MAGEWELL®

Director Utility

User Manual, Reference and FAQs

iOS: 3.2 *Android: 3.2* *Date: 12.4.2025*

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Overview

The Director Utility App is an auxiliary application that works with Magewell Director devices for extended controls.
Its "Remote Assistant" function can easily control the Director device remotely, performing scene control, audio control, stream control, etc.
Meanwhile, through the "Phone Camera" function, it can turn your phone as a webcam to input to the Director device, or stream to a destination via SRT.
The 'External Screen' feature is designed for tablets equipped with a USB-C port (USB 3.0 or higher). By using this feature, the tablet can be transformed into an external screen, enabling more convenient viewing and control of the Director device.

Install the App

Please search for **Director Utility** in the app store to download and install the App.
The App supports iOS 13 and later and Android 7.0 and later.

Supported Director Device

- Director Mini
- Director One

What's New

iOS: 3.2, Android: 3.2

- **Remote Assistant**
  - When you connect the device, you can manually add the device IP address.
  - Create scene is now supported.
  - Edit scene is added, enabling you to edit the properties of the WEBCAM, phone camera or network stream source in the scene.
  - Tennis scoreboard is now supported, and you can control it on the mobile device.
  - In the Replay page, you can download events in batch; when replaying multiple events, you can select the replay order.
  - The Shortcut page is upgraded to better supports the MiraBox Stream Dock MBox 293 to share the icons and layout, with no need of assigning key binds, enabling easy creation and control.
  - Facebook Live supports streaming to business pages and supports selecting different audience.
  - You can stream to 4 destinations at the same time.
- **Phone Camera**
  - When you connect the device, you can manually add the device IP address.
  - You can lock the portrait or landscape mode when controlling the phone camera.
  - You can select codec (H.264 or H.265) when setting the encoding parameters for streaming via SRT.

iOS: 3.1, Android: 3.1

- **External Screen**
  - External Screen feature is added for tablet with a USB 3.0 Type-C port, supporting displaying different content of the Director device and taking records and screenshots to local storage of the tablet.
- **Remote Assistant**

- When using stingers as scene switch transition effect, you can enable Chromakey and set the similarity, smoothness and spill. And you can enable audio and adjust audio volume.
- You can control the video playback via a video progress bar.
- You can control the playback of a picture/video slide show on the thumbnail.
- You can control the private GFX via the long-press scene menu, including private scoreboard, timer, and stopwatch.
- You can control the phone camera with more advanced options, such as ISO, WB, and Exposure.
- You can add SRT Listener and RTSP server for live streaming.
- You can add paragraphs for the description of YouTube server, and edit the title and description when starting a new created stream.
- With the Replay function upgraded, it supports adding tags, rating, filtering events per different condition, starting loop replay with multiple events, etc. And you can select different replay mode when starting a dual-camera quick replay or single event replay, to customize the playback order and layout.

- **Phone Camera**
  - You can record the shooting image to the album of your mobile device when using the Phone Camera.

User manual updating with Director One released in March 2025

- Add Director One (firmware version: 3.0) to Director family.

iOS: 3.0, Android: 3.0

- **Show PGM Image**

  You can expand the program image to view on your phone during controlling scenes, GFXs and replay.
- **More Scene Transition Effects**

  It provides more scene transition effects, including DIP, Wipe, DVE, Stinger and 3D.
- **Soccer Scoreboard**

  It supports displaying and controlling soccer scoreboard.
- **New Album Page**

The new album page supports displaying recordings, replay events and screenshot files separately, and also supports enabling recording and taking screenshots.

- **Add Shortcuts**
  You can add shortcuts via the app and control and manage them easily.
- **Control Replay and Share Events**
  You can implement quick replay and event replay as well as control the replay on your phone, and you can share your events to other apps.
- **Improved Phone Camera Interaction**
  The app provides more setting options, such as ISO and white balance, to make the phone camera more professional. And it supports selecting the USB camera connected to the iPad with a USB-C port (iOS 17 and above).

iOS: 2.4.2, Android: 2.4.17

- **Audio Input from Webpage GFX**
  When you apply a webpage GFX in a show, the audio from the webpage can be used as an audio input.

iOS: 2.4.0, Android: 2.4.9

- **New Switch Mode**
  It supports setting FTB duration separately and selecting Cut or Fade effect when quick switch is off.
- **Control OBSBOT Webcam**
  You can control OBSBOT webcams, enable AI human tracking, and record videos.
- **Show Live Comment**
  You can select one live comment as a overlay inside the video feed when streaming to social media.
- **Set global or scene-based microphone audio**
  You can set MIC, Bluetooth and USB audio globally or for each scene.
- **AE/AF Lock**
  You can tap and hold a part on the screen of phone camera to enable AE/AF lock.

iOS: 2.3.0, Android: 2.3.23

- **View Input Information**

  You can view the information of each input source.

- **Control Phone Camera**

  You can control phone camera remotely via the Remote Assistant.

- **Control Baseball Scoreboard**

  You can control the baseball scoreboard remotely.

- **Execute Shortcuts Functions**

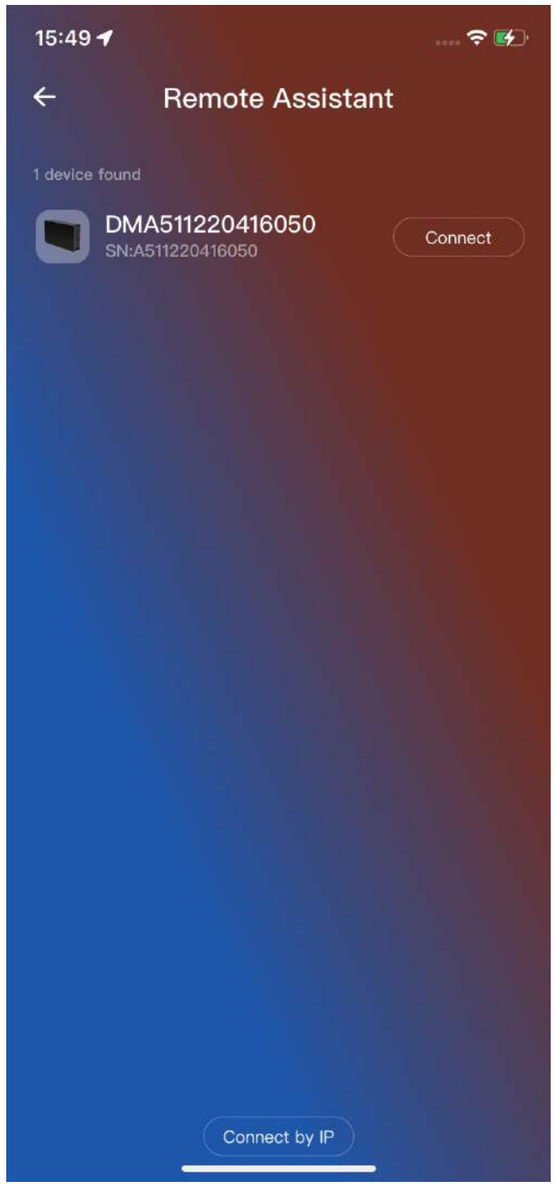
  You can tap shortcuts to execute relative functions.

- **Enhance stream settings**

  When you set stream servers, more parameter options help you enhance the live streaming experience, such as setting network priority, setting Ingestion Protocol for YouTube, and supporting RTMPS for RTMP.

Remote Assistant

Remote Assistant enables you conveniently control the Director device remotely.



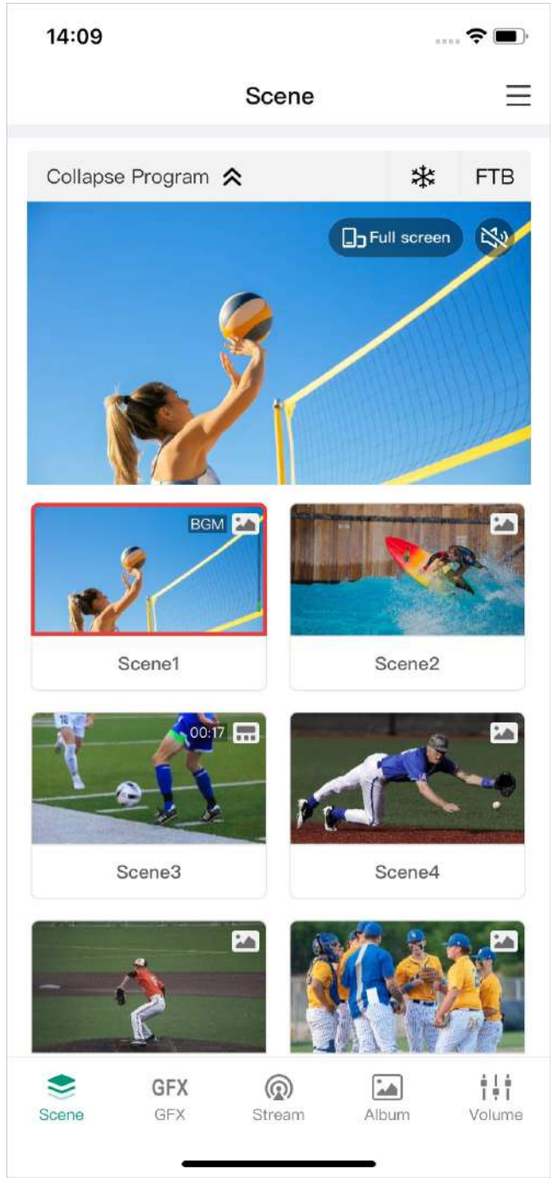
Connect the Device

1. Ensure your mobile device and Director device are in the same network.
2. Open the Director Utility App and tap **Remote Assistant**.
3. Select a Director device in the list and tap **Connect**.
   If the Director device enables password for Remote Assistant, enter the password on the popup.
4. To return the device list, tap ☰ at the upper right corner, and select **Disconnect**.

When the mobile device and the Director device are not on the same network but the networks are interconnected, the Director Utility cannot discover the device directly. You can connect them via the following method:

1. Open the Director Utility App and tap **Remote Assistant**.
2. Tap **Connect by IP** at the bottom.
3. Enter the IP address of the Director device.
4. If the device enables password for security, enter the password.
5. Tap **Connect**.

> The 'History Devices' list displays all previously connected Director devices. You can select an IP address to connect.



Control Scene

Tap **Scene** at the bottom, to open the scene list, which displays the thumbnails and names of all the scenes of the current show.

View Program Image

You can expand the program image on the Scene, GFX and Replay page.

1. Tap **Expand Program** on the top to view the program image.
2. Tap **Full screen** to go full screen mode, and tap to exit.
   Double-tap on the screen to switch between two effects: one where the image is scaled proportionally to fit the screen with some blank space (margins), and another where the image is scaled proportionally to fill the screen, potentially cropping the edges.
3. Tap the audio control button to set whether to play the sound on your mobile device. indicates the sound is muted, and indicates the sound is unmuted.
4. Tap **Collapse Program** to close the program image.

Freeze Scene

You can freeze dynamic images while streaming or recording on the Scene, GFX and Replay page .

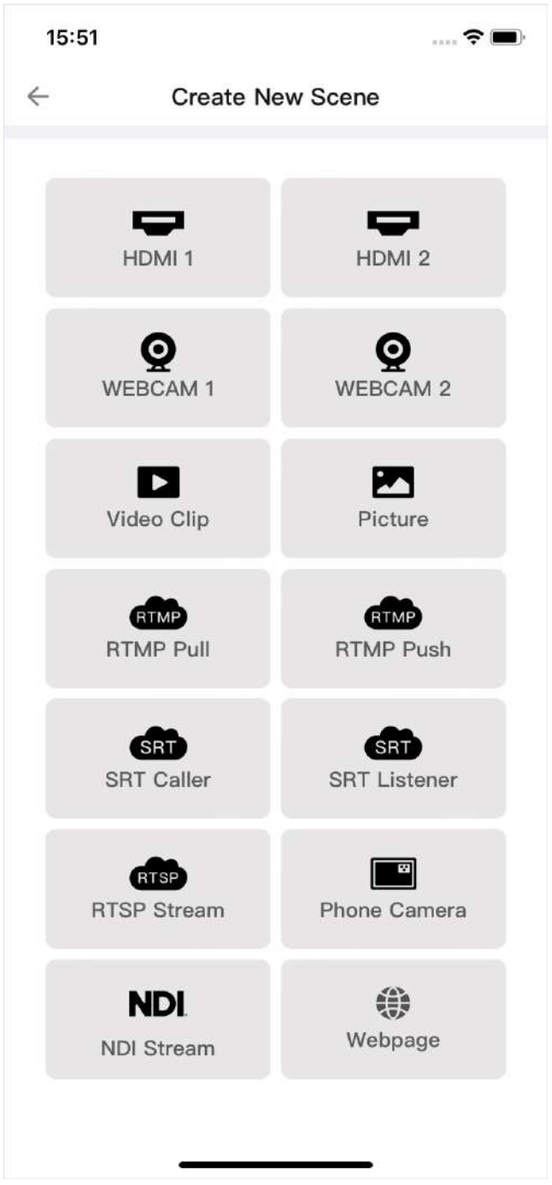
- Tap at the upper right corner to freeze the scene.
- Tap at the upper right corner to unfreeze.

Enable FTB

The FTB (Fade to Black) function allows your screen to fade into a silent black screen or a specified image. You can enable or disable FTB on the Scene, GFX and Replay page.

- Tap **FTB** at the upper right corner. Your audio/video output will be stopped.

- To continue your show, tap **FTB** again. You show will go back to the screen and continue.



Create Scene

1. Tap the **Add** button.
2. Select a source in the **Create New Scene** window to add.

   - **HDMI**

     A high-quality external signal from a professional camera, computer, game console, etc. Up to 4K signal input is supported.

   - **WEBCAM**

     A high-quality external signal from a USB device, such as webcam. Up to 1080p60 signal input is supported. For details, refer to Add WEBCAM.

   - **Video Clip**

     Select a video file from the media, which can be up to 4K, encoded in H.264, and in MOV, MP4, WebM or MKV format.

     > You can tap **Upload** to add more files into the media library. If you upload a MOV file in ProRes 4444 format, it will be automatically converted to the WebM format to enhance performance.

   - **Picture**

     Select picture file the media, which can be JPG, PNG or BMP.

     > You can tap **Upload** to add more files into the media.

   - **RTMP Pull**

     A streaming source pulled via RTMP from a third-party server. Please refer to Add RTMP

Pull.

- **RTMP Push**

  A streaming source pushed to the Director device via RTMP. Please refer to Add RTMP Push.

- **SRT Caller/Listener**

  A streaming source supporting SRT protocol.

  Please refer to Add SRT Caller/Listener.

- **RTSP**

  A streaming source pulled via RTSP. Please refer to Add RTSP Stream.

- **Phone Camera**

  A camera signal from the phone installed with the Director Utility App. You can Add Phone Camera at first, and then use your phone to connect the device.

- **NDI Stream**

  A streaming source pulled via NDI® HX2, NDI® HX3 or NDI High Bandwidth. Please refer to Add NDI Stream. It supports H.264 and H.265 codec.

- **Webpage**

  The content of a webpage. Please refer to Add Webpage.

3. Repeat the above steps to create more scenes.

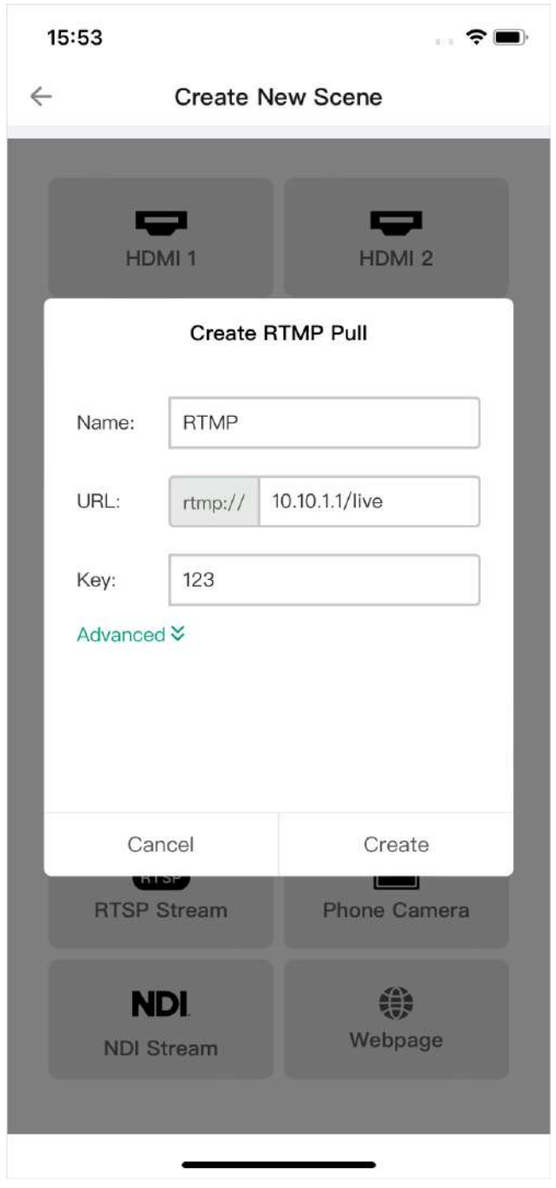
Notice:

- **In the same show**, you can create up to 3 streams, including up to 3 NDI ® streams.
- **In the same show**, you can create up to 3 Phone Cameras.

Add WEBCAM

1. Tap the **Add** button in the Scene tab.
2. Select **WEBCAM 1** or **WEBCAM 2** in the **Create New Scene** window.
3. Bind a webcam device to WEBCAM 1 or WEBCAM 2 according to the following situations.
   - If one USB device is connected, choose **WEBCAM 1**, then the device will be bound with WEBCAM 1 automatically. When you add **WEBCAM 2**, no-signal screen will be displayed, vice versa.
   - If two or more USB devices are connected, when adding **WEBCAM 1** or **WEBCAM 2**, please select a device on the popup to bind.

You can refer to Edit Scene to select or change the USB device bound to WEBCAM 1 or WEBCAM 2 as well set the WEBCAM's properties.



Add RTMP Pull

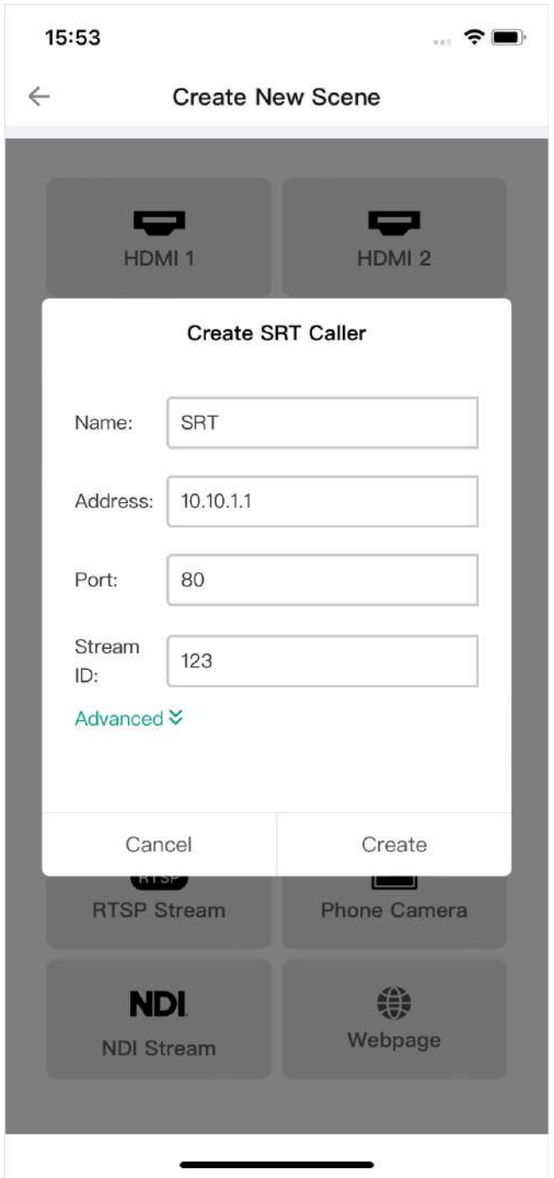
1. Tap the **Add** button in the Scene tab.
2. Tap RTMP **Pull** in the **Create New Scene** window.
3. Enter the following information.
   - **Name**: Specify an alias name for your convenience of multi-item management.
   - **URL**: Enter the RTMP URL of the RTMP server. To add a video stream from a live platform, you can get the RTMP URL from the platform.
   - **Key**: Enter the key set on the RTMP server.
4. (Optional) Tap **Advanced** to set the following parameters.
   - **Buffer duration**: It ranges from 20ms to 8000ms, and the default value is 60ms. You can set a short duration when low latency matters.
   - **Authentication**: If the RTMP sender requires authentication, toggle on **Authentication** and enter **Username** and **Password** provided by the RTMP sender.
5. Tap **Create**.
6. To add more RTMP streams, repeat step 1 and 2, tap **Create Stream**, and operate as step 3 to 5 to finish creation.
7. After a stream is added, its URL is recorded in the show. You can select an existing URL when you create a new scene.
8. To edit a stream, please refer to Edit Scene, or you can repeat step 1 and 2 and then tap to make changes.
9. To delete a stream URL, you can delete all the scenes containing this stream, or delete the stream source in all the relative scenes on the device.

Add RTMP Push

As is to send RTMP streams to the Director device, the IP address of Director device is the destination.

1. Tap the **Add** button in the Scene tab.
2. Tap **RTMP Push** in the **Create New Scene** window.
3. Enter the following information, and tap **Create**.
   - **Name**: Specify an alias name for your convenience of multi-item management.
   - **Key**: Specify a stream key.
   - **Buffer duration**: It ranges from 20ms to 8000ms, and the default value is 60ms. You can set a short duration when low latency matters.

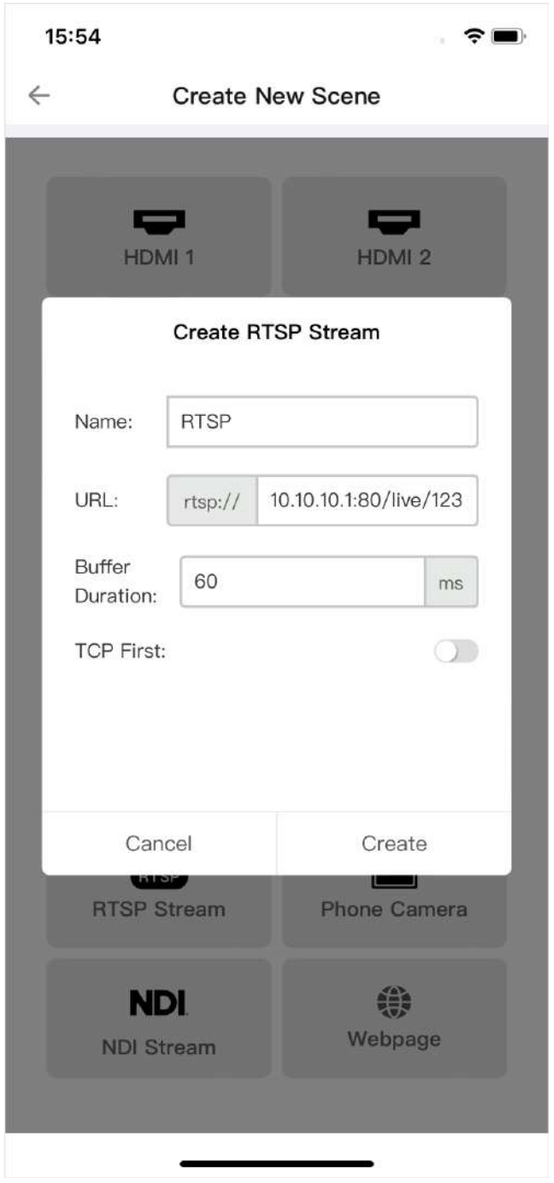
   A stream address is automatically generated at the bottom of the window, including an Ethernet address and/or a wireless network address. The sender should use this address as the destination address.
4. To add more RTMP streams, repeat step 1 and 2, tap **Create Stream** to finish creation.
5. After a stream is added, its URL is recorded in the show. You can select an existing URL when you create a new scene.
6. To edit a stream, please refer to Edit Scene, or you can repeat step 1 and 2 and then tap to make changes.
7. To delete a stream URL, you can delete all the scenes containing this stream, or delete the stream source in all the relative scenes on the device.



Add SRT Caller/Listener

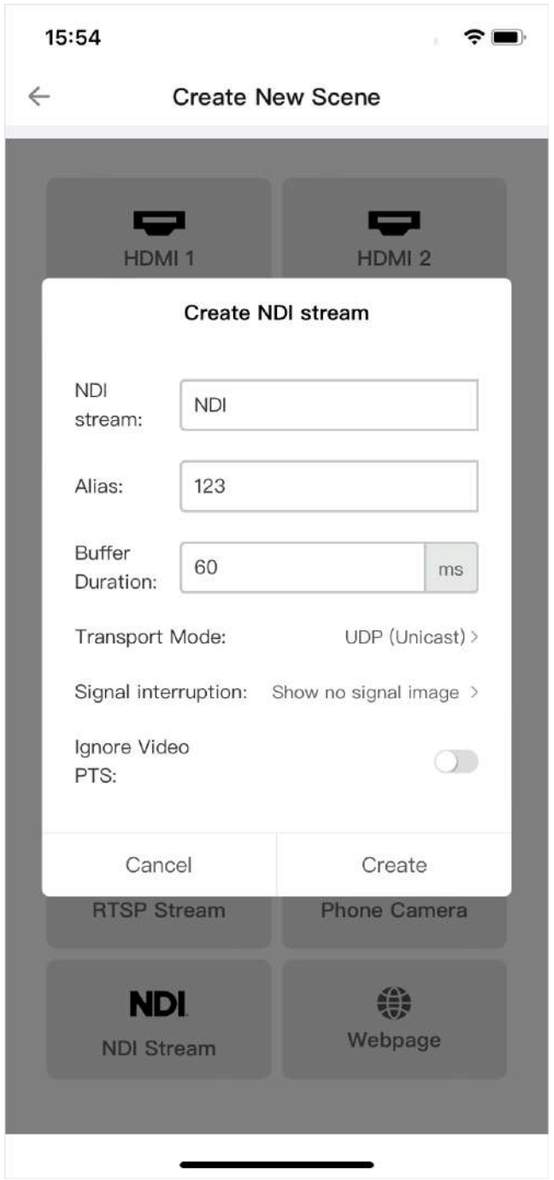
1. Tap the **Add** button in the Scene tab.
2. Tap SRT **Caller** or SRT **Listener** in the **Create New Scene** window.
3. Enter the following information.
   - **Name**: Specify an alias name for your convenience of multi-item management.
   - **Address**: Available for SRT Caller. If the SRT listener and caller are on the same LAN, enter the private IP address of the SRT listener on the LAN. If the SRT listener and caller are in different network environments, enter the public IP address of the SRT listener.
   - **Port**: Enter the port of the source. It ranges from 1 to 65535.
   - **Stream ID**: Available for SRT Caller. Enter the stream ID of the listener, which can contain 0 to 256 characters. You can leave it empty if the listener has no stream ID.
4. (Optional) Tap **Advanced** to set the following parameters.
   - **Latency**: Enter a number between 20 to 8000. The default value is 120. It is recommended that the latency is configured the same as that of the source.
   - **Buffer duration**: The value ranges from 20ms to 8000ms. The default value is 60ms. You can set a short duration when low latency matters.
   - **Encrypted**: If the stream from the source is encrypted, toggle on **Encrypted**, select the encryption mode, which can be AES 128, AES 192 or AES 256, and then enter the **Passphrase**.
5. Tap **Create**.
6. To add more SRT streams, repeat step 1 and 2, tap **Create Stream**, and operate as step 3 to 5 to finish creation.
7. After a stream is added, its URL is recorded in the show. You can select an existing URL when you create a new scene.

8. To edit a stream, please refer to Edit Scene, or you can repeat step 1 and 2 and then tap to make changes.
9. To delete a stream URL, you can delete all the scenes containing this stream, or delete the stream source in all the relative scenes on the device.



Add RTSP Stream

1. Tap the **Add** button in the Scene tab.
2. Tap **RTSP Stream** in the **Create New Scene** window.
3. Enter the following information.
   - **Name**: Specify an alias name for your convenience of multi-item management.
   - **URL**: Enter the RTSP URL. The URL syntax is rtsp://[username:password@]IP-address:port/path, where "username:password@" is optional which is required only if the streaming server demands authentication, "IP-address" is the IP address of the streaming server, "port" is the port number of the streaming server, and "path" is the path on the server that identifies the media resource.
   - **Buffer duration**: The value ranges from 20ms to 8000ms. The default value is 60ms. You can set a short duration when low latency matters.
   - **TCP first**: It is disabled by default, which means that the device will attempt to establish a connection with the RTSP server using the UDP protocol first. If it fails, it will then switch to TCP. When it is enabled, the device will first attempt to use TCP for communication. If it fails, it will then try to use UDP instead.
4. Tap **Create**.
5. To add more RTSP streams, repeat step 1 and 2, tap **Create Stream** to finish creation.
6. After a stream is added, its URL is recorded in the show. You can select an existing URL when you create a new scene.
7. To edit a stream, please refer to Edit Scene, or you can repeat step 1 and 2 and then tap to make changes.
8. To delete a stream URL, you can delete all the scenes containing this stream, or delete the stream source in all the relative scenes on the device.

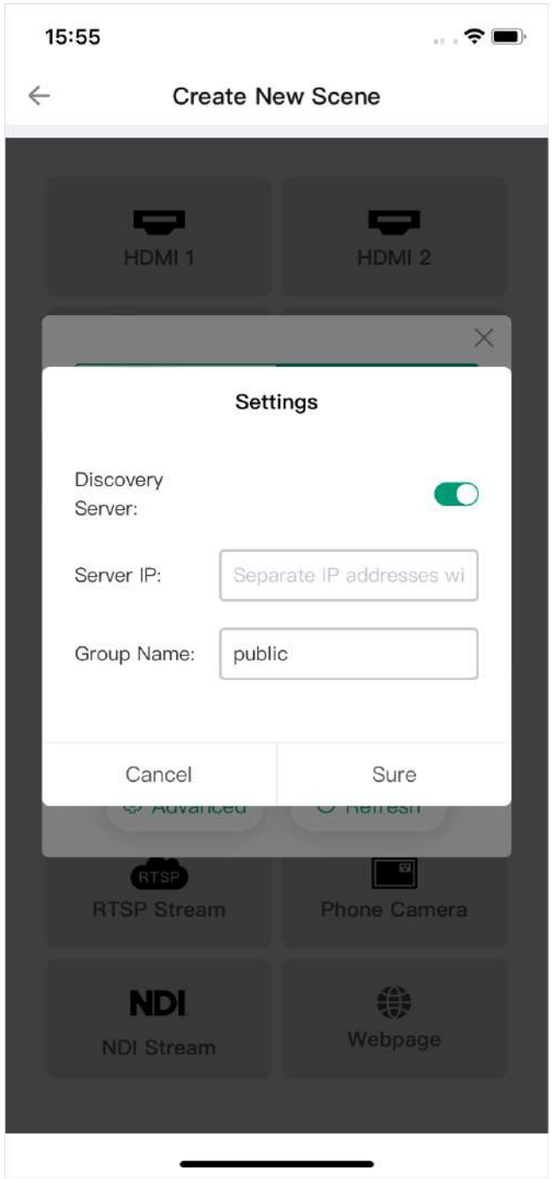


Add NDI Stream

Add NDI Stream Manually

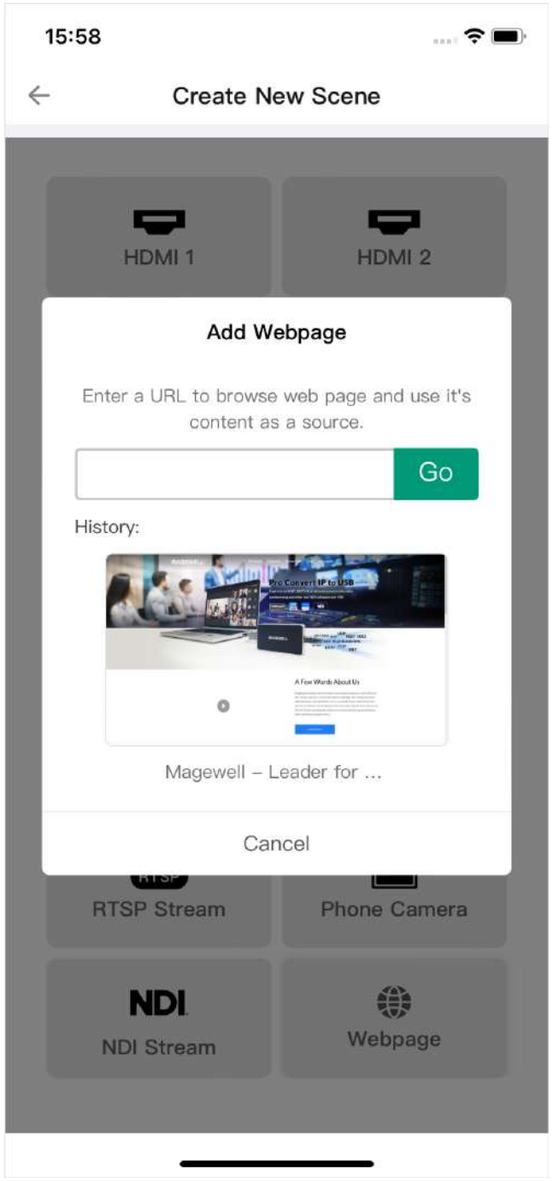
1. Tap the **Add** button in the Scene tab.
2. Tap **NDI Stream** in the **Create New Scene** window.
3. Tap the **Preset** tab, and then tap **Create NDI stream.**.
4. Enter the following information.
   - **Alias**: Specify an alias name for your convenience of multi-item management.
   - **NDI stream**: Enter the stream name of NDI source, which is case-insensitive, or enter IP:Port.
   - **Buffer duration**: The value ranges from 20ms to 8000ms. The default value is 60ms. You can set a short duration when low latency matters.
   - **Transport mode**: Options include UDP (Unicast), UDP (Multicast), RUDP (Unicast), TCP (Uni-connection) and TCP (Multi-connection).
   - **Signal interruption**: Select to show no signal image or show last frame when NDI signal is interrupted.
   - **Ignore video PTS**: For some video streams with wrong timestamps, toggle on this function to ensure smooth video output.
   - **Low bandwidth**: It is recommended to enable this function when the connected network speed is too low to output smooth video. When toggled on, the video stream drops to medium quality and uses significantly less bandwidth.
5. Tap **Create** to add the stream to the scene.
6. Repeat the steps above to create more NDI streams.
   When multiple NDI streams are created, you can select one to add to a scene.

7. To edit a stream, please refer to Edit Scene, or you can repeat step 1 and 2 and then tap to make changes.
8. To delete an stream, repeat step 1 and 2 and then tap .
   If a NDI stream is in one or more scenes, it cannot be deleted. Please delete the source in relative scenes on your device at first, and then delete it.



Search NDI Stream Automatically

1. Tap the **Add** button in the Scene tab.
2. Tap **NDI Stream** in the **Create New Scene** window.
3. Tap **NDI Search**, and it starts searching NDI sources in the same LAN. By default, it searches NDI sources of the public group.
4. Tap **Advanced**, enter **Group name**, and Tap **Sure**. Then it starts searching sources in corresponding group(s).
   Group name is case-insensitive, and should contain A to Z, a to z, 0 to 9 and special characters like _-. The group name entry can contain comma-separated values, allowing the device search all the groups listed here.
5. If you toggle on **Discovery server**, it can auto-detect a source sender in different network segment but be able to ping. And the Server IP should be the IP address of the server running discovery server software.
6. Select a detected NDI source in the list to add to the scene. And it is added to the **Preset** list at the same time.

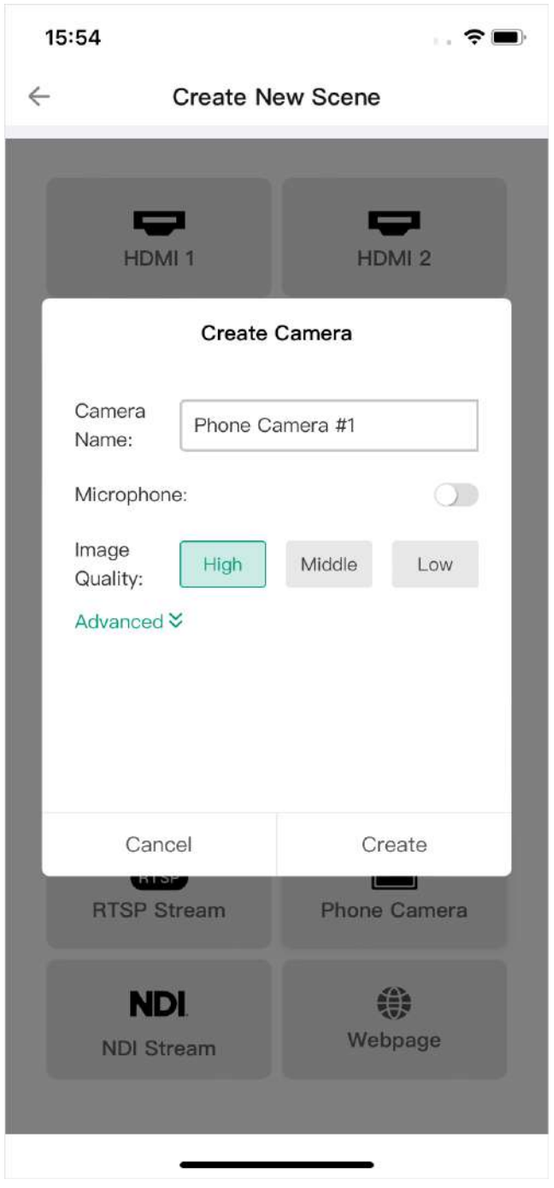


Add Webpage

1. Tap the **Add** button in the Scene tab.
2. Tap **Webpage** in the **Create New Scene** window.
3. Enter a URL and tap **Go**.

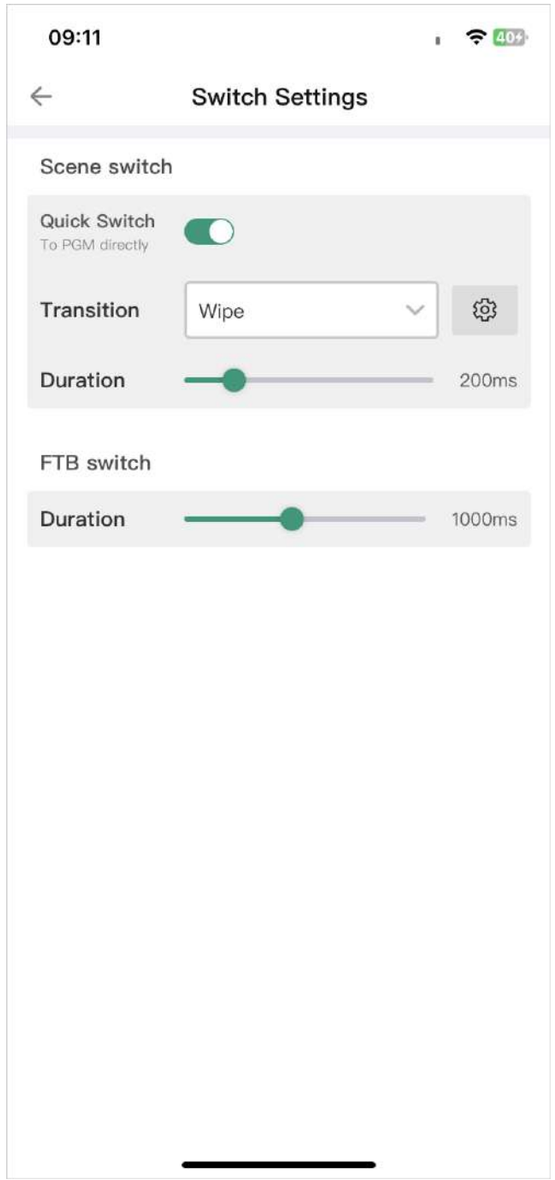
The History lists all the added URLs, and you can tap one thumbnail to add it as a scene. Long-press the thumbnail and tap to delete the URL.

- You can add up to 3 webpages as scene sources in a show.
- It is not recommended to add a video URL as it will consume a lot of system resources.



Add Phone Camera

1. Tap the **Add** button in the Scene tab.
2. Tap **Phone Camera** in the **Create New Scene** window.
3. Enter the camera name (1 - 32 bytes).
4. Toggle on Microphone, so that the Director device can capture audio from your phone's microphone.
5. Select the image quality: High, Middle, Low.
6. (Optional) Tap **Advanced** to set relative properties.
   - **Codec**: H.264, H.265
   - **Resolution**: 540, 720, 1080
   - **Frame rate**: Options change along with the frame rate of the show, which can be 60/59.94/50/30/29.97/25/24/23.98/15 fps.
   - **Video bitrate**: enter your preferred value.
   - **Audio bitrate**: 64, 96, 128
   - **Latency**: enter a number between 20 to 8000. It is recommended that the latency is configured the same as that of the source.
   - **Buffer duration**: The value ranges from 20ms to 8000ms. You can set a short duration when low latency matters.
7. Tap **Create**.
8. To create more cameras, repeat step 1 and 2, and then tap **Create camera** in the **Select Phone Camera** window to add a new camera.
9. To edit an existing phone camera, please refer to Edit Scene, or you can repeat step 1 and 2 and then tap to make changes.



Switch Scenes

You can switch scenes directly, or preview first and then switch to program, and you can set transition effect.

Set Switch Mode

1. Tap ☰ > **Switch Settings**.
2. In the **Scene switch** area, set scene switch mode and transition effect.
   - **Quick switch**: Toggle off the switch, it goes to the manual switch mode. To enable the quick switch mode, toggle on the switch.
   - **Transition**: Select the transition effect.
     - **Cut**: Scenes switch directly. (Default)
     - **Fade**: Scenes switch with the fade effect.
     - **DIP**: Scenes switch with a two-step transition with a color flash in the middle of the transition. Tap ⚙ to set the color flash duration and color.
     - **Wipe**: One scene is replaced by another gradually sweeping across the screen. Tap ⚙ to lines.
     - **DVE**: One scene is replaced by another according to a 2D DVE pattern. Tap ⚙ to select a DVE effect.
     - **Stinger**: A stinger is played over the top to cover the transition. Tap ⚙ to select a stinger. And you can enable Chromakey and set the similarity, smoothness and spill, as well as enable audio and adjust audio volume.
     - **3D**: One scene is replaced by another according to a 3D pattern. Tap ⚙ to select a 3D pattern.
   - **Duration**: Drag the slider to set the transition effect duration.

3. In the **FTB switch** area, drag the slider of **Duration** to set the transition duration for FTB, ranging from 200ms to 2000ms.
4. Tap X to exit.

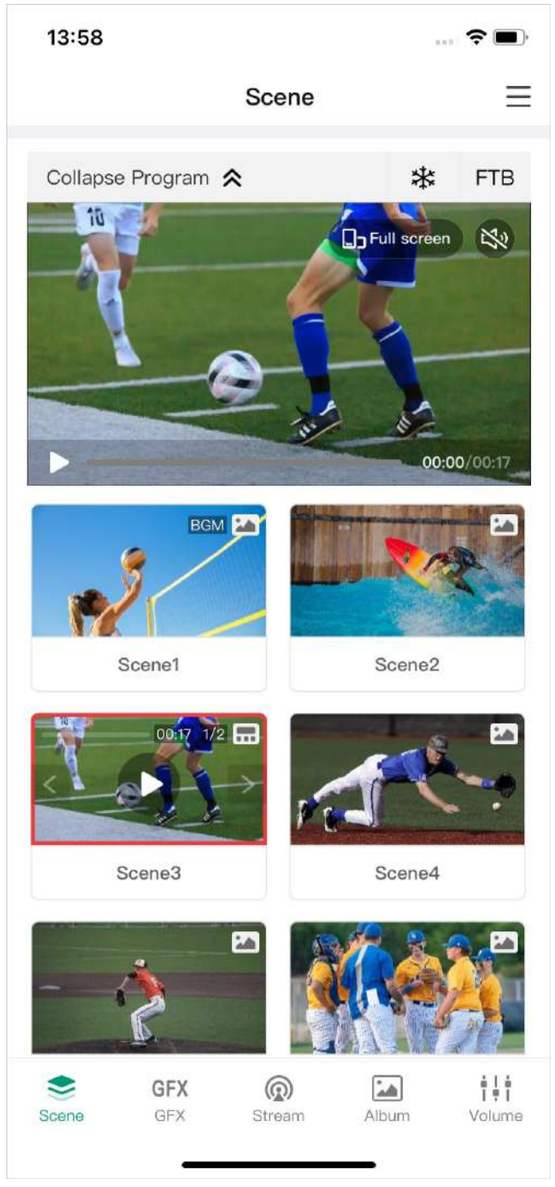
Quick Switch

When **Quick switch** is toggled on, you can tap thumbnails in the scene list to switch scenes directly.

Manual Switch

When **Quick switch** is toggled off, it goes to manual switch mode.

1. Tap the thumbnail of next scene to program in the scene list, and the preview image is displayed on the device. The program scene thumbnail has a red frame, while the preview scene thumbnail has a gray frame and displays **Cut** and **Auto** buttons.
2. Check everything is OK.
3. Tap the **Cut** or **Auto** button, and the scene goes to program.



Play Video

If a scene contains a video clip, you can tap the play/pause button on the scene thumbnail to view the video.

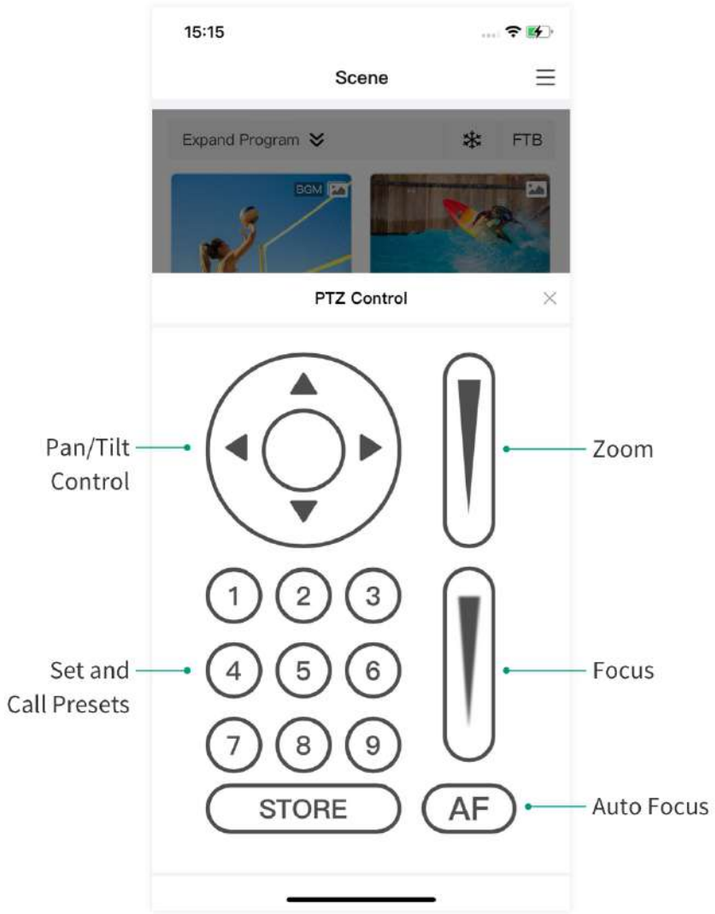
Or, tap **Expand Program**, and then use the progress bar on the bottom of the program image to control the playback of the video.

Control Slide Show

When a scene contains a slide show, tap the play/pause button on the thumbnail to control playback and tap the left/right arrow to turn pages or switch videos.

Control Private GFX

If a scene contains a private scoreboard, timer or stopwatch, long-press the scene thumbnail and select **Control**, and then you can control the private GFX. For details, refer to Control GFX.



PTZ Control

When a source supports UDP-based or NDI-based PTZ function, you can control the PTZ camera. Tap **Control** under the thumbnail to open the PTZ control center. If there are multiple PTZ sources in the scene, select a source on the popup.

Pan/Tilt Control

- On the Pan/Tilt Control panel, tap the center of the circle and slide your finger across the screen to move the camera. The closer to the center of the circle, the slower the camera moves; The farther away from the center of the circle, the faster the camera moves.
- Long-press the arrows to pan/tilt the camera.

Zoom

Slide on the slide bar at the upper right to zoom.

- Slide up, and the lens zooms in.
- Slide down, and the lens zooms out.

Focus

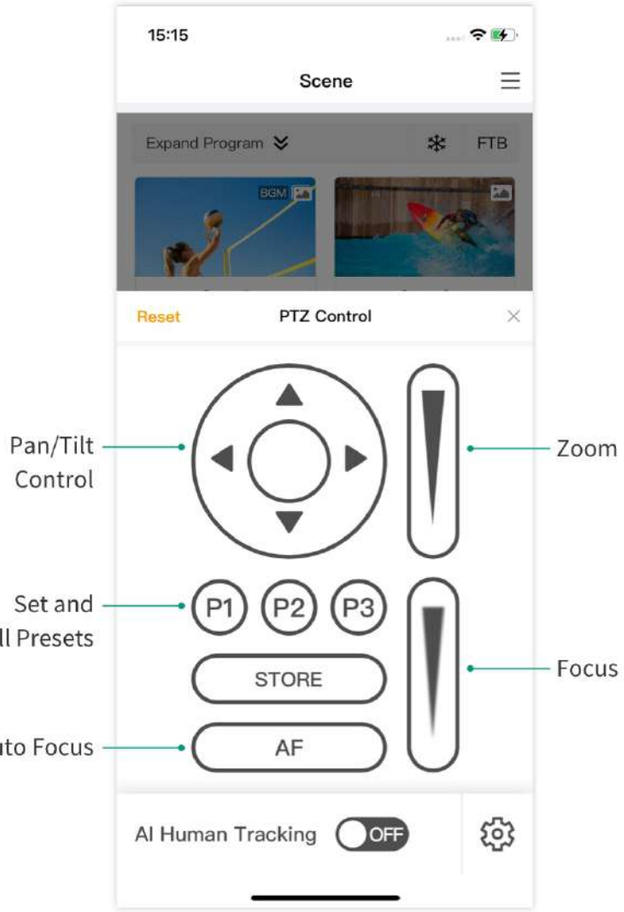
Slide up and down on the slide bar at the lower right to focus. You can also tap AF for auto focus.

- Slide up, and then the lens focuses near and the nearby object gets clear.
- Slide down, and then the lens focuses far and the distant object gets clear.

Presets

A preset is a predefined image position which contains information of pan, tilt, zoom, etc. After the preset is configured, you can move the camera to your desired position quickly by calling the preset.

1. Move the camera to your desired position and adjust zoom and focus.
2. Tap STORE and then tap a number to save. For example, tapping 1 saves it as Preset 1.
3. Repeat the steps above to add more presets.



4. Tap a preset No. to call the preset.

OBSBOT WEBCAM Control

Director device is compatible with OBSBOT WEBCAMs. Besides basic PTZ controls, the PTZ control center for OBSBOT supports the following features.

AI Human Tracking

1. Tap ⚙ to open the setting page.
2. Set tracking speed, tracking mode, etc. Options may change with OBSBOT webcam modules.
3. Tap ⚙ again to go back to the PTZ control center.
4. Toggle on/off the switch of AI Human Tracking to start or stop.

Record

If your OBSBOT webcam supports recording, such as OBSBOT Tail Air, you can record videos to the SD card installed in the webcam.

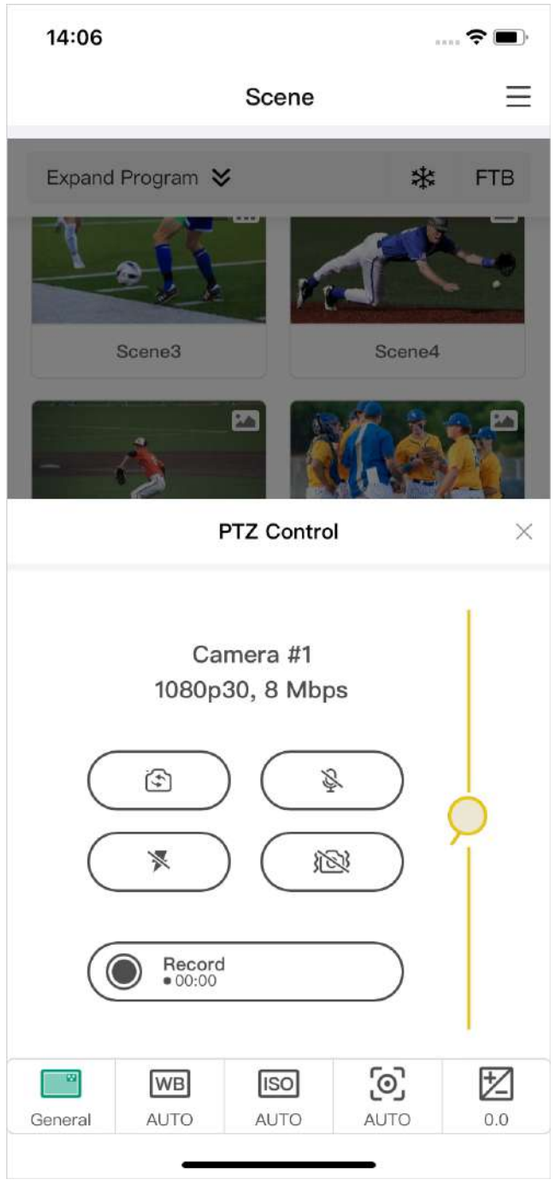
1. Tap **Record** to start recording.
2. Tap **Recording** to stop.

Reset

Tap ↻ to reset the OBSBOT webcam to its initial position.

Wake Up

If the OBSBOT webcam has gone to sleep, such as OBSBOT Tiny 2, tap **Wake Up** to bring it back to work.



Control Phone Camera

You can control the zoom of phone camera.

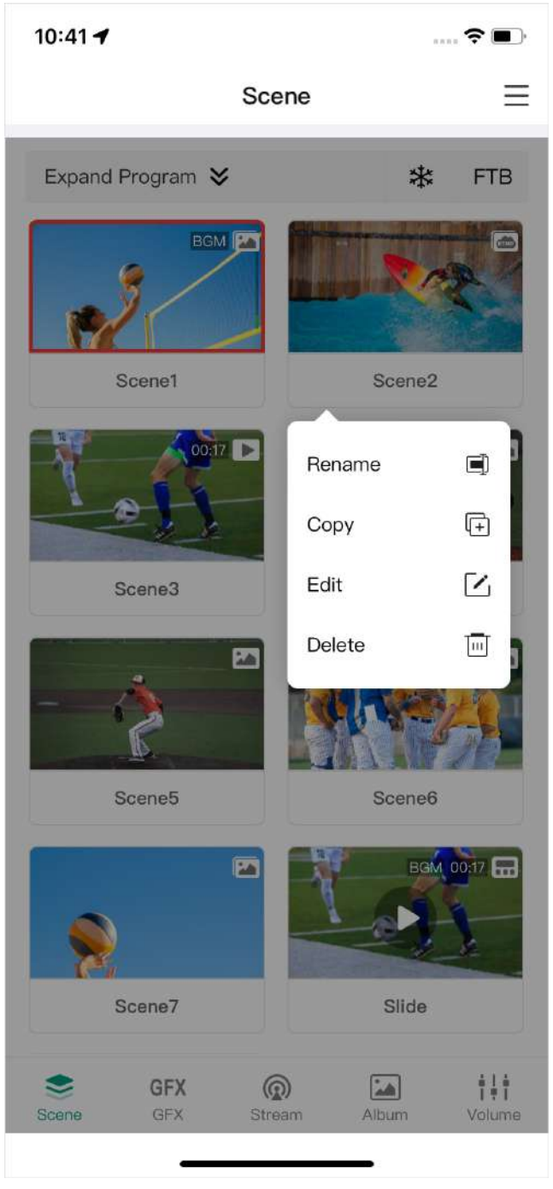
1. Switch a phone camera scene to program view.
2. Tap **PTZ Control** under the scene thumbnail.
   If there are multiple phone cameras, please select the source.
3. Tap to control the phone camera:
   - Tap and select **Front-facing** camera or **Back-facing** camera.
     There will be more back camera options, such as Back Dual Wide Camera and Back Ultra Wide Camera, depending on your mobile device type. Besides, you can even select a USB camera connected with your iPad.

     > To use the external USB webcams, the iPad requires an iPadOS version of 17 or above and it should have a USB-C port for connectivity.

   - Tap / to enable or disable the microphone.
   - Tap / to turn on/off the flashlight.
   - Tap / to enable or disable image stabilization.
   - Tap **Record** to record the phone camera image to your mobile device. Tap again to stop recording.
   - Drag to control the phone camera to zoom in or out.
4. Tap WB to set White Balance:
   Select an appropriate white balance mode to ensure a true-to-life color range. For example, select when shooting in bright daylight. Also, you can tap to manually adjust the color temperature.
5. Tap ISO to set ISO:

Slide the ISO value to set camera light sensitivity. Low values are for stationary or well-lit objects. Higher values are for fast-moving or low-lit objects, but which can result in noise.

6. Tap to adjust Focus:
   Drag the adjustment bar to manually adjust the focus.
7. Tap to adjust Exposure:
   Slide to change the exposure value. This determines how much light the camera's sensor receives. For low-light situations, use a higher exposure.
8. Tap x to exit.



Rename Scene

1. Long-press a scene thumbnail.
2. Tap **Rename** on the menu.
3. Enter the new scene name, and tap **Save**.

Copy Scene

1. Long-press a scene thumbnail.
2. Tap **Copy** on the menu.
3. Enter the new scene name, and tap **Copy**. The copied scene appears in the scene list.

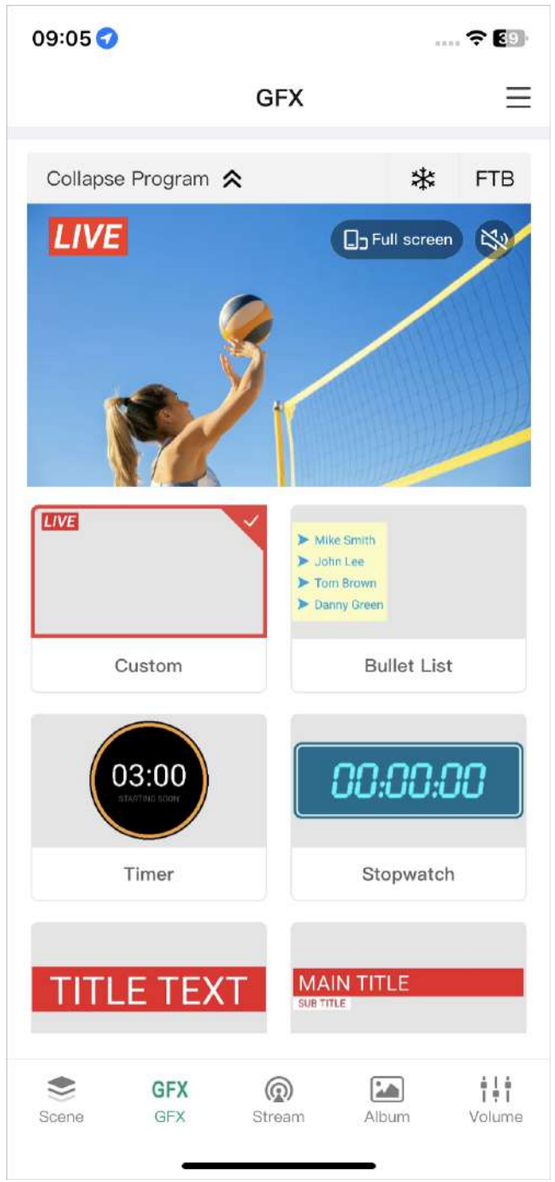
Edit Scene

You can edit the properties of WEBCAM, Phone Camera, and Stream sources.

1. Long-press a scene thumbnail.
2. Tap **Edit** on the menu.
3. Select a source if there are multiple editable sources.
4. Make your changes and tap **Save**.

Delete Scene

1. Long-press a scene thumbnail.
2. Tap **Delete** on the menu.
3. Confirm to delete on the popup.



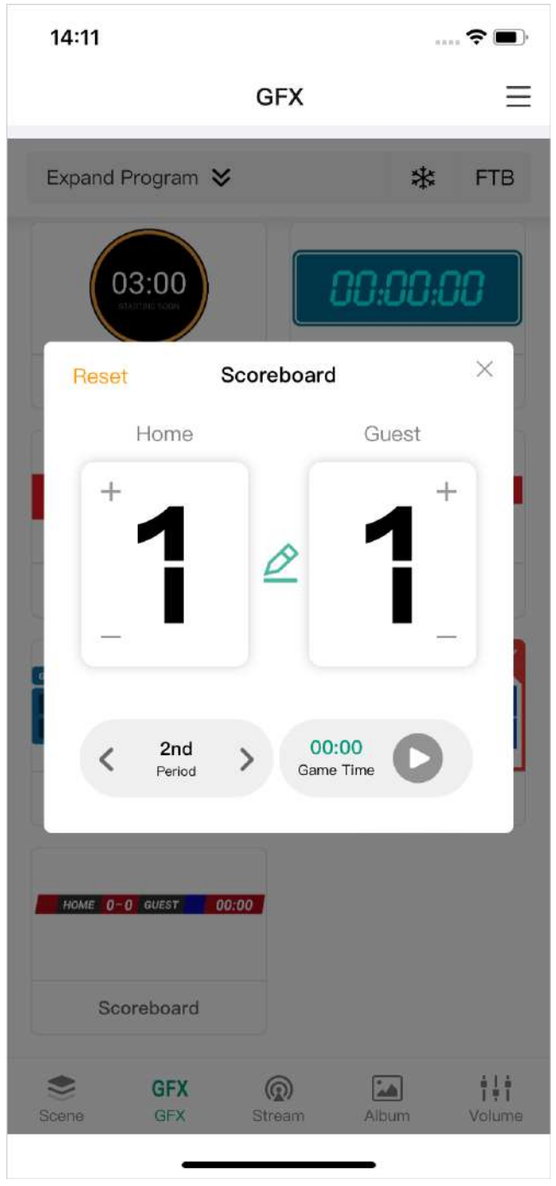
Control GFX

Tap GFX at the bottom to open the GFX list.
The GFX list displays GFX thumbnails and names.

Apply GFX

- Select one or more GFXs in the GFX list, and then the selected GFX(s) is applied in the program scene. A red frame around the thumbnail indicates the GFX is displayed.
- If a bullet list is applied and it is set to manual play mode, you can tap **Next** under the thumbnail to display the next line.
- Unselect one GFX, and then the GFX disappears from the program scene.

You can apply up to 8 GFXs at the same time.



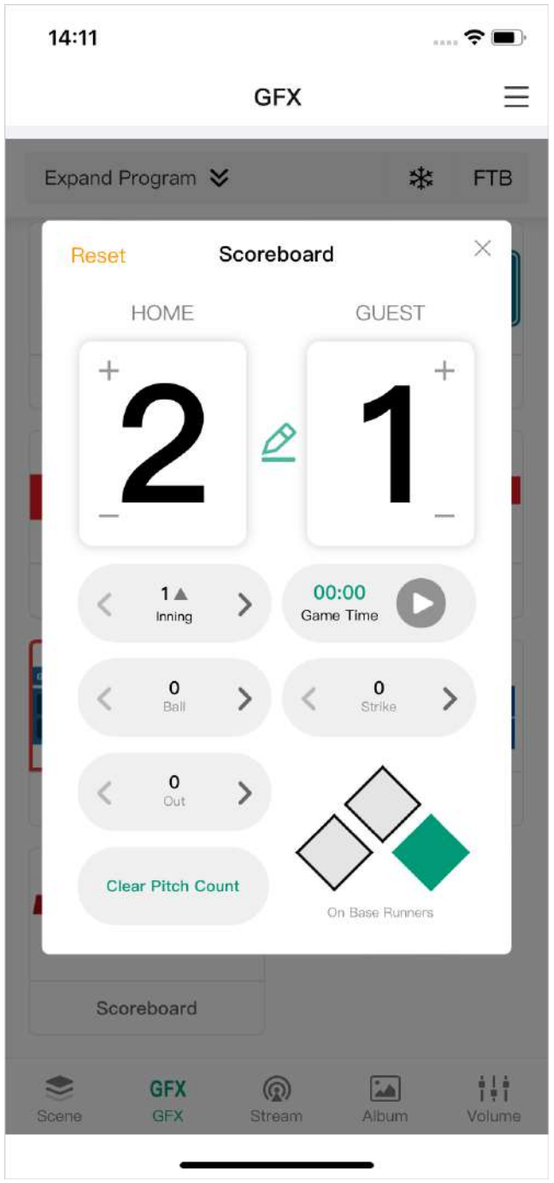
Control Scoreboard

You can only apply one scoreboard, but you can control all the scoreboards separately.
You can open the scoreboard control panel through the following ways.

- Apply a scoreboard, and tap **Control** under the thumbnail.
- Or long-press a thumbnail and select **Control** on the popup menu.

Control General Scoreboard

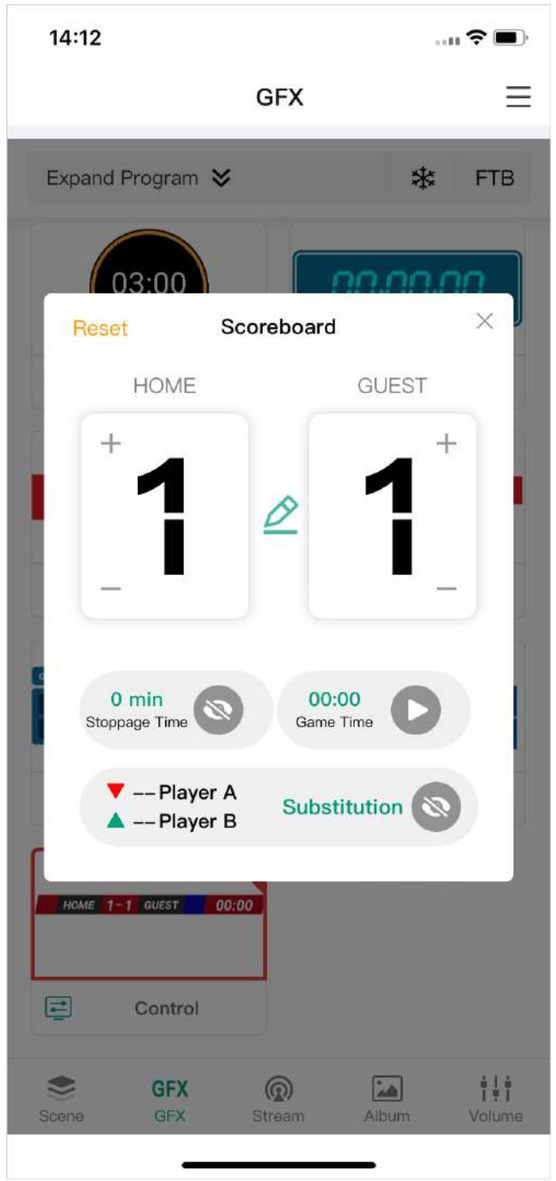
- Tap the upper part of the number to increase the score, and tap the lower part of the number to decrease the score.
  You can also tap , then scroll the score number of the home or guest team, and save your choice.
- Tap the left or right arrow at the bottom left to select a period. If the period is not set to be shown, you can tap "Show" to display it.
- Control game time:
  - Tap at the bottom right to start counting; tap to pause counting.
  - If the game time is not set to be shown, you can tap "Show" to display it.
  - Tap the time number, and scroll time options to adjust, or tap "Reset" to reset the game time to zero or the preset duration.
- Tap "Reset" to restore the score to 0:0, reset the game time to zero or reset to the set duration. You can also long-press the thumbnail and select "Reset" on the popup menu.
- Tap "x" to go back.



Control Baseball Scoreboard

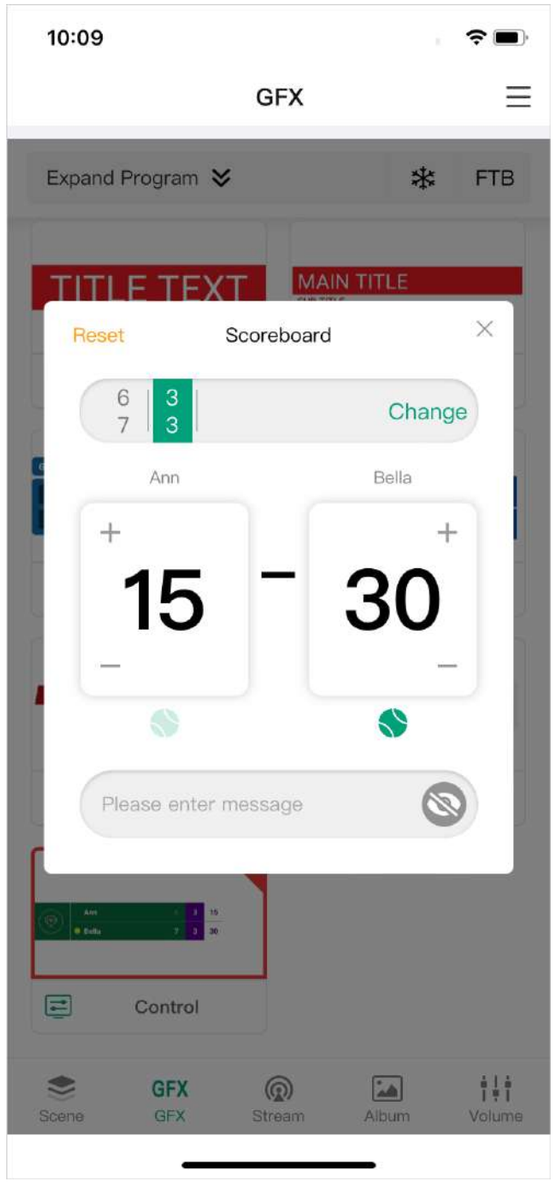
- Tap the upper part of the number to increase the score, and tap the lower part of the number to decrease the score.
  You can also tap , then scroll the score number of the home or guest team, and save your choice.
- Tap the left or right arrow of **Inning** to set inning number and the "top" or "bottom" half. And confirm whether to also clear settings of on-base runners, outs, balls and strikes on the popup.
- Control game time:
  - Tap to start counting; tap to pause counting.
  - Tap the time number, and then select time in the time box to adjust time, or tap "Reset" to reset the game time to zero or the preset duration.
- Tap the left or right arrow of **Ball** to indicate balls as numbers.
- Tap the left or right arrow of **Strike** to indicate strikes as numbers.
- Tap the left or right arrow of **Out** to indicate outs as numbers or shapes.
- Tap **Clear Pitch Count** to make balls and strikes both zero.
- Tap to indicate runners on 1st Base, 2nd Base, and 3rd Base.
- Tap **Reset** to clean all the sets.
- Tap "x" to go back.

If some element is set to be hidden, you can tap "Show" to display it.



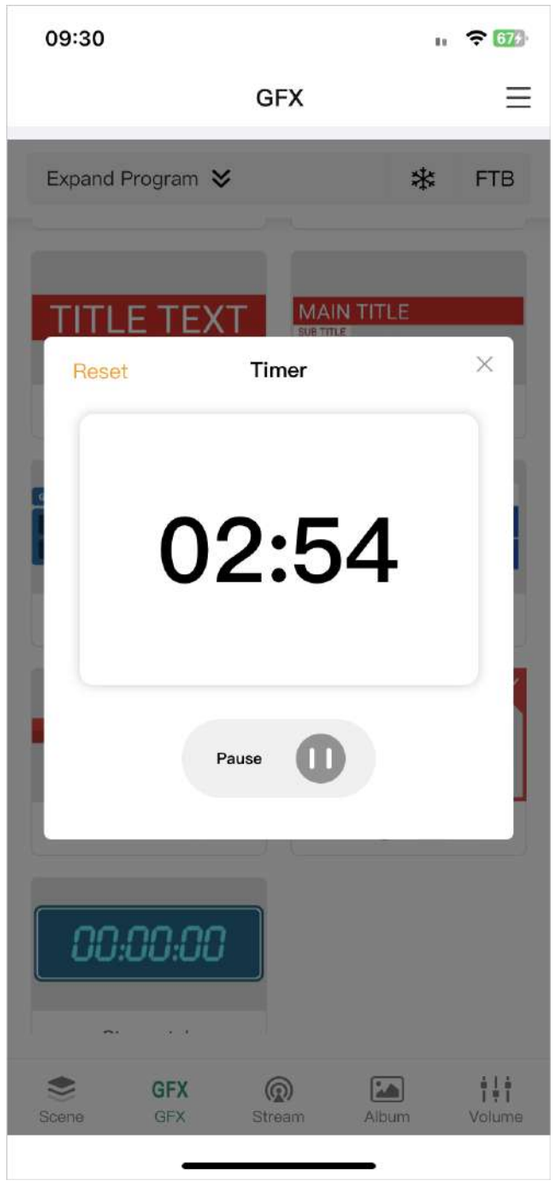
Control Soccer Scoreboard

- Tap the upper part of the number to increase the score, and tap the lower part of the number to decrease the score.
  You can also tap the , then scroll the score number of the home or guest team, and save your choice.
- Show stoppage time:
  - Tap the time number to select the stoppage time, and you can tap "Reset" to reset the stoppage time to zero.
  - Tap to show the stoppage time, and tap to hide.
- Control game time:
  - Tap to start counting; tap to pause counting.
  - If the game time is not set to be shown, you can tap "Show" to display it.
  - Tap the time number, and then select time in the time box to adjust time, or tap "Reset" to reset the game time to zero.
- Show substitution:
  - Tap **Substitution** to enter the information of the players to enter and leave the field.
  - Tap to show the substitution, and tap to hide.
- Tap **Reset** to restore the score to 0:0, and reset the game time and stoppage time to zero.
- Tap "x" to go back.



Control Tennis Scoreboard

- Tap the upper part of the score number to increase, and tap the lower part to decrease.
- According to the score, it automatically changes server. You can also tap to change server.
- Tap "Change" and then set game score for each set. You can also tap "Reset" on the popup to restore all the sets.
- Show message:
  - Tap the message box to enter or select a message.
  - Tap to show the message, and tap to hide.
- Tap "Reset" to restore the scoreboard.
- Tap "x" to go back.



Control Timer

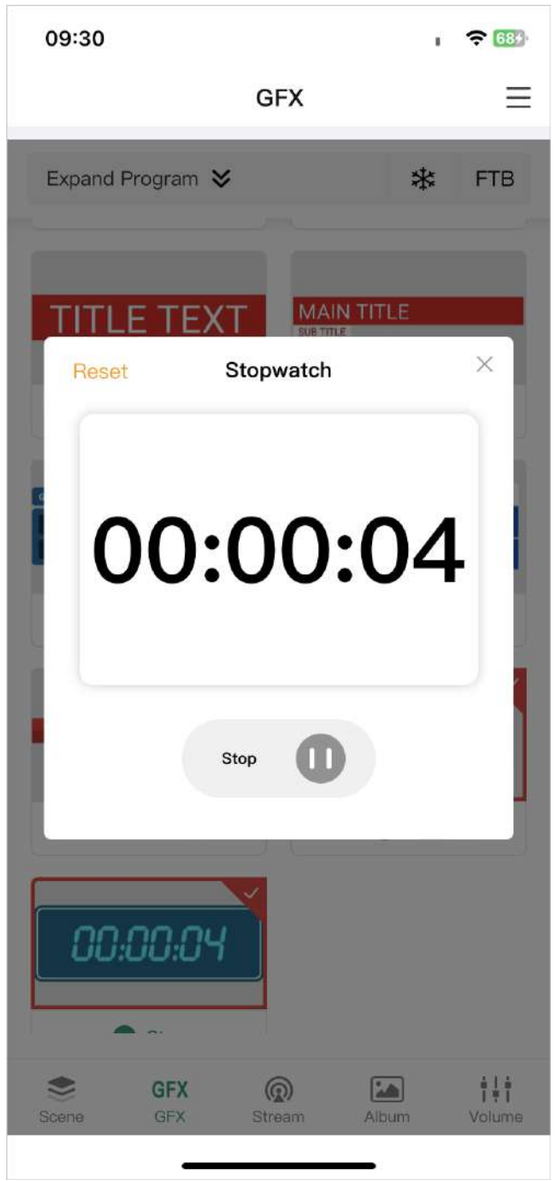
You can only apply one timer, but you can control all the timers separately.

Way 1

1. Apply a Timer.
2. Under the thumbnail, tap to start counting, tap to pause counting, tap again to resume counting.
3. Long-press the timer thumbnail and tap **Reset** to restore the timer to the preset duration.

Way 2

1. Long-press a timer thumbnail and tap **Control** on the popup.
2. Tap to start counting, tap to pause counting, tap again to resume counting.
3. Tap **Reset** to restore the timer to the preset duration, and you can re-select the duration.
4. Tap "x" to go back.



Control Stopwatch

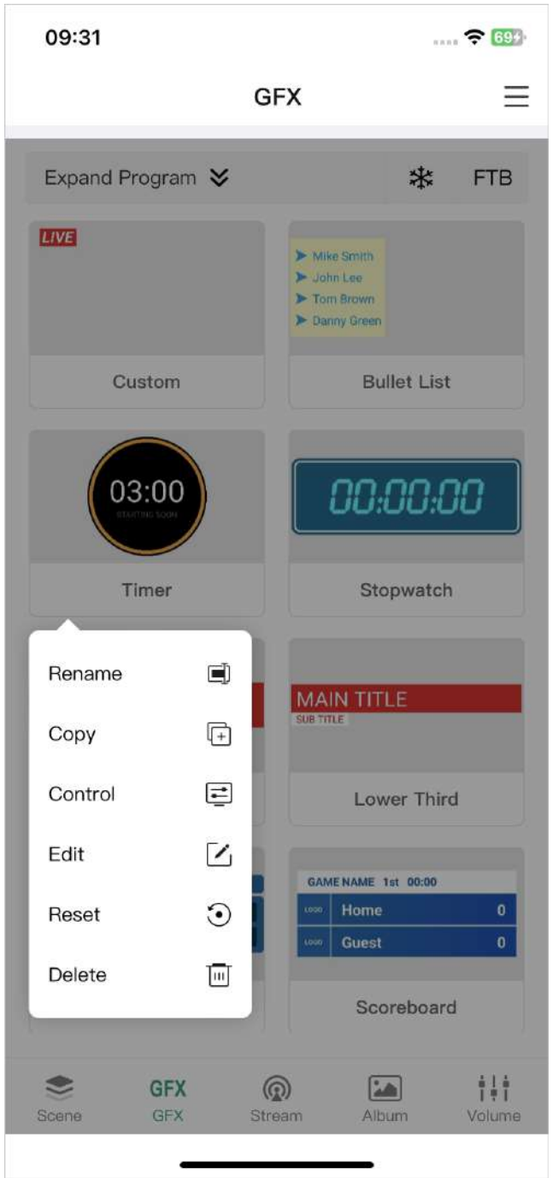
You can only apply one stopwatch, but you can control all the stopwatches separately.

Way 1

1. Apply a stopwatch.
2. Under the thumbnail, tap to start counting, tap to pause counting, tap again to resume counting.
3. Long-press the thumbnail and tap **Reset** to restore the stopwatch to zero.

Way 2

1. Long-press a thumbnail and tap **Control** on the popup.
2. Tap to start counting, tap to pause counting, tap again to resume counting.
3. Tap **Reset** to restore the stopwatch to zero.
4. Tap "x" to go back.



Rename GFX

1. Long-press a GFX thumbnail.
2. Tap **Rename** on the menu.
3. Enter the new name, and tap **Save**.

Delete GFX

1. Long-press a GFX thumbnail.
2. Tap **Delete** on the menu.
3. Confirm to delete on the popup.

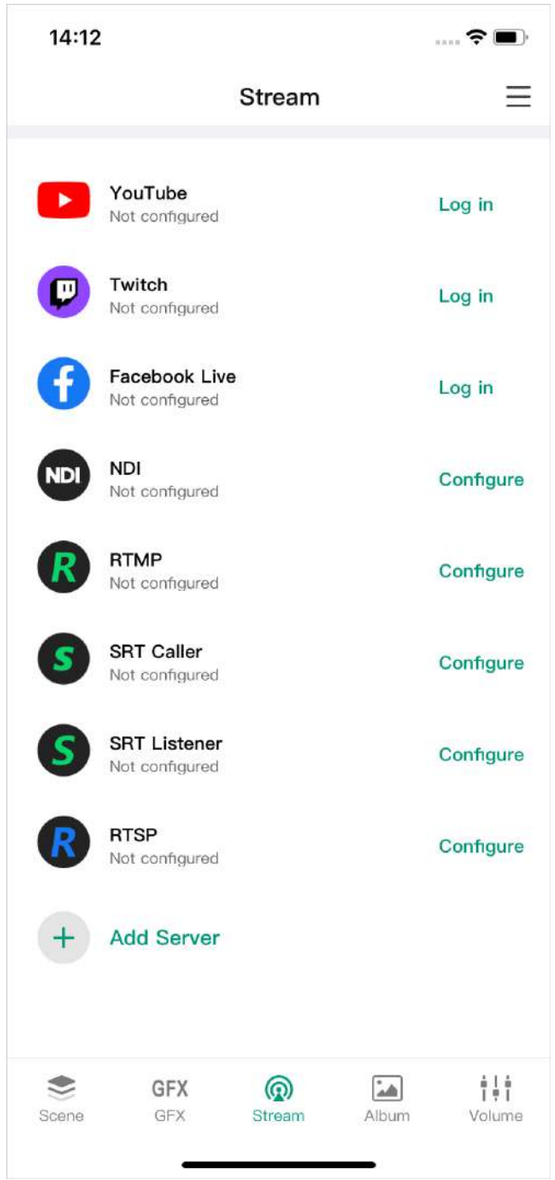
Copy GFX

1. Long-press a GFX thumbnail.
2. Tap **Copy** on the menu.
3. Confirm to copy on the popup.

Edit GFX

You can edit text content and replace pictures of some GFX types.

1. Long-press a GFX thumbnail.
2. Tap **Edit** on the menu.
3. Edit text content or replace pictures in the popup, and tap **Save**.

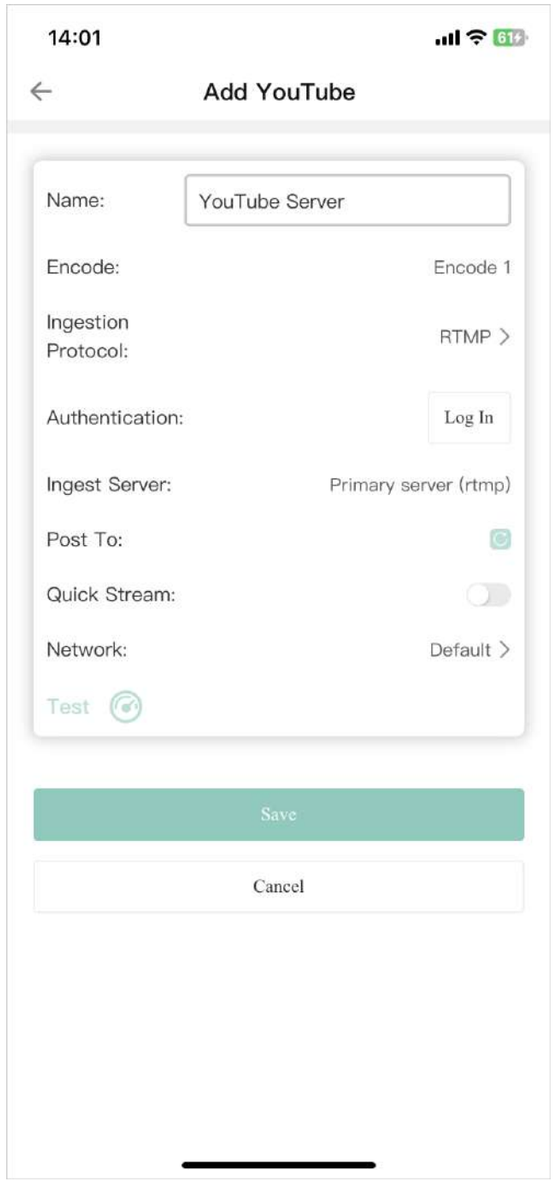


Control Streaming

Tap **Stream** at the bottom to open the stream server list.

Configure Stream Servers

1. Tap **Log in** or **Configure** behind the server name to start configuring server parameters.Please refer to the following contents.
   - Configure YouTube Server
   - Configure Twitch Server
   - Configure Facebook Live Server
   - Configure NDI Server
   - Configure RTMP Server
   - Configure SRT Caller
   - Configure SRT Listener
   - Configure RTSP Server
2. Tap **Add Server** to add more servers.
3. To edit a server, tap the server name to enter the edit page. After you change the settings, tap **Save**. If you tap **Cancel**, all the changes will be discarded.
4. To delete a server, swipe a server to the left and tap **Delete**.



Configure YouTube Server

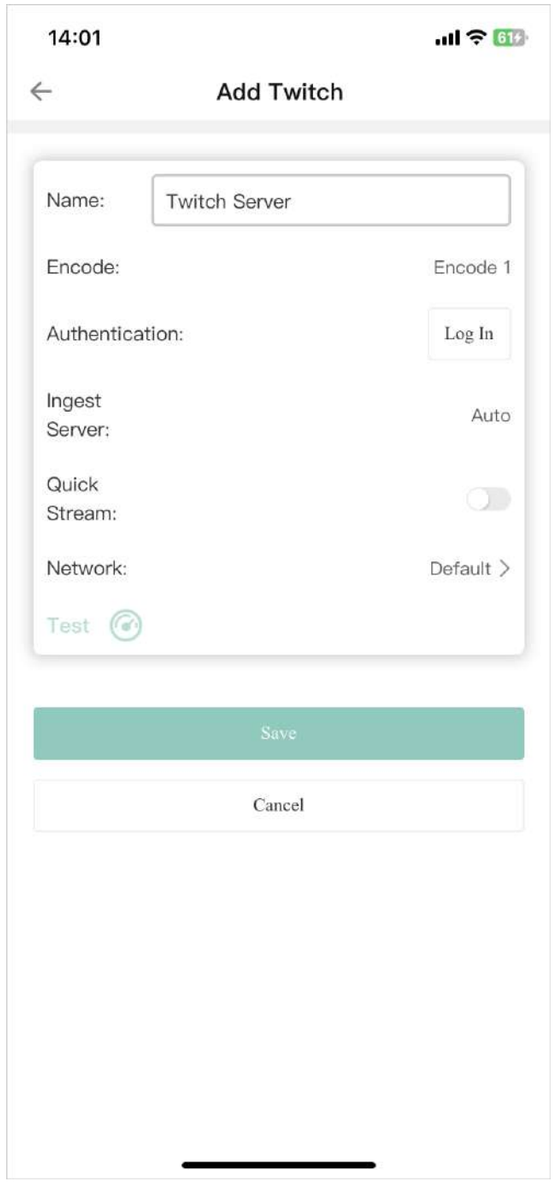
1. Select **YouTube** in the stream setting page.
2. Set the following parameters:
   - **Name**: enter a new name.
   - **Encode**: select an encode scheme.
   - **Ingestion Protocol**: select RTMP or HLS.
   - **Authentication**: Tap **Log In**, and then follow the instructions to log into your account.
     Your username and profile image will be displayed after login.
     Your nickname, user avatar images and authorization token will be stored encrypted in the Director device after a successful authorization. When you delete the YouTube server or remove the Director device from trusted apps from your Google account's security setting, we will follow the policies of Google to clear saved data in 0 to 24 hours.

     > If you have not enabled live streaming for your YouTube account, your YouTube login will fail. Also note that you need to have live streaming enabled 24 hours before starting streaming. For details, see Why can't I log in to my YouTube account.

   - **Ingest Server**: Select one from **Primary server (rtmp)**, **Primary server (rtmps)**, **Backup server (rtmp)**, or **Backup server (rtmps)**.
   - **Post to**: Select a channel, event, or **New stream**.
     If you select **New stream**, you need to set **Title** (mandatory), **Description**, and **Privacy**.
     Privacy options are:
     - **Public**: The stream is visible to all people.
     - **Private**: The stream is visible only to you and people selected by you.
     - **Unlisted**: The stream is visible only through a link.

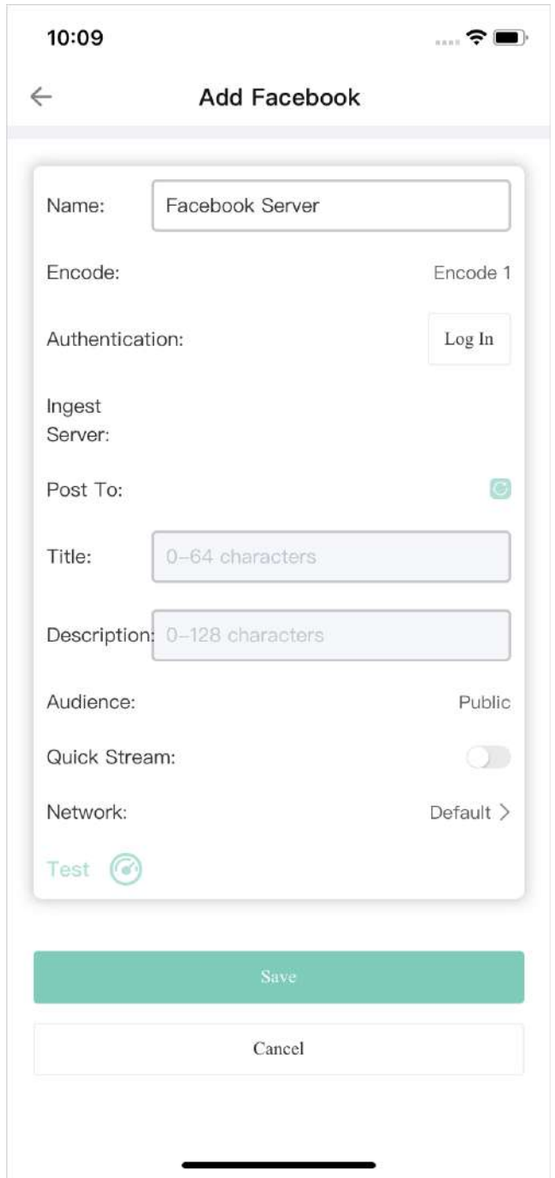
- **Quick Stream**: When it is enabled, you can start streaming quickly on the device screen.
- **Network**: Set the network priority for streaming. Options include: Default (Ethernet > WLAN > Cellular), Cellular First, WLAN First, Ethernet First.

3. Tap **Test** to test whether the previous configurations are working properly.
4. Tap **Save**.



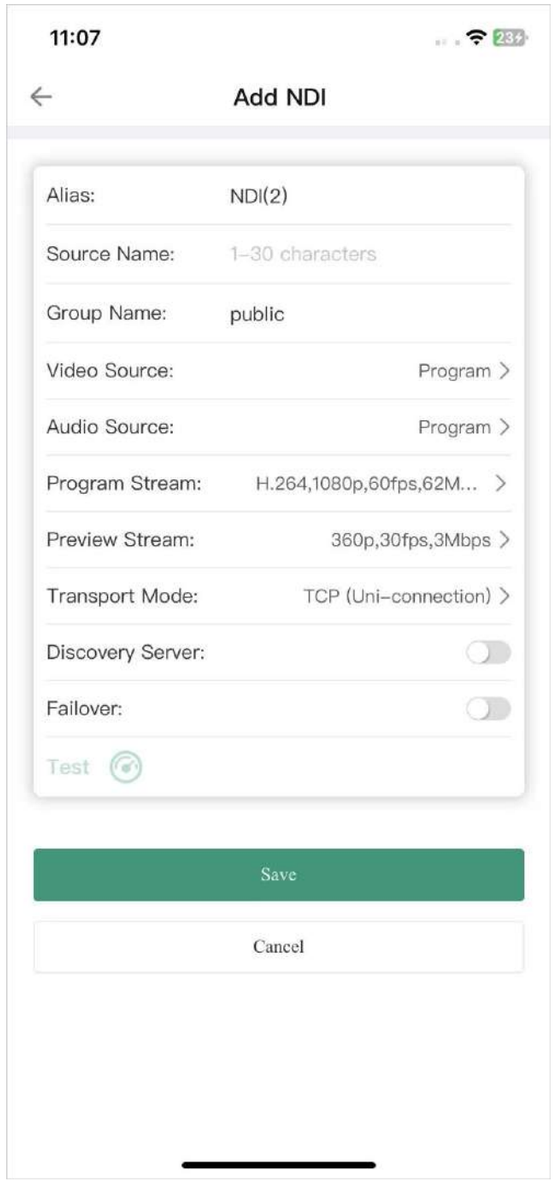
Configure Twitch Server

1. Select **Twitch** in the stream setting page.
2. Set the following parameters:
   - **Name**: Enter a new name.
   - **Encode**: Select an encode scheme.
   - **Authentication**: Tap **Log In**, and then follow the instructions to log into your account.
   - **Ingest Server**: The system lists available servers. You can select a nearby server for an optimal network path.
   - **Quick Stream**: When it is enabled, you can start streaming quickly on the main screen.
   - **Network**: Set the network priority for streaming. Options include: Default (Ethernet > WLAN > Cellular), Cellular First, WLAN First, Ethernet First.
3. Tap **Test** to test whether the previous configurations are working properly.
4. Tap **Save**.



Configure Facebook Live Server

1. Select **Facebook** in the stream setting page.
2. Set the following parameters:
   - **Name**: Enter a new name.
   - **Encode**: Select an encode scheme.
   - **Authentication**: Tap **Log In**, and then follow the instructions to log into your account.
     Your username and profile image will be displayed after login.
     Your nickname, user avatar images and authorization token will be stored encrypted in the Director device after a successful authorization. To delete your information, you can delete the created server or you can remove the Director device from trusted apps from Facebook. Your personal data will be deleted upon request in 0 to 24 hours.
     After you log in successfully, the system automatically selects a ingest server for you, which you cannot change.
   - **Post to**: Select Timeline or a Page as the streaming destination.
   - **Title**: Enter a title if needed.
   - **Description**: Enter some description if needed.
   - **Audience**: select who can see your live content. Options include Public, Friends and Only me.
   - **Quick Stream**: When it is enabled, you can start streaming quickly on the main screen.
   - **Network**: Set the network priority for streaming. Options include: Default (Ethernet > WLAN > Cellular), Cellular First, WLAN First, Ethernet First.
3. Tap **Test** to test whether the previous configurations are working properly.
4. Tap **Save**.



Configure NDI Server

1. Select **NDI** in the stream setting page.
2. Set the following parameters:
   - **Alias**: Enter an alias name for your convenience of multi-item management.
   - **Source Name**: Enter a name, which is the name of the output NDI stream for the receiver to recognize. It supports 1-30 characters, which contain A-Z, a-z, 0-9 and _-#()%.
   - **Group Name**: Enter a name to specify the client group receiving the NDI stream. It supports 1-64 characters, contain A-Z, a-z, 0-9 and _-,. Multiple group names can be comma-separated. The default group name is public. If you do not want other devices on the network to be able to search for it at will, you can set a private group name, and other devices need to use the private group name to search for this device.
   - **Video Source**: Select the video source to encode. Options include Program, HDMI 1, HDMI 2, Webcam 1, Webcam 2 and Multi-View.
   - **Audio Source**: Select the audio source to encode. Options include Program, HDMI 1, HDMI 2, MIC, other available USB audio sources, and None.
   - **Program Stream**: Set the following parameters.
     - **Codec**: Options include H.264 and H.265.
     - **Resolution**: Options include 640x360, 960x540, 1280x720, 1920x1080.
     - **FPS**: Options change along with the frame rate of the show, which can be 60/59.94/50/30/29.97/25/24/23.98/15 fps.
     - **Bitrate**: It automatically changes according to resolution and FPS options.
     - **Profile**: Options include Baseline Profile, Main Profile, High Profile.
     - **Bitrate Mode**: It is fixed at CBR.
   - **Preview Stream**: Set the following parameters.

- **Resolution**: It is fixed at 640x360.
- **FPS**: It changes along with the frame rate of the show.
- **Bitrate**: It automatically changes according to the settings of Program Stream.
- **Profile**: Options include Baseline Profile, Main Profile, High Profile.
- **Bitrate Mode**: It is fixed at CBR.

- **Transport Mode**: Select a mode and set parameters if needed.
  - **UDP (Unicast)**: The device sends a UDP stream directly to the receiver. It is used where lower latency matters. And multiple simultaneous streams will work independently for multiple receivers.
  - **UDP (Multicast)**: The device sends the UDP stream to a multicast group. It is used for one-to-many broadcast for lower CPU usage. Parameters in a multicast configuration include:
    - **Multicast IP**: IP ranges from 224.0.0.0 to 239.255.255.255.
    - **Subnet Mask**: The legitimate value ranges from 255.0.0.0 to 255.255.255.252.
    - **Time to live**: It ranges from 1 to 255. The default value is 4.
  - **RUDP (Unicast)**: Reliable User Datagram Protocol, is a connection-oriented and unicast protocol. RUDP helps to maintain the flow control and reliability of data transfer. The transmission control algorithms on both sending and receiving sides guarantee the RUDP capable of recovering from data loss, duplication, delay and reordering.
  - **TCP (Uni-Connection)**: It indicates to establish single TCP connection between the device and the receiver, and transfer all A/V packets via one port. Compared with UDP (Unicast) or TCP (Multi-Connection), it has lower CPU usage. It is used where reliable data transfer matters, which makes it suitable for 4K NDI streams.

- **TCP (Multi-Connection)**: It indicates to establish multiple TCP connections between the device and receivers, but transfer audio packet and video packet via different ports. It usually works in a complicated networking studio. It is used where reliable transmission of data matters, which makes it suitable for 4K NDI streams.

- **Discovery Server**: When it is enabled, the device can only be received by the specified receiver, and the mDNS auto-discovery function is unavailable.

  i. Ensure that the receiver and device can ping each other.
  This function works between device and receiver that can ping each other even from differential network segment. After setting, the output stream of your device can be received by specified server.

  ii. Specify the **Server IP** to the IP address of the discovery server.

  iii. Set a same IP address of the discovery server on the NDI stream receiver.
  For example, launch the **NDI Access Manager** tool installed in the receive computer, enter the **Advanced** tab, uncheck **Multicast Sending Enabled**, and check **Use Discovery Server**, and then specify **Server IP** to the IP address of the receiver server running discovery service function.
  Note: The Server IP of NDI Access Manager and Director device should be the same.

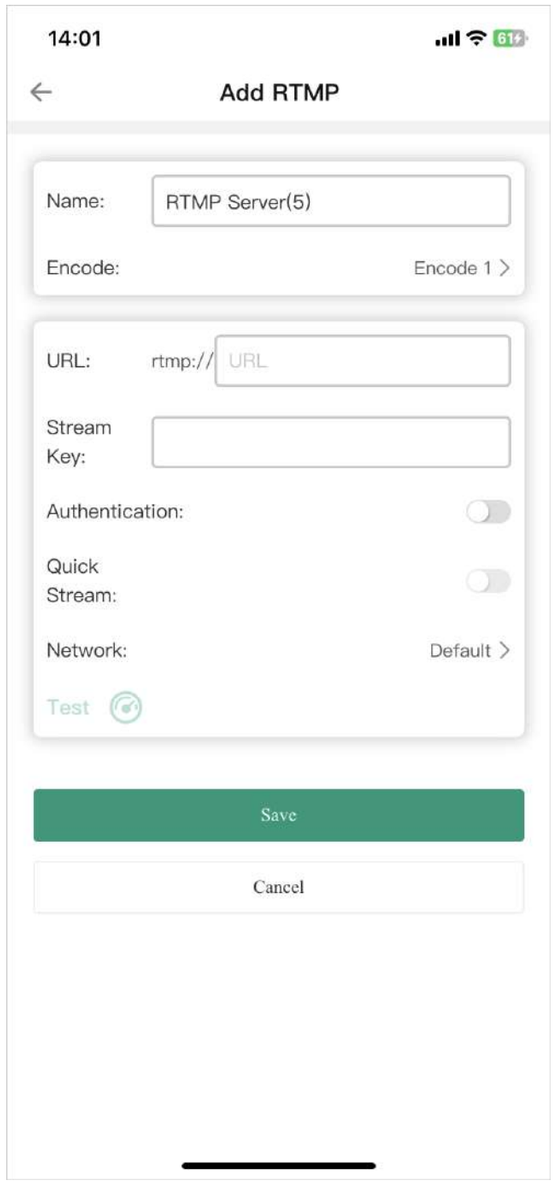
- **Failover**: You can toggle on to protect your NDI transmission from failure. If the source video fails, the backup device begins to provide a service. The initial source will be restored after it recovers.

  - **Source name** shows the backup NDI channel name.
    Tap **Change** and select the failover (backup) video device within the same NDI group as the initial source.

  - **IP address** shows the IP Address of the backup NDI channel, which is automatically obtained after you select the backup NDI source.

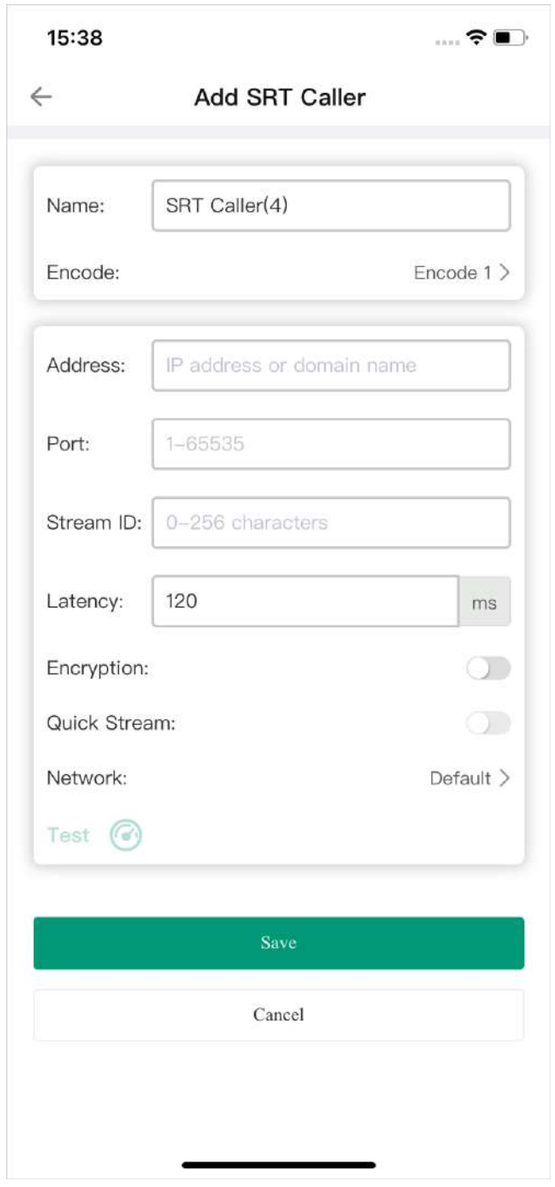
3. Tap **Test** to test whether the previous configurations are working properly.

4. Tap **Save**.



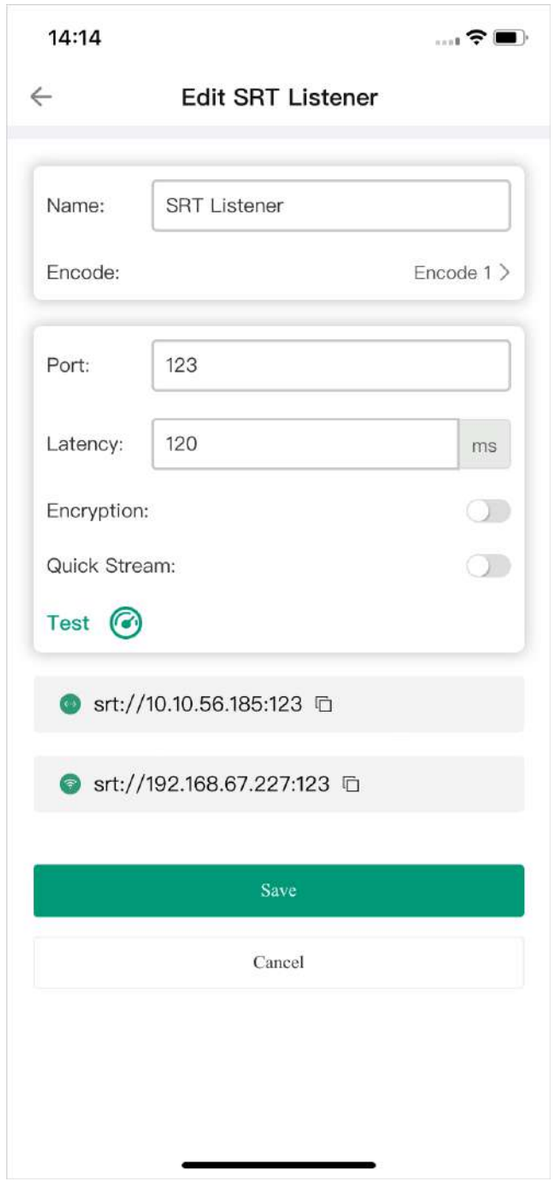
Configure RTMP Server

1. Select **RTMP** in the stream setting page.
2. Set the following parameters:
   - **Name**: Enter an alias name for your convenience of multi-item management.
   - **Encode**: Select an encode scheme.
   - **URL**: Tap the prefix to select RTMP or RTMPS protocol, and enter the URL of the stream destination.
   - **Stream Key**: Enter the key got from the stream destination.
   - **Authentication**: Turn on if needed, and then enter your **Username** and **Password** at the third-party live streaming platform.
   - **Quick Stream**: When it is enabled, you can start streaming quickly on the main screen.
   - **Network**: Set the network priority for streaming. Options include: Default (Ethernet > WLAN > Cellular), Cellular First, WLAN First, Ethernet First.
3. Tap **Test** to test whether the previous configurations are working properly.
4. Tap **Save**.



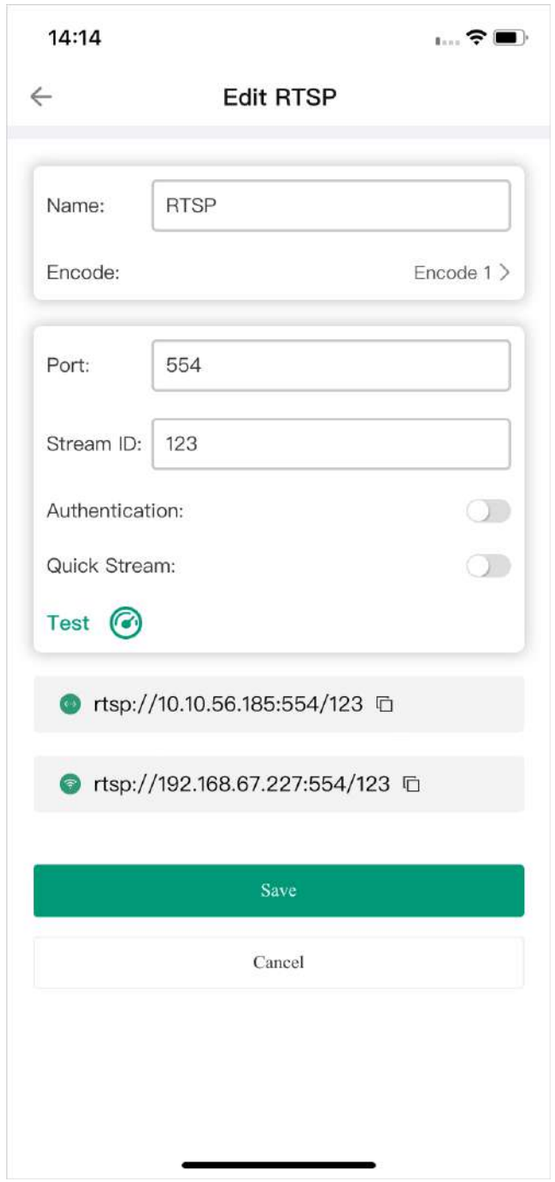
Configure SRT Caller

1. Select **SRT Caller** in the stream setting page.
2. Set the following parameters:
   - **Name**: Enter an alias name for your convenience of multi-item management.
   - **Encode**: Select an encode scheme.
   - **Address**: Enter the address of receiver.
   - **Port**: Enter the port number of receiver. Value ranges from 1 to 65535.
   - **Stream ID**: Enter a custom ID, which can contain 0-256 characters.
   - **Latency**: Enter a number between 20 to 8000. The default value is 120ms. We recommend that the latency is configured the same as that of the receiver.
   - **Encryption**: Toggle on if needed, and then select an encryption algorithm, which can be AES 128, AES 192 or AES 256. And enter the Password, which can contain 10 to 79 characters.
   - **Quick Stream**: When it is enabled, you can start streaming quickly on the main screen.
   - **Network**: Set the network priority for streaming. Options include: Default (Ethernet > WLAN > Cellular), Cellular First, WLAN First, Ethernet First.
3. Tap **Test** to test whether the previous configurations are working properly.
4. Tap **Save**.



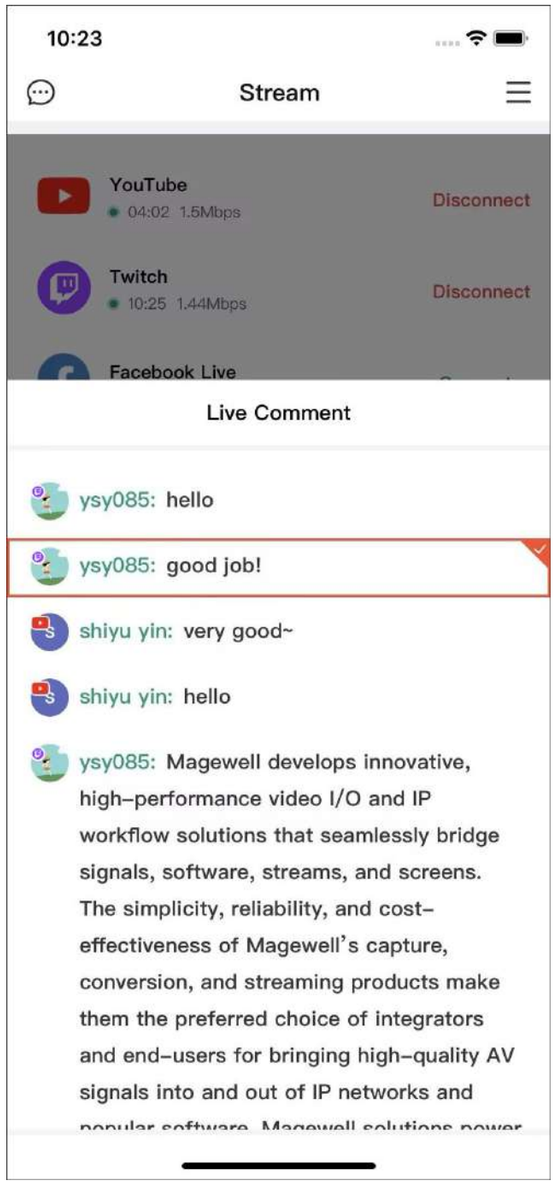
Configure SRT Listener

1. Select **SRT Listener** in the stream setting page.
2. Set the following parameters:
   - **Name**: Enter an alias name for your convenience of multi-item management.
   - **Encode**: Select an encode scheme.
   - **Port**: Enter the port number. Value ranges from 1 to 65535.
   - **Latency**: Enter a number between 20 to 8000. The default value is 120ms. We recommend that you set the same latency for SRT caller and listener.
   - **Encryption**: Toggle on if needed, and then select an encryption algorithm, which can be AES 128, AES 192 or AES 256. And enter the Password, which can contain 10 to 79 characters.
   - **Quick Stream**: When it is enabled, you can start streaming quickly on the main screen.
3. Tap **Test** to test whether the previous configurations are working properly.
4. The stream URL is displayed at the end of the page. If you have multiple network connections, there would be multiple ones. You can tap to copy the URL.
5. Tap **Save**.



Configure RTSP Server

1. Select **RTSP** in the stream setting page.
2. Set the following parameters:
   - **Name**: Enter an alias name for your convenience of multi-item management.
   - **Encode**: Select an encode scheme.
   - **Port**: Enter the port number. Value ranges from 1 to 65535.
   - **Stream ID**: Enter a custom ID, which can contain 1-63 characters.
   - **Encryption**: Toggle on if your live streaming service provider requires. Type your user name and password for the streaming service.
   - **Quick Stream**: When it is enabled, you can start streaming quickly on the main screen.
3. Tap **Test** to test whether the previous configurations are working properly.
4. The stream URL is displayed at the end of the page. If you have multiple network connections, there would be multiple ones. You can tap to copy the URL.
5. Tap **Save**.



Start Streaming

You can simultaneously stream to 4 destinations at most.

1. Tap **Connect** next to a configured server to start streaming to this server.
   Under the server name, it displays streaming duration and real-time streaming rate.
2. (Optional) Tap **Connect** next to another configured server to stream to this server simultaneously.
3. Tap **Disconnect** of a working server to stop streaming to the server.

For YouTube streaming, if you create a new stream to post to, it enables Auto-start by default. When you start streaming to this channel, you can edit the title and description, and then it goes live at once on YouTube. If you need to preview the stream at first, you may refer to How to start a stream scheduled later for YouTube.

View Live Comment

You can view live comments when streaming to YouTube, Twitch or Facebook, and

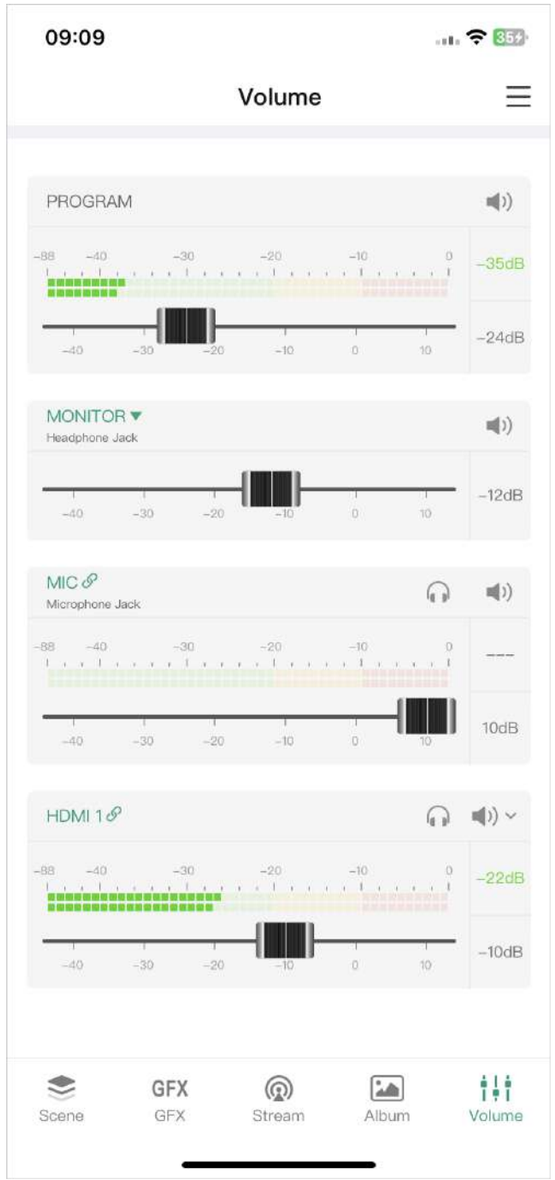
1. Tap 💬 at the upper left corner to open the live comments box, which displays the profile pictures with the platform logo, accounts and comments.
2. Scroll up to view earlier comments, and scroll down to view the most current comments.
3. Long-press one comment to open the setting page.
   - Tap the arrows to switch the overlay style.
   - Tap the check box of **Auto Clear** and set the duration after which the comment automatically disappears.
   - Tap **Send** to sent it as an overlay.
4. Tap the overlay comment to cancel.
5. Tap "x" to close the comment box.

View Album and Control Recording

Tap **Album** at the bottom to open the album page.

- Tap the **Record**, **Replay** or **Screenshot** tab to switch pages, and tap files to preview.
- Swipe a file to the left, and tap **Download** to download the file to your mobile device.
- Swipe a file to the left, and tap **Delete** to delete the file.
- View current save path (indicates the SD card, and indicates the internal storage), free space and time left for recording at the page bottom.
- Tap to start recording, and tap to stop recording.
- Tap to take screenshots of the program output.

- When the recording time is less than 1s, the recording file will not be saved.
- When the remaining free space is insufficient, the device will stop recording automatically.



Control Audio

Remote Assistant supports controlling the output and input audio of the show. Tap **Volume** at the bottom to open the audio mixer.

Audio Type

Scroll the audio mixer to view all the audio sources.

- **PROGRAM**: Output audio of the program scene, for streaming or recording.
- **MONITOR**: Audio output for monitoring.
- **Audio Input Sources**:
  - **MIC**: Audio of global microphone.
  - **Bluetooth**: Audio from a Bluetooth device, which is displayed when the device is connected with the Director device.
  - **USB AUDIO**: Audio from a USB device, which is displayed when the device is connected with the Director device.
  - **HDMI**: Audio from an HDMI source, which is displayed on the audio mixer by default.
  - **RTMP/SRT/RTSP/NDI Stream**: Audio from the RTMP/SRT/RTSP/NDI stream source, displayed with the self-defined name.
  - **Phone Camera**: Audio from the mobile device, displayed with the self-defined name.
  - **VIDEO CLIP**: Audio embedded in the video clip source, which appears when the video clip is in program view. It displays the file name under VIDEO CLIP to distinguish different files.
  - **BGM**: Audio of the background music. Usually, it displays the global BGM. When the current scene has private BGM, the global BGM is overridden by the private one.
  - **Webpage**: Audio from a webpage source.
  - **GFX**: Audio from a GFX, such as webpage, NDI and video, which appears when such GFX is

displayed in the show.

Audio Meter

Except the monitor, each audio has its audio meter showing the real-time level.

The range of the audio meter is -88 dB to 0 dB. It displays the peak value on the right of the audio meter. Colored blocks and scales indicate the danger of clipping, as shown in the table below.

Color	Scale Range	Description
Green	-88 ~ -40	Audio device is connected.
Green	-40 ~ -20	Audio volume is low.
Yellow	-20 ~ -10	Audio is at normal levels.
Red	-10 ~ 0	Audio is in danger of clipping.

Adjust Audio Level

Each audio has a fader for adjusting the maximum level.

- Move the fader to set the gain on the audio level. The range is from -40dB to 10dB.
- The current adjusted value is displayed on the right of the fader. Double-tap the value to restore the fader to 0dB.

Set Program Audio

Use the button on the right side of PROGRAM to turn on or turn off the program output audio.

- : indicating the program output audio is turned on.
- : indicating the program output audio is turned off.

Set Monitor

The monitor has an independent audio level with the default gain of -15 dB. You can set monitor audio without effecting the program output audio.

Set Monitor Properties

Tap **MONITOR** to set the following properties.

- **Select Device**: select a device as the monitor.
  - Headphone Jack: device connected to the headphone jack.
  - Bluetooth Device: device connected through BT.
  - *USB device*: device(s) connected to the USB 3.0 port(s). The system automatically lists device name(s).
- **Monitor Option**:
  Toggle on/off the switch of **MIC Input** to set whether to monitor the microphone. It is toggled on by default.

Enable/Disable Monitor

Tap the button on the right side to enable or disable audio monitoring.

- : indicating audio monitoring is enabled.
- : indicating audio monitoring is disabled.

Solo Monitor

- Tap to only monitor this audio input.
- Tap to cancel.

Set Audio Input Sources

Audio Association State

- When an audio input source is added to multiple scenes, its name is displayed in green on the audio mixer, and you can tap the name to change its association state. It also applies to global audio, including microphone, Bluetooth and USB audio.
  -  : indicating the audio input is associated with multiple scenes. The settings to this audio input will take effect to all the scenes.
  -  : indicating the audio input is not associated with other scenes. You can customize the audio mixing mode and adjust audio level for each scene.
  - When the state changes from  to  , the settings to this audio input on current scene will take effect to the whole show.
- When an audio input source is only contained in one scene, its name is displayed in black on the audio mixer and cannot be tapped. The settings to this audio input will take effect to all the scenes.

> When a webpage's audio is added into different scenes or GFXs, it is treated as separate audio input sources, serving as the private audio for each scene or GFX.

Set Audio Mixing Mode

Tap the icon to set the audio mixing mode of each audio input source.

- When the audio input source is in  state, or is only added in one scene.
  -  : Audio-follow-video. The audio will only be sent to the program output when the input is in program view.
  -  : Always ON. An audio input will be permanently mixed into the program output.

- : Always OFF. An audio input will be permanently not mixed into the program output.

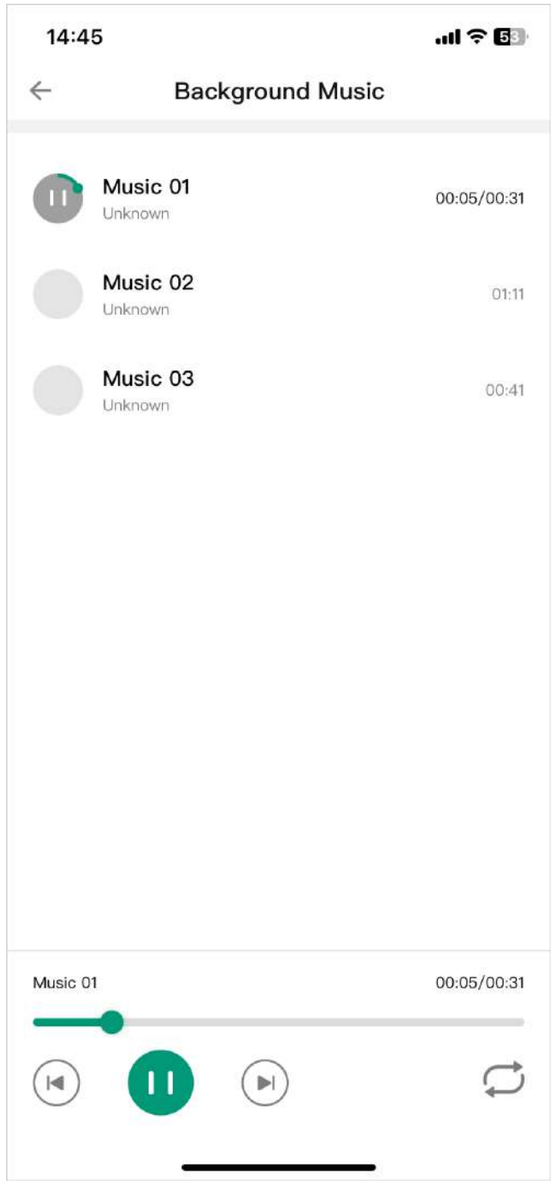
- When it is private BGM, Video Clip, or other audio input source in state.
  - : ON. When the current scene is in program view, the audio will be sent to the program output.
  - : OFF. When the current scene is in program view, the audio will not be sent to the program output.
- When it is global BGM,
  - : ON. It will be permanently mixed into the program output.
  - : OFF. It will be permanently not mixed into the program output.
- When it is GFX audio,
  - : ON. When the GFX is applied, the audio will be sent to the program output.
  - : OFF. When the GFX is applied, the audio will not be sent to the program output.

> If you connect a Magewell USB Capture device to the Director device, the USB audio supports AFV. For other USB devices, they do not support AFV.

Use Magewell USB Capture

When a Magewell USB Capture is connected to the Director device, you can control the embedded audio from the input signal and microphone/Line In audio.

- Embedded audio from the input signal: support setting and state. Please refer to Set Audio Input Sources.
- Microphone/Line In audio:
  - : ON. The audio input will be permanently mixed into the program output.
  - : OFF. The audio input will be permanently not mixed into the program output



Control Background Music

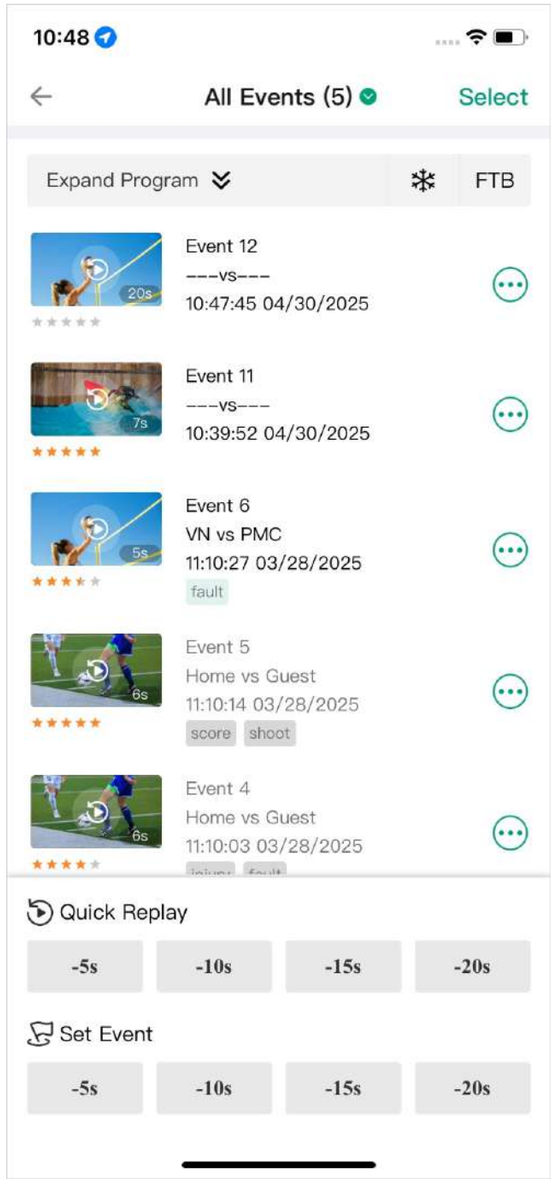
Tap ☰ and select **Background Music** to control BGM. Usually, it displays the global BGM. When the current scene has private BGM, the global BGM is overridden by the private one.

Play BGM

1. Tap the song name to switch.
2. Tap buttons on the playback bar to control the BGM playback.
   - Tap ▶ to play or ⏸ to pause.
   - Tap ⏮ to play the previous song or ⏭ to play the next song.
   - Drag the playhead to a specified position.
   - Set the loop policy:
     - 🔁 : Repeat the playlist
     - 🔂 : Repeat the song
     - 🔀 : Shuffle the playlist

Delete BGM

1. Swipe a song to the left.
2. Tap **Delete**.
3. Confirm to delete on the popup.



Control Replay

Replay allows you capture some of the greatest moments, slow down the action and save your highlights.

Please enable the Replay function on the device, and tap ☰ and select **Replay** to open the Replay page.

Quick Replay

Quick Replay allows you to review the recent live content.

Tap **-5s**, **-10s**, **-15s** or **-20s** under **Quick Replay** to replay the live content from 5, 10, 15 or 20 seconds ago.

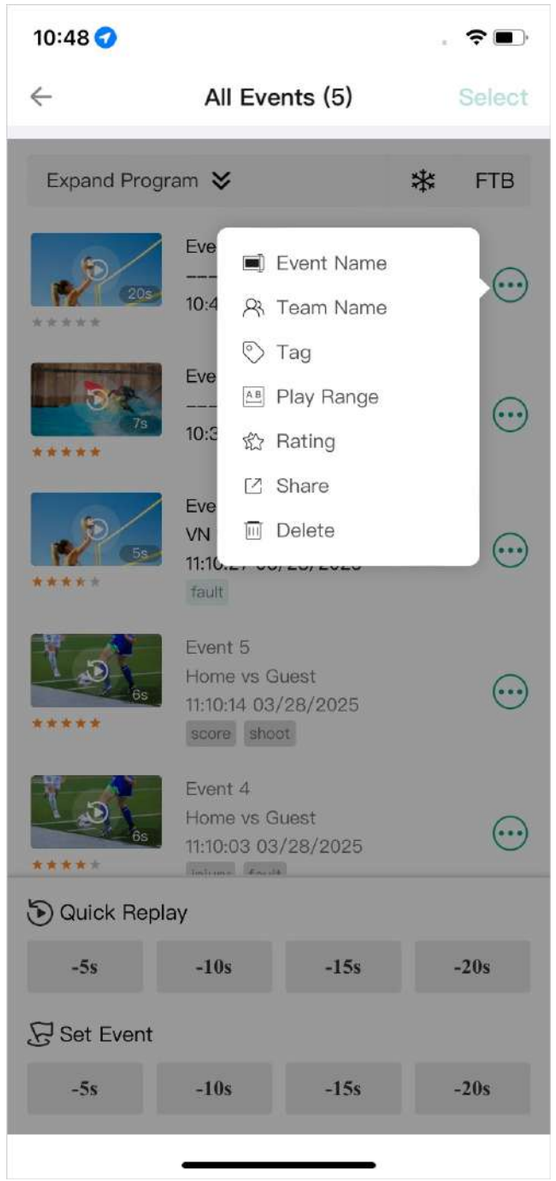
> If you have enabled two replay cameras, on the popup window, you can select a replay mode to decide the replay layout and order.

Event Replay

You can also save events during live program, and replay the events later.

Set Event

Tap **-5s**, **-10s**, **-15s** or **-20s** under **Set Event** to quickly save one or more events backtracked 5, 10, 15, or 20 seconds.



Manage and Replay Event

1. Tap ⋯ to configure the following items.
   - **Event Name**: Enter or change the name of an event for easy identification and management.
   - **Team Name**: Enter or change the names of teams related to the event, clarifying the participating parties.
   - **Tag**: Tap **Add Tag** to add descriptive tags, which help to quickly mark key information. Then, you can select up to three tags for the event.
   - **Play Range**: Drag the A or B slider to precisely set the start and end points of the event video to focus on important segments.
   - **Rating**: Rate the event with stars to intuitively reflect the importance or excitement level of the event.
   - **Share**: Select a destination from the popup to share the event. At the same time, the event is saved in your mobile device.
   - **Delete**: Remove the unnecessary event and its associated information.
2. Tap the arrow icon on the title line to expand the filter page, and then tap one condition to filter events.
   - **All events**: It lists all the events.
   - **Time**: You can filter events of "Previous one hour", "Today", as well as "Today and yesterday".
   - **Tag**: You can filter events per different tag.
3. Replay single event:
   i. Tap the event thumbnail to bring out the preview window.
   ii. Tap the play button to preview the event.

iii. Tap the **Replay** button to start replaying this event.

> If you have enabled two replay cameras, on the popup window, you can select a replay mode to determine the replay layout and sequence.

4. Replay multiple events:
   i. Tap **Select** at the upper right corner.
   ii. Select the events you needed, or tap **Select All**.
   iii. Tap **Replay...** at the bottom.
   iv. Select replay action.
      - **Loop replay**: If not enabled, it only replays once. If enabled, it replays repeatedly at the set time duration, and you can set the duration by tapping "Loop time".
      - **Replay order**: Select a order. Options include Oldest to Newest, Newest to Oldest and Order of Selection.

   v. Tap **Replay** to start replaying all the selected events.
5. To download multiple events, tap **Select** at the upper right corner, select the events you needed, or tap **Select All**, then tap **Download** at the bottom.
6. To delete multiple events, tap **Select** at the upper right corner, select the events you needed, or tap **Select All**, then tap **Delete** at the bottom.

Events are saved into the Album, you can tap the Album tab to view.

Control Replay

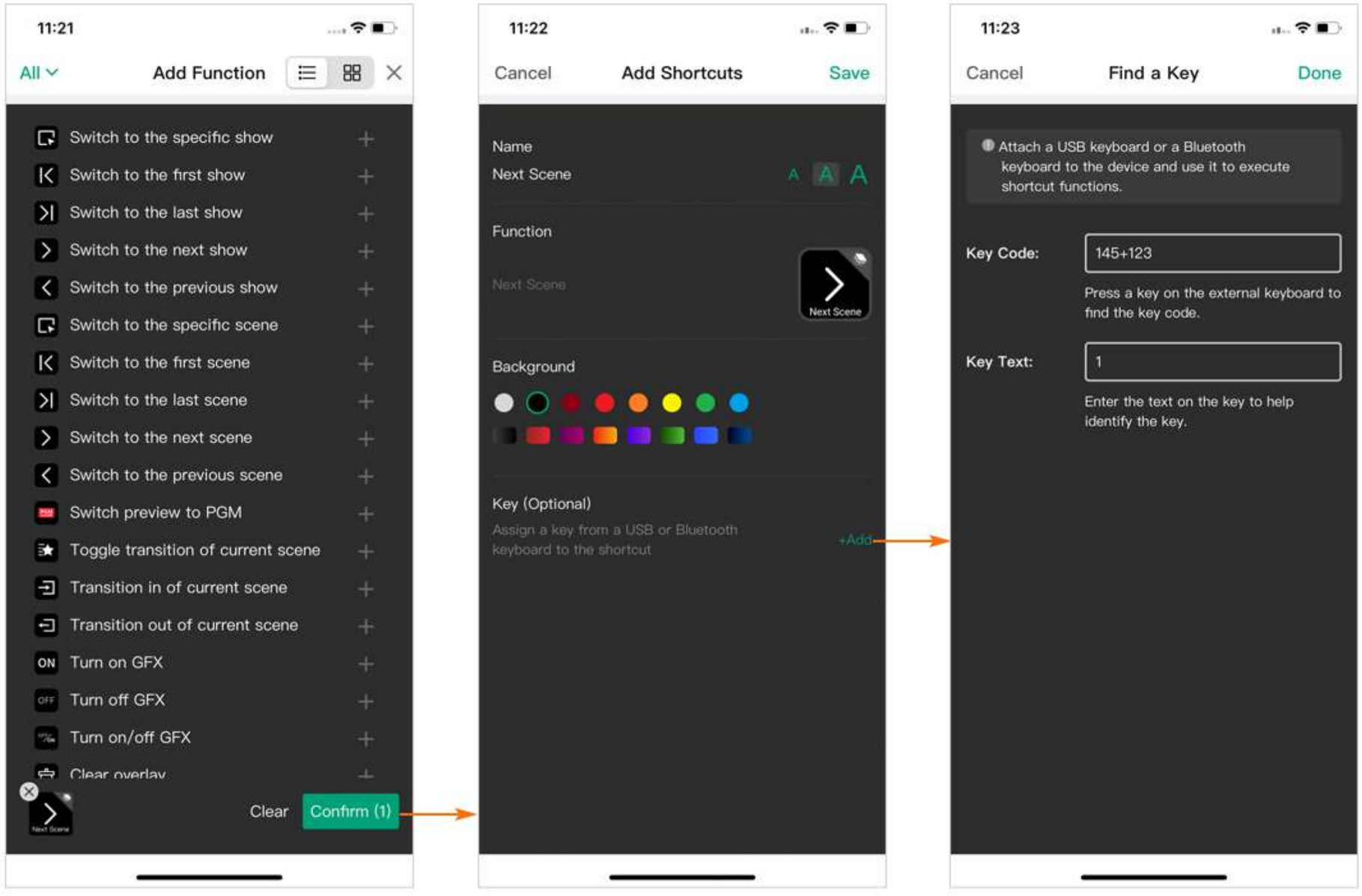
When it enters the replay mode, you can see the replay image. Double-tap on the screen to switch between two effects: one where the image is scaled proportionally to fit the screen with some blank space (margins), and another where the image is scaled proportionally to fill the screen, potentially cropping the edges.

- Drag the playhead of progress bar to adjust the progress.
- Tap ⏮ to rewind to the start.
- Tap ▶ or ⏸ to play or pause the replay.
- Tap ↺ or ↻ to fast backward or forward at a faster pace, which is set on the device.
- Tap the speed button to change the playback rate. Options include 0.1x, 0.25x, 0.33x, 0.5x, 0.75x, and 1.0x (default).
- Tap the camera switch button to switch the replay content.
  - 1 : Camera 1
  - 2 : Camera 2
  - 1|2 : Camera 1 and 2 in side-by-side layout
  - 2|1 : Camera 2 and 1 in side-by-side layout
- Tap ••• for more features. (Only for quick replay)
  - **Save event**: save the content of quick replay to the Album.
  - **Mute/Unmute sound**: tap to mute or unmute the sound of replay.
- Tap the sound button to mute or unmute the replay sound. (Only for event replay)
  - 🔇 indicates the sound is muted.
  - 🔊 indicates the sound is unmuted.
- Tap X to exit.

Control Shortcuts

Director device supports the MiraBox Stream Dock 293 for plug-and-play control. Just add your desired shortcuts to this page, no need to assign key binds. Once set up, simply connect your MiraBox Stream Dock to the Director device, all shortcut icons and layout are synchronized to the Stream Dock, and you can use it for instant control.

You can also connect a common USB or Bluetooth keyboard, such as X-Keys and NumberPad, and create Shortcuts to control the device more easily.



Add Shortcuts

1. Tap ☰ and select **Shortcuts**.
2. Tap ＋.
3. Add a function.
    i. Tap the button in the upper left corner to filter function categories, then choose a function from the options below. For some functions, additional selections or operations are required; please follow the on-screen prompts to proceed. Tap the buttons in the upper right corner to switch between list mode and thumbnail mode.
        - You can add multiple functions for one shortcut.
        - The extra "Wait" function can be added between each two functions. By setting the wait duration, a group of functions can be activated sequentially with a single press, allowing them to take effect one by one.
        - The "Next page", "Previous page" and "Go to page N" functions can help you turn pages on the MiraBox Stream Dock.

    ii. A list of selected function icons is displayed at the bottom. You can long-press an icon to drag and reorder it, and tap **X** to delete it. To remove all the functions, tap **Clear**.

    iii. After completing the function addition, tap **Confirm**.
    You can see the added function in the "Function" area, and you can tap the icon to modify the function.
4. (Optional) Enter a custom name for your shortcut. Tap **A** at the right side to change the font size.
5. (Optional) Set a solid or gradient background color for the shortcut icon.
6. (Optional) For a common keyboard, such as X-keys or NumberPad, connect it to the device, then tap **+ Add** on the right side of "Key":

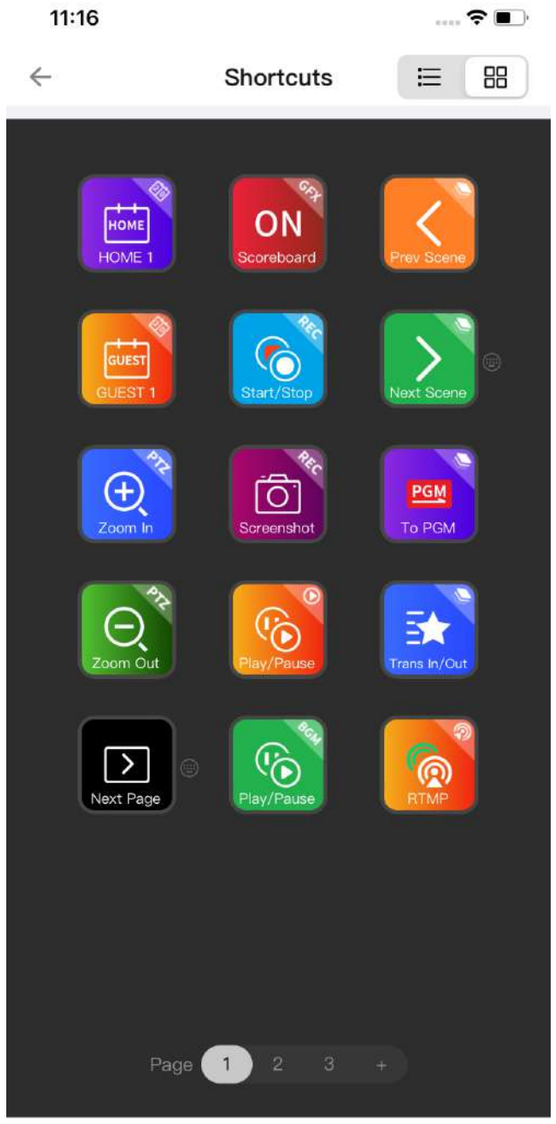
i. Press a key on the keyboard to find the key code, or you can enter a key code number. You can also press two or more keys at the same time.

ii. Enter the key text on the key to help identify the key. You can also customize the text.

iii. Tap **Done** to confirm.

7. Tap **Save** in the upper right corner to finish adding this shortcut.

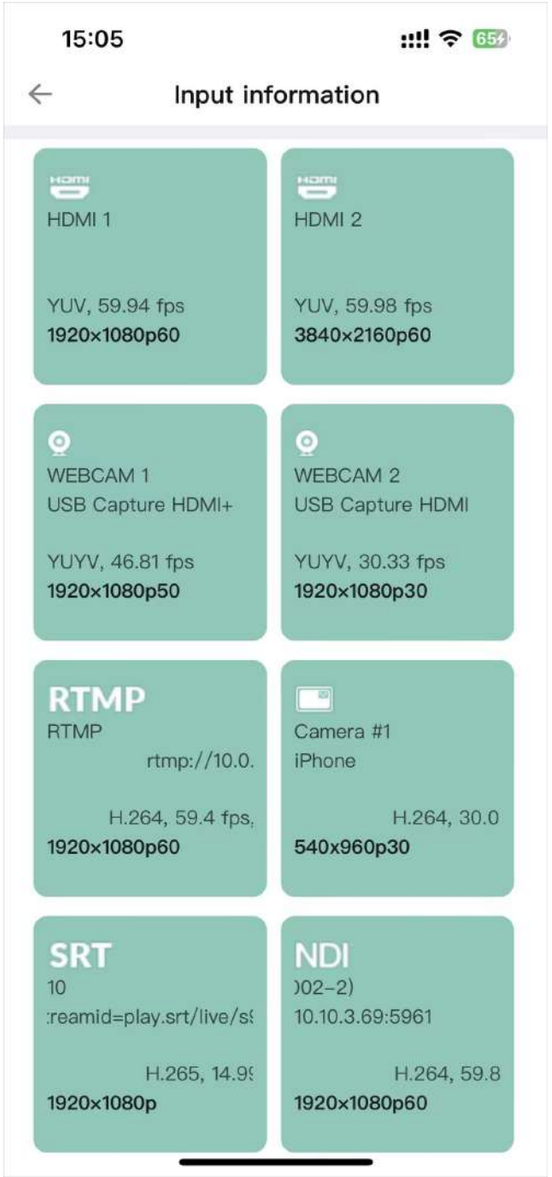
8. Repeat steps above to add more shortcuts.



Shortcut List

The shortcut list displays all the added shortcuts. You can manage the shortcuts as follows:

- Rotate the screen to change the direction of icons.
- Long-press and drag an icon to reorder it.
- Long-press an icon and tap **Edit** in the pop-up menu to edit the shortcut.
- Long-press an icon and tap **Delete** in the pop-up menu to delete the shortcut.
- Tap the page number at the bottom to switch pages.
- Tap the "+" at the bottom to add more pages.
- Long-press a page number and then tap **Delete** to delete the page and all shortcuts on it.
- Tap the buttons in the upper right corner to switch between list mode and thumbnail mode.



View Input Information

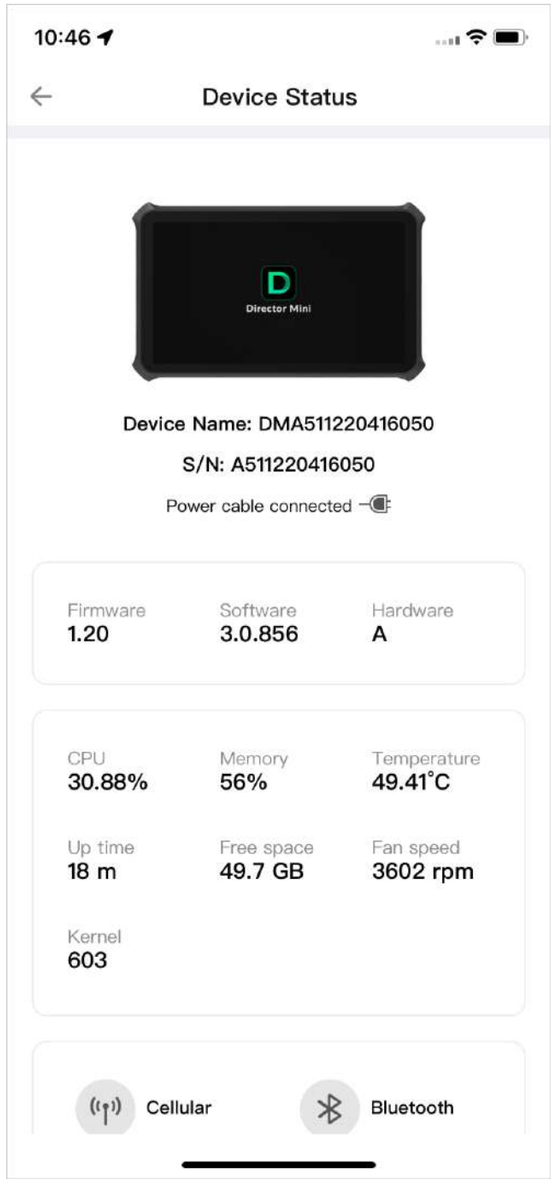
Tap ☰ and select **Input Information** to view the information of each input source of current show, in which HDMI and WEBCAM are always displayed, while IP inputs and phone camera are displayed when they are added to scenes.

- **HDMI 1/2**: the input status of the HDMI 1/2 port
  - *Format*: the color format of HDMI input, such as YUV and RGB
  - *Real-time frame rate*: the real-time frame rate of HDMI input
  - *Resolution/frame rate*: the original resolution and frame rate of HDMI input, such as 1920x1080p60
  - *Disconnected*: no input source connected.
- **WEBCAM 1/2**: the input status of WEBCAM 1/2
  - *Device name*: the device name of WEBCAM
  - *Format*: the video format of WEBCAM input, such as YUYV, NV12 and MJPEG
  - *Real-time frame rate*: the real-time frame rate of WEBCAM
  - *Resolution/frame rate*: the resolution and frame rate of WEBCAM which is set when you add the source in a scene, such as 1920x1080p60
  - *Disconnected*: no input source connected or added to a scene
- **NDI®**: the input status of NDI stream
  - *Stream name*: the name of NDI stream
  - *URL*: the URL of NDI stream
  - *Codec*: the codec information of NDI stream, such as H.264 and H.265
  - *Real-time frame rate*: the real-time frame rate of NDI stream
  - *Bitrate*: the real-time bitrate of NDI stream

    - *Resolution/frame rate*: the original resolution and frame rate of NDI stream, such as 1920x1080p60
    - *Disconnected*: no NDI input signal
- **RTMP**: the input status of RTMP stream
    - *Stream name*: the name of RTMP stream
    - *URL*: the URL of RTMP stream
    - *Codec*: the codec information of RTMP stream, such as H.264
    - *Real-time frame rate*: the real-time frame rate of RTMP stream
    - *Bitrate*: the real-time bitrate of RTMP stream
    - *Resolution/frame rate*: the original resolution and frame rate of RTMP stream, such as 1920x1080p60
    - *Disconnected*: no RTMP input signal
- **SRT**: the input status of SRT stream
    - *Stream name*: the name of SRT stream
    - *URL*: the URL of SRT stream
    - *Codec*: the codec information of SRT stream, such as H.264 and H.265
    - *Real-time frame rate*: the real-time frame rate of SRT stream
    - *Bitrate*: the real-time bitrate of SRT stream
    - *Resolution/frame rate*: the original resolution and frame rate of SRT stream, such as 1920x1080p60
    - *Disconnected*: no SRT input signal
- **RTSP**: the input status of RTSP stream
    - *Stream name*: the name of RTSP stream

- *URL*: the URL of RTSP stream
- *Codec*: the codec information of RTSP stream, such as H.264
- *Real-time frame rate*: the real-time frame rate of RTSP stream
- *Bitrate*: the real-time bitrate of RTSP stream
- *Resolution/frame rate*: the original resolution and frame rate of RTSP stream
- *Disconnected*: no RTSP input signal

- **Phone Camera**: the input status of phone camera
  - *Camera name*: the custom name of phone camera
  - *Phone name*: the custom name or model of your phone
  - *Codec*: the codec information of phone camera
  - *Real-time frame rate*: the real-time frame rate of phone camera
  - *Bitrate*: the real-time bitrate of phone camera
  - *Resolution/frame rate*: the original resolution and frame rate of phone camera which is set when you add the source to a scene.
  - *Disconnected*: no phone camera input signal



Check Device Status

Tap ☰ and select **Device Status** to open the Director device status page, and it displays the following information.

- **Device picture**: the picture of the connected Director device model.
- **Device Name**: the connected Director device's name.
- **S/N**: the serial number of the connected Director device. The serial number can also be found on the device.
- **Power**: the power connection state, displaying the power cable or the battery status.
- **Firmware**: the firmware version of Director device.
- **Software**: the software version of Director device.
- **Hardware**: the hardware version of Director device.
- **CPU**: the CPU usage of Director device, in percentage.
- **Memory**: the memory usage of Director device, in percentage.
- **Temperature**: the temperature of the chipset on Director device.
  To avoid overheat, ensure that device is working in a well-aired environment with proper temperature. When the temperature approaches 90 degrees, you need to reduce the temperature, such as by using a fan.
- **Up time**: the duration that Director device keeps running since last startup.
- **Free space**: the available storage of Director device.
- **Fan speed**: the rotation speed of the fan per minute. This changes based on the temperature of Director device.
- **Kernel**: the usage of kernel resource.
- **Network**: the information of Cellular, BT, WiFi, Ethernet and Hotspot.

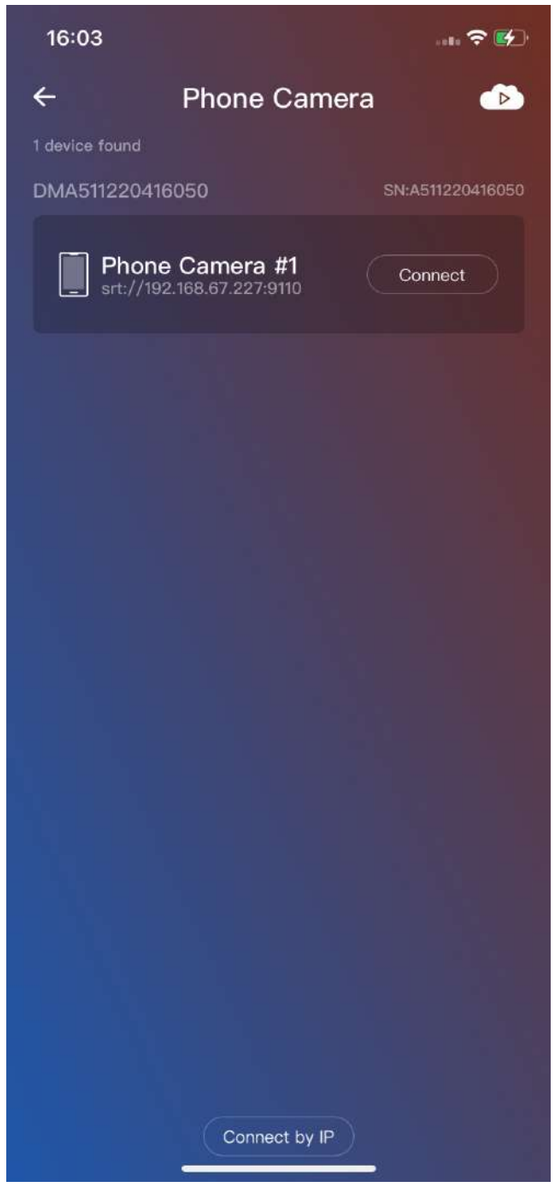
Power Off the Device

Remote Assistant supports powering off the connected Director device.

1. Tap ☰ at the upper right corner and select **Power off**.
2. Confirm to power off the device on the popup.

Phone Camera

"Phone Camera" can turn your mobile device as a webcam to input to the Director device, or stream to a destination via SRT.



Connect Phone Camera

1. Ensure that your mobile device is connected to the same network as the Director device.
2. Ensure that you have added Phone Camera in one or more scenes in the current show on the Director device.
3. Open the Director Utility App, and tap **Phone Camera**.
4. Select a camera of one Director device in the detected device list, and tap **Connect**.
5. Then your mobile device goes into the shooting mode, and the real-time image taken by your mobile device is shown in the corresponding scene on the Director device.

When the mobile device and the Director device are not on the same network but the networks are interconnected, the Director Utility cannot discover the device directly. You can connect them via the following method:

1. Open the Director Utility App and tap **Phone Camera**.
2. Tap **Connect by IP** at the bottom.
3. Enter the IP address of the Director device.
4. If the device enables password for security, enter the password.
5. Tap **Connect**.

> The 'History Devices' list displays all previously connected Director devices. You can select an IP address to connect.

Control Camera

1. Rotate your mobile device to switch between landscape or portrait mode. Tap to lock the landscape or portrait mode.
2. Drag on the left to zoom in/out.
3. Tap an area on the screen to focus.

   A yellow box will appear on the screen indicating the focus area and you can drag to adjust brightness.
4. Tap and hold on a part of the screen for a few seconds to enable AE/AF lock.
   A yellow box with will appear on the screen, and the focus is locked on that part. It will remain locked until you tap on another part of the screen.
5. Tap and select **Front-facing** camera or **Back-facing** camera.
   There will be more back camera options, such as Back Dual Wide Camera and Back Ultra Wide Camera, depending on your mobile device type. Besides, you can even select a USB camera connected with your iPad.

   > To use the external USB webcams, the iPad requires an iPadOS version of 17 or above and it should have a USB-C port for connectivity.
6. Tap / to enable or disable the microphone. When the microphone is enabled, there will be an audio meter on the right side, displaying the real-time volume level.
7. Tap to record the shooting content to your mobile device.
8. Tap to set whether to show the following elements.
   - **Camera Name**: The camera name you have set when adding a phone camera source on your Director device.
   - **Image Quality**: The image quality you have set when adding a phone camera source on

your Director device.

- **Performance**: The performance of your mobile device, including CPU, memory, encoder and drop. (CPU and memory are only available for iOS.)
- **Audio Level**: A audio meter displaying the audio level of the phone camera.
- **PTZ Control**: The PTZ control bar.
- **Tally Light**: PGM indicates your phone camera scene is on program, while PRV indicates it is on preview.
- **Camera Parameters**: The parameters of your phone camera, including White Balance, ISO, Focus and Exposure, which can be set in Pro Mode.

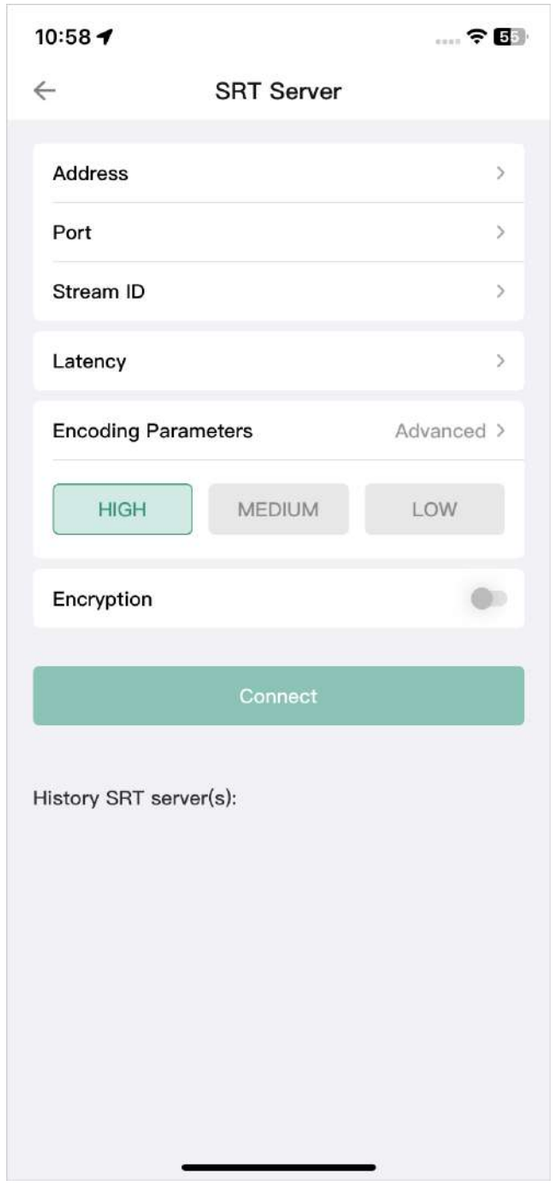
9. Tap to customize the camera settings, referring to Pro Mode.
10. Tap / to turn on/off the flashlight. (The icon only appears when you select the back-facing camera.)
11. Tap to disconnect the device.

Pro Mode

Tap to customize the camera settings. The default setting of each item is A, indicating auto adjustment.

- **White Balance**:
  Select an appropriate white balance mode to ensure a true-to-life color range. For example, select when shooting in bright daylight. Also, you can tap to manually adjust the color temperature.
- **ISO**:
  Slide the ISO value to set camera light sensitivity. Low values are for stationary or well-lit objects. Higher values are for fast-moving or low-lit objects, but which can result in noise.
- **Focus**:
  Drag the adjustment bar to manually adjust the focus.
- **Exposure**:
  Slide to change the exposure value. This determines how much light the camera's sensor receives. For low-light situations, use a higher exposure.
- **IS**:
  Tap to enable or disable image stabilization.

> The app will remember the settings when you exit, including portrait or landscape mode, front or back camera, etc. When your mobile device is connected to the device again, the settings are automatically restored.



Stream via SRT

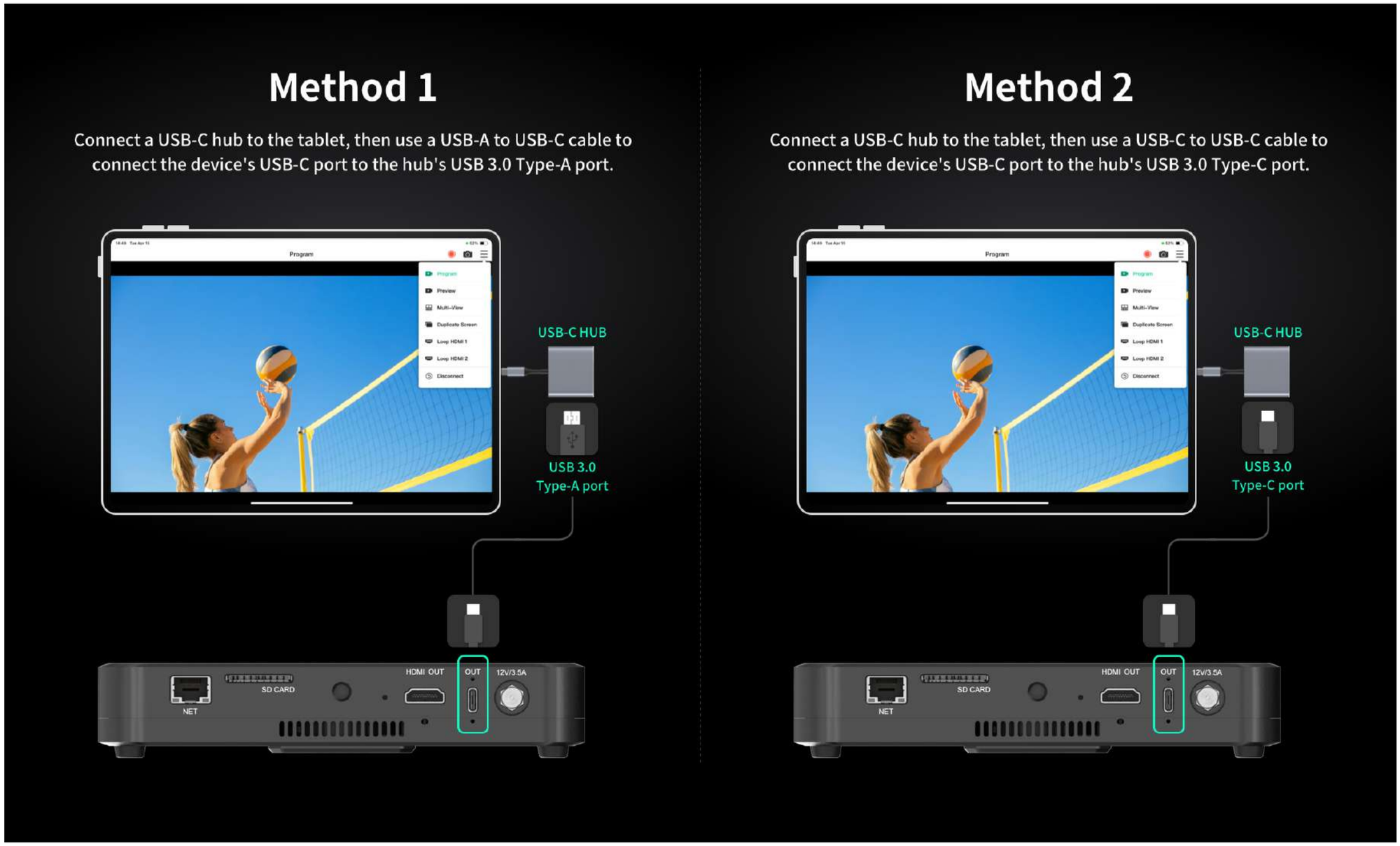
Director Utility App supports streaming real-time video taken by your mobile device to a destination via SRT.

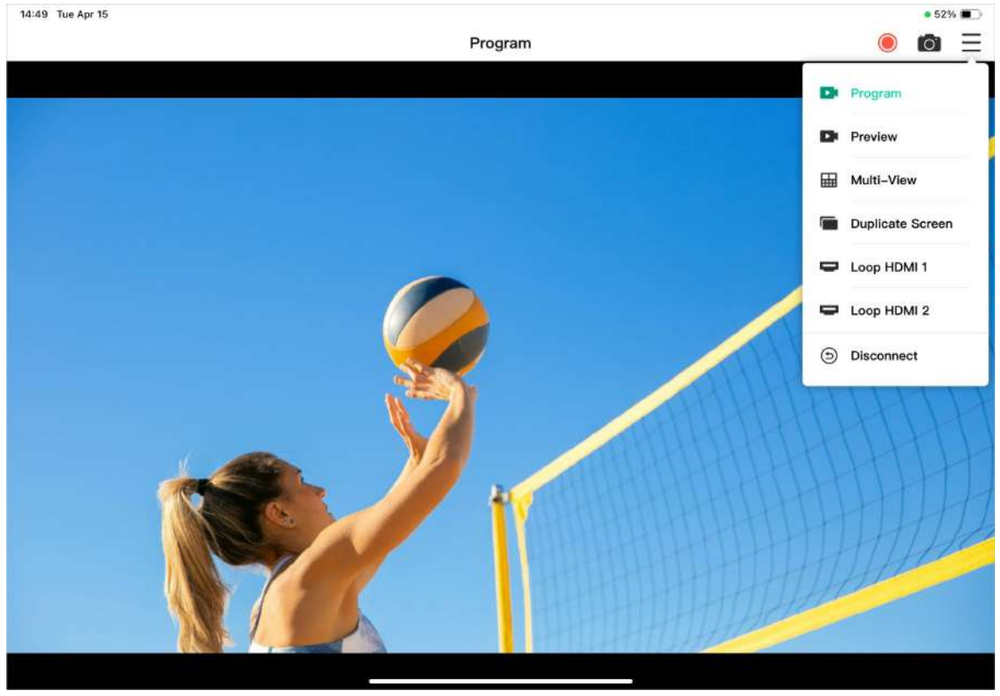
1. Ensure your mobile device is connected with a network.
2. Open the Director Utility App and tap **Phone Camera**.
3. Tap on the right upper corner to open the SRT server configuration page.
4. Tap **Address**, and enter the address of receiver.
5. Tap **Port**, and enter the port number of receiver. Value ranges from 1 to 65535.
6. Tap **Stream ID**, and enter a custom ID, which can contain 0-256 characters.
7. Tap **Latency**, enter a number between 20 to 8000. The default value is 120ms. We recommend that the latency is configured the same as that of the receiver.
8. Set **Encoding Parameters**. Options include HIGH, MEDIUM and LOW. Tap "Advanced" to set the following parameters:
   - Codec: H.264, H.265
   - Resolution: 540, 720, 1080
   - Frame rate: 30, 60
   - Video bitrate: ranging from 256kbps to 30000kbps
   - Audio bitrate: 64, 96, 128
9. (Optional) Toggle on Encryption, select an encryption algorithm (AES 128, AES 192 or AES 256), and type in the passphrase, which can contain 10 to 79 characters.
10. Tap **Connect**. Your mobile device goes into the shooting mode. Then you can control your Phone Camera.

The History SRT servers list shows all added servers. You can tap one to connect.

External Screen

External Screen feature applies for a tablet with a USB-C port (USB 3.0 and above). If you use an iPad, it should be running iPadOS 17 or later.
To use this feature, the Director device should be set to UVC + UAC mode. Then connect the tablet and the device via the following methods.





- Tap ☰ to select displayed content.
  - **Program**: program signal
  - **Preview**: preview signal
  - **Multi-view**: 8 video boxes showing scene thumbnails at the bottom, and two larger boxes at the top, with the left one showing Preview view and the right one showing Program view.
  - **Duplicate Screen**: duplicate all the elements on the device screen, and then you can control the device via the tablet.
  - **Loop HDMI 1**: the signal from HDMI 1
  - **Loop HDMI 2**: the signal from HDMI 2
- Tap ⏺ or 📷 to take a record or screenshot of the current displayed content, which will be saved to the album of the tablet.

  > Multi-view and Duplicate Screen do not support record and screenshot.

- To exit external screen mode, tap ☰ and select **Disconnect**.

FAQ

Director device is connected to a network, but the App cannot find it.

When your phone indicates "Please enable Location Service and join the WiFi", please go to Settings > Privacy > Location Services, and switch on the Location Services, and join the same network as the Director device connects. If your phone is connected with a cellular network, such as a 4G network, you also need to connect your phone to WiFi, which should be in the same network as Director device connects.
When your phone indicates "Location Services is enabled and the joint WiFi is xxxx", please check whether Director device and your phone are connected to the same network. If no, connect them to the same network.

A Wi-Fi connected iOS device cannot find Director devices.

On iOS 14 and later, if the iOS device has connected to the same network as Director device but still cannot find any Director device, you need to consider whether the required permission is enabled.
On iOS 14 and later, when you first use Director Utility App, you will be prompted to allow the App to find and connect to devices on the local network. If you do not allow, the App will not be able to find Director devices on the local network. To allow the App to find Director devices, go to Settings > Privacy > Local Network, find the Director Utility App, and turn on the switch next to it.

The phone indicates "No Phone Camera Created".

When you use the Phone Camera function of Director Utility App to connect Director device, you need to create one or more Phone Cameras to the current show on the device at first.

1. Tap + on the mains screen of the device, and select Phone Camera to create.
2. Open the App on your phone, tap **Phone Camera**, and then it lists the devices with cameras created.
3. Tap **Connect** behind a camera, and then your phone goes into the shooting mode, and the real-time image taken by your phone appears in the corresponding scene on the device.

How to start a stream scheduled later for YouTube

When streaming to YouTube, you may need to preview the stream at first and then goes live as scheduled. You can follow the guide below.

1. Create a channel in your YouTube studio, and set the schedule.
2. Ensure that you have **NOT** enabled Auto-start.
3. Tap **Stream** at the bottom to open the stream server list, and start configuring YouTube.
4. When configuring **Post To**, select the channel you have created in Step 1.
5. Save your configurations.
6. Start streaming to YouTube.
7. On the popup window, select **Only Preview** to preview the stream at first.
8. In Live Control Room of YouTube, wait for the stream preview to show up, and then click **Go live**.

> If you select **Go Live** in step 7, it streams to YouTube and goes live at once.

Besides, when you stop streaming, usually it ends live at once. If you want to pause streaming and keeps live, you can refer the following steps.

1. Go to your YouTube studio.
2. Ensure that you have **NOT** enabled Auto-stop.
3. Tap **Stream** at the bottom to open the stream server list, and stop streaming to YouTube.
4. On the popup window, select **Pause Streaming** to pause stream but keeps live. You can use the **END STREAM** button in Live Control Room of YouTube to end live.
   If you select **End Live**, it stop streaming to YouTube and ends live at once.

Why can't I log in to my YouTube account?

When you try to log in to your YouTube account, your login may fail with a message indicating that your account is not enabled for live streaming. In this case, you need to go to YouTube to enable live streaming for your account.

1. Log in to YouTube on your computer.
2. At the upper right corner on the YouTube home page, click > Go live.
3. If you haven't, follow the prompts to verify your account.
   You will be prompted to enter your country and phone number.

After your account is verified, it takes 24 hours to activate your account for live streaming.
Once live streaming is activated, you can then successfully log in to your YouTube account and stream to YouTube.
For other information such as what you can stream to YouTube, you can go to the YouTube official website.

It does not show live comments from Twitch?

The live comments from Twitch are got via SDK. Twitch's SDK does not support binding network card, that is, it does not support setting network priority. When the device is connected with multiple networks, to use one preferred network for streaming to Twitch while view live comments at the same time, please ensure that all these networks can access the official website of Twitch.

It does not show live comments from Facebook?

To show live comments from Facebook, you need to share your content to Public audience. You can refer to Choose who can see your post on Facebook .

Support

Get the Latest Information

If you have any problems using Magewell products or need more technical information, please visit the official website www.magewell.com for product introduction, user manual, and more.

Technical Support

- Go to the Knowledge Base to find answers to your problem. If you cannot find an answer, click **Contact Us** at the bottom to contact the support team.
- Submit your questions in the online Ticket System: tickets.magewell.com, or contact the Magewell Technical Support Team at support@magewell.net.

Glossary and Abbreviations

AES

Advanced Encryption Standard (AES) is a specification for the encryption of electronic data.

FTB

Fade to black. FTB allows your show to slowly disappear into a black, usually indicating the end of a scene or show.

GFX

Graphic overlays. Graphics overlay are text and graphics that are displayed in a stream over the actual content (such as game or video) during a live stream.

RTMP

RTMP stands for "Real-Time Messaging Protocol". It is an efficient way to transmit large chunks of audio, video, and data from a server to the Internet via an encoder. Most live video streaming relies on RTMP to deliver smooth, real-time playback.

SRT

SRT stands for "Secure Reliable Transport". It is an open source video transport protocol that utilizes the UDP transport protocol. It supports packet recovery while maintaining low latency. SRT also supports encryption using AES.