choose, we suggest choosing 1080p as the minimum streaming canvas. If possible to discern, it's recommended to match the resolution (streaming canvas) and fps with the source material being streamed.

Streaming Frame Rate

The "Streaming Frame Rate" field allows the Organizer to set the frame rate of the video stream that is transmitted during the session.

The frame rate, measured in frames per second (FPS), of a live stream refers to the number of individual images (or frames) that are displayed or transmitted each second during the video stream. FPS is a crucial factor in determining the smoothness and quality of motion in the video content. Different FPS rates have specific uses and implications for the viewer's experience:

Framerates of 23.98, 24, 25, 29.97, and 30 are supported

- 24 FPS: Traditionally used in film, creating a cinematic look. This frame rate has a specific motion blur that gives movies their characteristic visual style.
- 30 FPS: Commonly used in standard television broadcasts and many live streams, offering a good balance between smooth motion and technical requirements. It provides a smoother appearance than 24 FPS, suitable for most general content.

The choice of FPS for a live stream depends on the content type, the capabilities of the broadcasting and viewing equipment, and the available internet bandwidth.

When the framerate of the media being streamed is known, it is recommended to match the resolution (streaming canvas) and fps of the source material in the "Streaming Frame Rate" and "Streaming Canvas" fields. Additionally, the "Streaming Frame Rate" value entered here should match the "Streaming Video Frame Rate" in the "Video Input" setting (see below).

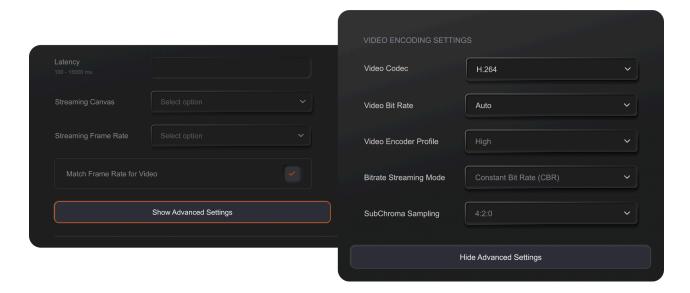
If streaming from an application or from a screen capture and the media's frame rate is unknown, we suggest defaulting to 24fps for the Streaming Frame Rate.

Match Frame Rate for Video (Checkbox)

This checkbox, when enabled, ensures that the frame rate of the output video matches the source video's frame rate. This is useful when seeking to preserve the original fluidity of motion from the source footage without introducing jitter or other playback issues.

Advanced Encoding Settings ("Show Advanced Settings")

There are Advanced Encoding Settings available for streaming that allow fine-tuning of the video encoding of the stream to maximize streaming quality against available bitrate. These advanced settings are revealed by clicking on "Show Advanced Settings", and can be hidden again by clicking on "Hide Advanced Settings". If not revealed or modified, the default settings are as displayed below.



Video Codec: H.264 or H.265

This setting determines the type of video compression format used. H.265 is the default for the Desktop Only streaming type, though H.264 can also be selected. H.265 is not supported for the Desktop & Web streaming type as it is not playable in web browsers.

- H.264 is a widely used codec that provides efficient compression while
 maintaining high video quality. It is broadly supported across devices and
 platforms, making it a versatile choice for encoding.
- H.265 also known as HEVC High Efficiency Video Coding, offers significantly improved compression efficiency compared to H.264, enabling higher-quality video at lower bitrates. This makes it ideal for bandwidth-sensitive workflows.

However, H.265 requires more processing power and is not as universally supported as H.264, which may limit compatibility in certain environments.

Video Bitrate: Auto / 1,000kbps - 40,000kbps:

The Video Bit Rate defines the amount of data processed per second during video playback. Select Auto to allow the system to automatically choose an optimal bitrate based on content and resolution, or manually set the bitrate. Lower bitrates reduce file size but may result in lower video quality.

Video Encoder Profile: Baseline, Main, High

The Encoder Profile refers to the complexity of the compression process.

Baseline: Designed for low-complexity situations.

Main: Best to use for SD video.

High: Ideal for HD and UHD content, offering the best quality but requiring more

processing power.

Bitrate Streaming Mode: Constant Bit Rate (CBR)

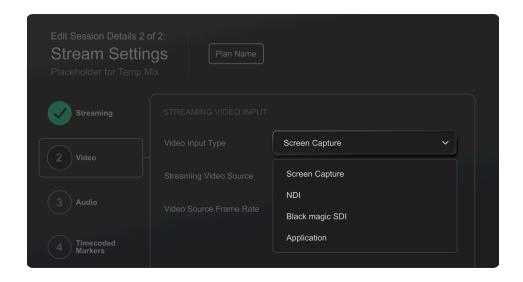
The Bitrate Streaming Mode controls how the video's bitrate is handled. Constant Bit Rate (CBR) maintains a consistent bit rate throughout the entire video which ensures smooth playback. This is useful for streaming where a stable network bandwidth is expected, and predictable file sizes and bandwidth usage are desired.

SubChroma Sampling: 4:2:0 or 4:2:2

SubChroma Sampling refers to how color information is stored in the video file.

- 4:2:0 (Available for both Desktop Only and Desktop & Web streaming) is a common chroma subsampling format, where color data is sampled at half the resolution of brightness data. This setting reduces the file size while still maintaining good visual quality, particularly in standard viewing scenarios.
- 4:2:2 **(Available for Desktop Only streaming)** samples color information at a higher resolution, providing more detail and accuracy, especially in areas with sharp edges or color gradients. This format is often used in professional video production and post-production workflows, where higher fidelity is required for tasks like color correction or broadcast-quality delivery.

Video Streaming Settings: Streaming Video Input



The Video Streaming Settings tab is where the Organizer configures the source of the video stream.

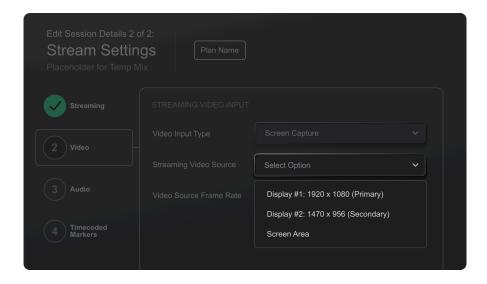
Video Input Type

There are four different video streaming input options available. For high quality picture projects, we recommend using NDI or Blackmagic.

Video stream source options:

Screen Capture

 "Screen Capture" sets the content of a connected display, or a select area of that display, as the video stream source.



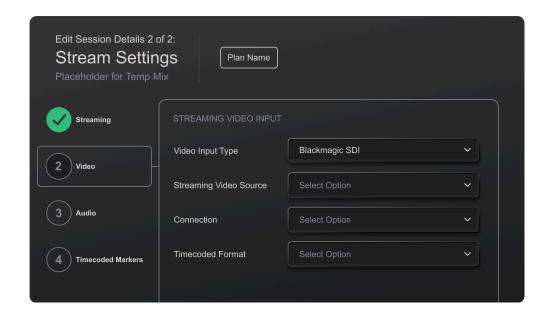
• NDI®

NDI (Network Device Interface) is an IP-based video transmission protocol developed by NewTek. NDI was designed to enable compatible devices to share lightly compressed high-bandwidth video, along with audio and metadata, via network for broadcast contribution and production. In the case of Playback, Organizers can use NDI (https://ndi.video/type/ndi-tools/), specifically "Scan Converter," to capture a video streaming source from any location on their computer. Additionally there are official plugins included in software solutions such as Adobe Premiere® or Final Cut®, that can be configured as an NDI source. NDI can also capture video and audio across a LAN.

Choosing NDI as the Video Input Type requires the selection of a Streaming Video Source which is a LAN (Scan Converter) location, or an NDI output from the preferred software, if applicable.

Blackmagic® SDI

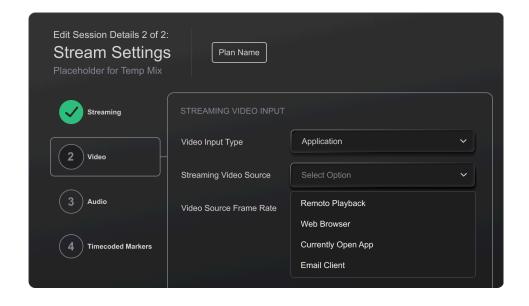
- Blackmagic SDI allows the selection of a Blackmagic hardware device as the video streaming source. Once selected, additional fields requiring configuration are revealed:
 - Streaming Video Source
 - Connection
 - Timecode Format



Once Blackmagic SDI has been chosen as a video input type, Playback expects Blackmagic SDI to also be chosen as the audio input type.

Video Input Type: Application

Selecting "Application" as the Video Input Type will allow the selection of any open application window on the computer as a Streaming Video Source.



The drop down displays an option for each application currently open on the system.

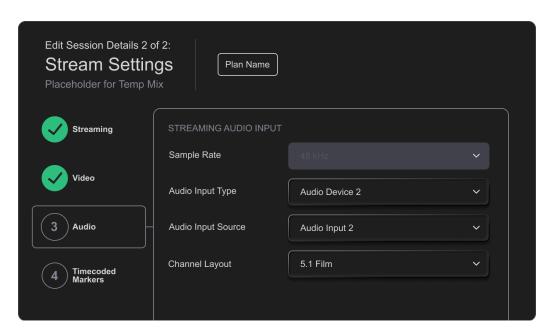
Streaming Video Source

The Streaming Video Source field is a drop down that populates based upon what Video Input Type has been chosen.

Frame Rate

The Frame Rate setting field, when used in conjunction with Screen Capture or Application, should be set to 24fps in most use cases. Frame Rate is not required to be configured if NDI or Blackmagic are selected as the Video Input Type, as these sources carry frame rate metadata within their stream and Playback recognizes and heeds the incoming metadata. The frame rate set here should match with the frame rate entered in Streaming Frame Rate in the Streaming Settings tab.

Audio Streaming Settings: Streaming Audio Input



The audio streaming settings tab is where the audio source is configured for the stream.

Sample Rate

The Sample Rate Field defaults to 48 kHz and cannot be changed.

Audio Input Type

There are three different audio streaming input options available.

Virtual Audio Device

 Selecting "Virtual Audio Device" enables the use of any connected hardware or software audio device via the Audio Device drop down.

NDI

Selecting "NDI" allows the streaming of audio from NDI
 (https://ndi.video/type/ndi-tools/) Scan Converter to capture an audio
 streaming source from any location on the system.
 Additionally there are official plugins included in software solutions like
 Adobe Premiere or Final Cut, etc. that can be configured as an NDI
 source. NDI can also capture audio across a LAN.

Blackmagic SDI

o If Blackmagic SDI is selected as the video input type, Playback expects the selection of Blackmagic SDI as the audio input type. Blackmagic SDI enables the use of a Blackmagic hardware device as the audio streaming source. For more information, please refer to our <u>System Requirements</u> and <u>Compatibility Article</u>.

Audio Device

The "Audio Device" drop down populates based upon what Audio Input Type has been selected.

Channel Layout

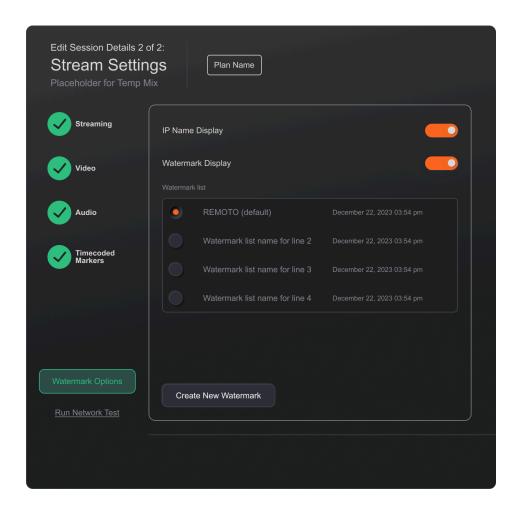
The "Channel Layout" populates based upon what Audio Device has been selected. The options vary from Stereo to multi-channel depending on the channel count of source.

Timecoded Markers Setting

This setting is key to ensuring that timecoded markers are correctly aligned to the timeline of the source media that is being streamed. Select "Remoto MIDI Device Input Port" to ensure Playback is receiving MTC from the desired software or hardware source. For more info about timecoded markers, please see the <u>"Session Collaboration"</u> section of this guide.

Watermark Options

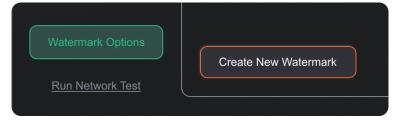
Watermark Options are accessed from the lower right of the "Edit Session Details 1 of 2: Stream Settings" window. Though not required to start a session, this is where watermark settings can be configured. Watermarks are disabled by default (no watermark is overlaid onto the streaming video). Custom text watermarks, IP and Name overlays can be configured and toggled on from the "Watermark Settings" tab.



In the above screenshot, IP Name Display and Watermark Display are toggled OFF by default and grayed out. To choose a watermark from the list, tick the left-most box to check a selection, and toggle Watermark display "On". Any custom watermarks created is saved to this list.

Create Watermark

To create a new custom watermark, click on the "Create Watermark" button at the bottom of the window:



The watermark creation window is displayed:

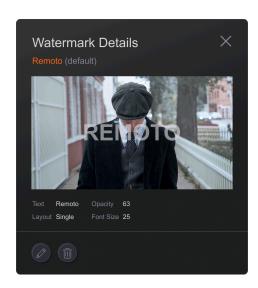


The watermark setting can be named; this is how it will be displayed in the watermark list. Enter the watermark text to be overlayed, and specify opacity and font size to adjust the watermark's appearance.

Custom Watermark Details

Clicking on the watermark name in the custom list toggles a window with the details of the watermark.

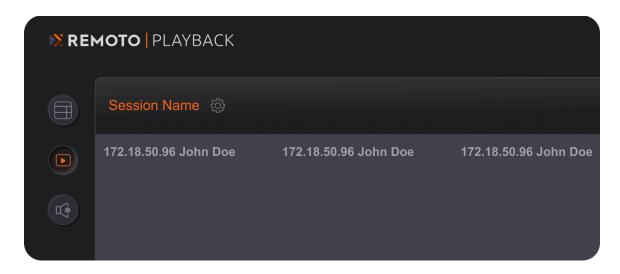
The window displays basic details of the watermark, and allows editing by clicking on the pencil button. The custom watermark can be deleted by clicking on the trashcan button.



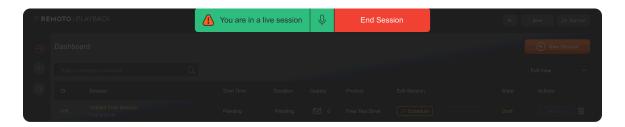
Studio View

From Playback's main interface, Studio view is activated when joining an active session. The Studio View can be accessed by either:

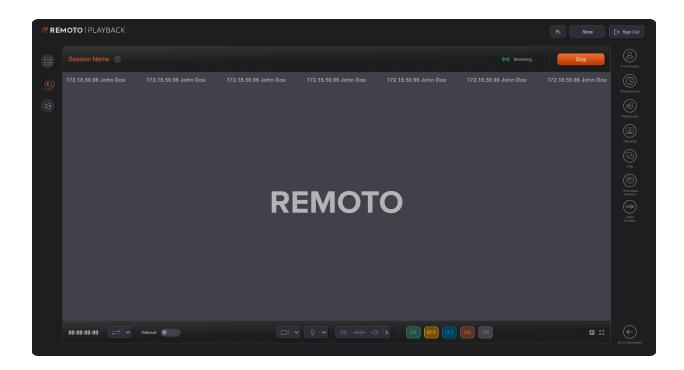
Clicking on the illuminated "Studio" button on the left side of the main interface:



Clicking on "You are in a live session" banner at the top of the main interface:



Once either option is clicked, the interface switches to "Studio" view:



Studio view features the content streaming window, with basic controls below it, and a panel of buttons on the right side to open/close different tabs.

Always visible (From left to right):



- Timecode counter
- Sync adjustment controls
- Talkback Toggle
- Camera on/off + source selection
- Microphone on/off + source selection
- Conference call and stream muting, and output destination link/unlink
- Quick Marker entry by category (DX, SFX, VFX, MX, TM)
- Timecoded Markers list
- Full Screen Mode
- Go to Dashboard button

Note: Clicking "Go to Dashboard" does not end the session if you are an Organizer. You can toggle between the Dashboard and Studio View at any time.

Right Side Tab Buttons

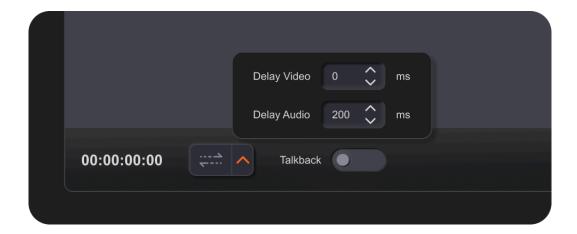
- Invite Guests
- Waiting Room
- Participants
- Video Call
- Chat
- Timecoded Markers
- Local Audio Controls



Adjust Sync



The Adjust Sync button allows access to manual control of A/V sync, helping to correct audio to video delays caused by latency.



Adjustments made by the Organizer affect the sync of the outgoing stream. Adjustments made by Guests only affect their local experience, and are integrated with the Organizer's adjustments. This feature is only available to Guests using the Playback Desktop application.

Session Types:

- Desktop Only: All participants (Organizers and Guests) can use the Adjust Sync feature as needed.
- **Desktop & Web:** Only the Organizer can use this feature.

Two fields can be adjusted: "Delay Video" and "Delay Audio". A positive value up to 500 ms can be typed into the respective field, or adjusted via the up/down arrows.

When hovering over the entry field for Delay Video a tooltip is displayed: "Adjust if video is ahead of the audio."

When hovering over the entry field for Delay Audio a tooltip is displayed: "Adjust if audio is ahead of the video."

If audio is delayed, this feature provides a positive offset; if video is delayed, it provides a negative offset.

As a reference:

At 30 fps: At 25 fps: At 24 fps:

1 frame = \sim 33.33 ms 1 frame = 40 ms 1 frame = \sim 41.67 ms

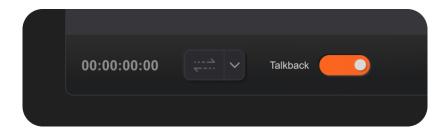
50 ms = \sim 1.5 frames 50 ms = 1.25 frames 50 ms = \sim 1.2 frames

100 ms = \sim 3 frames 100 ms = 2.5 frames 100 ms = \sim 2.4 frames

200 ms = \sim 6 frames 200 ms = 5 frames 200 ms = \sim 4.8 frames

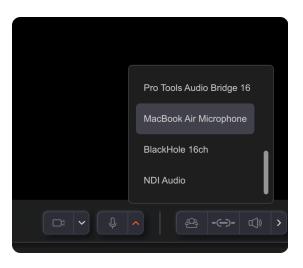
Talkback Toggle

The Talkback toggle allows Organizers to enable momentary "push-to-talk" behavior during a live stream. When Talkback is on, all session participants are muted and can only speak by holding the microphone button or pressing the spacebar. This toggle defaults to off. If the toggle is turned on before the stream is started, all participants are muted and can not unmute themselves until the stream has started.

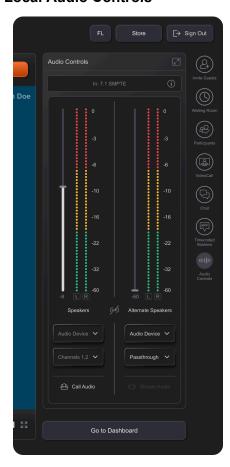


Camera and Microphone On/Off + Source Selection

The chosen video conferencing camera can be turned off and on by clicking on the camera icon. Similarly, the chosen microphone can also be turned off and on by clicking on the microphone icon. Additionally, camera and audio sources can be changed directly from the live session by clicking on their respective arrows, revealing a menu of sources to choose from based upon what is available on the system.



Local Audio Controls



In Studio view, basic local audio controls are always present below the content streaming window, where the conference call and stream audio can be muted, and the output destination for the stream can be unlinked/linked to the call audio output destination.

To access more in-depth volume and output controls, the arrow button next to the basic controls can be clicked to open the "Audio Controls" tab:

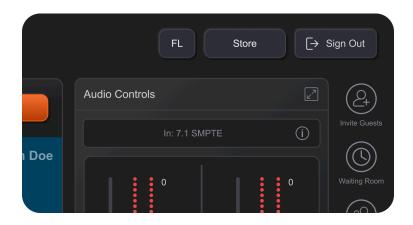


Or, from the side button directly:



The faders and meters offer independent visual feedback and control over the stream audio and the conference call audio.

The **In:** "xxx" text displays the channel format of the streaming source (In), while local output device and format is viewed and selected below the faders. For a visual representation of the signal flow, please see the Local Audio Controls concept in Chapter 2.



Stream Audio

The "Stream Audio" fader and channel displays control and meter local audio output, as configured in the join/start session dialog and/or preferences window. The volume changes made here only affect how the local user is listening to the stream; it does not affect the volume of the audio being sent via the stream.

Playback supports streaming of up to 16 audio channels as designated sources in Session Settings. Since the system is capable of streaming 16 channels, it is possible to monitor all 16 channels on distinct outputs. In stream audio controls, each number represents one channel. The numbers on the stream audio channels correspond to specific outputs of an active session, determined by the preferences set when joining the stream. For instance, if the stream includes 5.1 surround sound, but a stereo speaker destination has been set, the system automatically adjusts and encode the audio into a stereo format, allowing the user to consume the 5.1 format with a stereo speaker set up or headphones. In this case, only channels 1 and 2 show activity and status. However, if a multichannel audio format (like 5.1 surround sound) is being monitored and has been selected as the stream's output format in the preferences, then all channels of that format are active and indicate their status.

The colors reflected in the channels are post-fader (i.e., post volume slider) level indicators:

- Off (< -75dB FS)
- Green (> 75db FS)
- Orange (> -3dB FS)
- Red (> -.5dB FS)

The slider under Stream audio is a volume slider. To turn the stream audio all the way off, slide the slider all the way to the left. This volume slider controls the stream output audio to local speakers, and does not affect the input gain of the stream itself.

Call Audio

"Call audio" refers to conferencing audio, i.e. the voice audio from other Guests. This audio is stereo, and the L + R refers to the left and right channels. The circles behave as a VU meter.

The slider under Call Audio is a volume slider. To turn the stream audio all the way off, slide the slider to the left.

Output Destination Link/Unlink

The conference call audio is routed through a primary output labeled "Speakers," and by default, the stream audio is linked to the same output destination for ease of use. A link button is available next to the basic audio controls beneath the content viewing screen, as well as within the audio controls tab.



Linked: The stream audio shares the same output as the conference call. The output destination and format dropdowns for stream audio are disabled.

Unlinked: The output destination and format dropdowns for stream audio become active, allowing the stream audio to be routed to an alternate speaker set separate from the call audio.

Timecoded Markers Entry Field

Playback allows any stream participant (Organizer or Guest) to create timecoded markers, which are separate from the participant chat. Markers can be created in two ways:

Quick Markers

Quick Markers are always available below the content viewing window. These are categorized buttons that, when clicked, instantly create a timecoded marker. These markers can be annotated later in the expanded Timecoded Markers tab by searching for the marker and double clicking on it to add text. Quick Markers provide a fast way to flag moments in real time without interrupting the viewing experience.



Full Entry Field:

For a more detailed timecoded marker entry experience, open the Timecoded Markers tab by clicking the "Timecoded Markers" button in the sidebar.



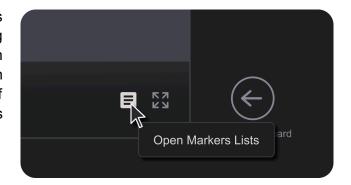
This view allows a category to be selected and a note to be added to each marker. When the entry field is activated, the current timecode is shown in the timecode display to the left. Enter a comment, then click the arrow button or press Enter to submit the marker. Click "Cancel" to discard it.



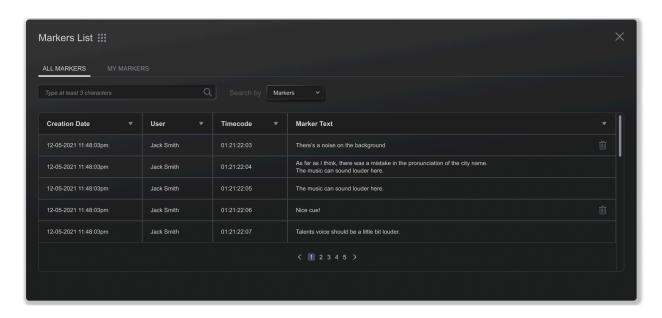
Below the entry field, a scrollable history of all submitted markers is available, along with a search field (indicated by an hourglass icon) for locating specific comments. Comments can be double clicked on to edit the comment text.

Timecoded Markers List Window

To view timecoded markers created during the streaming session, click the notepad icon located next to the Full Screen button in the lower-right corner of the streaming video window. This opens the Markers List.



The "Markers List" window appears:



In this window, markers that have been entered are listed along with their creation date, timecode location, and author. Markers can be deleted by pressing the trashcan button at the end of the row.

The view can be toggled between ALL MARKERS and MY MARKERS.

The markers list can be searched using the search bar, or the "Search by" drop down, filtering by marker content, a specific timecode location, or user.

Timecoded Markers can be exported either in MIDI or .csv format to be imported into a DAW. Exporting markers as MIDI allows import into Pro Tools, Logic, Reaper, or Nuendo. Exporting as .csv enables import into other programs that support this format, such as Avid Media Composer, Adobe Premiere, Final Cut®, DaVinci Resolve, etc.)

To export markers, click on the grid button next to the Markers title at the top left of the window:



If "Export to MIDI" is selected the following window is displayed



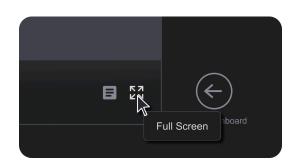
If "Export to .csv" is selected the following window is displayed:



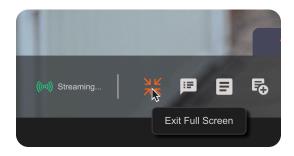
Upon clicking export, a prompt to name the file and select its destination is displayed.

NOTE: Once a session has been closed, it is longer accessible. A .csv copy of timecoded markers is automatically sent to all participants at the end of the session, but MIDI markers must be exported while the session is still active.

Full Screen Mode



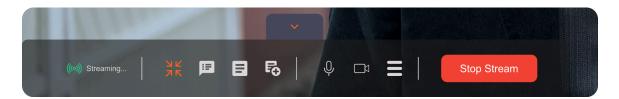
In Studio View, the video window can be toggled into full screen mode to fill the width of the application window by clicking on the right most "expand" icon in the viewing screen.



Exit full screen mode by clicking on "pinch" icon in the left hand corner of the screen.

In Full Screen mode, there is a collapsible bottom bar, and the sidebar from the regular (not full screen) view is also available.

When the bottom bar is visible, it displays the current stream status and provides access to several actions: exit full screen mode, toggle markers display, open the Markers List, add a marker, turn the video camera or microphone on/off, and start or stop the stream. A hamburger menu also provides additional options, including Mute All Microphones and Disable Stream Audio for All.

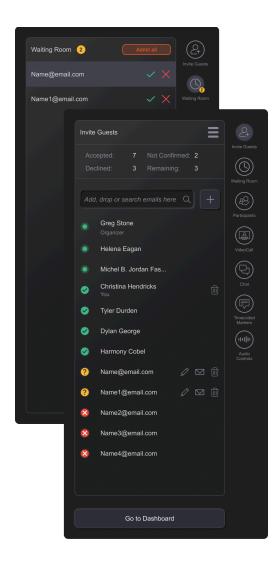


The sidebar will be open in full screen view, and defaulted to Timcoded Markers. To close the sidebar, click outside of it. To reveal the sidebar options, click on the expand arrow tab to the right, and to close the sidebar options without selecting a section to reveal, click the arrow tab again to collapse.

Participant Management and Conferencing

In Studio View (both regular and full screen) participant management and conferencing controls are found in the sidebar buttons on the right side of the screen. The relevant buttons are:

- Invite Guests
- Waiting Room
- Participants
- Video Call
- Chat



Invite Guests:

Clicking this button opens a tab that displays participant RSVP statuses, including who has accepted, declined, or not yet responded. It also shows how many additional participants can be invited, based on the session type or subscription. A searchable list of invited participants is provided, with options to manually add new participants or use click-and-drag. A hamburger menu at the top of the tab includes options to "Remove All" participants (uninvite everyone) or "Resend Invitations" to issue a new round of email invitations for better visibility.

Waiting Room:

The Waiting Room button opens a tab displaying a list of participants waiting to be admitted to the session. The button also shows a notification indicating the number of guests currently in the waiting room. From

this tab, participants can be either admitted to the session or denied access. There is also the option to "Admit all" to let everyone into the session at once.

Participants:

Clicking the Participants tab opens a list of all participants currently admitted to the session. The speaker icon can be used to deafen a participant, while the microphone icon mutes them. A hamburger menu at the top provides additional options, including "Mute All Microphones" and "Disable Stream Audio for All."

Video Call:

Clicking on the Video Call button reveals a list of video chat participants. The speaker icon can be used to deafen a participant, while the microphone icon mutes them.

Chat:

Clicking the Chat button opens the chat tab, which contains the text entry field and chat history. All messages entered are visible to all participants; private messaging is not supported.

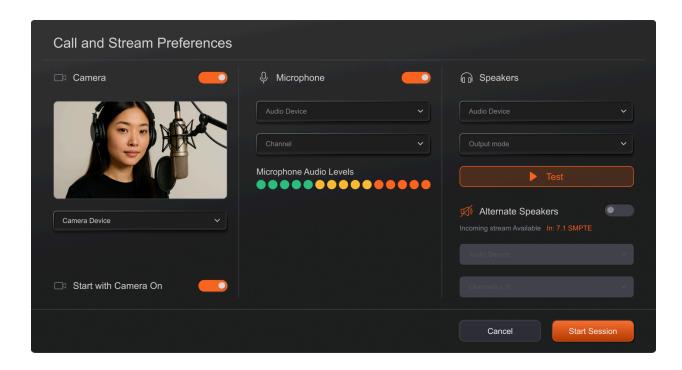
Call and Stream Preferences Window



Configuration and testing of local conferencing audio, video and streaming audio settings takes place in the "Preferences" window.

This window can be accessed via the "Preferences" button to the left of the main interface.

It will also appear when a Guest joins a session (when a "join request" is sent) or when the Organizer starts a session:



This window is split into three sections: Video Call Settings, Microphone Settings, and Speaker Settings.

Video Call Settings

This section includes several settings: a Camera Device toggle (On/Off), a camera selection dropdown, a toggle to join the session with the camera on or off, and a preview of the selected video feed.

The Camera Device toggle is useful when the desktop machine that is streaming media does not have a connected camera. The camera selection dropdown also includes a "Configure Later" option, allowing a camera feed to be chosen later in the session.

Microphone Settings

This section includes a toggle to turn the selected microphone on or off, a dropdown for selecting the microphone input, and a visual level indicator to confirm that the microphone is active.

Speakers Settings

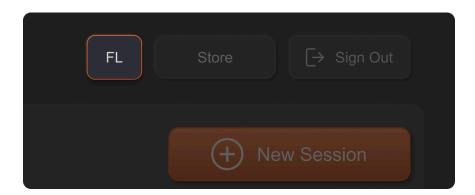
This section includes a dropdown to select the speaker destination and channel configuration for conference call audio, along with an option to send a test signal to verify the selected output.

An "Enable Alternate Speakers" toggle allows stream audio to be routed to a separate output destination and format. When toggled off (default), stream audio is linked to the call audio output and is automatically folded down to match that format. A label displaying the stream's audio format is also provided to assist in selecting an appropriate output destination.

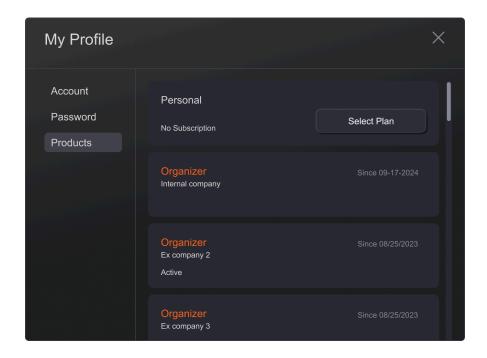
To save settings, press "Apply" if accessing via the Preferences button from the left sidebar, or press "Start Session" to start the session as an Organizer, or "Request to Join" if joining a session as a Guest.

Profile Window

The user profile can be accessed from the Profile button in the top right navigation buttons, to the right of the "Go To Store" button.



Once clicked, the "My Profile" window is displayed.

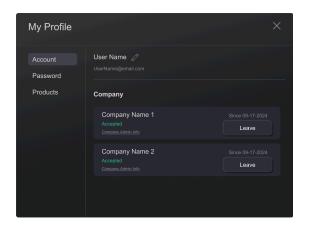


It features 3 tabs:

- Account
- Password
- Products

Account

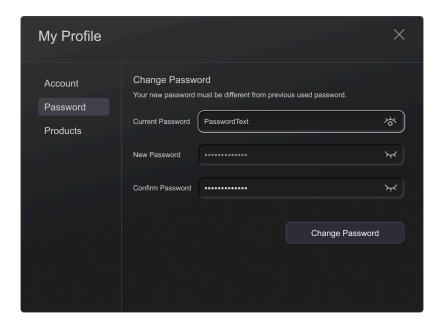
The account tab displays the name and email address tied to the account. This information can be saved and edited. The Company section is populated when an invitation to use a subscription seat on behalf of a company is accepted.



Password

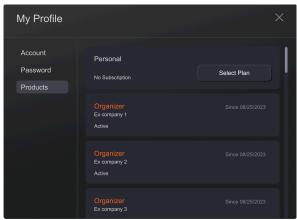
In the Password tab, the current password for the account can be revealed, or changed to a new password.

NOTE! Password reset can also be initiated from the login screen.



Products

The "Products" tab displays information about the subscription tied to the account. This tab also contains a "Go To Store" button to upgrade or downgrade, or purchase a new subscription.



Part 3: Streaming Session Management (Organizer)

Chapter 4: Streaming Session Management

This section of the guide covers Streaming Session management: creating/scheduling a session, managing session participants, and deleting sessions.

Creating a New Streaming Session

1) Schedule Session

A session can be scheduled in several ways depending on the type of product purchased:

a) Single one-time sessions (including free Test Drive sessions)

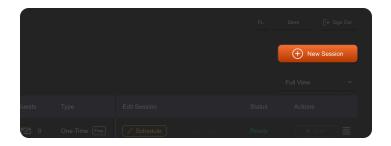
Purchased single sessions, or free Test Drive sessions, auto-populate in the Dashboard. Click on the "[Session Name]" to bring up the "Session Overview" window, and click on the pencil on the right side of Schedule Details, to open the "Edit Session Details 1 of 2: Schedule" window and schedule the session.

Alternatively, click on the "Schedule" Button for the session in the "Edit Session" column to open the "Edit Session Details 1 of 2: Schedule" window.

Note that the maximum number of Guest participants and the maximum duration available for the user to schedule are set at the time of purchase. The user may schedule a session of equal or lower Guest count or duration only; a refund or credit will not be issued if the session does not make maximal use of the purchased specifications.

b) Subscription plan sessions

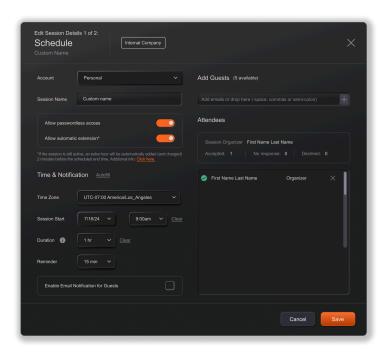
These are scheduled by clicking the "+ New Session" button in the upper right hand corner of the Dashboard. This brings up the "Edit Session Details 1 of 2: Schedule" window to schedule the session.



2) Fill Out Edit Session Details

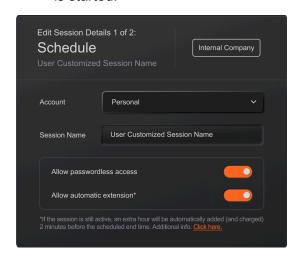
1 of 2: Schedule

Name the session, choose a date and time, and click "Save." Alternatively, click "Autofill" to autofill details to the same day, and next available timeslot (either on the half hour or the hour). The session is now scheduled. Inviting Guest participants is not required this time*. Email addresses can be entered manually, or single, multiple emails may be entered by dragging them into this field from an external source. When entering email addresses for guests to be invited, it's possible to control when the email invitation gets sent to minimize email traffic.



When the toggle "Enable Email Notifications for Guests" is set to "off", email notifications will only be sent when the session is started.

Additionally, decide if participants are required to login to join the session, or if they can join without logging in or needing a Remoto account. Toggling "Allow Passwordless Access" on will waive the requirement for Guests to need to log in to be able to join the session. This is a global setting and will apply to all invited Guests, though it can be modified any time and multiple times before the session is started.

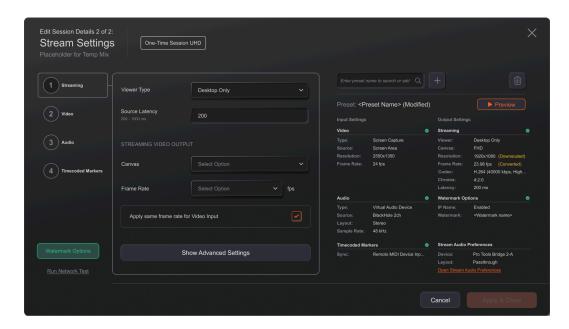


For paid single one-time sessions, an additional toggle option appears under the session name to enable automatic session extensions; this defaults to ON.

When on, the Organizer will automatically be charged for an additional session of the same type if the current session runs over its time limit. For example, if a 3-hour single HD session reaches its limit, another 3-hour HD single session is automatically purchased 2 minutes before the end of the time limit, allowing the session already in progress to continue uninterrupted.

2 of 2: Stream Settings

Once the configuration of the settings in the "Edit Session Details 1 of 2: Schedule" window are saved, the "Edit Session Details 2 of 2: Stream Settings" window automatically opens. Stream Settings can be configured now or at a later time, but they must be configured before the scheduled session can start.



* NOTE! Guests can be invited at any time after the session has been scheduled, either via the "Edit Session Details 1 of 2: Schedule" window, or from the "Invite Guests" tab in Studio view once the session has started.

Configure required Session Settings to display a green checkmark.

3) Preview your selected source media

Once source media has been configured and green checkmarks are displayed, make sure your source media is open in the background, press "play" in your host program, and click on "Preview", located in the top right portion of Settings. This reveals a stream preview window, where your chosen audio and video sources can be proofed, as well as a watermark if being used, and timecode chasing can also be checked, if applicable. If everything is working as it should, click "Close" to exit preview mode.

4) If the selected sources are behaving as expected, click "Save & Exit." to exit Stream Settings.

5) Start Session

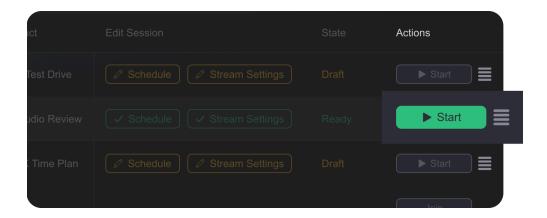
That's it! In Dashboard view, the Session State is displayed as "Ready" (green) with "Start" as an available action.

Start a Scheduled Streaming Session

In order for a streaming session to be started, all required Session Details must be configured and in "green" status in the Dashboard: Schedule, Stream Settings, Ready state, with the green start button displayed as the available action button.

1) Start Session

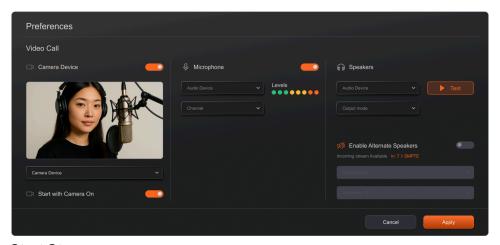
To start the session, click on the green "Start Button":



NOTE: Starting a session does not start the stream. Starting the session activates conferencing and chat, makes the Studio tab live, and allows the Organizer to admit or deny Guests or invite new Guests.

2) Configure Call and Stream Preferences

Once the session is started, the "Call and Stream Preferences" window is displayed, prompting the configurations of the camera and microphone sources, and local listening destinations for the conference call and stream audio.



3) Start Stream

Once in the Studio, the session has started. Click the "Start Stream" button in the upper right of the viewer to start streaming media.



Note: It is possible to start a session before its scheduled time. Once a session is started, usage begins to be applied to your purchased subscription and session time. The session will end when the time limit is reached, all purchased time is used up, or the session is closed by the Organizer. Subscribers can start and end scheduled sessions before or after the scheduled time; only the time actually used is deducted from the monthly hourly allotment of the subscription.

Adjusting Session Settings

When in an active Streaming Session, the following Session Settings can be modified:

- Video Settings
- Audio Settings
- Timecoded Markers
- Watermark

Recommended practice is to pause the Streaming Session by clicking "Stop Stream" in the upper right of the viewer before making a change in order to ensure that the new settings take effect. Once the settings are modified, the stream can be restarted by clicking "Start Stream." When in a live session, you can stop and start the stream as many times as you'd like, this does not end the meeting.

Note that the viewer type ("Desktop Only" or "Desktop & Web" cannot be modified once a session has been started.

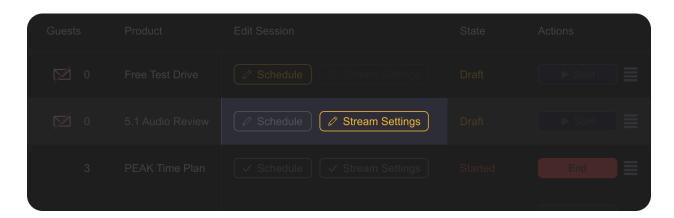
Session Settings can be accessed two ways:

1) By clicking the gear icon in the Studio view to the right of the Session name:



This brings up the "Session Details Overview" window. Click on the edit pencil on the stream settings side of the window.

2) By clicking "Stream Settings" under the Edit Session column for that session in the Dashboard view:



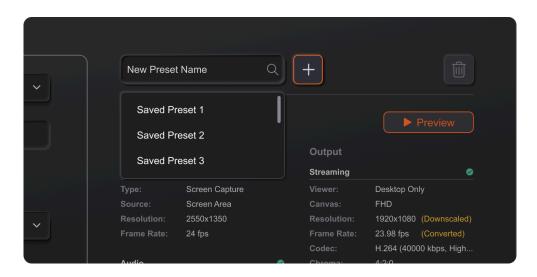
NOTE: Navigating away from Studio view (accessing the Dashboard while in an active streaming session) does not exit or end the session. The session is still active and you can return to it at any time by clicking the green "You are in a live session" banner at the top of the Dashboard, or by clicking the Studio button on the left of the main interface.

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Saving and Recalling Session Settings Presets

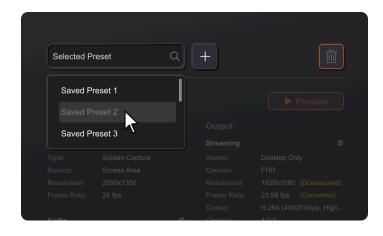
Custom Session Settings presets can be saved, recalled, or deleted via the Session Settings window.

Presets are located above the Session Settings Summary section of Edit Session Details 2 of 2: Stream Settings.



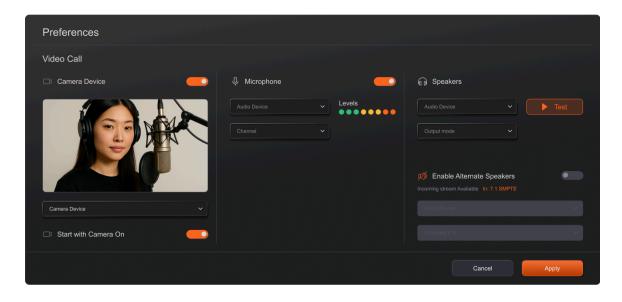
To save a preset, type a name into the search field, and if it doesn't already exist, click on the "+" button to create a preferred configuration preset for future or repeated use.

To recall a preset, click into the Preset search field to reveal available presets, or type a to search. Click on the name of the desired Preset to load.



To delete a preset, select it from the drop down and click the trashcan button.

Stream and Conferencing Audio and Video



Conferencing audio is set at the start of a session through the "Call and Stream Preferences" window.

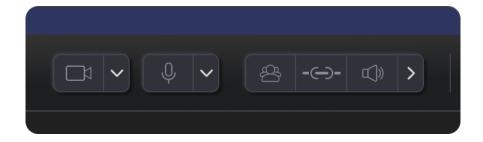
The "Call and Stream Preferences" window can be accessed from the Preferences button on the left of the main interface.

Select a microphone source, a speaker destination for the conferencing audio, and a camera source.

The chosen microphone source can be confirmed by inspecting the "Audio Levels" status meter; a test signal can be generated to confirm the speaker output destination configuration.

The camera can be disabled and the microphone muted upon entering the session.

The microphone can also be muted/unmuted and the camera turned off/on via the controls below the content viewing window in Studio view.



Session Extensions

Playback provides a seamless session extension experience to allow Organizers and participants to avoid interruption when a Single one-time session or subscription runs beyond its available purchased time.

Single One-Time Sessions

There are two ways that a single session can be extended to remain active:

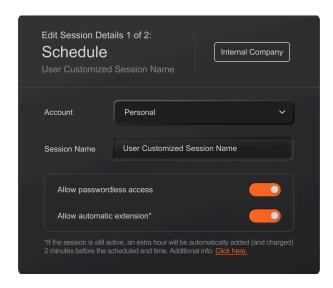
- Automatic Extension
- On-Demand Extension

Both extension types allow the session to continue by adding and charging the payment method associated with the account for an extra hour to the session already in progress.

For example:

Original Session	Duration of Session	Price of Session	Duration of Extension	Price of Extension
One-Time Session	3 Hours	\$30	1 Hour	\$10

Automatic Extension



When scheduling a single one-time session, an "Allow automatic extension" toggle is displayed below the session name in the "Edit Session Details 1 of 2: Schedule" window. The toggle defaults to OFF. If toggled ON, two minutes before the session reaches its duration limit, an additional hour of time will be added to the session and charged to the payment method on file to extend the session. The session can be extended multiple times if the toggle is on.

15 minutes before the initial session is scheduled to end, a courtesy message appears (example):

'Your session will auto-extend in 14m47s. If the session ends before 6:33pm, no extension will be charged.'

2 minutes before the scheduled end time, the charge is attempted for the extension. Upon successful payment processing, the extension is granted, and the following message appears:

'You were charged \$x for the next duration of X minutes. Enjoy your session!'

If the payment cannot be processed with the payment method on file, a notification appears proposing to update the payment method, retry or close the session (canceling the extension):

'Failed to charge \$x for the next duration of minutes. Session will be terminated in x:xx minutes.' (Update card, retry or close)

Clicking "Update Card" redirects to the payment portal enabling an update of the payment information. Once the payment method is updated, the extension can be attempted once again by clicking "Retry" in the Playback app.

On-Demand Extension

If "Automatic Session Extension" is <u>not</u> toggled ON, the following warning and options will be presented to the Organizer 15 minutes before the session is set to reach its time limit:

'You've almost reached your session time limit. This session will end in 14:49 minutes.' [Extend or Close].

This message will remain present until an option is chosen. Selecting "Extend" authorizes the purchase of an additional hour using the payment method on file. Selecting "Close" declines the extension; the stream ends upon reaching the time limit. **Streaming stops** but the session and video-conferencing remain active for an additional 15 minutes beyond the time limit.

Upon successful payment processing, the extension is granted, and the following message appears:

'You were charged \$x for the next duration of minutes. Enjoy your session!'

If the payment cannot be processed with the payment method on file, a notification appears proposing to update the payment method, retry or close the session (canceling the extension):

'Failed to charge \$x for the next duration of minutes. Session will be terminated in x:xx minutes.' (Update card, retry or close)

Clicking "Update Card" redirects to the payment portal enabling an update of the payment information. Once the payment method is updated, the extension can be attempted once again by clicking "Retry" in the Playback app.

Subscription

There is only one way to "extend" a session created from a subscription, which is by performing an upgrade. If a session is active and there are 15 minutes remaining in the subscription, a countdown appears, along with a message:

'You've almost reached your monthly subscription time limit. This session will end in 14:59 minutes.' [Go To Store / Refresh / Close]

The message will remain present until a selection has been made. "Go To Store" redirects to the Remoto Store to upgrade the subscription. Once an upgrade has been purchased, click on "Refresh" to refresh the message so the stream can continue. If "close" is selected, or nothing is selected by the time the timer runs out, **streaming stops** but the session and video-conferencing remain active for an additional 15 minutes beyond the time limit.

Ending a Streaming Session

An Organizer can leave and return to a live session, or pause and restart a stream at any time.

Leave a Live Session: Click on "Go to Dashboard" button in the bottom right of Studio view:



Or toggle to the Dashboard using the Dashboard button in the upper left of the application.

Leaving a live session does not end the session for the participants present.

Return to Live Session: Return to the live session by clicking on the "Studio" button, or "You Are In a Live Session" banner at the top of the application.

Pause Stream: Click on the "Stop Stream" button in the top right of Studio View to pause the stream (this does not pause the playback from the source application, it only ceases the stream).

Restart Stream: Click on the "Start Stream" button in the top left of Studio View to restart the stream.

End Stream: Ending a stream does not end a session. When done streaming content, click on the "Stop Stream" button in the top left of Studio View to stop streaming video and audio.

If the session was created from a subscription, the conference call can continue as long as desired. The stream for a session created against a subscription remains active until the subscription's available time limit is exhausted. A warning message and countdown appears 5 minutes before the end of the subscription's available time, providing instructions on how to upgrade or extend the subscription with additional time. If the subscription is not upgraded or extended, the stream and the conference call ends and the session is closed. Conferencing remains active for an additional grace period of 15 minutes.

If the session is a Single one-time session: If the stream is ended before the duration limit of the session is reached, the conference call can continue for the purchase duration of the session plus 15 minutes. Otherwise, the stream stops once its maximum duration has been reached. A warning message and countdown appears 15 minutes before the session reaches this limit, and provides instructions on how to extend the session if desired. If the session is not extended, the stream ends, but conferencing remains active for an additional 15 minutes.

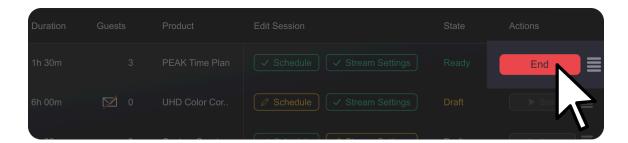
For more information about session extensions, please see <u>Session Extensions</u>.

End Session:

Ending a session closes the conference call and meeting for all guests, as well as ends the stream if this has not already been done.

Ending a session can be achieved by:

1) Navigating to the Dashboard and clicking on "End" in the Actions column;



2) Navigating back to the Dashboard and clicking "End Session" in the red banner next to the green "You are in an active session" banner at the top of the screen:



If the session was created from a single one-time session, and is at the end of the 15 minute grace period for the conference call, the session automatically stops and ends. If the session was created against a subscription that ran out of minutes, and is at the end of the 15 minute grace period for the conference call, the session automatically stops and ends.

The session state changes to "Finished", enabling the "Delete" action.

NOTE: Timecoded markers cannot be accessed after the session has been closed. A copy of .csv markers is automatically sent to all session participants once the session is closed. MIDI markers must be exported BEFORE the session is closed.

Renaming a Streaming Session

A session can be renamed at any time, even while the session is active, but not if it is closed. To rename a session,access the "Edit Session Details 1 of 2: Schedule" window by clicking on the session name from either the Dashboard or Studio view and clicking the pencil icon in the Session Details Overview, or by clicking on "Schedule" in the Edit Session column in the Dashboard.

Rescheduling a Streaming Session

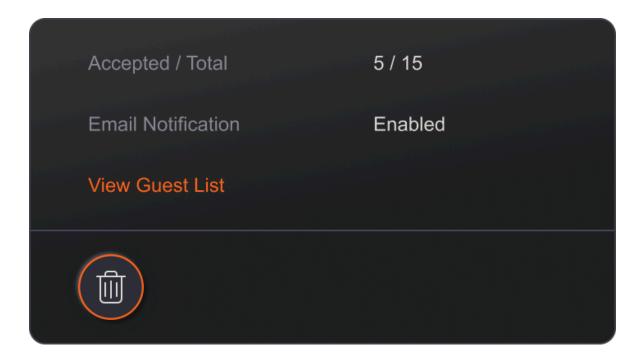
A session can be rescheduled at any time before it has been started by accessing the "Edit Session Details 1 of 2: Schedule" window by clicking on the session name from either the Dashboard or Studio view, and clicking the pencil icon in Session Details Overview, or by clicking on "Schedule" in the Edit Session column in the Dashboard.

Rescheduling the session triggers an email to all invited Guests notifying them of the change.

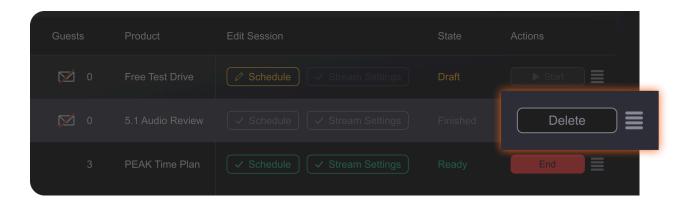
Deleting a Streaming Session

A streaming session can be deleted in three ways:

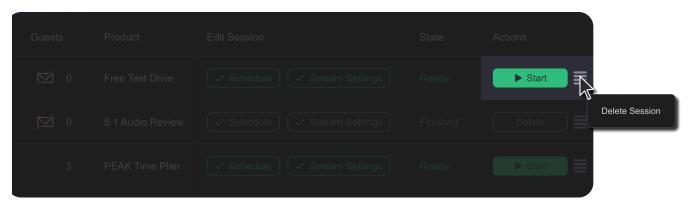
1) From the Session Details Overview window, click on the trashcan button in the lower left.



2) Once the session has been completed and is in the "Finished" state, click on the "Delete" button under the Actions column in the Dashboard.



3) Click on the hamburger menu in the Actions column and click on "Delete Session".



Once a session has been deleted, it disappears from the Dashboard. This can not be undone.

Managing Session Participants (Inviting, Accepting/Declining Join Requests)

When in an active streaming session, there are several options to manage Guests:

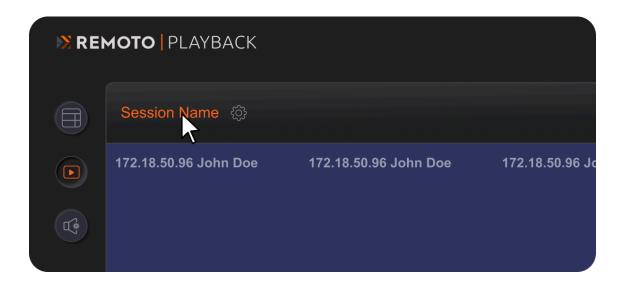
- Send an invitation to additional participants
- Accept/decline a join request
- Mute (Disable) the conferencing audio for all participants
- Mute conferencing audio for individual participants

- Mute microphones for all participants
- Mute microphones for individual participants
- Enable talkback mode for push-to-talk functionality and stream audio ducking.

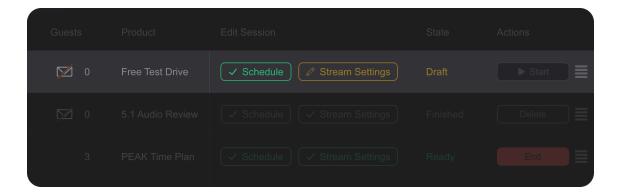
Send an invitation to additional participants

When in an active streaming session in Studio view, additional Guests can be invited to the session in two ways:

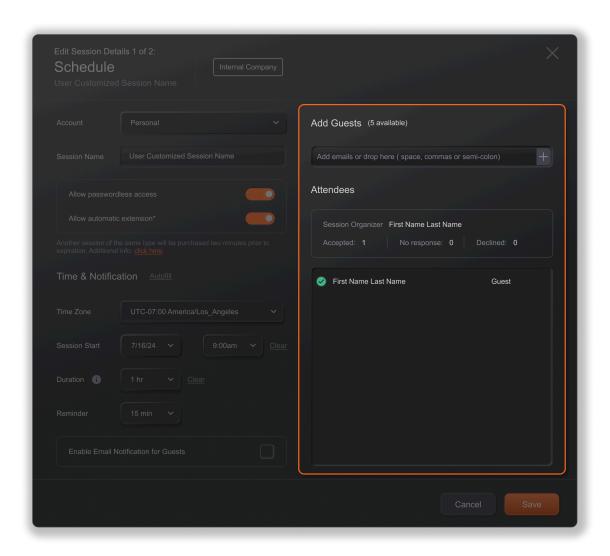
1) From the "Edit Session Details 1 of 2: Schedule" window click on the session name from either the Dashboard or Studio view and click the pencil icon in the appropriate section of Session Details Overview:



Or, click on the "Schedule" button in the Edit Session column in the Dashboard to reveal "Edit Session Details 1 of 2: Schedule".



Then enter an email address, or drag multiple email addresses into the field, and add them to the invite list by clicking on the "+" button.

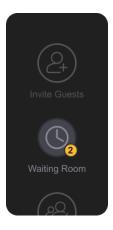


Once done, click the save button in the lower right of the window. Email invitations are sent to the addresses entered.

- 2) By clicking on this button at the top of the right side panel in the Studio
- 3) Type in the email or drag emails into the entry field and click on the "+" button to invite

NOTE: You can resend invitations in the Studio by attentioning the "Invite Guests" tab and by clicking on the hamburger menu and selecting "Resend invitations" from the drop down.

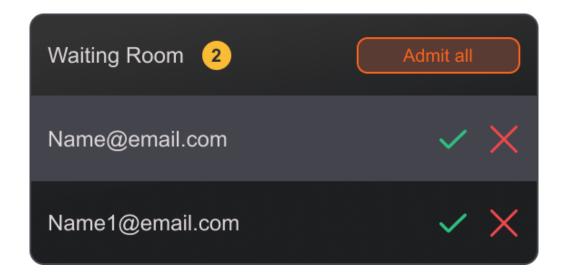
Accept/Decline a Join Request



A Guest cannot join a session without approval from the Organizer.

Once the session has started, a Guest can request to join.

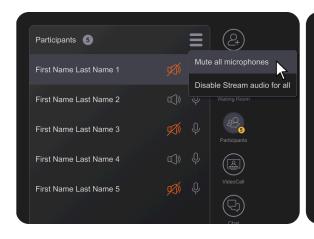
A notification on the button for the Waiting room will notify the Organizer that a Guest is waiting to be admitted to the session:

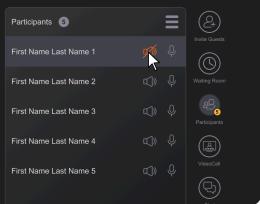


Once viewing the waiting room, the Organizer can decline or admit any Guests waiting to be admitted, or "Admit All" at once.

Mute Conference Call Microphones or Disable (Deafen) Audio for Participants

While in a live streaming session, the Organizer can mute the microphones or disable/deafen conferencing audio for an individual participant, or all participants at once. This can be done by clicking on the Participants button in the right sidebar of the Studio view to reveal a list of those currently in the session.

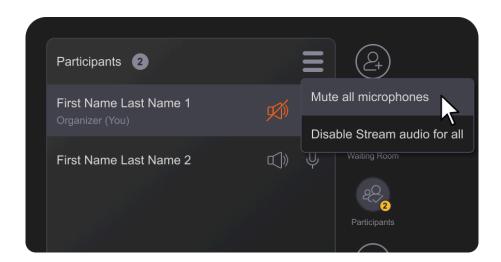




To mute an individual participant's microphone, click on their microphone icon mute/unmute them.

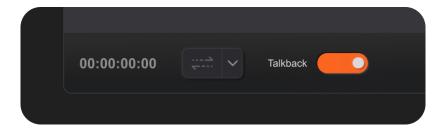
To disable audio for an individual participant, click click on their speaker icon to turn audio off/on for them. This "mutes" the conference call audio for that user.

The global option to "Mute All Microphones" or to "Disable Stream Audio For All" is available through a hamburger menu at the top of the section.



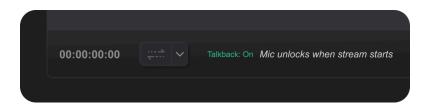
Talkback Mode

The Talkback Mode toggle is available in Studio view for Organizer's only, below the content viewing window:

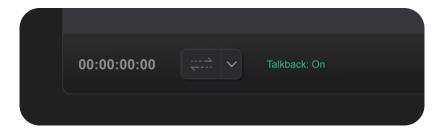


This toggle is OFF by default.

The Talkback toggle allows Organizers to enable momentary "push-to-talk" behavior during a live stream. When Talkback is on, all session participants are muted and can only speak by holding the microphone button or pressing the spacebar. If the toggle is turned on before the stream is started, all participants are muted and can not unmute themselves until the stream has started.



When enabled, Participants will see a "Talkback On" notification in the bottom left of the Studio, next to the Adjust Sync button, to notify that this mode is engaged:



While someone is speaking, the stream audio is automatically ducked by 95%, then restored when they stop.

When someone is speaking, a notification above the viewing window will appear to let all participants know who is speaking:



Multiple users will be listed if speaking at the same time.

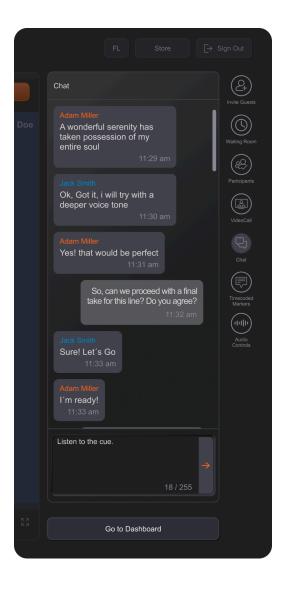
When the stream is stopped, and Talkback remains enabled, participants stay muted and cannot toggle their own microphones until Talkback is turned off by the Organizer.

Part 4: Session Collaboration

Chapter 5: Collaborating During a Live Streaming Session

Playback offers several ways to collaborate during a live streaming session. Beyond text chat, and conferencing audio, Playback also includes video conferencing, as well as the ability to create and export live timecoded markers.

Participant Chat



While in a live session, participants can send text messages to all participants via a text window in the Studio view; a history of the chat is maintained for the duration of the session.

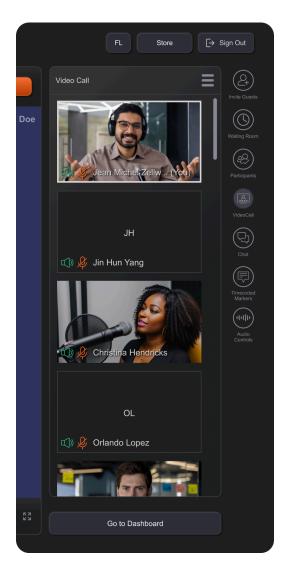
The window for the session chat is accessed through the "Chat" button in the right sidebar of Studio view. Clicking on this will open the chat tab.

Note: At this time, there is no "direct message" chat functionality. All chat messages can be seen by all participants.

Video Chat

When in a live session, participants can chat with each other via video conferencing in addition to text chat. The video chat window is accessed by clicking the "Video Call" button in the right sidebar of the studio, to reveal a list of session participants.

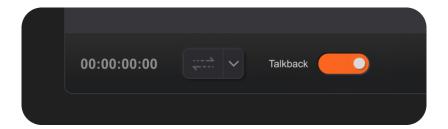
The top video stream is always the Organizer's video, with the Guests' video streams displaying below. Use the scrollbar to view additional Guests.



Talkback Mode

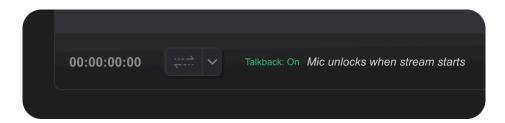
When in a live session, it may be necessary to manage who can speak at a given time. For example, during client reviews, playback sessions, or approvals where clear communication is critical. Talkback Mode offers a controlled way to facilitate this.

The Talkback Mode toggle is available in Studio view for Organizer's only, below the content viewing window:

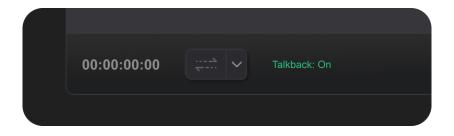


This toggle is OFF by default.

The Talkback toggle allows Organizers to enable momentary "push-to-talk" behavior during a live stream. When Talkback is on, all session participants are muted and can only speak by holding the microphone button or pressing the spacebar. If the toggle is turned on before the stream is started, all participants are muted and can not unmute themselves until the stream has started.



When enabled, if the stream has already started, Participants will see a "Talkback On" notification next to the adjust sync toggle in the bottom right of the Studio to notify that this mode is engaged:



While someone is talking, the stream audio is automatically ducked by 95%, then restored when they stop.

When someone is speaking, a notification above the viewing window will appear to let all participants know who is speaking:



Multiple speakers may be listed at a time.

When the stream is stopped, and Talkback remains enabled, participants stay muted and cannot toggle their own microphones until Talkback is turned off by the Organizer.

Timecoded Markers and Export Options

Playback allows any stream participant (Organizer or Guest) to create a timecoded marker if the session has been set up for Desktop Only streaming. If the session has been set up for Desktop & Web streaming, only the Organizer can create a comment. Timecoded markers are distinct from the participant chat function and can be created in two ways:

Quick Markers

Quick Markers are always available below the content viewing window. These are categorized buttons that, when clicked, instantly create a timecoded marker. These

markers can be annotated later in the expanded Timecoded Markers tab by searching for the marker and double clicking on it to add text. Quick Markers provide a fast way to flag moments in real time without interrupting the viewing experience.



Full Entry Field:

For a more detailed timecoded marker entry experience, open the Timecoded Markers tab by clicking the "Timecoded Markers" button in the sidebar.



This view allows a category to be selected and a note to be added to each marker. When the entry field is activated, the current timecode is shown in the timecode display to the left. Enter a comment, then click the arrow button or press Enter to submit the marker. Click "Cancel" to discard it.

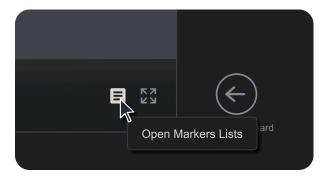


Below the entry field, a scrollable history of all submitted markers is available, along with a search field (indicated by an hourglass icon) for locating specific comments.

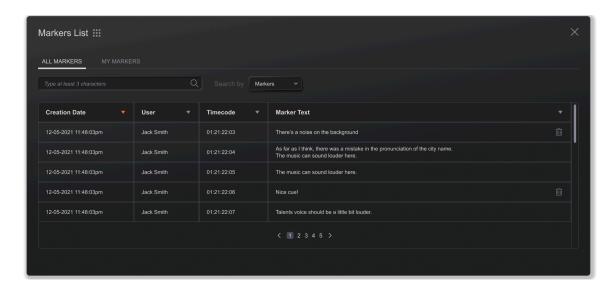
Comments can be double clicked on to edit the comment text.

Timecoded Markers List Window

To view timecoded markers created during the streaming session, click the notepad icon located next to the Full Screen button in the lower-right corner of the streaming video window. This opens the Markers List:



The "Markers List" window appears:



In this window, markers that have been entered are listed along with their creation date, timecode location, and author. Markers can be deleted by pressing the trashcan button at the end of the row.

The view can be toggled between ALL MARKERS and MY MARKERS.

The markers list can be searched using the search bar, or the "Search by" drop down, filtering by marker content, a specific timecode location, or user.

Timecoded Markers can be exported either in MIDI or .csv format to be imported into a DAW. Exporting markers as MIDI allows import into Pro Tools, Logic, Reaper, or

Nuendo. Exporting as .csv enables import into other programs that support this format, such as Avid Media Composer, Adobe Premiere, Final Cut®, DaVinci Resolve, etc.)

To export markers, click on the grid button next to the Markers title at the top left of the window:



If "Export to MIDI" is selected the following window is displayed



If "Export to .csv" is selected the following window is displayed:



Upon clicking export, a prompt to name the file and select its destination is displayed.

NOTE: Once a session has been closed, it is longer accessible. A .csv copy of timecoded markers is automatically sent to all participants at the end of the session, but MIDI markers must be exported while the session is still active.

Part 5: Guest Guide (Guest Users)

Chapter 6: Playback Windows (Guest Users)

Playback Guest users can use Playback Desktop to join sessions hosted by Organizers. For more information on Guest and Organizer roles, please see <u>Playback Account Types</u>.

Guest users can also join streaming sessions configured as "Desktop & Web" through Playback Web from any device with a browser. Please visit our <u>System Requirements</u> and <u>Compatibility article</u> for more information on supported devices and browsers.

Signing In and Out of Playback Desktop and Web

Depending on how the session Organizer has set up access to the session, joining a streaming session as a Guest may require signing into either the Desktop application or the Web application. Whether signing into Desktop or Web, the sign in experience is similar.

Playback Desktop

Launch Playback Desktop and sign in. Users without a Remoto account are prompted to create one. Please see Remoto Account Creation for more info.



Note: the version information for Playback Desktop is displayed in the upper right corner of this window.

Playback Web

Playback Web is accessed by clicking "Join Session" in the session invitation email. A new browser tab or window opens at the Remoto Web address for the session. Depending on the session's configuration, the Guest is either prompted to sign in or enter their name. If the Guest is required to sign in to access the session and they do not have a Remoto account, they can use the one-time password provided in the email invitation to complete account creation on this page. If the one-time password has expired, a new one can be generated through the "Click here to receive new ones" link.



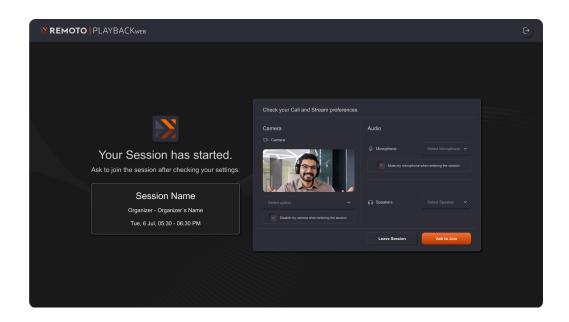
To check network quality before joining the session, click "Run Network Test Here" to access a webpage that enables checking audio/video permissions for the browser.

Once the Guest is signed in, they are presented with the option to join the session if it is scheduled to start in less than 15 minutes. If trying to join before that time, the Guest is presented with RSVP information for the session.

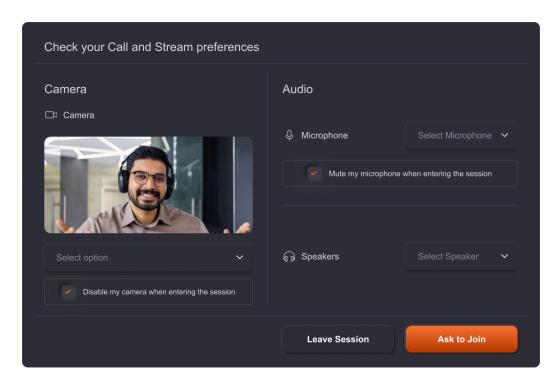
If the session has been set up by the Organizer to allow guests to join from the web, a "Join via Web" button is presented; once clicked, access is granted to the call and stream preferences for the session.

Playback Web Call and Stream Preferences

When joining a session using Playback Web, if the session has been started by the Organizer, a window appears with Session Details on the left:



The right side of the window prompts to "Check Your Call and Stream Preferences":



Here, the source of the video camera feed can be selected, as well as whether it is disabled upon joining; a microphone input can be selected, as well as whether to mute it

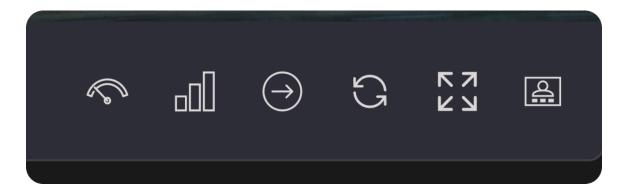
when entering the session; the speaker output destination for the session can also be selected.

Once these preferences have been configured, click "Ask To Join" to request to be admitted to the session.

Playback Web

Playback Web offers a simple browser-based interface. The top left corner of the browser window displays the session name, and if applicable, talkback status; the top right displays the stream status, ie. "Streaming" or "Stopped." The bottom of the screen features video and audio controls and settings, as well as the "Leave Session" button.

Additional buttons at the bottom right of the player provide additional functionality:



From left to right these are:

- VU meter
- Media Statistics
- Audio Offset
- Reload
- Full Screen
- Video Chat

VU Meter: Reveals a VU meter under the right side of the streaming window.



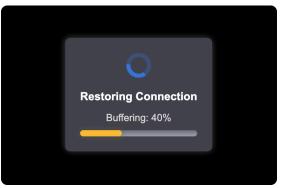
The meter changes color from green to yellow when the audio signal reaches - 4.4 dB, denoting the upper end of a "safe" audio level. It changes color to red when the signal exceeds -1.9 dB, when the signal is at risk of clipping. This meter is based on the specifications outlined in ITU-RBS.1770.



Media Statistics: Reveals a window listing statistics for the stream. It provides information about the content being sent and received, as well as stream stability metrics and timing information.

Audio Offset: Reveals a field that allows the user to set an audio offset in milliseconds, delaying the audio from the stream. This is useful if the audio is ahead of the video.

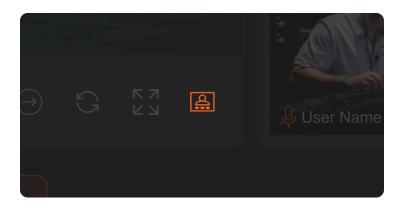
Reload: Clicking "Reload" rebuffers the stream, which may resolve streaming issues if caused by problematic network conditions.



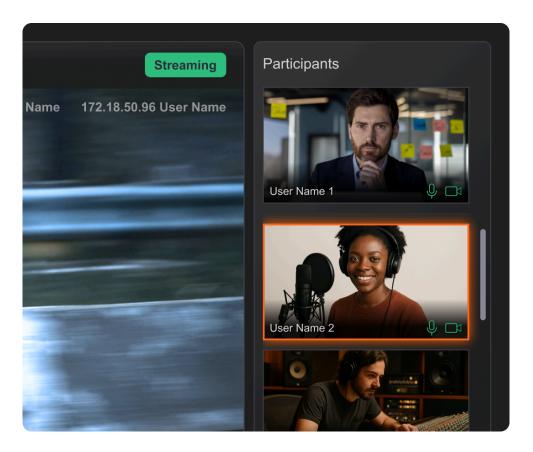
Full Screen Mode: Triggers full screen mode. Exit full screen mode by clicking the button in the left hand corner of the screen:



Video Chat: Reveals the video chat gallery panel to view video chat participants. This can be toggled on and off by clicking on this button in the bottom right of the screen:



Active Speaker Highlight: When viewing the video chat gallery, the active speaker's video tile is highlighted for easy identification.



Playback Web Audio and Video Controls

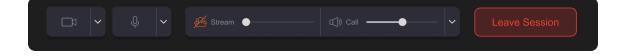
Clicking on the camera icon turns the video conference camera feed off and on. Clicking on the dropdown arrow reveals alternative video camera options, if any are available.

Clicking on the microphone mutes or unmutes the conference microphone feed*. Clicking on the dropdown arrow reveals alternative conference microphone feed sources, if any are available.



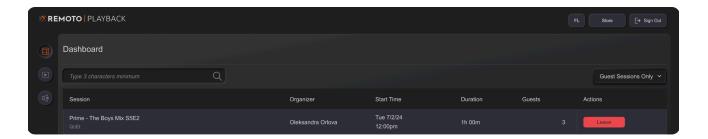
* Clicking spacebar with the browser in the foreground also mutes/unmutes your microphone.

The audio for the conference call and for the steam can be controlled separately. Clicking on the speaker icon mutes/unmutes the stream audio; the volume can be controlled by moving the slider. Clicking on the dropdown arrow allows the selection of alternative speaker destinations, if any are available. Clicking on the group icon mutes/unmutes the conference call audio; the volume of the call can be controlled by moving the slider.

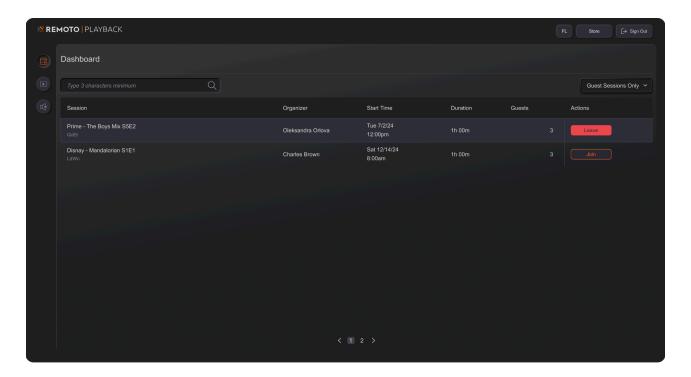


Playback Desktop: Dashboard Window Overview

Upon logging into Playback Desktop as a Guest user, the Dashboard view is displayed:



This is the default view of Playback. There are multiple Dashboard view layouts; the default is "Full View". To view a list of sessions that the account has been invited to, change the view to "Guest Sessions Only".



From this window, the user can:

- View a list of sessions that they have been invited to
- Access session details by clicking on the session name to open the "Session Details Overview" window
- Join a session
- View Call and Stream preferences
- View plan info (if applicable)

- View profile
- Sign out of the application

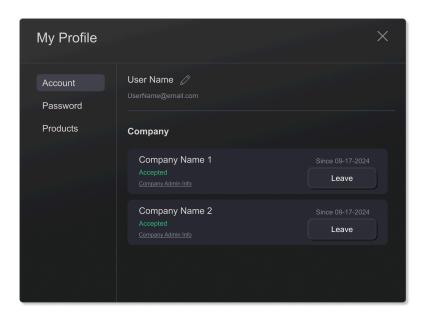
Top Right Navigation Buttons

Three navigation buttons are found in the upper right corner.

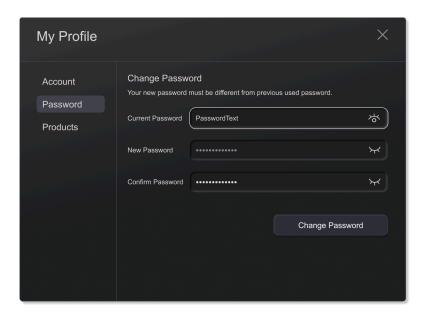


1. Profile

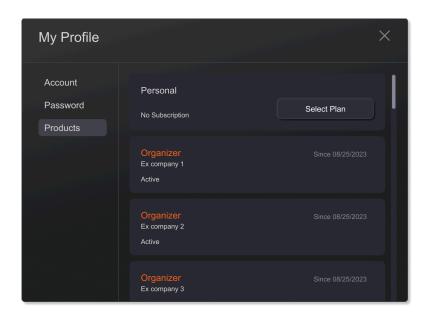
The "Profile" button accesses the Remoto user profile, where the email associated with the account is displayed:



Password reset can be accessed via the "Password" tab, prompting authentication with the current password before entering and confirming a new password.



"Products" tab displays what Playback Subscription plan is tied to the account, as well as its status. For Guest users who have not purchased any Playback plans or sessions, this section is left blank.



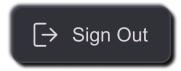
3. Go to Store

Click this button to open the Remoto Online Store, where a plan or session can be purchased.

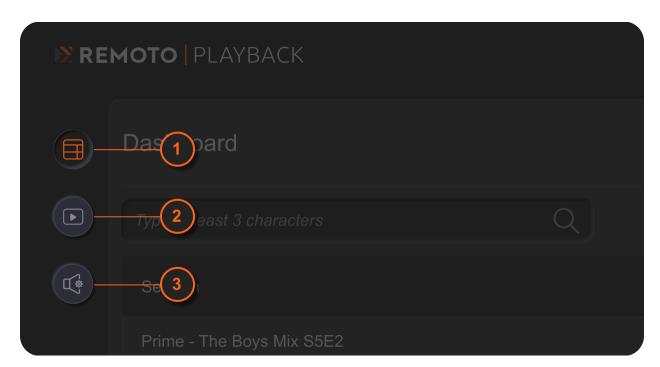


4. Sign Out

Click the sign out button to log out of Playback Desktop*



Left Side Navigation Buttons



- 1. **Dashboard:** The "Dashboard" button toggles to Dashboard view, which is the default view of Playback.
- 2. **Studio:** The "Studio" Button toggles the live session view, active only when in a live session.
- 3. **Preferences:** The "Preferences" button toggles access to "Call and Stream Preferences", where local settings for video conferencing, call audio and stream audio are set.

Playback Desktop: Session Dashboard Columns

The Playback "Dashboard" view displays the list of scheduled sessions the user has been invited to as a Guest, with session information organized into columns:



- 1. Session: This column displays the session name, and lists the session Organizer's name beneath it. Hover over the session name to reveal a tooltip with the following info: Session Name, Organizer, Status, Session ID, Start Time, Duration, Type and Reminder setting. Click on the Session Name to reveal the session details window. The Session ID is listed underneath the session name, which may be helpful for troubleshooting purposes.
- 2. **Organizer:** Lists the name of the Organizer of the session.
- 3. **Start Time:** This column lists the (local to Organizer) date and time of the scheduled session.
- 4. **Duration:** Designates the scheduled duration of the session.

- 5. **Guests:** This column shows how many participants are invited to the session. Click on the number to reveal the Guest List window, where the names of invited participants who have accepted the session invitation are displayed.
- 6. **Actions:** There are 3 available session actions for sessions that a user has been invited to:



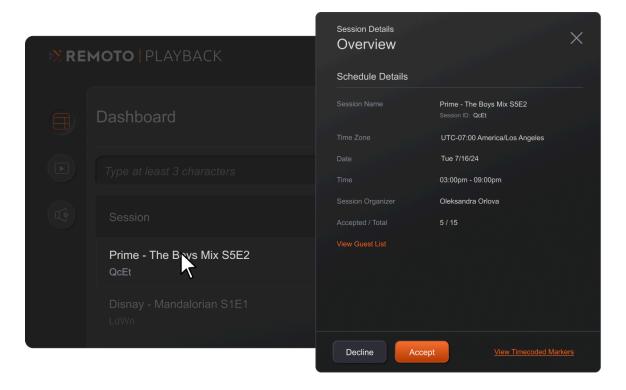
Join:

- Green (active): Press this button to initiate conference call audio and video checks, and send a "join session request" to the Organizer of the session.
- Grey with Orange Text and Outline (disabled): The session has not been started by the Organizer, is not active, and cannot be joined.

Leave:

Red (active): This button appears when a session has been joined; press
this button to exit the active session.

Playback Desktop: Session Details Overview Window



From the Dashboard, click on the Session Name to reveal the "Session Details Overview" window which includes the following details:

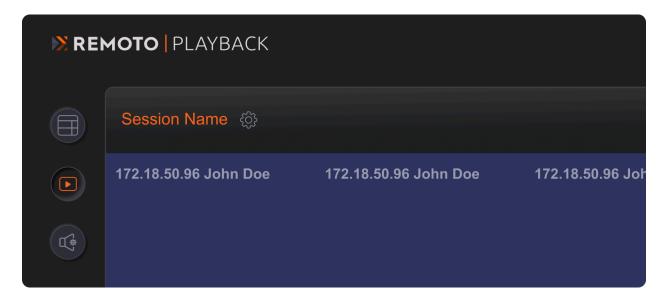
- Session name and ID
- Time Zone (local to the Organizer)
- Date (Month/Day/Year)
- Time (local to Organizer)
- Session Organizer (Name of Organizer)
- Accepted/Total: The number of Guests who have accepted the session invite vs. total number of invited Guests
- View Guest List: Click this to reveal the Guest List window where the names of guests who has accepted/declined the invitation are displayed
- View Timecoded Markers

The "Session Details Overview" window can also be accessed while in an active session in the Studio by clicking on the Session Name.

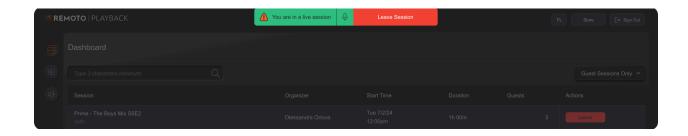
Playback Desktop: Studio View

From Playback's main interface, Studio view is activated when a session has been joined. After joining a session, Studio View can be accessed by either:

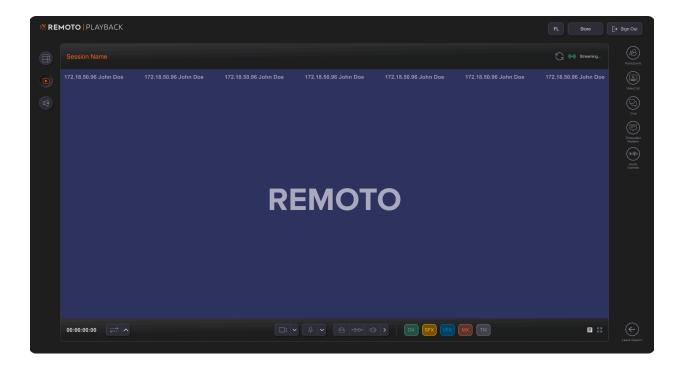
1) Clicking on the illuminated "Studio" button on the left side of the main interface:



2) Clicking on "You are in a live session" banner at the top of the main interface:

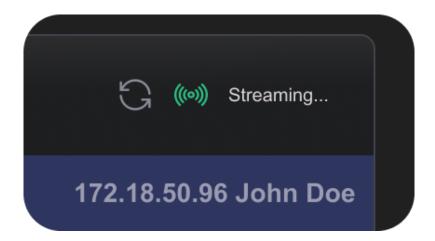


Once either option is clicked, the interface switches to "Studio" view:



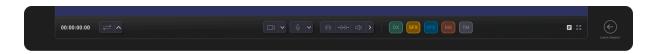
Studio view features the content streaming window, with basic controls below it, and a panel of buttons on the right side to open/close different tabs.

The top right of the viewing window indicates the status of the stream, and there is a button to reload/rebuffer the stream.



Clicking "Reload" rebuffers the stream, which may resolve streaming issues if caused by problematic network conditions.

Always visible (From left to right):



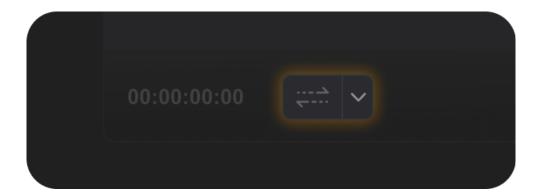
- Timecode counter
- Sync adjustment controls
- Optional: Talkback Status (if enabled by organizer)
- Camera on/off + source selection
- Microphone on/off + source selection
- Conference call and stream muting, and output destination link/unlink
- Quick Marker entry by category (DX, SFX, VFX, MX, TM)
- Timecoded Markers list
- Full Screen Mode
- Go to Dashboard button



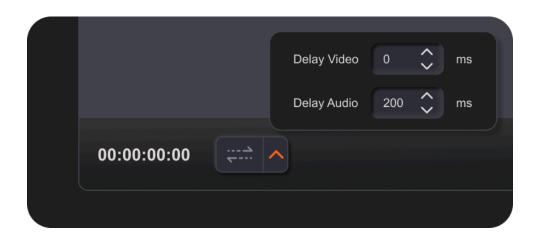
Right Side Tab Buttons

- Participants
- Video Call
- Chat
- Timecoded Markers
- Local Audio Controls

Adjust Sync



The Adjust Sync button allows access to manual control of A/V sync, helping to correct audio to video delays caused by latency.



Adjustments made by the Organizer affect the sync of the outgoing stream. Adjustments made by Guests only affect their local experience, and are integrated with the Organizer's adjustments. This feature is only available to Guests using the Playback Desktop application.

Session Types:

• **Desktop Only:** All participants (Organizers and Guests) can use the Adjust Sync feature as needed.

• **Desktop & Web:** Only the Organizer can use this feature.

Two fields can be adjusted: "Delay Video" and "Delay Audio". A positive value up to 500 ms can be typed into the respective field, or adjusted via the up/down arrows.

When hovering over the entry field for Delay Video a tooltip is displayed: "Adjust if video is ahead of the audio."

When hovering over the entry field for Delay Audio a tooltip is displayed: "Adjust if audio is ahead of the video."

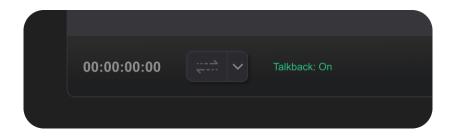
If audio is delayed, this feature provides a positive offset; if video is delayed, it provides a negative offset.

As a reference:

At 30 fps:		At 25 fps:		At 24 fps:	
1 1	frame = ~33.33 ms		1 frame = 40 ms		1 frame = ~41.67 ms
50) ms = ~1.5 frames		50 ms = 1.25 frames		50 ms = ~1.2 frames
10	00 ms = ~3 frames		100 ms = 2.5 frames		100 ms = ~2.4 frames
20	00 ms = ~6 frames		200 ms = 5 frames		200 ms = ~4.8 frames

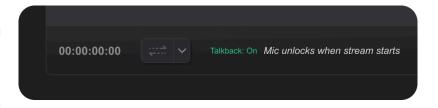
Talkback Status

During a live session, the Organizer can enable Talkback Mode to control who is allowed to speak. When Talkback Mode is active, a notification appears in the bottom right of the Studio for Guests, next to the Adjust Sync control, to indicate that the mode is on.



While Talkback Mode is active during a live stream, participants can only speak by holding the microphone button or pressing the spacebar.

If Talkback Mode is enabled before the stream begins, all participants will remain muted and unable to unmute themselves until the stream starts. The interface will reflect this status:



While someone is speaking, the stream audio is automatically ducked by 95% and returns to normal once they stop.

A notification above the viewing window displays the name of the active speaker to all participants.

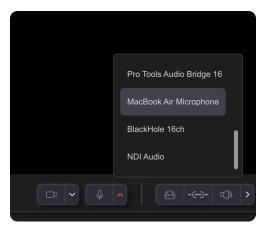


Multiple speakers may be listed at a time.

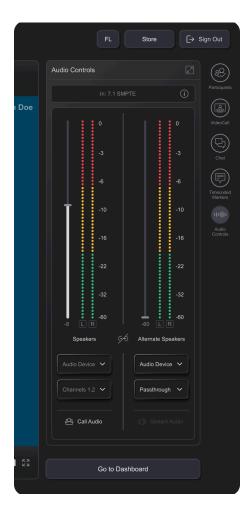
When the stream is stopped, and Talkback remains enabled, participants stay muted and cannot toggle their own microphones until Talkback is turned off by the Organizer.

Camera and Microphone On/Off + Source Selection

The chosen video conferencing camera can be turned off and on by clicking on the camera icon. Similarly, the chosen microphone can also be turned off and on by clicking on the microphone icon. Additionally, camera and audio sources can be changed directly from the live session by clicking on their respective arrows, revealing a menu of sources to choose from based upon what is available on the system.

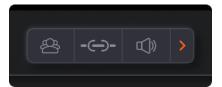


Local Audio Controls



In Studio view, basic local audio controls are always present below the content streaming window, where the conference call and stream audio can be muted, and the output destination for the stream can be unlinked/linked to the call audio output destination.

To access more in-depth volume and output controls, the arrow button next to the basic controls can be clicked to open the "Audio Controls" tab:

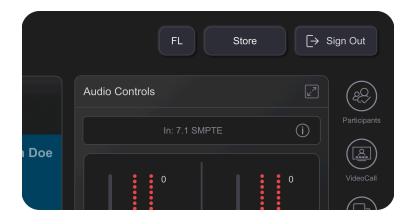


Or, from the side button directly:



The faders and meters offer independent visual feedback and control over the stream audio and the conference call audio.

The **In:** "xxx" text displays the channel format of the streaming source (In), while local output device and format is viewed and selected below the faders. For a visual representation of the signal flow, please see the Local Audio Controls concept in Chapter 2.



Stream Audio

The "Stream Audio" fader and channel displays control and meter local audio output, as configured in the join/start session dialog and/or preferences window. The volume changes made here only affect how the local user is listening to the stream; it does not affect the volume of the audio being sent via the stream.

Playback supports streaming of up to 16 audio channels as designated sources in Session Settings. Since the system is capable of streaming 16 channels, it is possible to monitor all 16 channels on distinct outputs. In stream audio controls, each number represents one channel. The numbers on the stream audio channels correspond to specific outputs of an active session, determined by the preferences set when joining the stream. For instance, if the stream includes 5.1 surround sound, but a stereo speaker destination has been set, the system automatically adjusts and encode the audio into a stereo format, allowing the user to consume the 5.1 format with a stereo speaker set up or headphones. In this case, only channels 1 and 2 show activity and status. However, if a multichannel audio format (like 5.1 surround sound) is being monitored and has been selected as the stream's output format in the preferences, then all channels of that format are active and indicate their status.

The colors reflected in the channels are post-fader (i.e., post volume slider) level indicators:

- Off (< -75dB FS)
- Green (> 75db FS)
- Orange (> -3dB FS)
- Red (> -.5dB FS)

The slider under Stream audio is a volume slider. To turn the stream audio all the way off, slide the slider all the way to the left. This volume slider controls the stream output audio to local speakers, and does not affect the input gain of the stream itself.

Call Audio

"Call audio" refers to conferencing audio, i.e. the voice audio from other Guests. This audio is stereo, and the L + R refers to the left and right channels. The circles behave as a VU meter.

The slider under Call Audio is a volume slider. To turn the stream audio all the way off, slide the slider to the left.

Output Destination Link/Unlink

The conference call audio is routed through a primary output labeled "Speakers," and by default, the stream audio is linked to the same output destination for ease of use. A link button is available next to the basic audio controls beneath the content viewing screen, as well as within the audio controls tab.



Linked: The stream audio shares the same output as the conference call. The output destination and format dropdowns for stream audio are disabled.

Unlinked: The output destination and format dropdowns for stream audio become active, allowing the stream audio to be routed to an alternate speaker set separate from the call audio.

is a volume slider. To turn the stream audio all the way off, slide the slider to the left.

Playback Desktop: Timecoded Markers Entry Field

Playback allows any stream participant (Organizer or Guest) to create timecoded markers, which are separate from the participant chat. Markers can be created in two ways:

Quick Markers

Quick Markers are always available below the content viewing window. These are categorized buttons that, when clicked, instantly create a timecoded marker. These markers can be annotated later in the expanded Timecoded Markers tab by searching for the marker and double clicking on it to add text. Quick Markers provide a fast way to flag moments in real time without interrupting the viewing experience.



Full Entry Field:

For a more detailed timecoded marker entry experience, open the Timecoded Markers tab by clicking the "Timecoded Markers" button in the sidebar.



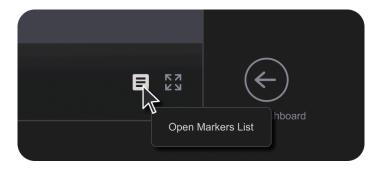
This view allows a category to be selected and a note to be added to each marker. When the entry field is activated, the current timecode is shown in the timecode display to the left. Enter a comment, then click the arrow button or press Enter to submit the marker. Click "Cancel" to discard it.



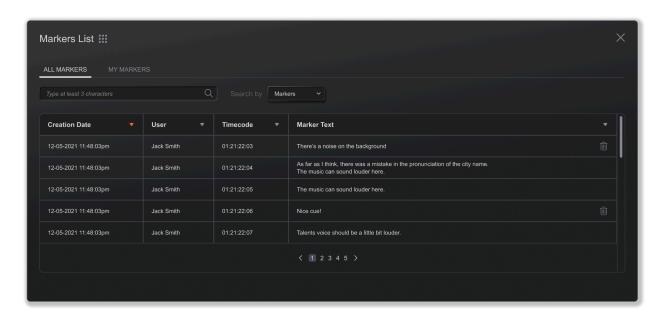
Below the entry field, a scrollable history of all submitted markers is available, along with a search field (indicated by an hourglass icon) for locating specific comments. Comments can be double clicked on to edit the comment text.

Timecoded Marker List Window

To access timecoded markers that have been entered during the streaming session, click the notepad button above the stream status button in the lower right corner of the streaming video window; this opens the Markers List:



The "Markers List" window appears:



In this window, markers that have been entered are listed along with their creation date, timecode location, and author. Markers can be deleted by pressing the trashcan button at the end of the row.

The view can be toggled between ALL MARKERS and MY MARKERS.

The markers list can be searched using the search bar, or the "Search by" drop down, filtering by marker content, a specific timecode location, or user.

Timecoded markers can be exported either in MIDI or .csv format to be imported into a DAW or NLE. Exporting markers as MIDI allows import into Pro Tools, Logic, Reaper, or Nuendo. Exporting as .csv enables import into other programs that support this format, such as Avid Media Composer, Adobe Premiere, Final Cut®, DaVinci Resolve, etc.)

To export markers, click on the grid button next to the Markers title at the top left of the window:



If "Export to MIDI" is selected the following window is displayed



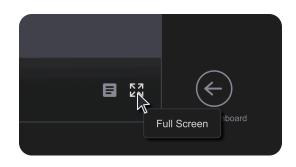
If "Export to .csv" is selected the following window is displayed:



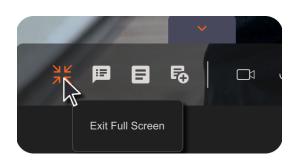
Upon clicking export, a prompt to name the file and select its destination is displayed.

NOTE: Once a session has been closed, it is longer accessible; however, a .csv copy of markers is distributed to all participants once the session has ended with the "Session Is Over" email. MIDI markers must be exported before the session is over.

Playback Desktop: Full Screen Mode



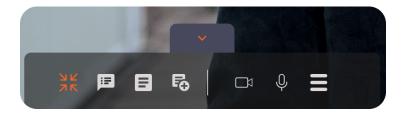
In Studio View, the video window can be toggled into full screen mode to fill the width of the application window by clicking on the right most "expand" icon in the viewing screen.



Exit full screen mode by clicking on "pinch" icon in the left hand corner of the screen.

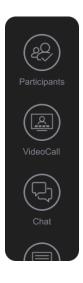
In Full Screen mode, there is a collapsible bottom bar, and the sidebar from the regular (not full screen) view is also available.

When the bottom bar is visible, it provides access to several actions: exit full screen mode, toggle marker display, open the Markers List, add a marker, and turn the video camera or microphone on/off.



The sidebar will be open in full screen view, and defaulted to Timcoded Markers. To close the sidebar, click outside of it. To reveal the sidebar options, click on the expand arrow tab to the right, and to close the sidebar options without selecting a section to reveal, click the arrow tab again to collapse.

Playback Desktop: Participant List and Controls



In Studio View (both regular and full screen) participant management and conferencing controls are found in the sidebar buttons on the right side of the screen. The relevant buttons are:

- Participants
- Video Call
- Chat

Participants:

Clicking on the Participants tab will reveal a list of participants currently in the session.

Video Call:

Clicking on the Video Call button reveals a list of video chat participants.

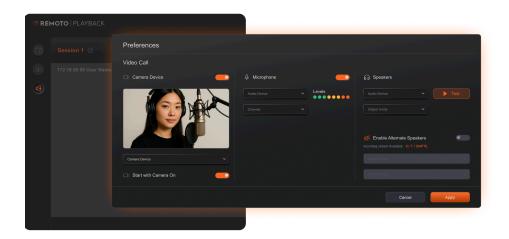
Chat:

Clicking the Chat button opens the chat tab, which contains the text entry field and chat history. All messages entered are visible to all participants; private messaging is not supported.

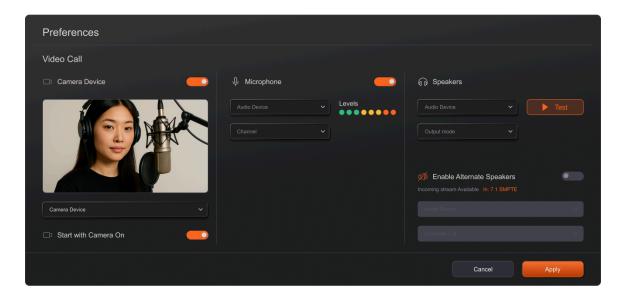
Playback Desktop: Call and Stream Preferences Window

Configuration and testing of local conferencing audio, video and streaming audio settings takes place in the "Call and Stream Preferences" window.

This window is accessed via the "Preferences" button to the left of the main interface.



It also appears when joining a session as a guest (when a "join request" is sent).



This window is split into three sections: Video Call Settings, Microphone Settings, and Speaker Settings.

Video Call Settings

This section includes several settings: a Camera Device toggle (On/Off), a camera selection dropdown, a toggle to join the session with the camera on or off, and a preview of the selected video feed.

The Camera Device toggle is useful when the desktop machine streaming media does not have a connected camera. The camera selection dropdown also includes a "Configure Later" option, allowing a camera feed to be chosen later in the session.

Microphone Settings

This section includes a toggle to turn the selected microphone on or off, a dropdown for selecting the microphone input, and a visual level indicator to confirm that the microphone is active.

Speakers Settings

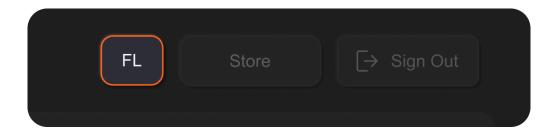
This section includes a dropdown to select the speaker destination and channel configuration for conference call audio, along with an option to send a test signal to verify the selected output.

An "Enable Alternate Speakers" toggle allows stream audio to be routed to a separate output destination and format. When toggled off (default), stream audio is linked to the call audio output and is automatically folded down to match that format. A label displaying the stream's audio format is also provided to assist in selecting an appropriate output destination.

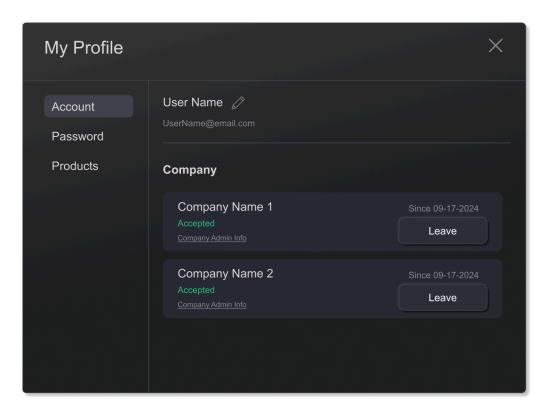
To save settings, press "Apply" if accessing via the Preferences button from the left sidebar, or press "Start Session" to start the session as an Organizer, or "Request to Join" if joining a session as a Guest.

Playback Desktop: Profile Window

The user profile can be accessed from the Profile button in the top right, next to the Go To Store button



Once clicked, the Profile Window ("My Profile") is displayed.



It features 3 tabs:

- Account
- Password
- Products

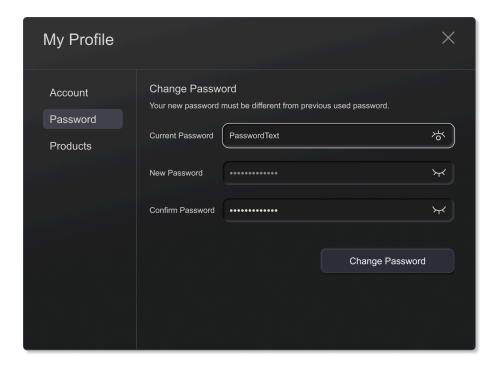
Account

The account tab displays the name and email address tied to the account. This information can be saved and edited.

Password

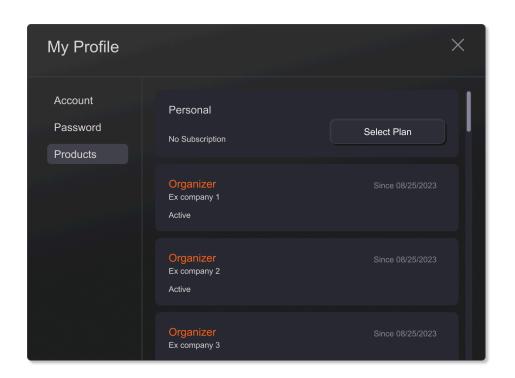
In the Password tab, the current password for the account can be revealed, or changed to a new password.

NOTE! Password reset can also be initiated from the login screen.



Products

The "Products" tab displays information about the subscription tied to the account. This tab features a "Go To Store" button to upgrade, downgrade, or purchase a new subscription or single session.



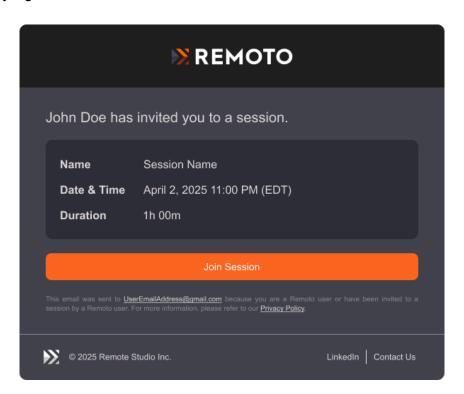
Part 6: Streaming Session Management (Guest Users)

Chapter 7: How To Join a Playback Session

Step 1: Session Invitation

Users added to a session will receive an email invitation to join a Streaming Session. If the user is a Remoto account holder, they do not need to join the session from the email invitation, and can instead join <u>directly from Playback Desktop</u>.

The email invitation includes the session name, scheduling details, and a Join Session button. If the invited user does not have a Remoto account, it may also include temporary sign in credentials.



Step 2: Accept the Invitation

When the "Join Session" button is clicked in the email invitation, a new browser window opens.

If the session Organizer **enabled passwordless access** to the session, the user is asked to submit their first and last name:



If the session Organizer has **disabled passwordless access** to the session, the user is asked to <u>log in</u> to continue, or to <u>create an account</u> if they do not already have one.

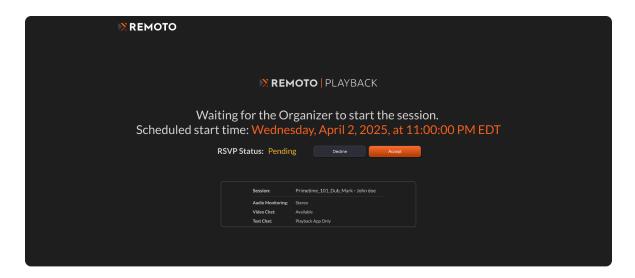


Not suite about you network settings before streaming? Run Network Test here

Step 3: Joining a Session

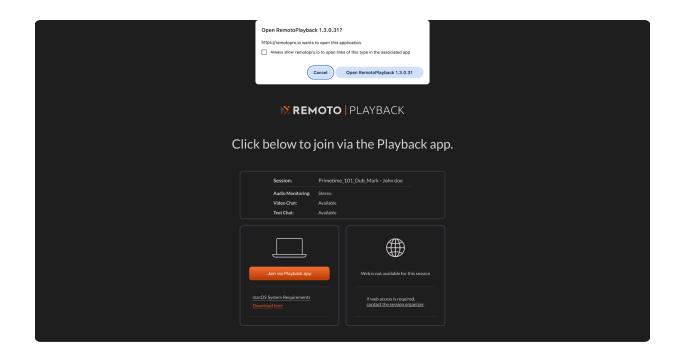
If the session starts in more than 15 minutes:

When attempting to join a session more than 15 minutes early, the user is presented with an RSVP screen.



When attempting to join a session that is scheduled to start in less than 15 minutes, the user is presented with options to join the session immediately. If the session Organizer has enabled joining via web browser, the user is presented with an option to "Join via Web" as an alternative to "Join via Desktop". Note that users utilizing any device other than a Mac computer can only join via the Web.

If the Organizer has configured the session to be joined using Playback Desktop only (no web joining enabled), the user is prompted to open Playback (if it is already installed on the device), or download it. In this case, the option to join from the web is not available.



Joining a Session using Playback Desktop

Once Playback Desktop is installed, the user is asked to open the application to continue.

If the session Organizer has **enabled passwordless access** to the session, the user ispresented with a "Redirection to Session" reminder that "No password is required for this session.":



Once the redirection is complete, the user is presented with <u>Call and Stream preferences</u> for the session they are joining. Note that users who join via the passwordless login are not able to toggle to the Dashboard or any other part of the app. After the session ends, they are prompted to log into the application to access those areas of the application.

Users who login to join the session are presented with the dashboard view, where they can click the "Join" button and set up <u>Call and Stream preferences</u> for the desired session.

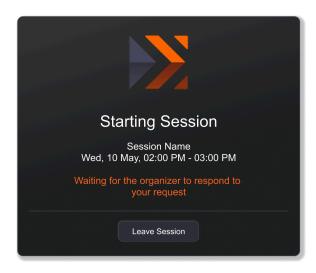
Joining a session through Playback Web

If "Join from web" is clicked in the email invitation, the user is directed to set up "Call and Stream" preferences for the call via the web browser; they may be asked to grant camera and microphone access permissions to the browser.

Once audio and camera settings for the session have been configured, users may click "Ask to Join" at the bottom right of the window.

If the session has been started by the Organizer, they receive a join request that they can "Admit" or "Decline".

A dialog window is displayed until the Organizer approves the join request.

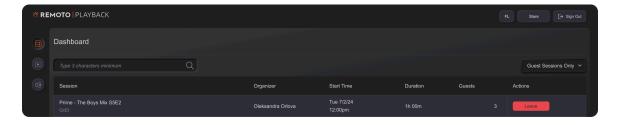


Once the join request is approved, the guest is admitted to the session and into the Studio view.

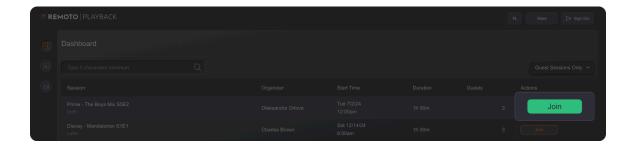
Join From Playback Desktop Without Using the Email Invitation

Alternatively, if the user is a Remoto account holder, they are not required to join the session from the email invitation, and can join the session directly from Playback Desktop.

Upon logging into the application, the session(s) the user is invited to are displayed in the Dashboard.

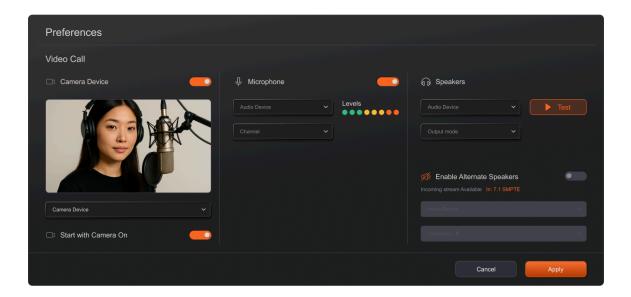


An illuminated "Join Session" button indicates that the Organizer has started the session; click "Join" to enter the session.



Configure Call and Stream Preferences for the session, and continue the join flow.

Playback Desktop Call and Stream Preferences



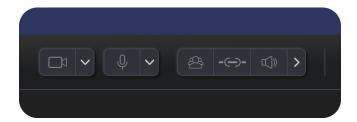
Upon clicking "Join", the Preferences window is displayed. This is where camera and microphone sources, as well as call audio and stream audio listening destinations are selected.

Select a microphone source, a speaker destination for the conferencing audio, and a camera source.

The chosen microphone source is confirmed by inspecting the "Microphone Audio Levels" status meter; a test signal can be generated to confirm the speaker output destination configuration.

The camera can be disabled and the microphone muted upon entering the session.

The microphone can also be muted/unmuted and the camera turned off/on via the controls at the bottom of the participant controller in Studio view.

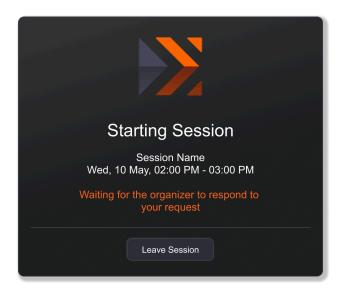


Unless otherwise configured in "Alternate Speakers", the stream is linked to the call audio output and is automatically folded down to match that format. To listen to the conference call and stream audio through separate speaker destinations (i.e. the call on headphones and the stream on a set of nearfield speakers) toggle on the alternate speakers setting to choose a separate output destination and format.

Once audio and camera settings for the session have been configured, click "Ask to Join" at the bottom right of the window.

Once the Session is started by the Organizer, "Join Requests" from Guests prompt them to "Admit" or "Decline" the Guests' access to the session. If the session has not been started, the button will display as "Apply" instead of "Ask to Join".

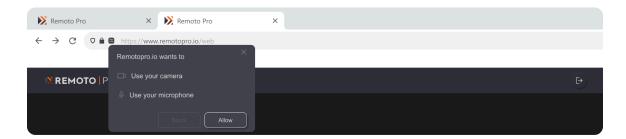
This dialog window is displayed until the Organizer approves the join request:



Once the join request is approved, the Guest is admitted to the session and can view it via the Studio View.

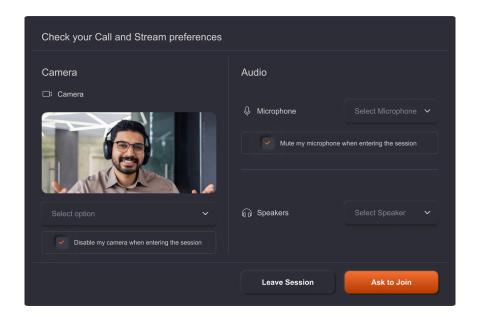
Playback Web Audio And Video Settings

When a user reaches the Call and Stream Preferences page for the call, the browser may prompt them to "Allow" access to their camera and microphone.



Once access to the camera and microphone is granted for the browser, and "Call and Stream Preferences" are configured, click "Ask to Join."

The Organizer will receive a "Join Request" and admit or decline entry into the session.



Leaving a Streaming Session

Leaving a Playback Desktop Session

Click on the "Leave Session" button in the bottom right of the screen to exit the session. If the guest was not required to log in to access the session, they will be presented with the log in page to do so.

If the user is logged into the app, the session can also be exited by clicking "Leave Session" under the Actions column in Dashboard view.

Leaving a Playback Web Session

Click on "Leave Session" in the bottom right of the screen to exit the session.

If the session is still active, it can be rejoined at any time by clicking on the "Studio" button, the "Join Session" button, or "Return to Session" banner at the top of the dashboard.

To rejoin a web session, click "Join session" in the invitation email and follow the flow.

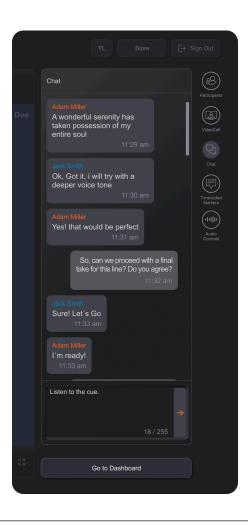
Part 7: Session Collaboration (Guest Users)

Chapter 8: Collaborating During a Live Streaming Session (Guest Users)

Playback Desktop offers several ways to collaborate during a live streaming session. Beyond text chat, and conferencing audio, Playback Desktop also includes video conferencing, as well as the ability to create and export live timecoded markers.

Playback Web has voice and video chat support only. It does not include timecoded markers, or text chat.

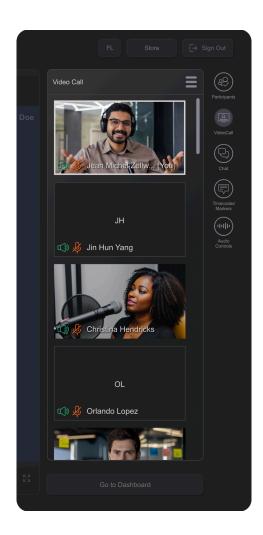
Collaborating with Playback Desktop



While in a live session, participants can send text messages to all participants via a text window in the Studio view; a history of the chat is maintained for the duration of the session.

The window for the session chat is accessed through the "Chat" button in the right sidebar of Studio view. Clicking on this will open the chat tab.

Note: At this time, there is no "direct message" chat functionality. All chat messages can be seen by all participants.



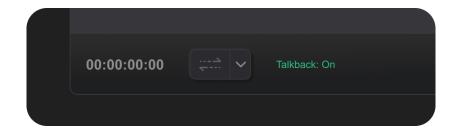
Video Chat

When in a live session, participants can chat with each other via video conferencing in addition to text chat. The video chat window is accessed by clicking the "Video Call" button in the right sidebar of the studio, to reveal a list of session participants.

The top video stream is always the Organizer's video, with the Guests' video streams displaying below. Use the scrollbar to view additional Guests.

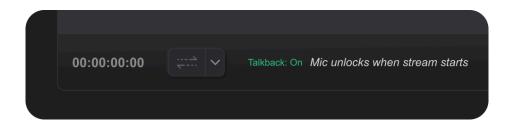
Talkback Mode

During a live session, the Organizer can enable Talkback Mode to control who is allowed to speak. When Talkback Mode is active, a notification appears in the bottom right of the Studio for Guests, next to the Adjust Sync control, to indicate that the mode is on.



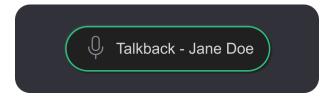
While Talkback Mode is active during a live stream, participants can only speak by holding the microphone button or pressing the spacebar.

If Talkback Mode is enabled before the stream begins, all participants will remain muted and unable to unmute themselves until the stream starts. The interface will reflect this status:



While someone is speaking, the stream audio is automatically ducked by 95% and returns to normal once they stop.

A notification above the viewing window displays the name of the active speaker to all participants.



Multiple speakers may be listed at a time.

When the stream is stopped, and Talkback remains enabled, participants stay muted and cannot toggle their own microphones until Talkback is turned off by the Organizer.

Timecoded Markers and Export Options

Playback allows any stream participant (Organizer or Guest) to create a timecoded marker if the session has been set up for Desktop Only streaming. If the session has been set up for Desktop & Web streaming, only the Organizer can create a comment. Timecoded markers are distinct from the participant chat function and can be created in two ways:

Quick Markers

Quick Markers are always available below the content viewing window. These are categorized buttons that, when clicked, instantly create a timecoded marker. These markers can be annotated later in the expanded Timecoded Markers tab by searching for the marker and double clicking on it to add text. Quick Markers provide a fast way to flag moments in real time without interrupting the viewing experience.



Full Entry Field:

For a more detailed timecoded marker entry experience, open the Timecoded Markers tab by clicking the "Timecoded Markers" button in the sidebar.



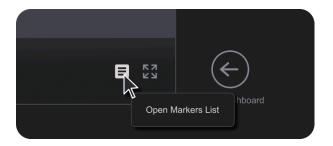
This view allows a category to be selected and a note to be added to each marker. When the entry field is activated, the current timecode is shown in the timecode display to the left. Enter a comment, then click the arrow button or press Enter to submit the marker. Click "Cancel" to discard it.



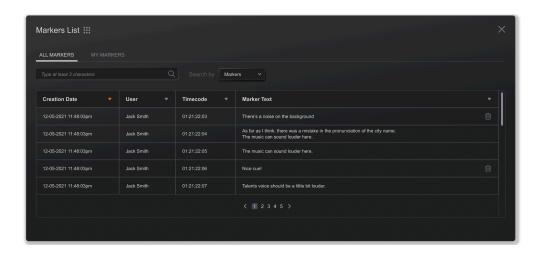
Below the entry field, a scrollable history of all submitted markers is available, along with a search field (indicated by an hourglass icon) for locating specific comments. Comments can be double clicked on to edit the comment text.

Timecoded Markers List Window

To view timecoded markers created during the streaming session, click the notepad icon located next to the Full Screen button in the lower-right corner of the streaming video window. This opens the Markers List:



The Marker list window appears:



In this window, markers that have been entered are listed along with their creation date, timecode location, and author. Markers can be deleted by pressing the trashcan button at the end of the row.

The view can be toggled between ALL MARKERS and MY MARKERS.

The markers list can be searched using the search bar, or the "Search by" drop down, filtering by marker content, a specific timecode location, or user.

Timecoded Markers can be exported either in MIDI or .csv format to be imported into a DAW. Exporting markers as MIDI allows import into Pro Tools, Logic, Reaper, or Nuendo. Exporting as .csv enables import into other programs that support this format, such as Avid Media Composer, Adobe Premiere, Final Cut®, DaVinci Resolve, etc.)

To export markers, click on the grid next to the Markers title at the top left of the Markers window:



If "Export to MIDI" is selected, the following window appears:



If "Exporting to .csv" is selected, the following window appears:



Choose a name and destination for the file to save it.

Collaborating with Playback Web

Participant Audio and Video Chat

Individual controls are available at the bottom of the Web Session window:

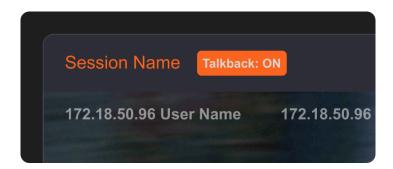




Clicking on the microphone mutes or unmutes the microphone feed*. Click on the dropdown arrow to reveal different microphone sources that can be selected, if applicable.

Talkback Mode

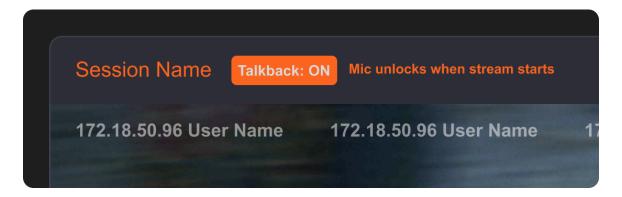
During a live session, the Organizer can enable Talkback Mode to control who is allowed to speak. When Talkback Mode is active, in Playback Web, a notification appears in the top left of the Studio for Guests, next to the Session Name, to indicate that the mode is on.



^{*} Clicking spacebar with the browser in the foreground also mutes/unmutes your microphone as well.

While Talkback Mode is active during a live stream, participants can only speak by holding the microphone button or pressing the spacebar.

If Talkback Mode is enabled before the stream begins, all participants will remain muted and unable to unmute themselves until the stream starts. The interface will reflect this status:



While someone is speaking, the stream audio is automatically ducked by 95% and returns to normal once they stop.

A notification above the viewing window displays the name of the active speaker to all participants.



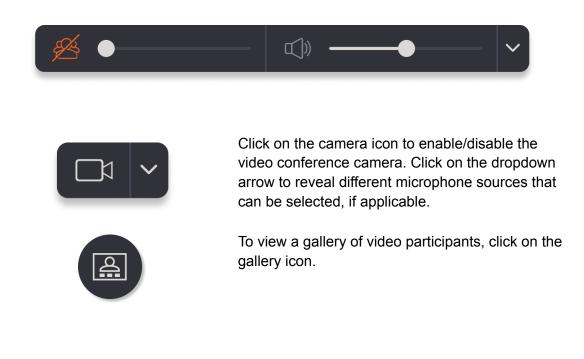
Multiple speakers may be listed at a time.

When the stream is stopped, and Talkback remains enabled, participants stay muted and cannot toggle their own microphones until Talkback is turned off by the Organizer.

Conference Call and Stream Audio

The audio for the conference call and for the steam can be controlled separately. Clicking on the speaker icon mutes/unmutes the stream audio, and the volume is controlled by moving the slider. Click on the dropdown arrow to specify different speaker

destinations if any are available. Click on the group icon to mute/unmute the conference call audio; the volume of the call is controlled by moving the slider.



Appendix A: Playback Network Requirements Guide

This guide outlines the network and connectivity requirements necessary for optimal Playback performance. Proper network configuration ensures smooth live streaming, real-time collaboration, and reliable video conferencing.

Internet Access

For an uninterrupted, high-quality streaming experience, the **Organizer** should have an upload speed of **40 Mbps or higher** and a **wired (Ethernet)** internet connection. Streaming over Wi-Fi may cause inconsistent performance due to signal congestion and network variability.

Internet speed and stability directly affect stream quality. Temporary interruptions can pause or stop the stream and may require restarting. To evaluate your connection, use the <u>Remoto Pro Network Test</u> which provides an easy, browser-based way to assess connectivity and identify potential issues before a session begins.

The Remoto Pro Network Test is available on:

- The Playback Web client login page
- The Session Settings section within the Playback Desktop app

In corporate environments, firewall or proxy restrictions can block traffic required by Playback. The following sections outline the ports and domains that should be allowed for seamless operation.

Network Streaming Protocols Used by Playback

Playback uses different streaming protocols depending on the streaming type chosen in session configuration:

- **Desktop Only:** SRT (Secure Reliable Transport)
- Desktop and Web: SRT for Desktop streaming and WHEP (WebRTC-HTTP Egress Protocol) for Web streaming

Minimum and Recommended Network Requirements

To use Playback effectively, the network must meet the following minimum requirements:

- Bandwidth: Refer to the <u>Bandwidth Table</u> for detailed recommendations based on your use case.
- Connection Type: A wired Ethernet connection is strongly recommended.
 ADSL, VDSL, or fiber provide the best stability and latency performance. Satellite connections should be avoided.
- **Firewall Access:** The ports and domains listed below must be open and accessible.

Firewall Whitelist Configuration

To ensure uninterrupted access to the Remoto Services Platform, configure your firewall to allow the following traffic:

WebRTC (Used for Desktop & Web streaming type)

Туре	Port	Protocol	Domain
WebRTC Signaling	8189	UDP	*.stream.remotopro.io
STUN Server	3478	UDP	global.stun.twilio.com
TURN Server	3478	UDP	global.turn.twilio.com
Turn Server	3478, 443	TCP	global.turn.twilio.com

WHEP API	443	TCP	api.remotopro.io

SRT (Used for Desktop Only streaming type)

Environment	Port Range	Protocol	Domain
RSS (Desktop and Web Sessions)	8585	UDP	*.stream.remotopro.io
AWS (Desktop Only)	3000-3050	UDP	*.stream.remotopro.io

Corporate Networks

When using Playback Desktop from a corporate network or behind multiple routers and firewalls:

- 1. Configure the firewall and router according to the whitelist above.
- 2. Run the Remoto Pro Network Test to confirm there are no connectivity or latency issues.
- 3. Avoid using Playback over a VPN, as it can interfere with public IP detection and communication with backend services.

Bandwidth and Performance

Playback's video and audio streaming quality depend on available bandwidth. Maintaining the recommended minimum and optimal bandwidth ensures stable, high-quality live streaming and conferencing.

For additional assistance, please contact the **Remoto Customer Service Team**.

Appendix B: Playback Alternate Speakers

We have implemented a robust and flexible system for managing audio playback from multiple sources within the Playback Desktop application. This system is designed to allow users to monitor different audio streams via various output devices, a concept inspired by the "Alternate Speakers" functionality available in traditional analog consoles.

In Playback, we have adapted this concept to allow users to assign different audio sources to various output devices. This feature enables users to monitor video call audio separately from the main audio stream, enhancing their control and flexibility.

Audio Sources

- 1. **Streaming:** Used for streaming high-quality audio and video content.
- 2. Video Conference: Used for video conference calls.

Audio Output Drivers

- Speakers (Primary Audio Driver): Can be used for both the video conference and the stream audio (e.g., AirPods, 5.1 surround sound, 7.1 surround, etc).
- 2. Alternate Speakers (Secondary Audio Driver): If preferred, the signal can be split to use the secondary audio driver for the stream audio (e.g., a 5.1 surround sound setup using Blackhole Audio).

The channel width/layout depends on the driver rather than on whether it is designated as primary or secondary. This ensures flexibility in how audio is routed and monitored.

Output Mode

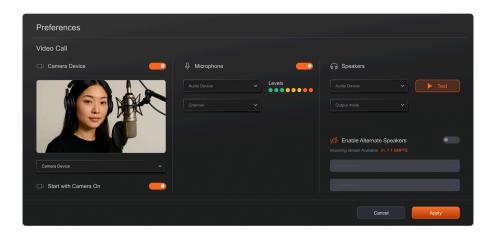
The output mode refers to the function that allows the received audio format to be either downmixed or passed through to the output device:

- **Stereo:** For instance, receiving a 7.1 SMPTE format but monitoring as a stereo downmix.
- **Passthrough:** This mode passes discrete channels directly to the driver, mapping channels 1 to 1, 2 to 2, 3 to 3, and so on.

Downmixing is performed per the specifications of the streaming format. For more information, please see <u>RFC 7845</u>.

User Interface

The user interface includes a selector that allows users to choose and switch between different audio output devices. This selector mimics the functionality of traditional analog console switches, making it intuitive for users familiar with audio mixing consoles. Below is a screenshot of the Call and Stream Preferences settings in Playback:



Monitoring Different Audio Sources

When a user starts a session as a host or joins as a guest, the Streaming CDN and Video Conference CDN turn on simultaneously. The user does not need to perform additional steps to receive both streams. Both audio streams are routed to the specified drivers based on the user's settings upon joining a session in Call and Stream
Preferences. Once in an active streaming session, users can control the volume and mute/unmute each audio stream independently through the user interface in Studio View.

• Example: Listen to the video call on Air Pods while listening to the streaming audio on a 5.1 surround sound setup.

Passthrough Mode Channel Mapping Table

In passthrough mode, each input channel is mapped directly and fixed to the corresponding output channel, allowing for precise audio routing and monitoring.

Best Practices

In order to make the most of Alternate Speakers functionality, we recommend the following practices.

- Device Compatibility: Ensure that the selected audio output devices are compatible with the workstation and are correctly configured in the operating system's audio settings.
- Audio Calibration: Calibrate audio output devices to ensure accurate sound reproduction, especially for complex high-fidelity setups such as 5.1 surround sound.

Use Cases

The following use cases are examples of how the Alternate Speakers function can be leveraged to optimize monitoring during Playback sessions.

Remote Mixing Sessions

Scenario:

A film's audio post-production team works remotely across different locations. The director and re-recording mixer need to conduct a mixing session to finalize the audio for a scene. The mixer is streaming 5.1 audio from his studio to the director's home 5.1-enabled screening room.

How It Works:

- The stream audio is routed to the director's high-fidelity 5.1 surround sound setup using Blackhole Audio.
- The video conference audio is routed to the engineer's AirPods or a similar headset.
- The director and sound engineer can listen to the stream while communicating over the video call without any interference or feedback.

Foley and ADR Sessions

Scenario:

Actors are performing Automated Dialogue Replacement (ADR) or Foley artists are recording sound effects. The session is supervised remotely by a sound designer and the film's editor. The recording engineer at the studio is streaming stereo via Playback, and the editor is receiving it on his editing workstation.

How It Works:

- The stream audio captures the live recording of ADR or Foley, routed to a high-fidelity speaker system in the studio and editorial room for accurate monitoring.
- The video conference audio allows real-time communication between the editor, sound designer, and actors via a secondary output such as AirPods.
- The team can provide immediate feedback and direction, ensuring perfect performance matches the visual cues.

Glossary

Blackmagic SDI: Refers to an available Video Input Type located in Session settings > Video Settings. This can be chosen with systems connected to a Blackmagic UltraStudio thunderbolt device.

Dashboard View: This is the default view of Playback, where sessions are scheduled and managed.

DAW: A digital audio workstation (DAW) is a software program that allows users to record, edit, and produce audio on a computer.

NDI: NDI, or Network Device Interface, is a video connectivity standard that allows devices to share high-quality video, audio, and metadata in real time over IP networks. NDI is built into devices and apps, and uses compression to reduce bandwidth. It's royalty-free and was developed by NewTek in 2015. NDI is an available "Video Input Type" under Video settings in Session Settings.

Preferences Window: The window within Playback where local "Call and Stream" preferences are configured, such as conference call microphone input, conference call audio output, and stream audio output.

Studio View: The content streaming window where conferencing takes place, and from which timecoded markers can be created and exported.

Timecoded Markers: Comments that can be entered in Playback during a stream. They are stamped with timecode with the purpose of being exported and saved either as MIDI or .csv, to be imported into a host DAW or NLE and perfectly align with the source material. Located in Session Settings.

Video Input Type: Determines the video source device or software that will play back the content during the session. The options offered are "Screen Capture", "NDI", "Blackmagic SDI", or "Application". The selection made here will affect the options available for "Video Streaming Source". Located in Session settings > Video Settings.

Video Streaming Source: The video streaming source is the final step in defining the video stream. The options available depend on the Video Input Type selected. Located in Session settings > Video Settings.

Viewer Type: Determines how Guests are able to view the stream.

Desktop Only: The most feature rich experience, requires all Guests to download and install Playback Desktop (an application available on Mac only), and streams up to 16 channels of audio. Includes full conferencing options (text, audio, and video chat), and timecoded markers.

Desktop & Web: Guests can join via either the desktop application or the web application running on a web browser. Those joining from the web are limited to stereo audio, and video and audio chat only. Timecoded markers are not included in the web experience.

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