

Media I/O

User Guide

VERSION 13.0

ROSS



THANK YOU FOR CHOOSING ROSS VIDEO

You've made a great choice. We expect you will be very happy with your purchase of Ross Technology.

Our mission is to:

1. Provide a Superior Customer Experience
 - offer the best product quality and support
2. Make Cool Practical Technology
 - develop great products that customers love

Ross has become well known for the Ross Video Code of Ethics. It guides our interactions and empowers our employees. I hope you enjoy reading it below.

If anything at all with your Ross experience does not live up to your expectations be sure to reach out to us at solutions@rossvideo.com.



David Ross
CEO, Ross Video
david.ross@rossvideo.com

Ross Video Code of Ethics

Any company is the sum total of the people that make things happen. At Ross, our employees are a special group. Our employees truly care about doing a great job and delivering a high quality customer experience every day. This code of ethics hangs on the wall of all Ross Video locations to guide our behavior:

1. We will always act in our customers' best interest.
2. We will do our best to understand our customers' requirements.
3. We will not ship crap.
4. We will be great to work with.
5. We will do something extra for our customers, as an apology, when something big goes wrong and it's our fault.
6. We will keep our promises.
7. We will treat the competition with respect.
8. We will cooperate with and help other friendly companies.
9. We will go above and beyond in times of crisis. *If there's no one to authorize the required action in times of company or customer crisis - do what you know in your heart is right. (You may rent helicopters if necessary.)*

About this Guide

- Ross Part Number: **7900DR-004-13.0**
- Release Date: April 22, 2025. Printed in Canada.
- Software Issue: **13.0**

The information contained in this Guide is subject to change without notice or obligation.

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Patents

Patent numbers 4,205,346; 5,115,314; 5,280,346; 5,561,404; 7,034,886; 7,508,455; 7,602,446; 7,834,886; 7,914,332; 8307284, 2039277; 1237518; 1127289 and other patents pending.

Warranty and Repair Policy

Ross Video Limited (Ross) warrants its Media I/O Server systems to be free from defects under normal use and service a time period of 15 months from the date of shipment:

If an item becomes defective within the warranty period Ross will repair or replace the defective item, as determined solely by Ross.

Warranty repairs will be conducted at Ross, with all shipping FOB Ross dock. If repairs are conducted at the customer site, reasonable out-of-pocket charges will apply. At the discretion of Ross, and on a temporary loan basis, plug in circuit boards or other replacement parts may be supplied free of charge while defective items undergo repair. Return packing, shipping, and special handling costs are the responsibility of the customer.

This warranty is void if products are subjected to misuse, neglect, accident, improper installation or application, or unauthorized modification.

In no event shall Ross Video Limited be liable for direct, indirect, special, incidental, or consequential damages (including loss of profit). Implied warranties, including that of merchantability and fitness for a particular purpose, are expressly limited to the duration of this warranty.

This warranty is TRANSFERABLE to subsequent owners, subject to Ross' notification of change of ownership.

Extended Warranty

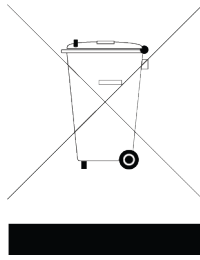
For customers that require a longer warranty period, Ross offers an extended warranty plan to extend the standard warranty period by one year increments. For more information about an extended warranty for your Media I/O Server system, contact your regional sales manager.

Environmental Information

The equipment that you purchased required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment.

To avoid the potential release of those substances into the environment and to diminish the need for the extraction of natural resources, Ross Video encourages you to use the appropriate take-back systems. These systems will reuse or recycle most of the materials from your end-of-life equipment in an environmentally friendly and health conscious manner.

The crossed-out wheeled bin symbol invites you to use these systems.



If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration. You can also contact Ross Video for more information on the environmental performances of our products.

Use of Hazardous Substances in Electrical and Electronic Products (China RoHS)

Ross Video Limited has reviewed all components and processes for compliance to:

“Management Methods for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products” also known as China RoHS.

The “Environmentally Friendly Use Period” (EFUP) and Hazardous Substance Tables have been established for all products. We are currently updating all of our Product Manuals.

The Hazardous substances tables are available on our website at:

<http://www.rossvideo.com/about-ross/company-profile/green-practices/china-rohs.html>

电器电子产品中有害物质的使用

Ross Video Limited 按照以下的标准对所有组件和流程进行了审查:

“电器电子产品有害物质限制使用管理办法” 也被称为中国RoHS。

所有产品都具有“环保使用期限”(EFUP)和有害物质表。目前,我们正在更新我们所有的产品手册。

有害物质表在我们的网站:

<http://www.rossvideo.com/about-ross/company-profile/green-practices/china-rohs.html>

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Introduction

A Word of Thanks

Thank you for choosing Ross Video Media I/O as your ingest and playout solution.

We are committed to providing you with the highest level of customer satisfaction possible. If, for any reason, you have questions or comments, please call Ross Video at +1-613-652-4886 or send us an e-mail at techsupport@rossvideo.com.

We hope that you visit our website www.rossvideo.com to stay up to date with ongoing software releases, join our customer forum and learn more about the complete range of Ross Video products.

Note that software maintenance and extended warranties are available for your system to protect and extend the life of your investment. Our sales team is more than happy to provide further information on the plans available. Members of our sales team will promptly respond to e-mails sent to: solutions@rossvideo.com.

Again, thank you for your purchase of a Media I/O solution from Ross Video. We are confident of your future pleasure with your choice.

Yours Sincerely,



Shawn Snider
Vice President of Production Workflow & Cloud Services

About This Guide

The Media I/O User Guide serves as an in-depth guide to the product and covers all concepts creative staff needs to know in order to use the Media I/O Suite software. With the information contained here, users can work with greater confidence, more efficiently and creatively.

This guide intended as a comprehensive reference manual to answer FAQ's related to daily use in the most common news and sports production workflows. As with any user guide of this kind, and especially with a software as powerful and configurable as Media I/O it is certainly possible that it does not answer every question.

★ The Media I/O User Guide is intended for the sole use of authorized and licensed users of the Media I/O Suite.

This guide contains the following chapters that cover the use of the Media I/O

1. **Introduction** — summarizes the guide and provides important terms, and conventions.
2. **Getting Started** — summarizes the structure of the Media I/O User Interface.
3. **Configuring Media I/O** — summarizes how to configure user preferences, customize layouts, and change the password.
4. **Managing a Channel** — summarizes how to manage a channel (including recording workflows).
5. **Using the Scheduler** — summarizes how to use the Scheduler Panel to schedule ingest recordings.
6. **Managing a Playlist** — summarizes how to use playlists to organize clips for payout on channels.

★ NOTE:

Certain features may or may not be visible in your interface depending on the features purchased by your organization, or permissions assigned by your administrator. Contact your Media I/O administrator to request permission changes, or to purchase additional features from Ross Video.

If you have questions pertaining to the operation of Media I/O, please contact us at the numbers listed in the section “**Contacting Technical Support**” on page 1–3. Our technical staff is always available for consultation, training, or service.

Documentation Conventions

Special text formats are used in this guide to identify parts of the user interface, text that a user must enter, or a sequence of menus and sub-menus that must be followed to reach a particular command.

Interface Elements

Bold text is used to identify a user interface element such as a dialog box, menu item, or button. For example:

In the **Assets panel**, click **Delete**.

User Entered Text

Courier text is used to identify text that a user must enter. For example:

In the **Language** box, enter **English**.

Referenced Guides

Italic text is used to identify the titles of referenced guides, manuals, or documents. For example:

For more information, refer to the section “**Managing Large Projects**” in the *Media I/O User Guide*.

Menu Sequences



Menu arrows are used in procedures to identify a sequence of menu items that you must follow. For example, if a step reads “**File > Save As**,” you would click the **File** menu and then click **Save As**.

Important Instructions

Star icons are used to identify important instructions or features. For example:

- ★ After upgrading Media I/O software, you must obtain feature licenses from Ross Video Technical Support before users can access Media I/O features.

Getting Help

To access the Media I/O Online Help system, click the  **Help** icon in the main toolbar. For help about the currently open panel, click the  **Help** button in a panel title bar to view a help topic about the panel. The Online Help system contains the following navigation tabs to locate and access Online Help topics:

- **Contents** — table of contents
- **Search** — full text search
- **Favorites** — preferred information storage and access Ross Video also supplies print-ready PDF files of the Media I/O Installation Guide, Media I/O Configuration Guide, and the Media I/O User Guides.

Contacting Technical Support

Technical Support is staffed by a team of experienced specialists ready to assist you with any question or technical issue.

Ross Video has technical support specialists strategically located around the globe to ensure a prompt response to technical inquiries. Our primary technical support center is located in Ottawa, Ontario, Canada. In addition, we have offices in The United Kingdom (London), Australia (Sydney), and Singapore with satellite locations in New York City, the Netherlands, and China. As we expand our presence globally, we are constantly evaluating other key locations to have a local technical support specialist in order to better service our customers.

North America

Our North America center located in Ottawa, Ontario, Canada and is open Monday to Friday 8:30 a.m. to 6:00 p.m. EST, with 24/7/365 on-call service after hours.

Our telephone number is: +1-613-686-1557

Toll free within North America: +1 833-859-0499

EMEA

Our EMEA center is open Monday to Friday 8:30 a.m. to 5:00 p.m. GMT. After hours support is provided by our North America location.

International toll free: +800 3540 3545

If the local support specialist is not available, your call will be transferred automatically to our North America center.

Australia

Our Sydney, Australia office is located in Alexandria, NSW.

Our local support telephone number is: 1300 007 677

If the local support specialist is not available, your call will be transferred automatically to our North America center.

Online

E-mail: techsupport@rossvideo.com

Website: open a support request using the link <http://www.rossvideo.com/support/tech-support.html> to open a support request.

Getting Started

Media I/O allows users to quickly capture and playout all your live feeds. This includes support for baseband SDI and network signals such as SRT and NDI 2110 while transcoding them live for fast integration into post-production, media management, and delivery workflows.

This chapter discusses the following topics:

- Opening the Media I/O User Interface
- Overview of the Media I/O Workflow
- Exploring the User Interface

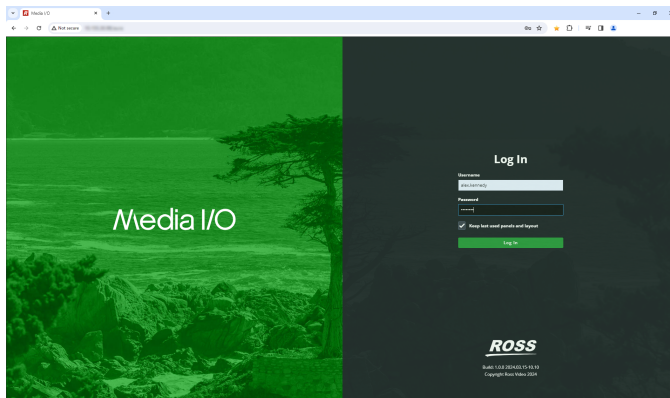
Opening the Media I/O User Interface

Before you can acquire, browse, log, edit, play-out, ingest, and record your content, you must open Media I/O and log in to the client with your username and password.

To open Media I/O

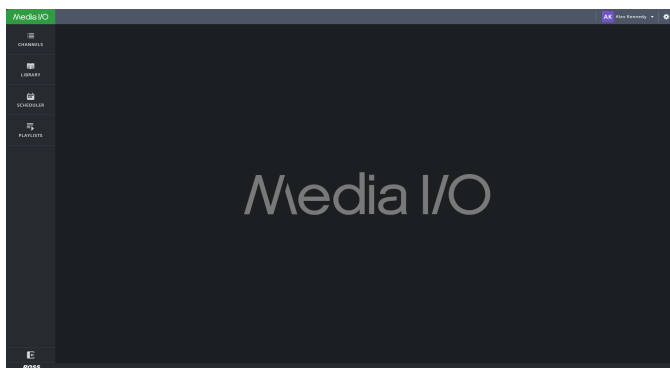
1. Use a supported web browser to open the Media I/O web page provided by your Media I/O administrator:
 - › Microsoft Edge
 - › Google Chrome™ browser version 51 or greater
 - › Apple Safari® version 10.2 or greater

A Login page opens.



2. Sign-in using your login credentials:
 - › **Username** — Enter your username in the field.
 - › **Password** — Enter your password in the field.
3. Select the **Keep last used panels and layout** checkbox to load the same panels and layout as your previous Media I/O session.
4. Select **Login**.

The Media I/O Interface opens. If you are logging in for the first time, it may be empty.

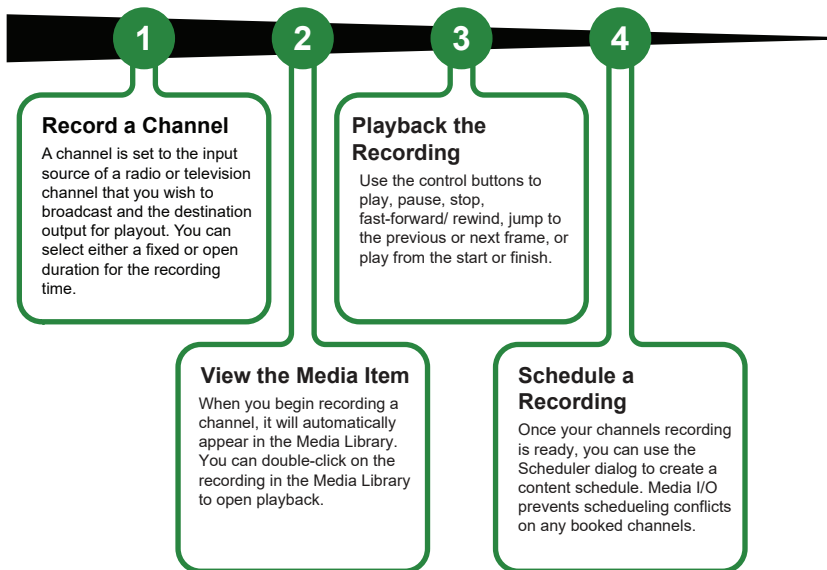


★ Session Timeout Reminder:

For your security, the Media I/O system will log you out after 30 minutes of inactivity.

Overview of the Media I/O Workflow

The following diagram shows the main steps for creating an ingest and playout schedule.



Exploring the User Interface

The Media I/O user interface includes a main toolbar and workspace panels that open in specific positions within the layout. You can open, close, resize, or move individual panels as needed.



Media I/O offers a suite of tools with customizable features. This chapter describes all of the available features, but the options you can access will depend on your organization's license and the user permissions assigned by your Media I/O administrator.

TIP

If a feature you read about in the documentation is unavailable, please contact your Media I/O administrator to request permissions or inquire about purchasing additional Media I/O features.







Main Toolbar

The icons in the main toolbar, on the upper right corner, enable you to open either the User Preferences dialog or the System Configuration dialog.

Icon	Name	Description
	User Preferences drop-down	Opens the User Preferences dialog. This allows you to modify the user's preferences for the following settings: profile, language, and password.
	System Configuration	Opens the System Configuration dialog.

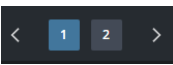
Side Toolbar

The icons in the side toolbar allow the user to open different workspace Panels, and to control the layout View of the Media I/O interface.

Icon	Name	Description
	Channels	Opens the Channels panel. • See “ Managing a Channel ” on page 4–1
	Library	Opens the Library panel.
	Scheduler	Opens the Scheduler panel. • See “ Using the Scheduler ” on page 5–1
	Playlists	Opens the Playlists panel. • See “ Managing a Playlist ” on page 1–1
	SWITCH VIEW (Minimize)	Minimizes the left sidebar view.
	SWITCH VIEW (Expand)	Maximizes the left sidebar view to the original desktop layout.

Channels Panel Toolbar

The Channels Panel includes recording channel cards and playout channel cards. Both types of channel include the following navigation controls for all channel cards:

Icon	Name	Description
	Pager Controls	Click the left and right arrows to navigate to the next or previous page of Channel Cards.



For More Information on...

- Recording Channel Controls, refer to the section: “**Playback Channel Labels, refer to the section: “Playback Channel Labels”**”.
- Recording Channel Labels, refer to the section: “**Recording Channel Labels**”
- Playback Channel Controls, refer to the section: “**Playback Channel Controls**”
- Playback Channel Labels, refer to the section: “**Playback Channel Labels**”

Recording Channel Controls








These controls allow you to record or stop a recording on a Recording-type channel in the Channel panel.

If you wish to control a Playback Channel, go to the “**Playback Channel Controls**”.

Icon	Name	Description
	Record	Select this button to continue a recording.
	Stop	Select this button to stop a recording.

Recording Channel Labels

These labels indicate the status of a recording channel.












Icon	Name	Description
	Idle	This status label indicates that the channel is idle and the channel is available for recording.
	Preparing	This status label indicates that the channel is preparing the media clip.
	Ready	This status label indicates that the recording channel has finished preparing and is now ready.
	Recording	This status label indicates that the recording is in progress. <ul style="list-style-type: none">• For more information, refer to the information on “Recording a Channel”.
	Finalizing	This status label appears when a user has stopped the recording, and the channel is finalizing the media clip.
	Scheduled	This status label indicates that the recording is scheduled. <ul style="list-style-type: none">• For more information, refer to the information on “Recording a Channel”.
	External Control	This status label indicates that the clip is being controlled by a supported extension device via VDCP commands.

Playback Channel Controls

The icons in the Channel Controls Toolbar enable you to control playback of the selected recording. An overview diagram of the controls is displayed below:






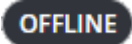






The channel controls enable you to playback a recording from one of your configured channel sources. View the ingest feed using the controls below to review the media library asset.

Icon	Name	Description
	Seek to Start	Click this button to move the playhead to the start of the clip.
	Rewind	Click this button to rewind from the playhead position. Click Rewind another time to increase the rewind speed. The increments increase the speed as follows: 2X, 5X, and 10X.
	Previous	Click this button to go to the previous frame.
	Play	Click this button to play from the playhead position.
	Pause	Click this button to pause the clip.
	Stop	Click this button to stop the channel.
	Next	Click this button to go to move the playhead to the next frame.
	Fast-forward	Click this button to fast-forward from the playhead position. Click Fast-forward another time to increase the rewind speed. The increments increase the speed as follows: 2X, 5X, and 10X.
	Seek to End	Click this button to move the playhead to the end of the clip.
	Cue	Used to cue a selected clip from the Library to a channel for playout.
	Loop	Used to loop a channel. Only visible when a channel is playing or paused.



Playback Channel Labels

These labels identify the current status of a playback channel. The labels are listed to match the order of operation.

Icon	Name	Description
	Idle	This status label indicates that the channel is idle and the channel is available for recording.
	Cueing	This status label indicates that the recording is scheduled. <ul style="list-style-type: none">• For more information, refer to the information on “Recording a Channel”.
	Cued	This status label indicates that media clip has been successfully cued and is ready for playback using the channel controls.
	Playing	This status label indicates that the cued recording is being played.
	Paused	This status label indicates that the current manual or scheduled recording has been paused.
	Offline	This status label indicates that the channel is offline. Please contact an administrator to bring the channel back online.
	FWD	This status label indicates that the cued clip is fast-forwarding at the indicated playback speed —2X, 5X, or 10X.
	RWD	This status label indicates that the cued clip is rewinding at the indicated playback speed —2X, 5X, or 10X.
	External Control	This status label indicates that the clip is being controlled by a supported extension device via VDCP commands.
	Playlist	This status label indicates that the channel is currently in use by a playlist.







Library Panel

The Library panel provides a list of media clips produced by manual and scheduled recordings. They are listed in order of most recently recorded to least, from top to bottom.

Icon	Name	Description
	Search Clips	Click the searchbar containing this icon to search for clips in the Library.
	Delete Selected	Click this button with one or multiple clips selected to delete them from the Library.

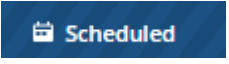

Scheduler Panel Toolbar

The Scheduler panel enables you to use schedule-driven playout. This enables you to meet the challenges of your broadcast workflows by scheduling future events without worrying about scheduling conflicts. Smart error-messaging handling will alert you to any issues during the initial selection configuration.

Icon	Name	Description
	Schedule New Recording	Click this button to schedule a future recording.
	Today	Click this button to update the calendar day selection to today's date.
	Tomorrow	Click this button to update the calendar day selection to the next day.
	Date Drop-down	Click this button to open a Calendar View.
	Back	Click this button to view the previous day.
	Forward	Click this button to view the next day.




Event Type Identifiers

The Scheduler panel indicates different types of events (such as single events, or event series) for easy reference.

Icon	Name	Description
	Single Event	Indicates a single event.
	Event Series	Indicates an event series.









Playlist Manager Tools

The Playlists panel enables you to organize your clips into playlists for use with channels. The Playlist Manager allows you to create, view, and delete your curated playlists.

Icon	Name	Description
	Create Playlist	Creates a new playlist. Prompts the user to enter a name before the playlist is created.
	Extra Tab Indicator	Displays a number indicating how many extra tabs (playlists) are open, but hidden to save screen space, in the Playlists panel.
	Delete Playlist	Deletes the selected playlist.

Playlist Viewer Tools



The Playlist Viewer enables you to add clips to playlists and edit the playlist's details. When added to a channel, it also enables you to control its playout functions.

Icon	Name	Description
	Delete Clip	Deletes a clip in the Playlist Viewer.
	Play	Plays the playlist on the respective Channel.
	Pause	Pauses the playlist on the respective Channel.
	Stop	Ends the playlist and removes the current on-air clip from the Channel. This option is greyed-out until the Play button is selected.
	Play Next Clip	Plays the next clip in the playlist. Skips the current on-air clip, if applicable.
 	Loop	Toggles if the playlist will be looped or not when it is finished playing. When looping is toggled on, this button will turn blue.
	Dropdown	A dropdown selection. Used in the Select channel box to pick from existing channels. In the Start and End columns, this allows the user to choose what will happen at the start and end of a clip when it is played.

Configuring Media I/O

There are many aspects of Media I/O that you can configure to suit the needs of your organization. The properties that you can configure depend on your user permissions.

The main toolbar includes some or all of the following icons:

-  **User Profile**— enables Media I/O users to set user preferences.
-  **Configuration** — enables Media I/O users to set system preferences.


This chapter discusses the following topics:

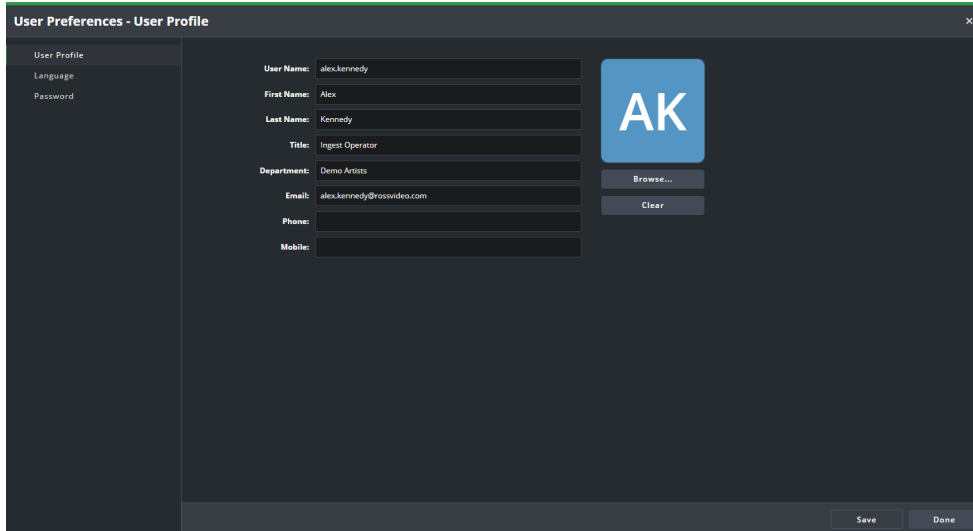
- Setting User Preferences
- Changing Your Media I/O PasswordSetting User Preferences
- Managing Users and Roles
- Configuring LDAP Authentication

Setting User Preferences

When the default user preferences do not work for an individual Media I/O user, the user can set their own user preferences.

To set your own user preferences

1. On the main toolbar, click the  **User Preferences** drop-down menu. *The User Preferences dialog opens to the User Profile tab.*




2. You can set the following fields for your User Profile:
 - **User Name** — Enter your username in the text entry field.
 - **First Name** — Enter your first name in the text entry field.
 - **Last Name** — Enter your last name in the text entry field.
 - **Title** — Enter your job title in the text entry field.
 - **Department** — Enter your department name in the text entry field.
 - **Email** — Enter your email in the text entry field.
 - **Phone** — Enter your home phone number in the text entry field.
 - **Mobile** — Enter your mobile phone number in the text entry field.

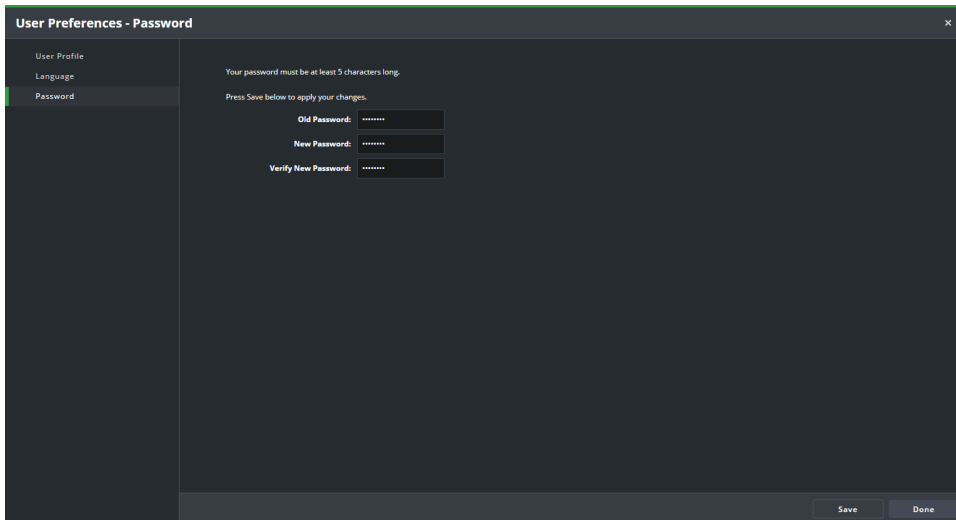
★ **NOTE:** Uploading new profile photos with the **Browse...** button is not currently supported.
3. Select **Save** to apply your changes.

Changing Your Media I/O Password

A Media I/O user can update their password in the User Preferences dialog.

To Change your Media I/O Password

1. On the main toolbar, click the  **User Preferences** drop-down menu. *The User Preferences dialog opens to the User Profile tab.*
2. Select the **Password** tab, and fill in the following:



- › **Old Password** —Enter your current password.
 - › **New Password** — Enter the password you wish to change it to.
 - › **Verify New Password** —Re-enter the password you wish to change it to for verification purposes.
3. Click **Save**.

Licensing Media I/O

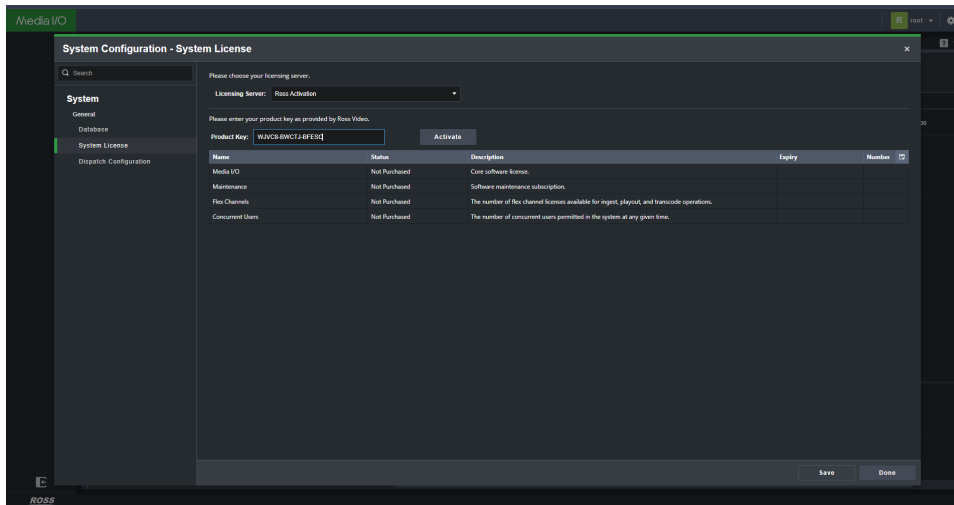
Media I/O must be licensed before the System Configuration features become visible in the User Interface. Licensing is performed by a commissioner, and is only required to activate the Media I/O system for the first time. Contact your Media I/O administrator if your licenses have not be activated.

To License Media I/O

1. Go to  **System Configuration** button.

The System Configuration dialog opens.

2. In the left tree view, under  **System Configuration > General**, select **System License**.




3. In the **Licensing Server** dropdown menu, select **Ross Activation**.
 4. In the **Product Key** input box, paste the product key provided by Ross Video.
- ★ **NOTE:** Dashes must be included.
5. Verify that the product key was successfully applied by checking the **Status** column. The status of the following four Media I/O licenses should show as **Activated**:
 - › **Media I/O**
 - › **Maintenance**
 - › **Flex Channels**
 - › **Concurrent Users**

Managing Users and Roles

Administrators can configure Role-based Access Control to set permissions for roles and users in the **System Configuration > Users & Roles** page. For example, you can control which users are granted access to any given channel.


To Manage Users

1. On the main toolbar, click the  **System Configuration** button.
The System Configuration window opens to the Database tab.
2. Select the **Users & Roles** tab in the **Role-Based Access Control** section under the **User Management** heading.

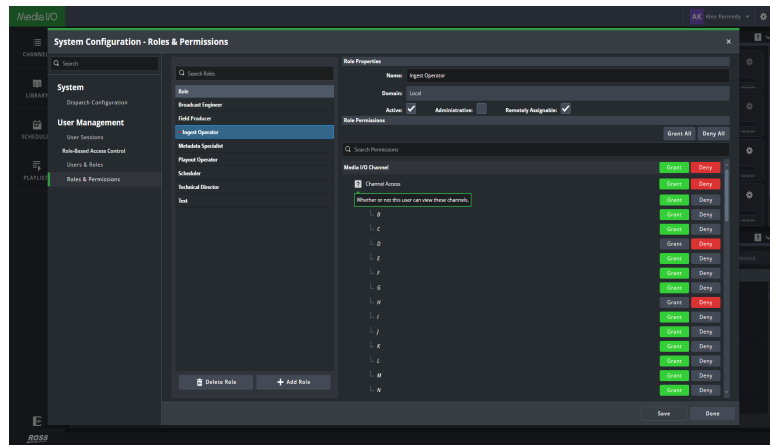
To add a new user

1. In the **User Properties** area, enter the following:
 - a. **Active** — Select the checkbox to make a user active in the Media I/O system.
 - b. **Domain** — Enter the host or IP address of the domain.
 - c. **Username** — Enter the user name.
 - d. **Password** — Enter the password.
 - e. **First Name** — Enter the first name of the user.
 - f. **Last Name** — Enter the last name of the user.
 - g. **Title** — Enter the job title of the user.
 - h. **Department** — Enter the department of the user role.
 - i. **Email** — Enter the email of the user.
 - j. **Phone** — Enter the phone number of the user.
 - k. **Mobile** — Enter the mobile number of the user.
 - l. **API Key** — Select the checkbox to enable the API. If selected you must add the API key below it.
 - m. **API Key** — If required, enter the API key.
2. In the User Roles area, search for any roles you wish to add and select the checkbox next to the role to add it.
3. Select **Add User**.
4. Select the **Language** tab to set a different language for the user. Select **Save** when the desired language has been chosen.
5. Confirm that the User has been added to the list successfully, and that all the properties and roles have been configured correctly. To make any changes, select the role, edit it, and select **Save**.

To add a new role

1. To open the System Configuration dialog, go to  **System Configuration**.
2. In the left menu under **User Management**, select **Roles & Permissions**.
3. Select the **Add Role** button.
4. Under Role Properties, enter the following:

- a. **Name** — Enter a name for the role.
 - b. **Domain** — Enter the host or IP address for the domain.
 - c. **Active** — Select this checkbox to activate this role in the Media I/O system.
NOTE: You must save this role before it will appear in the system.
 - d. **Administrator** — Select this checkbox to assign Administrator level privileges to the account.
 - e. **Remotely Assignable** — Select this checkbox to make the role remotely assignable.
 - f. If you did not select **Administrator** level privileges, then a list of role permissions to choose from appears. Select **Allow** for any of the Role Permissions you wish to apply to the role. You can use the **Grant All** or **Deny All** buttons to quickly apply permissions to the entire list of Role Permissions.
5. Select **Save**.
 6. Confirm that the role you created is now available in the list of Roles.



★ **NOTE:**

For more information, please refer to the **Configuring System Settings** chapter of the *Media I/O Configuration Guide*.

Configuring LDAP Authentication

Lightweight Directory Access Protocol (LDAP) is a protocol for accessing and maintaining distributed directory information services over a network. Inception can import data related to user accounts and user roles (groups) from an LDAP directory server. The Manage Users and Manager Roles tabs lists users and user roles imported from LDAP directory servers alongside user accounts and user roles created in Media I/O. You cannot alter the properties of imported user accounts and user roles. Media I/O configuration settings related to LDAP belong to the following categories, represented on the left side menu of the System Configuration dialog:

- **LDAP** - Properties related to establishing connectivity with an LDAP directory server.
- **LDAP User Mapping** - Mappings to enable Media I/O to import user accounts from the LDAP directory server.
- **LDAP Role Mapping** - Mappings to enable Media I/O to import user roles (groups) from the LDAP directory server.
- **SAML SSO** - Mappings to enable Media I/O to support SAML SSO.

Before You Begin

To synchronize Media I/O Single Sign-on with user data from your organization's current LDAP provider or Active Directory Server (such as Okta or Windows AD) you must set up the requirements on the host server or cloud side.

Note: Media I/O supports authentication with your existing directory services hosted in the cloud.

- You must enable secure LDAP access over the Internet from your LDAP or Active Directory System.

Setting the LDAP Sync Source

To Set the LDAP Sync Source

This procedure allows you to set the primary LDAP sync source.

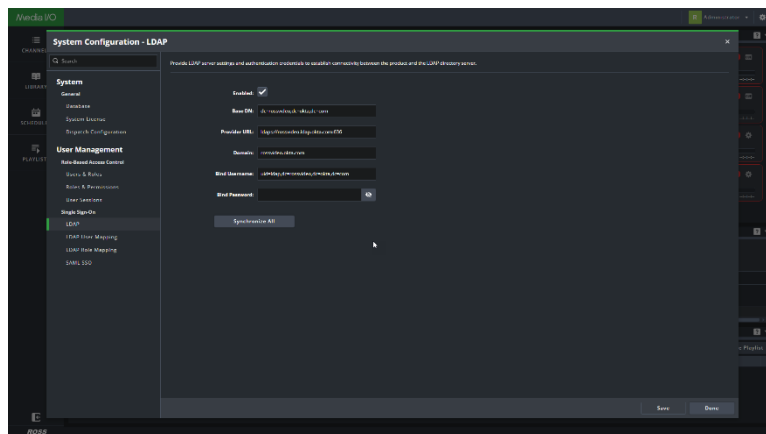


Figure 3.1 System Configuration - LDAP Dialog

1. Go to **System Configuration** and under **User Management > Single Sign-On**, select **LDAP**.
2. Fill in the following fields:
 - **Enabled** - Select this checkbox to enable syncing with your primary LDAP server.
 - **Base DN** - Enter your base domain name.
 - **Provider URL** - Enter your provider URL.
 - **Domain** - Enter your domain URL.
 - **Bind Username** - Enter your bind username.

- **Bind Password** - Enter your bind password. You can press the **Hide** button to view the password.
3. Select the **Synchronize All** button to apply your changes.

Setting Up LDAP User Mapping

To Set Up LDAP User Mapping

This procedure allows you to map LDAP users from the LDAP Directory Server.

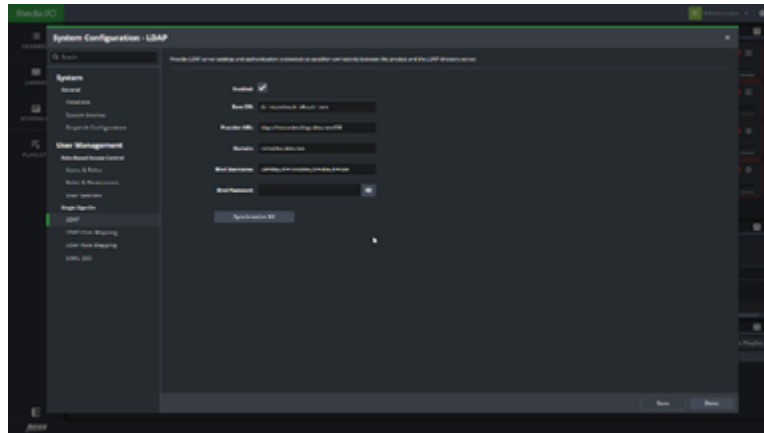


Figure 3.2 System Configuration - LDAP User Mapping' Dialog

1. Go to **System Configuration** and under **User Management > Single Sign-On**, select **LDAP User Mapping**.
2. Fill in the following fields:
 - **Password Caching** - Select this checkbox to cache passwords. *Recommended.
 - **User Search Filter** - Enter your user search filter. For example:
 - **Additional User DN** - Enter your additional user domain names.
 - **Username Attribute** - Enter your username attribute. For example, uid.
 - **First Name Attribute** - Enter your first name attribute. For example, givenName.
 - **Last Name Attribute** - Enter your last name attribute. For example, sn.
 - **Title Attribute** - Enter your title attribute.
 - **Department Attribute** - Enter your department attribute.
 - **Email Attribute** - Enter your email attribute.
 - **Mobile Attribute** - Enter your mobile attribute.
3. Select the **Synchronize All** button to apply your changes.

Setting up LDAP Role Mapping

To Set Up LDAP Role Mapping

This procedure allows you to import LDAP user roles and provide user role attributes from the LDAP Directory Server.

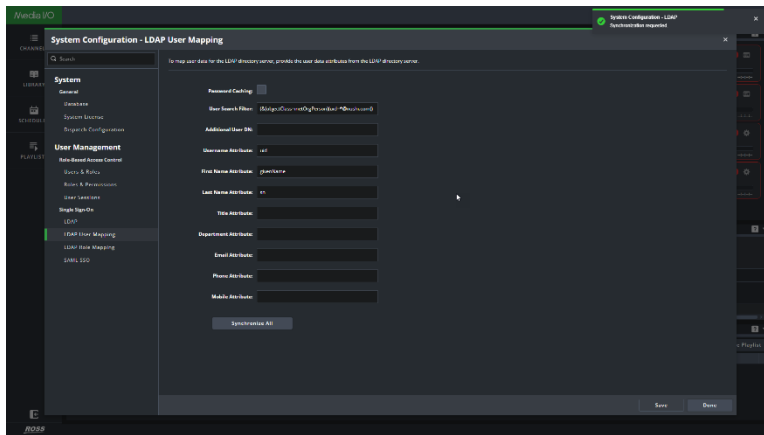


Figure 3.3 'System Configuration - LDAP Role Mapping' Dialog

1. Go to System Configuration and under **User Management > Single Sign-On**, select **LDAP Role Mapping**.
2. Fill in the following fields:
 - **Enabled** - select this checkbox if you wish to import LDAP user roles from an identity provider.
 - **Role Search Filter** - enter your role search filter. For example:
`(&(objectClass=inetOrgPerson)(uid=*@yourcompany.com))`
 - **Additional Group DN** - enter any additional group Domain Names.
 - **Name Attribute** - enter the LDAP Directory Server Name Attributes.
 - **Member Attribute** - enter the LDAP Directory Server Member Attributes.
3. Select the **Synchronize All** button to apply your changes.

To Set Up SAML Single-Sign ON (SSO)

This procedure allows you to configure SAML SSO. When enabled and properly configured, Security Assertion Markup Language (SAML) Single Sign-On (SSO) allows the application to act as a SAML Service Provider (SP). Users can automatically log in by authenticating with a SAML Identity Provider (IdP) like Microsoft Entra ID, Google Workspace or Okta. Some IdP's support and may have enabled Single Logout (SLO).

If LDAP is enabled, then users and roles will be imported for the configured LDAP server and users signing in with SAML SSO must match. If LDAP is not enabled, user account records will be created on first time sign in with SAML SSO.

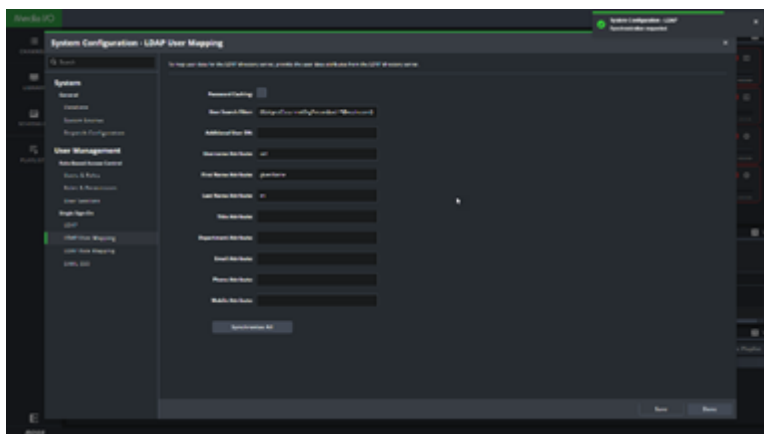


Figure 3.4 'System Configuration – SAML SSO' Dialog

1. Go to **System Configuration** and under **User Management > Single Sign-On**, select **SAML SSO**.
2. Fill in the following fields
 - **ACS URL** - enter your ACS URL. For example:
`http://10.10.10.9/common/rwp.saml/ssoConsume.do`
 - **Legend URL**- enter the legend URL.
 - **Enable SAML SSO** - select this checkbox to enable SAML SSO.
 - **Application ID** - enter the application ID. For example:
`http://ID.yourcompany.com/`
 - **IdP Metadata** - Expand this field and select your IdP metadata source type.
 - › If File is selected, you can then browse for the Idp metadata file.
 - › If URL is selected, you can then enter the URL.
 - **Enable Signature** - select this checkbox to enable a private key signature to be added.
 - **Private Key** - browse for the private key certificate. For example: `key.csv`.
3. Click **Save**.

Managing a Channel

This chapter discusses the following topics:

- Setting up a Channel
- Recording a Channel
- Viewing a Media Clip

Setting up a Channel

A channel card includes an input source and output destination for the recording. Each channel card can be configured in advance by your Media I/O administrator.

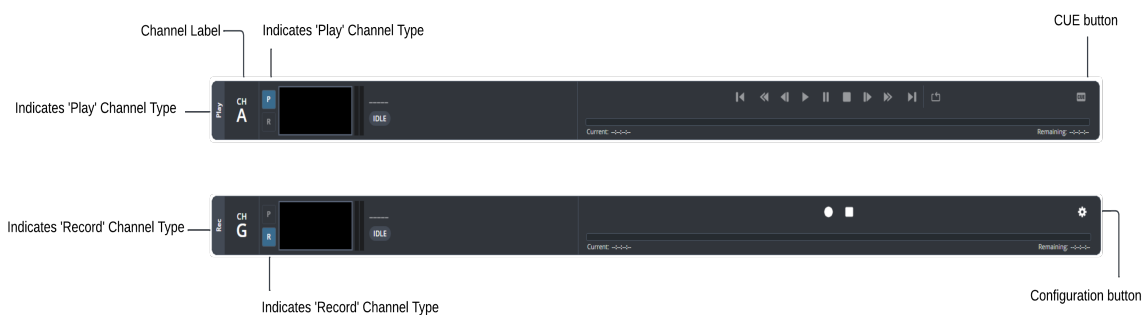
To Set up a Channel Card

- Please reach out to your Media I/O administrator to request the creation of a new channel card.

Recording a Channel

In the Channels panel, there are two types of channels: Recording and Payout. Use Recording channels for your ingest workflow, and Payout channels to cue your media clips for playback. You can check which type of channel it is by viewing the ‘P’ or ‘R’ icon. Your administrator may choose to label the channels ‘Play’ or ‘Record’ for reference, as shown in the example below.


Figure 4.1 Comparison of Payout vs. Recording Channels



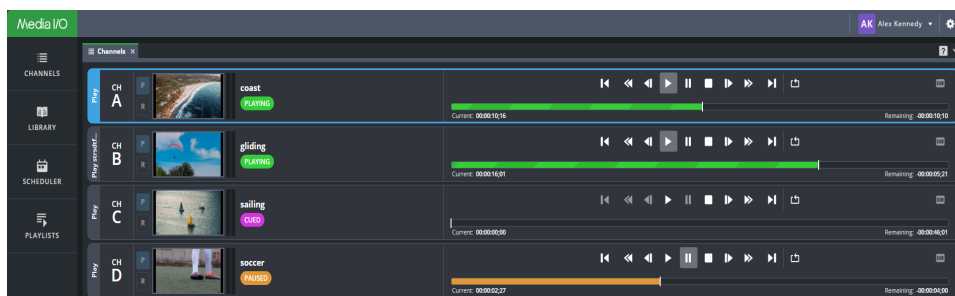
The default view of the Channels panel displays the four channel cards in alphabetic order. In this guide, the first four channels (A to D) are reserved for Payout, and the next four channels (E to H) are reserved for recording. Finished channel recordings may take up to 15seconds to display as a media clip in the Library panel.


★ **NOTE:** A note on terminology — channels recorded in the Channels panel are referred to as ‘manual recordings’ and can be distinguished from future ‘scheduled recordings’ in the Scheduler panel.

To Record a Channel

1. To open the Channels panel, go to the left side toolbar, and select the  **Channels** icon.

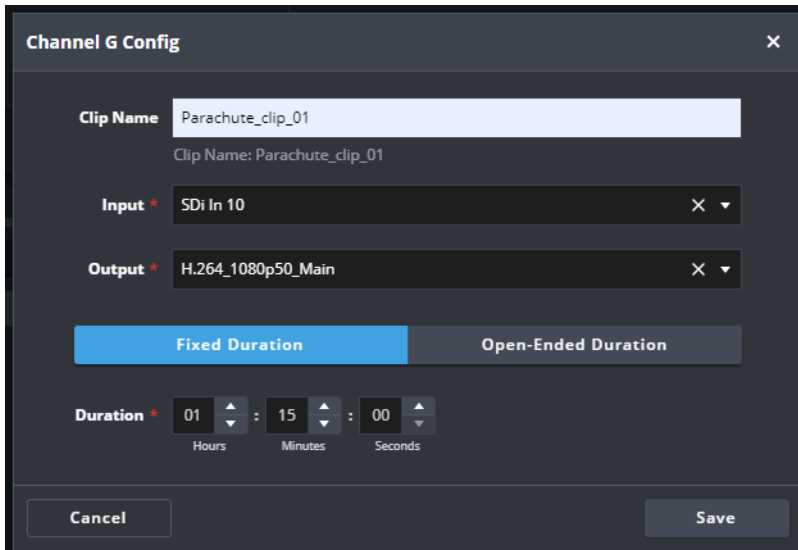
The Channels panel opens.



2. Navigate to a Recording Channel. (If necessary, use the < left or right > pager control arrows to navigate to the next page.)
3. Click the  **Configuration** icon to prepare your channel.


The *Schedule New Recording* dialog opens.

- Fill in the following fields (where a red asterisk indicates a required field):



- Clip Name** — Enter a meaningful name or a generic name will be used, such as *Record-ChannelE-2024.03.08-15.07.29*.
 - Input*** — Select one of the available input sources from the drop-down menu.
 - Output*** — Select one of the available output sources from the drop-down menu.
 - Fixed Duration** or **Open-Ended Duration** tab — Select your preferred option:
 - Select **Fixed Duration** if you wish to:
 - Duration*** — Set the duration of the recording using the up and down arrows for each field (Hours, Minutes, Seconds).
 - Select **Open-Ended Duration** if you wish to:
 - Duration*** — Set the recording duration to the maximum duration available: 23 hours.
- Click **Save**.



The media clip will appear in the Library panel after a 15 second delay.

- To confirm that your clip appears in the Library, go to the left Toolbar and open the  **Library** panel.

Viewing a Media Clip

The Library panel provides a list of media clips produced by manual and scheduled recordings. They are listed in order of most recently recorded to least, from top to bottom.

To cue a Media Clip

- Open both the  **Library** panel and the  **Channels** panel.
- In the **Channels** panel, if necessary you can use the pager control to navigate to a page with an available Playout-type channel. Look for the ‘P’ to indicate a Playout type channel, and an IDLE label.
- In the **Library** panel, select a media clip and drag it into the channel of your choice. Clips are selected using the far left column cell.

4. While the media clip you wish to cue is still selected in the Library panel, you can select the **CUE** button on the channel card of the channel.

The cued clip opens in the media player in the **Channels** panel.

Alternative method: You can also select the channel of your choice from the **Library** panel directly.

To Playback a Media Clip

1. Now that you've cued the media clip in the previous step, use the Playback Controls in the Channels panel to view the media clip.
2. You can use the controls to move the playhead manually, or fast-forward or rewind at X2, X5 and X10 speed.

Using the Scheduler

This chapter discusses the following topic:

- Scheduling a Recording


Scheduling a Recording

The Scheduler panel allows you to create a schedule for upcoming ingest recordings.

You can also schedule recurring events for events that occur on a regular basis. Recordings can be set to occur at regular intervals—hourly, daily, or weekly—without the need to manually set each event. This simplifies the management of any recurring meetings, such as daily meetings, weekly broadcasts or hourly updates. You can ensure consistent schedules, reduce the risk of missing important events, and streamline your workflow.

★ **IMPORTANT:** Scheduled recordings will always take priority over manual recordings, so it is necessary to reschedule or cancel a scheduled recordings if you do not want a manual recording that you scheduled with a conflict to be stopped before the scheduled recording begins.

To Schedule a New Recording

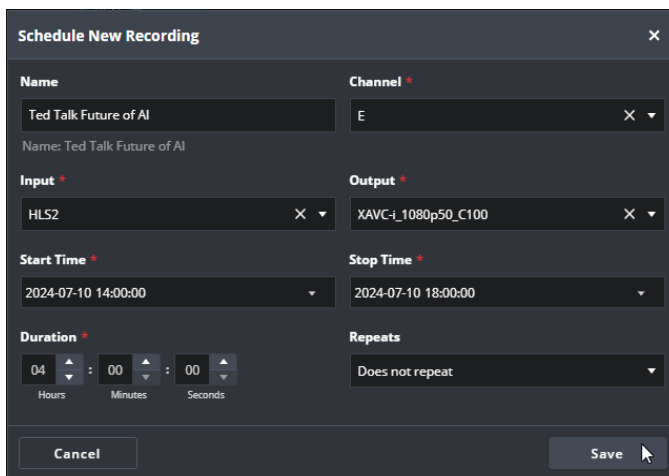
1. Click  **Scheduler** to open the Scheduler panel.

The Scheduler opens in the user interface.

2. To start a new recording, click  **Schedule New Recording**.

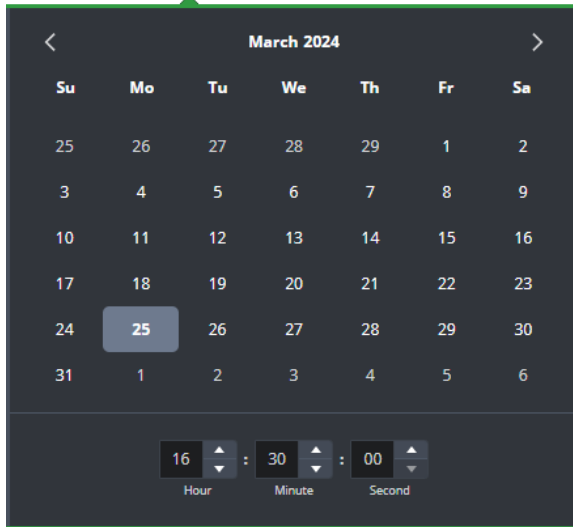
★ **TIP:** Alternatively, double-click on an open time slot in the Scheduler's Calendar view to schedule a new recording at that time.

The Schedule a New Recording dialog opens.



3. Fill in the following fields:
 - › **Name** — Optionally enter a name for the new Recording. If a name is not specified, a name will be assigned based on the Channel ID, date and time. For example, **Record-ChannelE-2024.03.25-16.10.31**.
 - › **Channel*** — Select a channel from the drop-down menu.
 - › **Input*** — Select an input source from the drop-down menu.
 - › **Output*** — Select an output source from the drop-down menu.

- › **Start Time*** — Select your preferred start day and time from the drop-down Calendar widget.



- › **Stop Time*** — Select your preferred end day and time from the drop-down Calendar widget.
 - › **Duration*** — Modify the duration of the recording here. Any changes made will automatically re-adjust the **Start Time** and **Stop Time**.
 - › **Repeats** — Set this field if you want to schedule a recurring event series.
For more information, see: “**To Schedule a Recording Series**”.
4. Select **Save**.
The scheduled events will appear in the Scheduler view.
 5. Confirm that the scheduled event appears in your Scheduler view. You may need to skip to the date your event is scheduled on, and scroll to the right or left to the specified time.

To Schedule a Recording Series

1. To schedule a recording, click  **Scheduler** to open the Scheduler panel

The Scheduler opens.

2. To start a new recording, click  **Schedule New Recording**.

★ **TIP:** Alternatively, double-click on an open time slot in the Scheduler’s Calendar view to schedule a new recording at that time.

The Schedule New Recording dialog opens.

3. Fill in the following fields:

- **Name** — Optionally enter a name for the new Recording. If a name is not specified, a name will be assigned based on the Channel ID, date and time. For example, **Record-ChannelE-2024.03.25-16.10.31**.
- **Channel*** — Select a channel from the drop-down menu.
- **Input*** — Select an input source from the drop-down menu.
- **Output*** — Select an output source from the drop-down menu.
- **Start Time*** — Select your preferred start day and time from the drop-down Calendar widget.

- **Stop Time*** — Select your preferred end day and time from the drop-down Calendar widget.
- **Duration*** — Modify the duration of the recording here. Any changes made will automatically re-adjust the **Start Time** and **Stop Time**.
- **Repeats*** — Select this field if you wish to create a series.
Under **Recurrence**, set the following:

- › **Days Recurring*** — Select the days that the event recurs on.
- › **Recurrence Ends On*** — Select the end date of the event series.
- › **Recurs Every** — Select how often the event recurs (in weeks). For example, you could set 1 Week (for weekly), or 2 Weeks (for biweekly).


The meeting details are listed under the Recurrence area.

4. Select **Save**.

The scheduled event will appear in the Scheduler view.

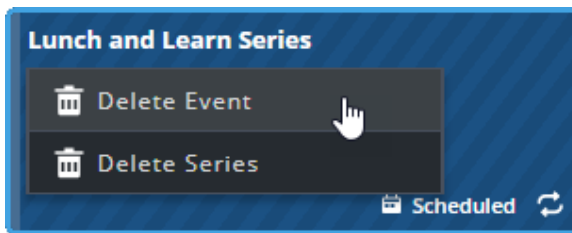
5. Confirm that the scheduled event series appears in your Scheduler view. You may need to skip to the date your event is scheduled on, and scroll to the right or left to the specified time.

To Cancel a Scheduled Recording


1. Click  **Scheduler** to open the Scheduler panel.

The Scheduler opens in the lower quadrant of the user interface.

2. Right-click and select **Cancel** to remove an event or event series from the schedule.



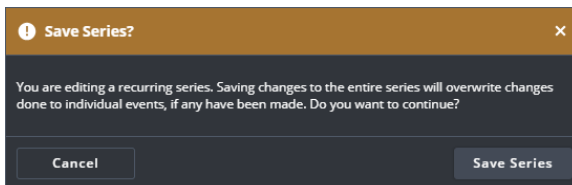
To Edit a Scheduled Recording or Series

1. Click  **Scheduler** to open the Scheduler panel.

The Scheduler opens in the lower quadrant of the user interface.


2. Double-click to edit the scheduled event or event series that you wish to modify.
3. Make your desired changes and click **Save**.

A confirmation notification will appear if you are modifying a series.



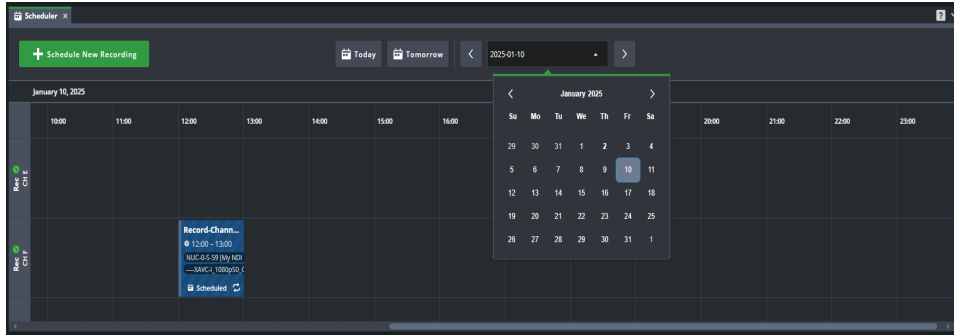
4. If required, click **Save Series**.
5. Verify that your scheduled recording modifications appears correctly in the Scheduler.

To View the Recording Schedule

1. Click  **Scheduler** to open the Scheduler panel.

The Scheduler opens in the lower quadrant of the user interface.

2. Click  **Today** or  **Tomorrow**, or click the  drop-down icon next to the date field to open the calendar widget.



3. Mouse over scheduled events to expand the event information.

Managing a Playlist

Playlists allow you to easily organize a collection of media assets and schedule them for playout, without affecting on-air schedules. In this chapter, you will learn how to use the Playlist Manager to create and delete playlists. You will also become familiar with using the Playlist Viewer to edit your playlist content, and then add your final playlist to a channel.

This chapter discusses the following topics:

- Creating or Deleting a Playlist
- Editing a Playlist
- Adding a Playlist to a Channel

Creating or Deleting a Playlist

You can create or delete playlists in the Playlist Manager panel. Newly created playlists can be opened into a Playlist view, as shown in the image below.

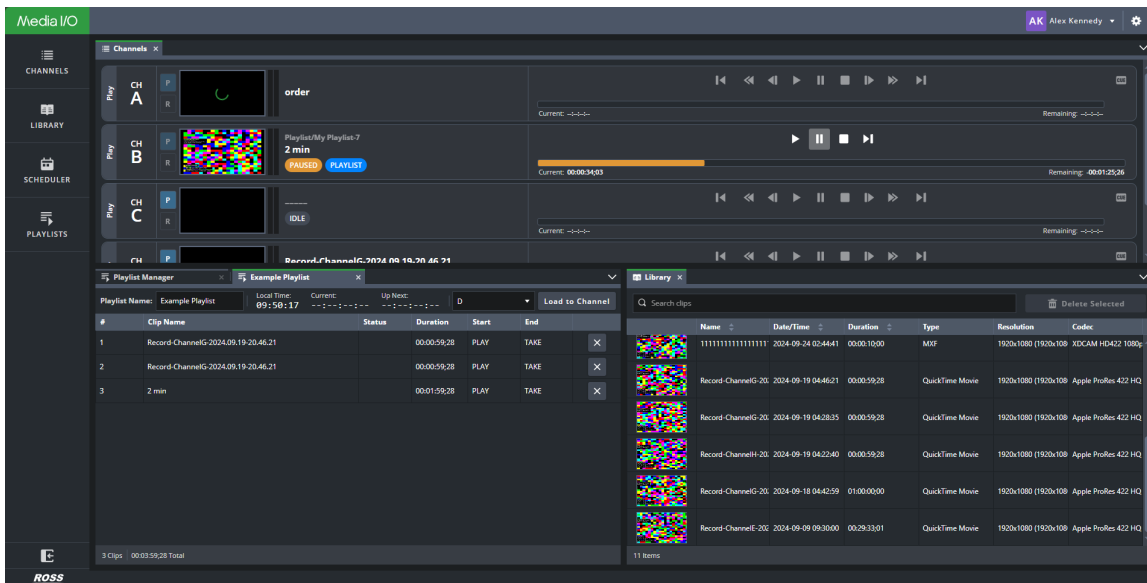

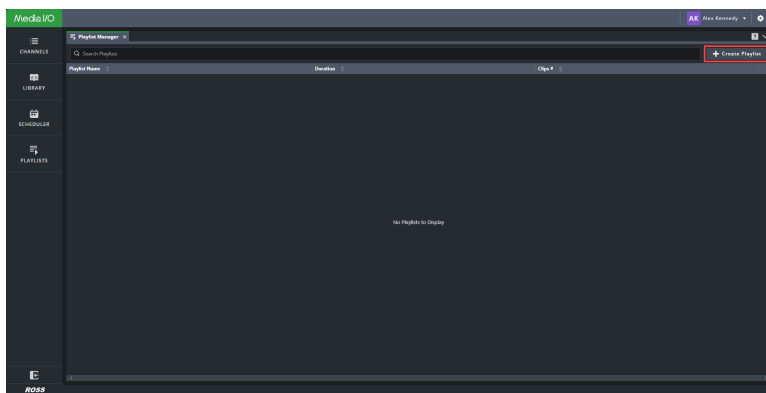


Figure 1.1 Displays the Channels Panel (top), the Playlist Viewer (bottom left), and the Media Library (bottom right).

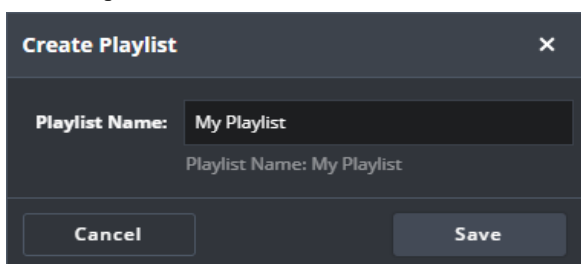
To create a playlist

1. From the left side menu, select the  **Playlists** button.
The Playlist Manager panel opens.
2. Select **Create Playlist**.



3. Enter a name in the **Playlist Name** box, and then click **Save**.

★ **NOTE:** If a name is not entered, then a default name will be selected.
For example, **Playlist-2025.01.17-10.12.26**.




The playlist is added to the list of playlists in the **Playlist Manager**. You can see a summary of useful playlist information in the table columns; where each playlist's name, duration, and number of clips are shown.


★ **NOTE:**

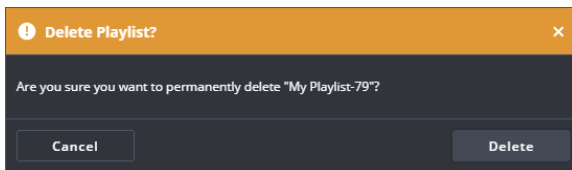
If you try to create a playlist with the same name as an existing playlist, a -1 suffix is added to prevent duplicate names. The number in the suffix will increase each time another playlist is created with the same name as the original.

To delete a playlist

1. From the left side menu, select the  **Playlists** button.

The Playlist Manager panel opens.

2. In the **Playlist Manager**, select the desired playlist and click the  **Delete** button. A prompt will open to confirm that the playlist will be permanently deleted.



3. If you wish to proceed, click the **Delete** button.

★ **NOTE:**

Playlists that are on-air cannot be deleted.

Editing a Playlist

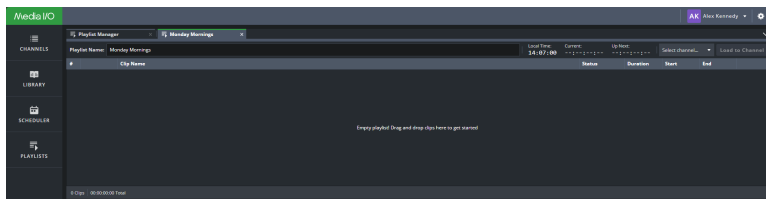
The Playlist Viewer enables you to add clips to playlists and edit the playlists' details. When loaded to a channel, you will have access to its Playout Controls.

To edit a playlist name

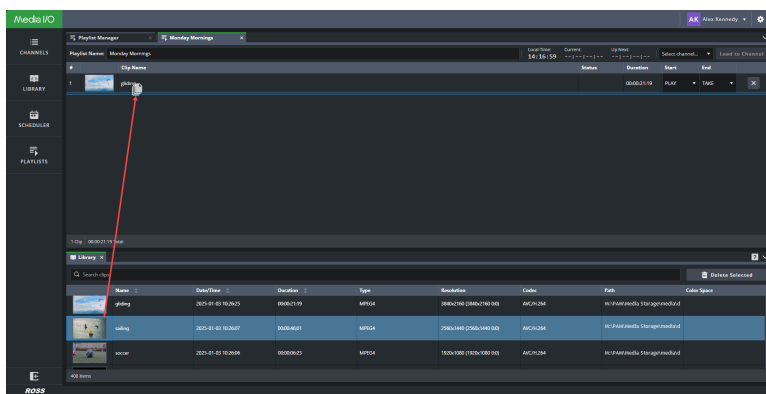
1. Double-click the desired playlist to open the **Playlist Viewer**.
2. Select the **Playlist Name** field to enter a new name.

To add media from the Library to a playlist

1. Open the **Library**.
2. Drag-and-drop clips from the **Library** into the **Empty playlist!** area.



3. If there is already a clip in the playlist, drop the clips when the bottom of an existing clip is highlighted in blue.




★ **NOTE:** Multiple clips can be selected and then dragged into the playlist at once. The number of clips in a playlist, as well as their total duration, will be displayed on the top-right corner of the **Playlist Viewer**.

To move clips into a new position in a playlist

1. In the **Playlist Manager**, click and drag the desired clip.
2. Possible positions for the clip are indicated by a blue highlight beneath other clips. Release the mouse button to place the clip.

To delete clips in a playlist


1. In the **Playlist Manager**, navigate to the desired clip.
2. Select the  **Delete** button. A confirmation dialogue opens. Select **Remove** to delete the clip. Select **Cancel** to keep the clip in the playlist. If the clip is playing or cued, it can't be removed from the playlist.

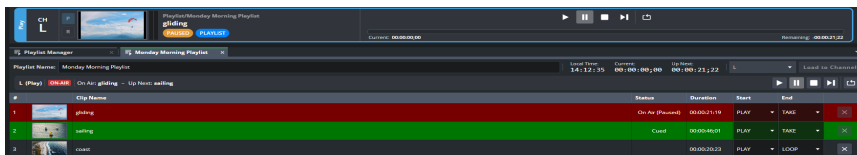
To search for a playlist

1. Open the **Playlist Manager**.
2. In the **Search Playlists** text field, enter the name of the desired playlist.


Adding a Playlist to a Channel

To load a playlist onto a channel


1. Navigate to the Playlist Viewer.
2. In the **Select channel...** box, select or enter the letter associated with the channel the playlist needs to play on.
3. Select the **Load to Channel** button. The playlist is loaded onto the channel in a  **Paused** state with a red highlight, and the next cued clip is highlighted in green.



To play a playlist

1. After loading the playlist onto a channel, select the  **Play** button in the **Playlist Viewer** or on the appropriate channel. The playlist plays on the selected channel. The status will change from **On-Air (Paused)** to **On-Air**.

To skip to the next clip in a playlist



1. Ensure the playlist is playing on a channel.
2. In the **Playlist Viewer** or on the appropriate **Channel card**, select the  **Play Next Clip** button.

To cue a clip for payout

1. Ensure that the playlist is loaded to the desired channel.
2. Double-click the desired clip in the playlist. The clip is highlighted in green and plays after the current clip has finished.



To set a clip payout action

You can set an action that will be triggered when a clip starts playing or ends playing. From the **Start** dropdown actions you can select **Play**, or **Pause**. From the **End** dropdown actions you can select **Take**, **Pause**, **Black** or **Loop**.

1. While viewing a playlist, select the  arrow button below the **Start** or **End** columns.
2. Select the action that you wish to apply when the clip starts or ends. These options can be changed while the playlist is playing.
 - › **Start:** The **Play** option plays the clip. The **Pause** option pauses the playlist until the user presses the  **Play** button again.


- › **End:** The **Take** option begins playout of the next clip in the playlist when the current clip ends. The **Pause** option pauses at the last frame of the clip. The **Back** option ends the clip with a black frame. The **Loop** option loops the individual clip.

To loop a playlist


1. Ensure that the desired channel is selected in the individual playlist (**Playlist Viewer**).
2. Select the  **Loop** button.
The playlist will now play on repeat in the selected channel.
3. Confirm that the  **Loop** button is blue, indicating that it is successfully enabled.

★ **NOTE:** Looping is unavailable if there is only one clip in the playlist, or if the playlist is empty.

To turn off looping

1. Navigate to the **Playlist Viewer** for a playlist that is looping.
2. Select the  **Loop** button to disable looping.
3. Confirm that the button is greyed out.

To stop a playlist

1. Navigate to the **Playlist Manager** and open the playlist that is currently on-air. Alternatively, navigate to the appropriate **Channel card**.
2. In the **Playlist Manager** or on the **Channel card**, select the  **Stop** button.
The playlist is removed from the channel, and the channel is freed for use again.