

Cloud Streaming Services

Live Video Caster

Product Documentation



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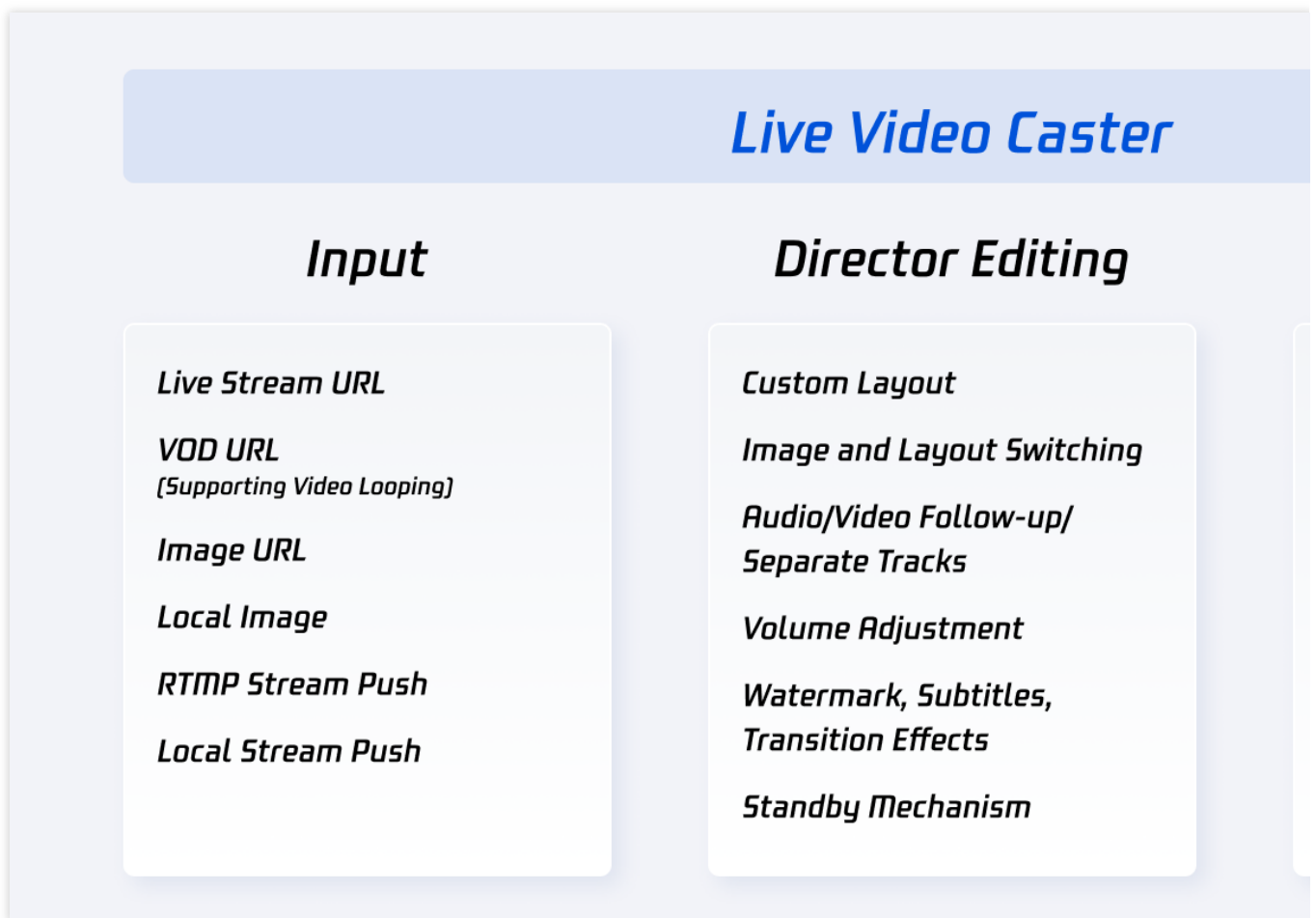
Live Video Caster

Overview

Last updated : 2024-03-21 14:14:09

The Cloud Streaming Services console offers the Live Video Caster (LVC) service. This guide describes the features and main application scenarios of LVC.

Product Architecture



Live Video Caster Features

Category	Feature	Description
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Input sources, up to 24 inputs supported	Live stream	<p>Live stream pull: Live stream conversion to stream pull: The feature enables configuring the URLs of current live streams to LVC, supporting RTMP, HLS, and HTTP-FLV protocols. As for encoding formats, only H.264 encoding is supported for video, and AAC is supported for the audio.</p>
		<p>Live push: RTMP push: It refers to pushing the media files to the LVC system using the RTMP protocol. As for encoding formats, only H.264 encoding is supported for video, and AAC is supported for the audio.</p>
	VOD	<p>VOD URL: It supports not only media files stored in Tencent Cloud COS but also files stored by other providers. It supports the MP4, HLS and FLV formats (the FLV format is recommended). The console will automatically play the files in the list in a loop. As for encoding formats, only H.264 encoding is supported for video, and AAC is supported for the audio.</p>
	Image	<p>Image URL: The JPEG, JPG, PNG, and BMP image formats are supported. The URL is configured to LVC, with the image size not exceeding 1920*1080 pixels.</p>
		<p>Local Images:The PNG, JPG, and JPEG images can be uploaded, with the size not exceeding 5 M.</p>
	Local stream push	<p>Local Camera:The local camera can be used as an input source, supporting resolutions of 1920 1080, 1280 720, 640 480, and 640 360.</p>
<p>Screen Sharing:Screen sharing is supported with the options to select either the application window or the desktop, supporting resolutions of 1920 1080, 1280 720, 640 480, and 640 360.</p>		
Output	Output as a live stream	The RTMP, HLS, and HTTP-FLV output stream protocols are supported.
	Relay	Output stream can be pushed to other manufacturers using the RTMP protocol. The push stream address must be in the following format: <code>rtmp://domain/app/stream?arg1=xxx</code> .
	Recording	All live recording capabilities are supported (MP4, HLS and FLV format recording, custom recording durations, and so on).

Audio/video processing	Video layout	Custom video layouts are available, with screen units adaptable to any input source.
	Feature components	Watermark names can be added, and watermark positions can be accurately adjusted. Watermarks and text can be overlaid.
	Prepared content for live stream	Custom playback video or images can be switched to when the main input source encounters issues.
	Audio processing	The volume for each input stream in the output flow can be adjusted. Separation of audio and video is supported. For example, when video source 1 is being played, you can choose to play the audio of video source 2.
Director processing	Pre-monitor, main monitor	The layout of pre-monitor images and switching from pre-monitoring to main monitor are supported.
	Delayed playback	Playback with delay of up to 300 seconds is supported. That is, the output stream can lag behind the main monitor by up to 300 seconds.

Documentation

LVC is mainly used in scenarios such as gaming and e-sports, e-commerce live streams, online education, live events, and so on. For more details, see the [application scenarios](#).

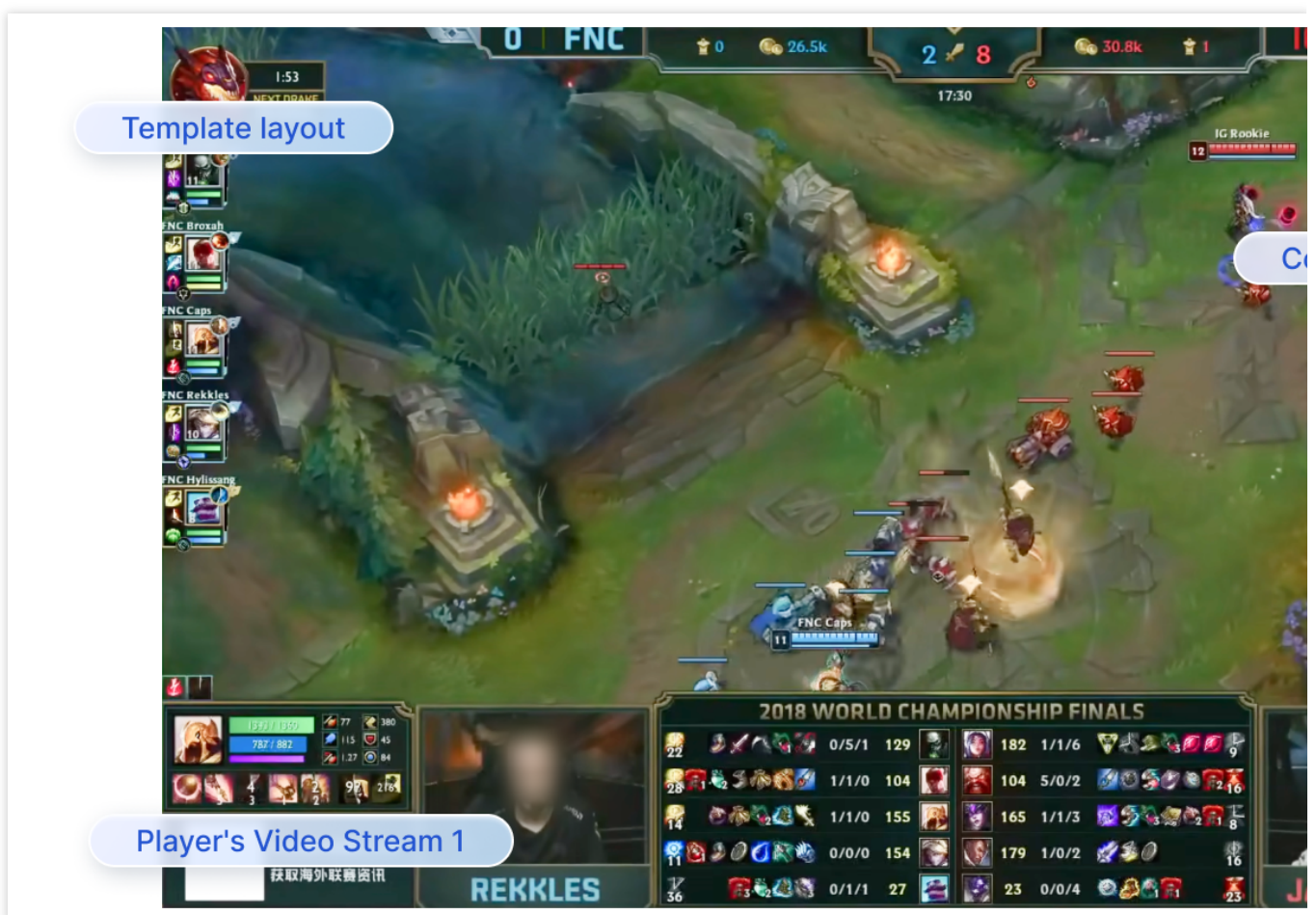
LVC possesses powerful cloud capabilities, cost-efficiency and backup mechanisms, multi-screen mixed-stream layout, and more. For more details, see the [product features](#).

Application Scenarios

Last updated : 2024-03-21 14:14:09

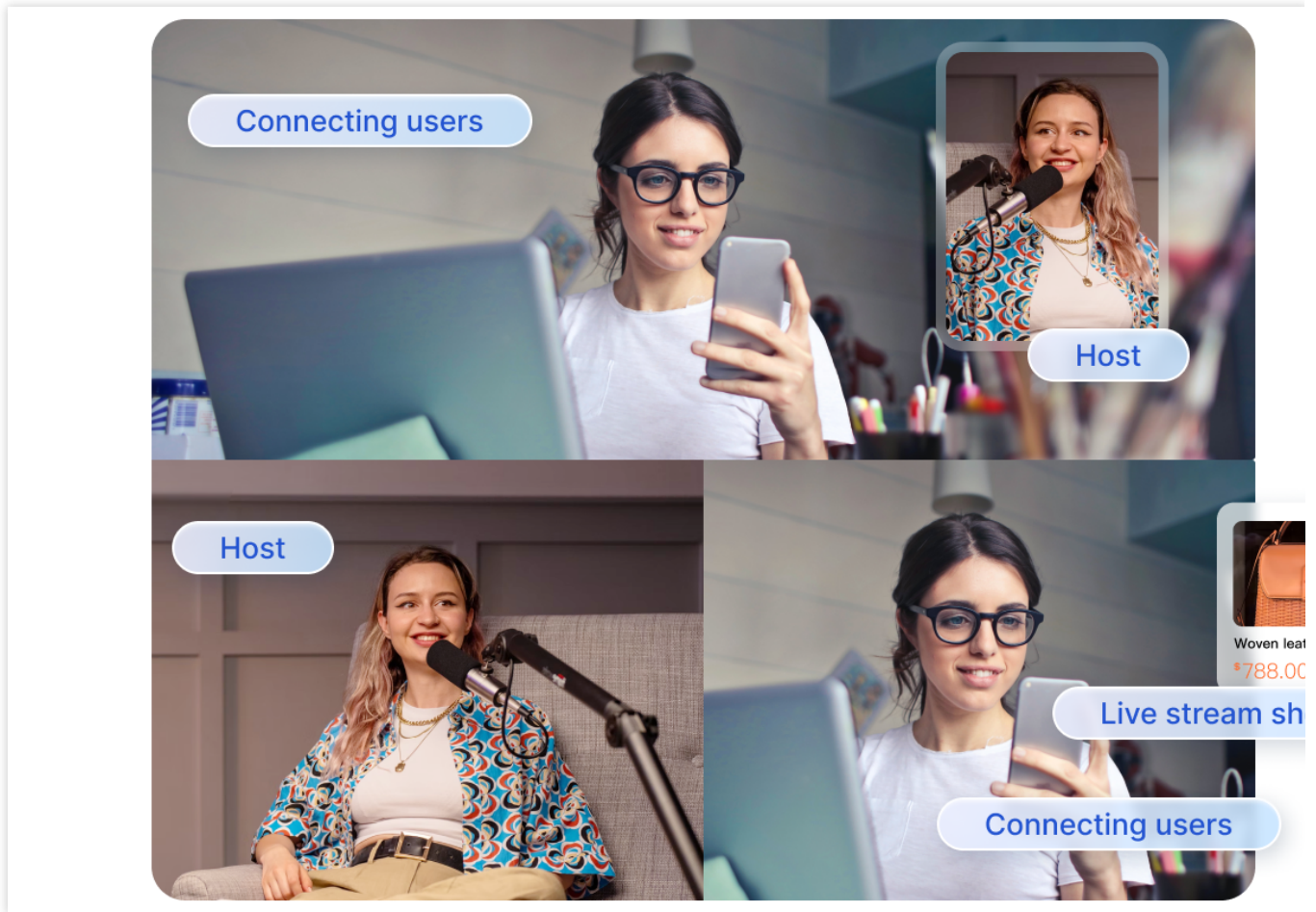
Electronic Gaming

Set up the customized layout templates for the main game scene, the commentary scene, and the multi-player scenes. This service supports separate processing of audios and videos, commentary audios paired with game videos, and real-time audio stream switch.



Live Shopping

Multi-video split screen mixed output of the live interaction between hosts and fans, the cameras for hosts and fans and product information.



Online Education

The template layout mixed output of PPT video streams, teacher video streams, and QR code promotional pictures.

Primary functions of Cloud streaming

PPT video stream

- Input of multiple formats**
Supports the input of various formats like video-on-demand, live streaming, and images
- Pre-monitoring and main monitoring**
Supports pushing video input sources and well-arranged streams to PVW and PGM for monitoring
- Multiple kinds of layout configurations**
Supports various picture-in-picture layouts and multiple stream inputs for picture-in-picture
- Playback delay feature**
Supports delayed playback feature with a maximum delay of up to 5 minutes
- Recording and repushing**
Supports recording function and repushing to multiple outputs, Enriching the downstream broadcast system
- Watermarks and subtitles**
Supports the addition of multiple watermarks and the subtitle feature
- Mixer**
Detailed volume adjustment capabilities for each input and output streams
- Transition feature**
Supports various transition features to increase the transition effects, thus enhancing the vibrancy of broadcasts

Live Event Streaming

The console supports real-time editing of watermarks such as QR codes and subtitle texts, which can be pushed to the live streaming. To safeguard the live streaming, a standby video function and automatic switch in the event of a live streaming interruption are supported.



Feature Area Introduction

Last updated : 2024-03-21 14:14:09

This document describes the main components of the operational feature areas of Live Video Caster (LVC).

Input Source: Allows you to customize input sources, including on-demand, live streaming, and image sources.

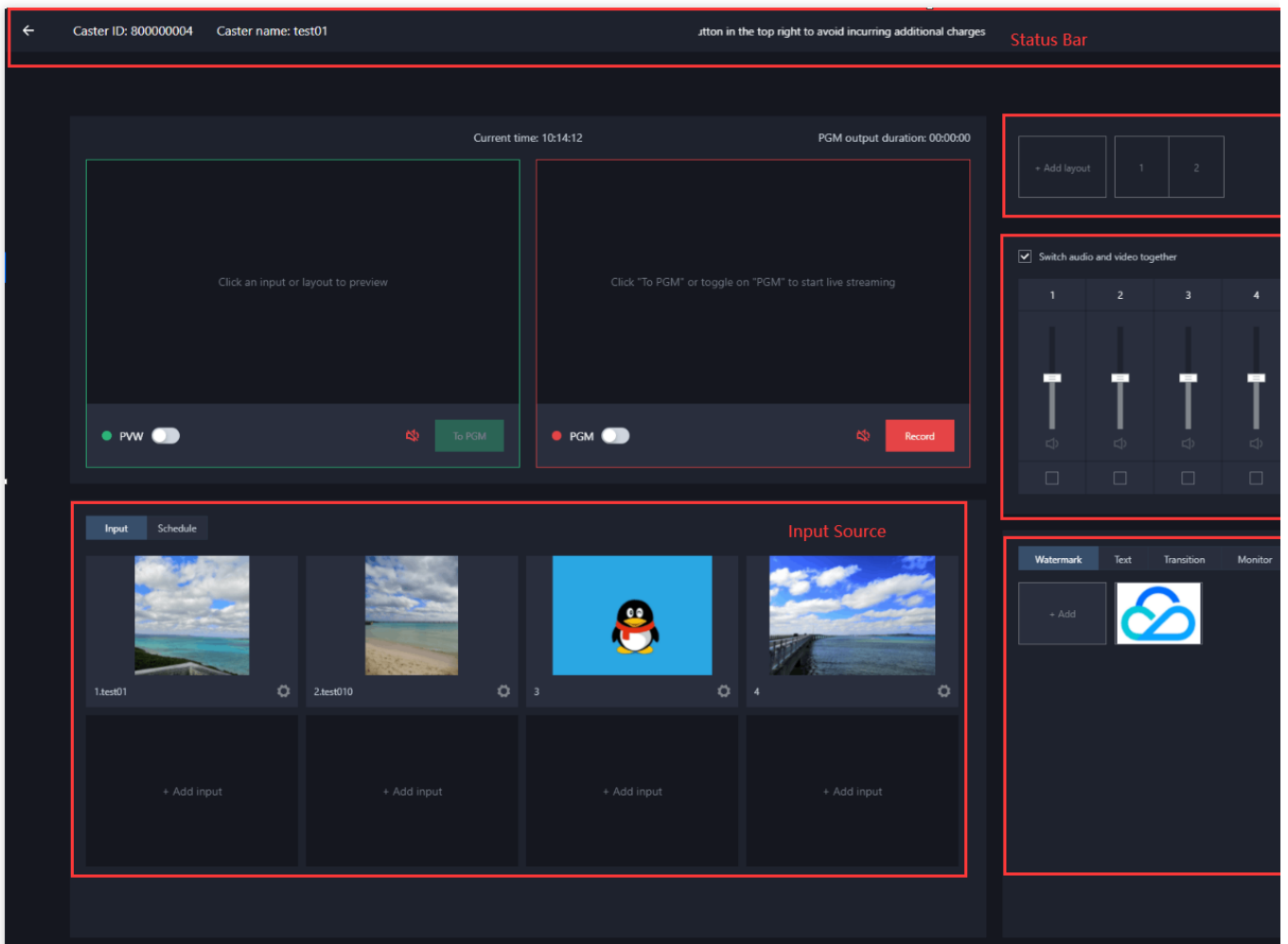
PVW: Allows you to preview your broadcast.

PGM: Allows you to monitor what the audience see in your broadcast.

Layout: Allows you to customize the layout to be used for a mixed stream of multiple input sources.

Soundboard: Allows you to adjust the volume of each input stream in the output stream and separate audio from video.

Feature: Allows you to set watermarks, text, transitions, and stream monitoring.



Managing Live Video Caster

Last updated : 2024-03-21 14:14:09

The Cloud Streaming Services (CSS) console provides the Live Video Caster (LVC) service. This document describes how to configure and use the LVC and how to manage cloud streaming after activating the LVC service.

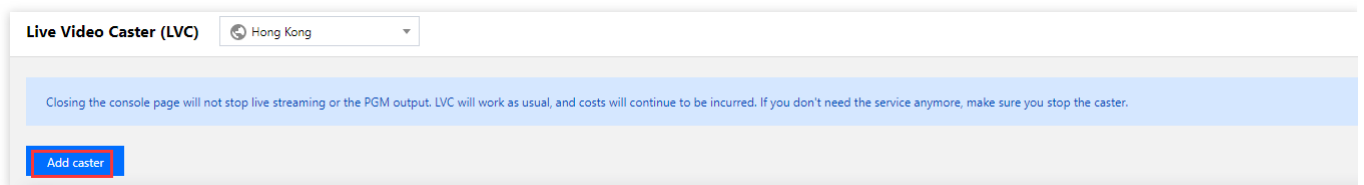
Prerequisites

You have activated the LVC service.

You have logged in to the [CSS](#).

Creating a Caster

1. Log in to the CSS console, select [Live Video Caster](#) from the left-hand navigation pane.
2. Click **Add caster**.



3. On the **Add caster** page, set the following parameters:

3.1 Caster name: Custom.

3.2 Caster description: Custom.

3.3 Set end time: Enabled by default.

3.4 End time: Custom.

Note:

The caster will stop at the set end time, and the preview, output, recording, and relay functions will all stop at that time. If the end time setting is disabled, the caster will not automatically stop, which will incur unnecessary charges. In this case, you need to manually turn off the live streaming (PGM) to stop the billing.

Closing the console page will not stop the billing.

Add caster

Caster name

Caster description

Set end time

End time

Confirm Cancel

4. Click **Confirm** to complete the creation of the caster.

5. If the end time is set, a dialog box pops up asking for your confirmation. Click **Confirm**.

Caster end time

This caster will stop at **2023-12-31 0:0:0**. Live streaming (PGM and PVW), relay, and recording will all stop at that time.

OK

Opening a Caster

To open the [Live Video Caster Console](#), click **Open** in the operation column of a caster.

Live Video Caster (LVC) Hong Kong

Closing the console page will not stop live streaming or the PGM output. LVC will work as usual, and costs will continue to be incurred. If you don't need the service anymore, make sure you stop the caster.

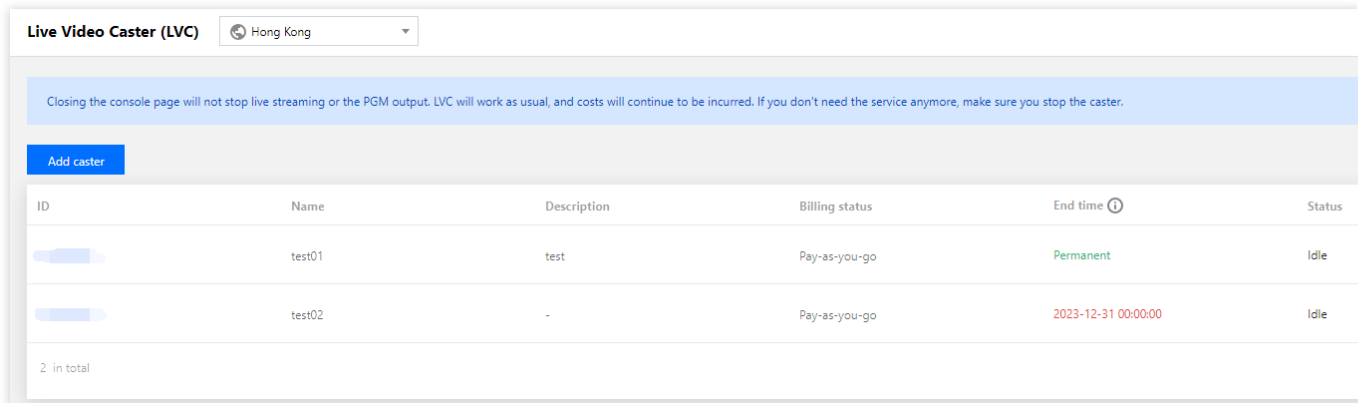
Add caster

ID	Name	Description	Billing status	End time
	test01	test	Pay-as-you-go	Permanent
	test02	-	Pay-as-you-go	2023-12-31 00:00:00

2 in total

Setting a Caster

1. You can view casters you created in the [Live Video Caster list](#).
2. To modify a caster, click **Set** in the operation column of the caster to enter the caster settings page.

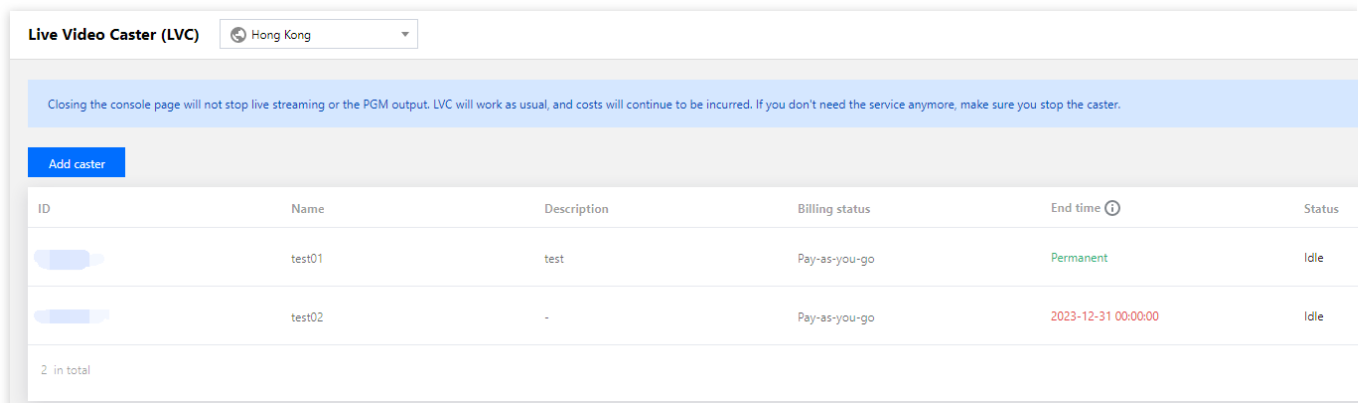


3. After modifying the caster, click **Confirm** to save the modification.

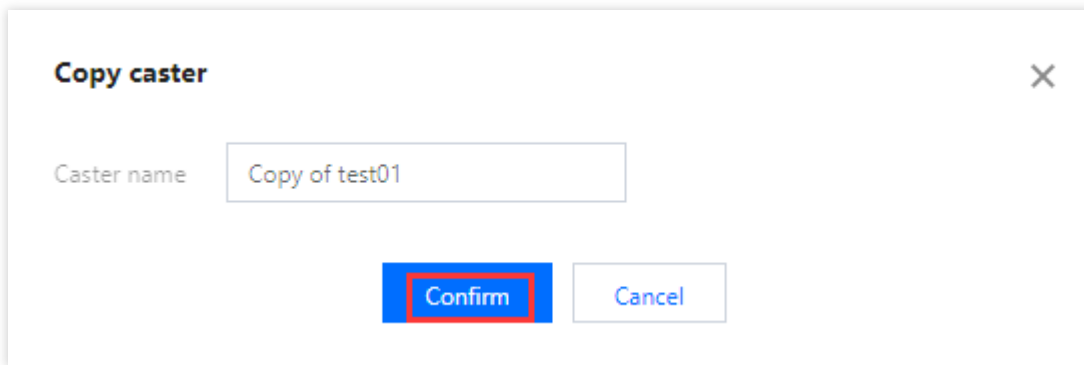
Copying a Caster

The copy function allows you to quickly duplicate existing caster instances.

1. Go to the [Live Video Caster Console](#), and choose **More > Copy** in the caster operation column.



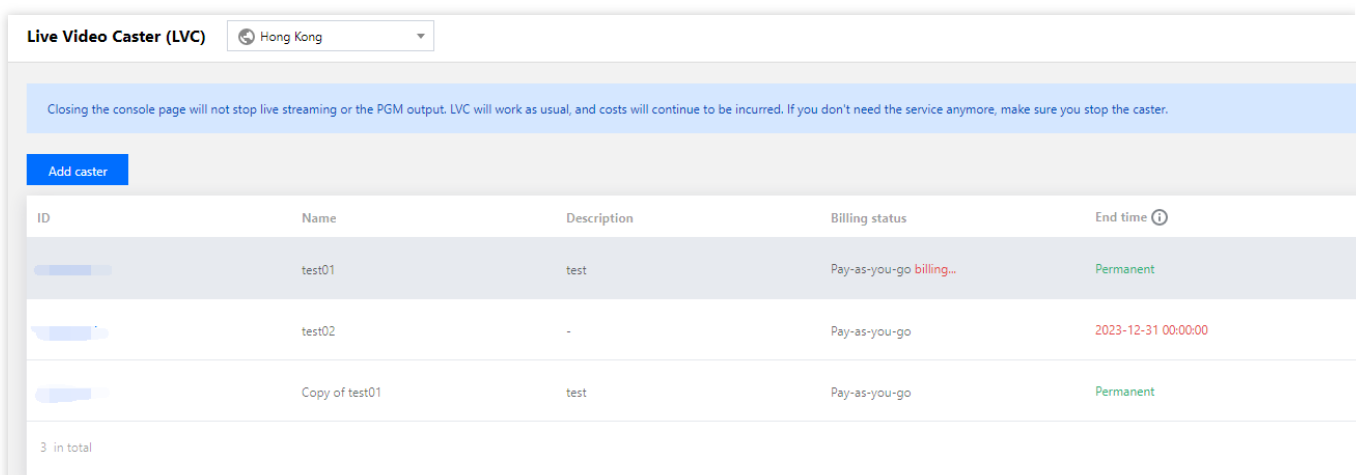
2. The default name of the copied caster is `Copy of xx`. You can customize the name of the caster. Click **Confirm** to complete the copy.



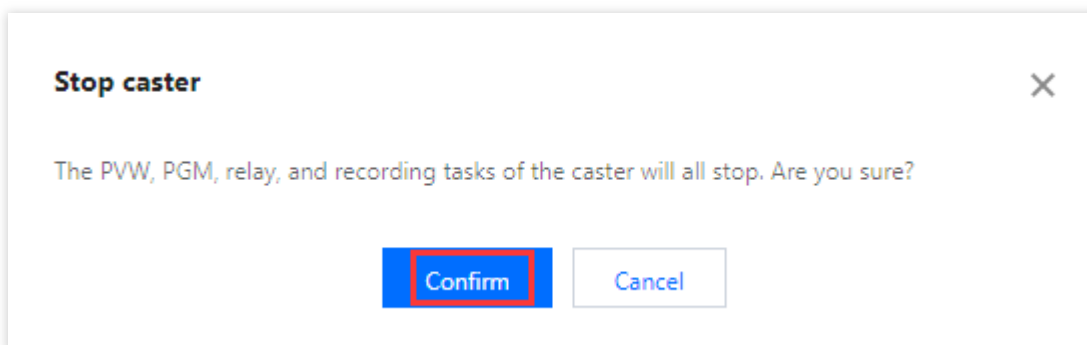
Stopping a Caster

After using a caster, stop running it in a timely manner. When a caster is stopped, the preview, output, recording, and relay tasks will all stop, but all the LVC settings, including the input, layout, output, and relay settings, will be retained.

1. Go to the [Live Video Caster Console](#) and click **Stop** in the caster status column.



2. A dialog box pops up asking whether to stop running the caster. Click **Confirm** to stop the caster.



Note:

When a caster is stopped, its status changes from

Running

to

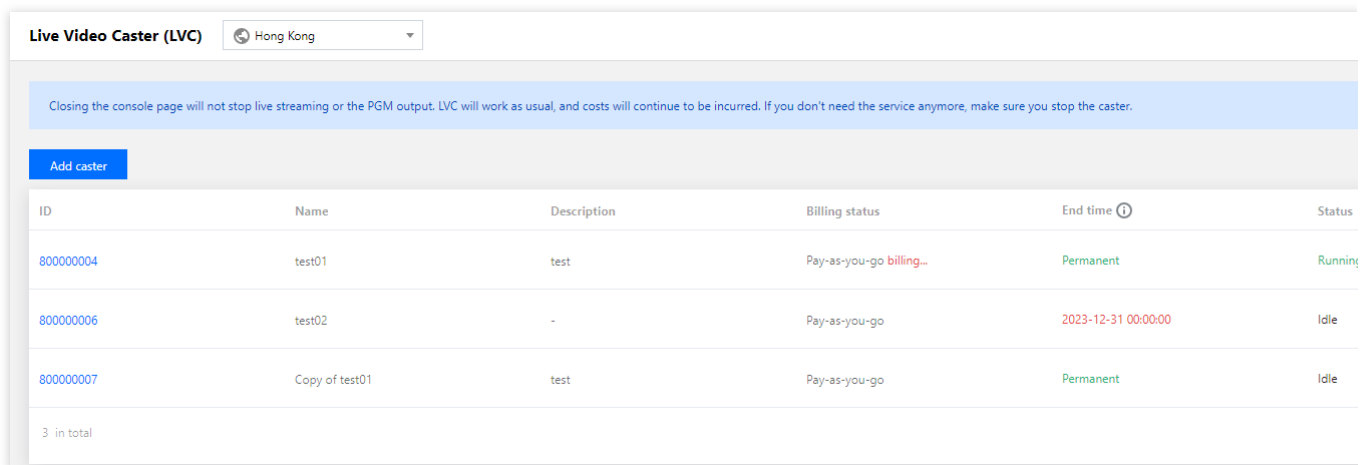
Idle

and the billing stops.

Deleting a Caster

If you no longer wish to maintain a caster, you can delete it. Once a caster is deleted, all its configurations will be deleted, and its preview, output, recording, and relay tasks will stop.

1. In the operation column of the caster you want to delete, choose **More > Delete**.

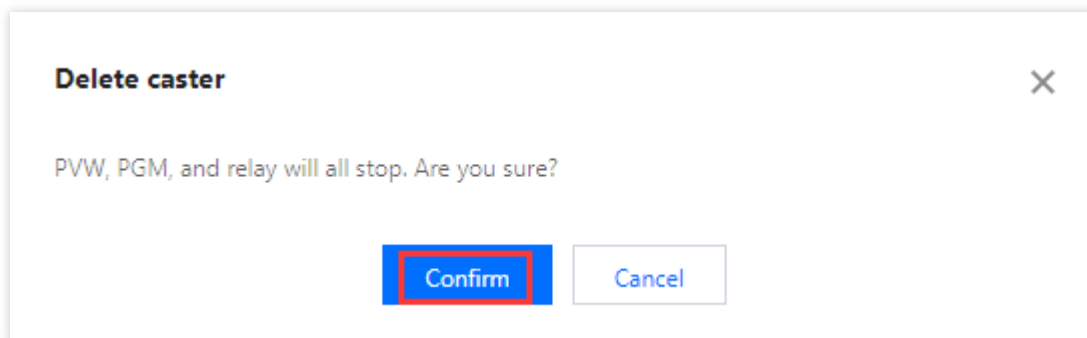


The screenshot shows the 'Live Video Caster (LVC)' management interface for the 'Hong Kong' region. A blue warning banner at the top states: 'Closing the console page will not stop live streaming or the PGM output. LVC will work as usual, and costs will continue to be incurred. If you don't need the service anymore, make sure you stop the caster.' Below this is an 'Add caster' button and a table of existing casters.

ID	Name	Description	Billing status	End time ⓘ	Status
800000004	test01	test	Pay-as-you-go billing...	Permanent	Running
800000006	test02	-	Pay-as-you-go	2023-12-31 00:00:00	Idle
800000007	Copy of test01	test	Pay-as-you-go	Permanent	Idle

3 in total

2. In the dialog box that pops up, click **Confirm** to delete the caster. The deleted caster is no longer included in the instance management page.



General Cloud Director

Step One: Incorporate Input Sources

Last updated : 2024-03-21 14:14:09

The Cloud Streaming Services console provides the Live Video Caster (LVC) system. This document describes how to use LVC for online broadcasting after activating the LVC feature.

Note:

Billable items of LVC include broadcast output duration and third-party relay. Billing based on usage duration is supported. For more information, see [Live Video Caster Pricing Overview](#).

To avoid incurring unnecessary charges when you are not using a caster, click **Stop** for the caster on the [Live Video Caster list page](#). For detailed procedures, see [Caster Console Management](#).

LVC is incompatible with Internet Explorer and Firefox browsers. Use LVC on Chrome.

Use Limits

Each account can create up to **five** LVC instances. You can add an instance again after deleting it. If more instances are needed, [submit a ticket](#) for application.

You can input up to **five** on-demand files in your on-demand playlist.

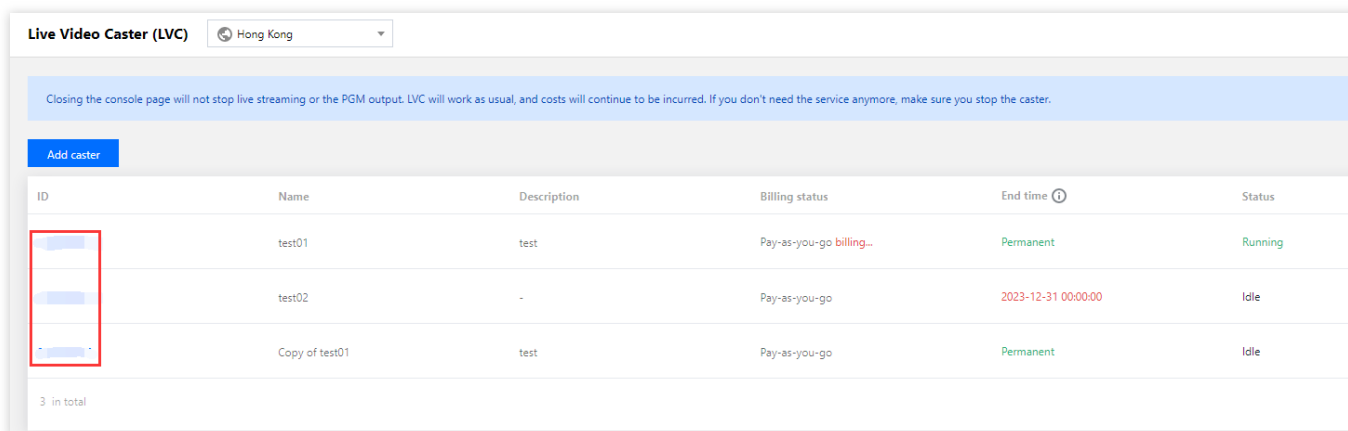
A maximum of three target addresses are supported in third-party relay. One of the target addresses defaults to the current Tencent Cloud Streaming Services account, and the other two can be third-party addresses. For more information, see [Relay](#).

Preparations

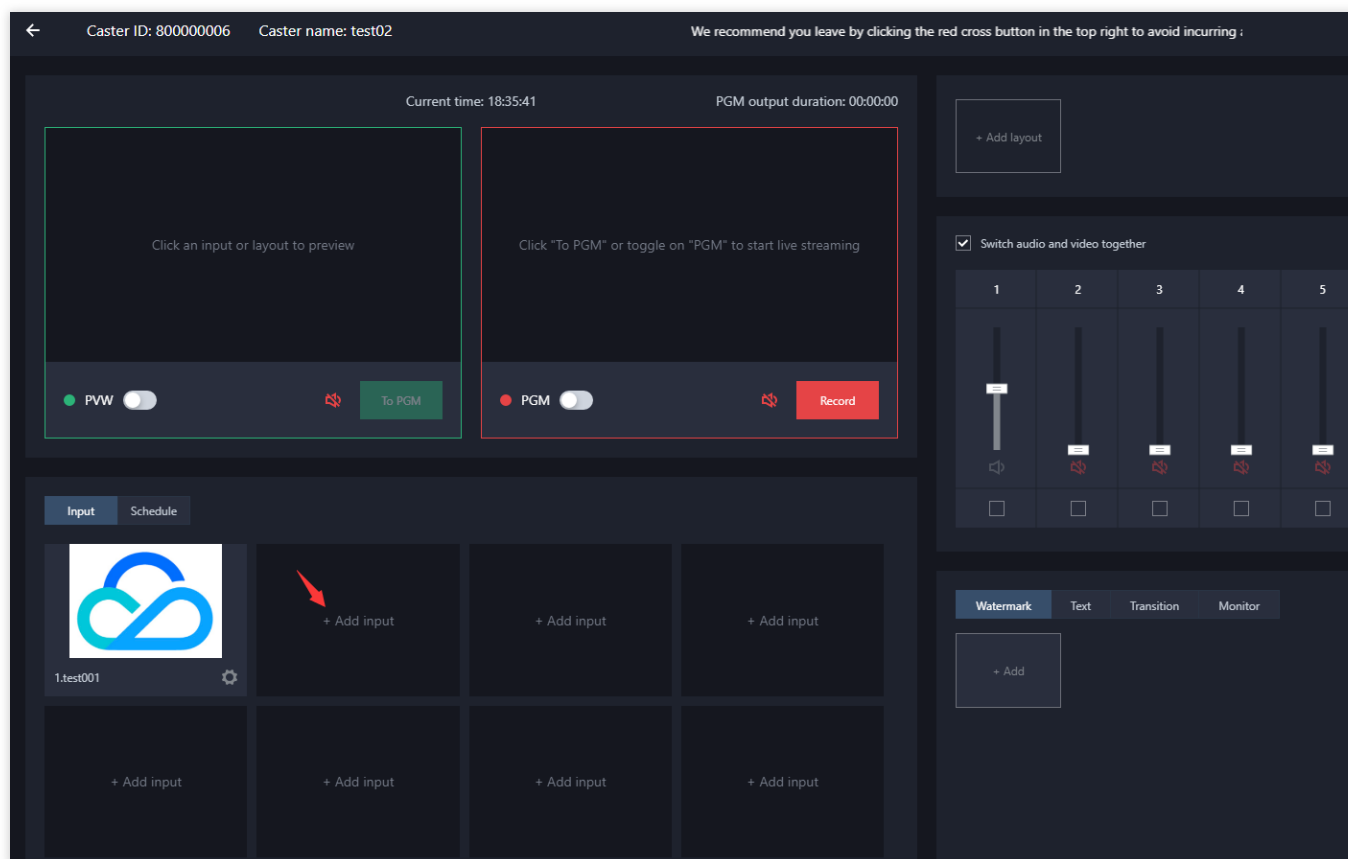
1. LVC is part of Tencent Cloud Streaming Services. Please activate [Cloud Streaming Services](#) in advance.
2. Make sure that you have added the **Push Stream** and **Playback** domain names in [Domain Management](#) and completed the CNAME configuration for the domain names.
3. Select **Cloud Streaming Services Console** > [Live Video Caster](#) to enter the Live Video Caster activation page. Check the box agreeing to the <Tencent Cloud Service Agreement> and <LVC Billing Overview>. Click **Activate** to activate LVC.
4. Make sure that you have [created a new Live Video Caster](#) in **Live Video Caster**.

Operation Steps

1. Log in to [Live Video Caster](#) and view the Live Video Caster list.
2. Find the caster you want to edit and click its **ID** or click **Open** on the right to enter the caster editing page.



3. In the input source area, click **Add input** to enter the video adding page.



4. On the video adding page, set the video type and fill in the URL field. You can add the following four types of videos:

Live

On demand

Image

Publish local stream

Add input

Input name

Input type

Pull from URL Publish

Add input

Input name

Input type

On demand

On demand URL

Add URL

No.	On demand URL	Opera
1	<input type="text" value="Enter an on demand URL"/>	Up Delete

Confirm

Cancel

Add input

Input name

Input type

Image URL Local image

Add input

Publishing will stop if you close the console page.

Input name

Input type

Publish from camera Share screen

Resolution

Video Type	Description
Live	Input name: Custom. Input type: Live . Pull from URL: Conversion from a live stream to a pulled stream. This enables a real-time live stream URL to be configured in LVC. The RTMP, HLS, and HTTP-FLV protocols are supported.

	Publish: RTMP push. That is, media files are pushed to the LVC system by using the RTMP protocol.
On demand	<p>Input name: Custom.</p> <p>Input type: On demand URL. Click Add URL.</p> <p>Supports media files stored in Tencent Cloud COS and media files stored by other providers.</p> <p>Supports the MP4, HLS, and FLV formats.</p> <p>Supports multiple on-demand file URLs, which shall be separated with semicolons (;). The console automatically cycles through the files in the list.</p>
Image	<p>Input name: Custom.</p> <p>Input type: Image.</p> <p>Image URL: Supports configuring URLs of JPEG, JPG, PNG, and BMP images not larger than 1920x1080 pixels.</p> <p>Local image: Supports uploading PNG, JPG, and JPEG images not larger than 5MB.</p>
Publish local stream	<p>Input name: Custom.</p> <p>Input type: Publish local stream</p> <p>Publish from camera: Supports using the local camera as an input source, supporting resolutions of 1920x1080, 1280x720, 640x480, and 640x360.</p> <p>Share screen: Supports screen sharing, which includes the application window and desktop options, supporting resolutions of 1920x1080, 1280x720, 640x480, and 640x360.</p>

Note:

Ensure that each on-demand/live URL you input is accessible. Otherwise, the input will not be playable.

If the input source is interrupted, the output will display a black screen.

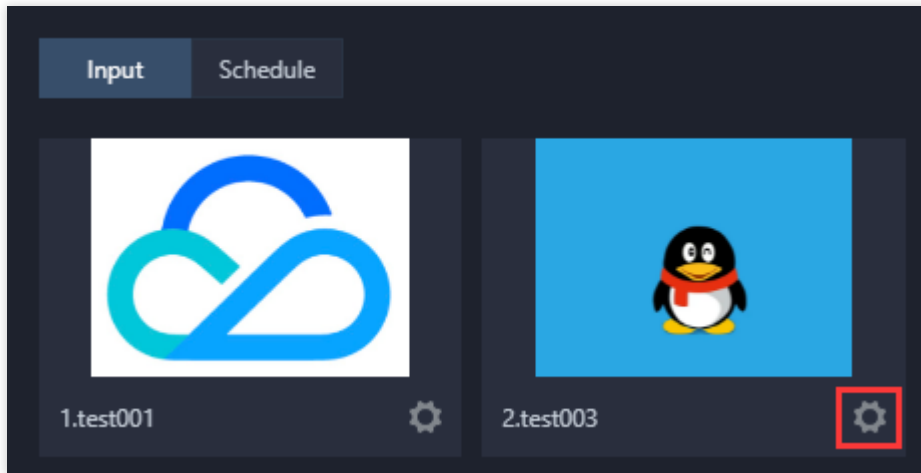
5. Click **Confirm** to complete the addition of the video. Then, the system automatically plays it.

Note:

To **modify an input source**, click



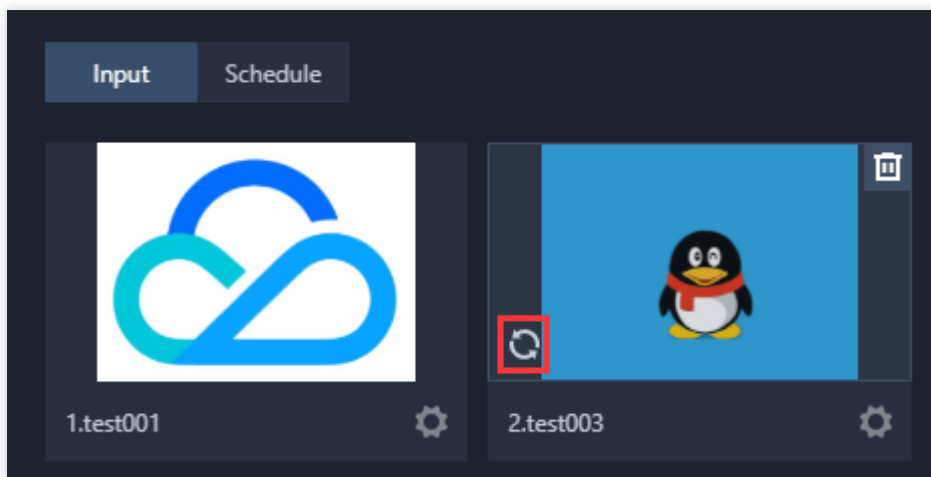
at the bottom of the input source to enter the input source editing page, fill in the information you need to modify, and click **Confirm** to save the modification.



After modification, click



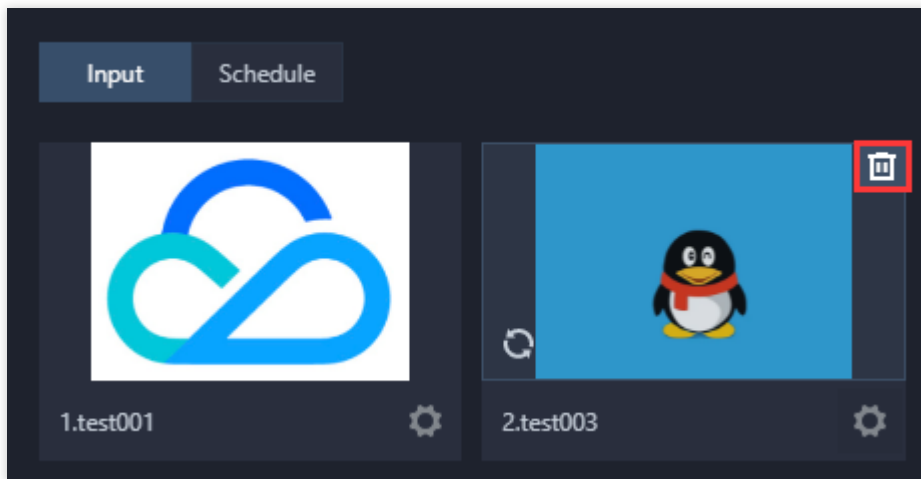
in the lower-left corner of the video source for refresh. After refresh, you can see the modified input source display.



To delete an input source, click



on the top of the input source. A dialog box pops up asking for confirmation. Click **Confirm** to delete the input source.



When you modify or delete an input source, the input source cannot be used in a preview (PVW) or main monitor (PGM) layout.

Step Two: Directing and Editing

Last updated : 2024-03-21 14:14:09

Directing and Editing include setting layouts, audio, watermarks, and standby videos and images, as well as creating show schedules. These features can enrich your live stream content.

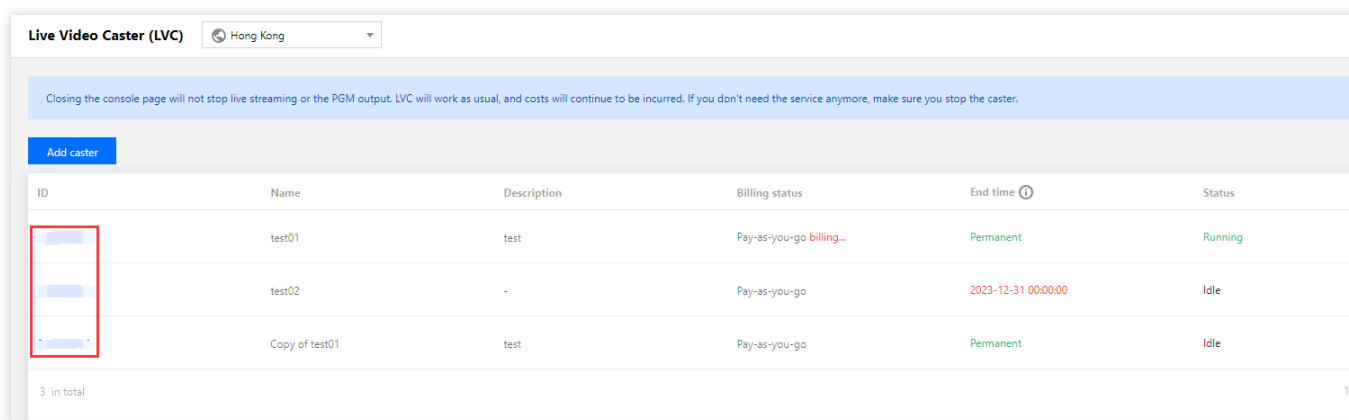
Step 1: Setting a Directed Video Frame Size

In [Live Video Caster](#), after you complete [Incorporating Input Sources](#) for your caster, you can set the frame size for your video output.

The size settings will affect the output size of input sources, template layouts, and custom layouts.

Live Video Caster (LVC) comes with built-in landscape and portrait mode output size templates for live streaming on Channels. It also supports custom output sizes.

1. In the [Live Video Caster](#) list, find the caster you want to edit and click its **ID** or click **Open** on the right to enter the caster editing page.



Live Video Caster (LVC) Hong Kong

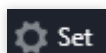
Closing the console page will not stop live streaming or the PGM output. LVC will work as usual, and costs will continue to be incurred. If you don't need the service anymore, make sure you stop the caster.

[Add caster](#)

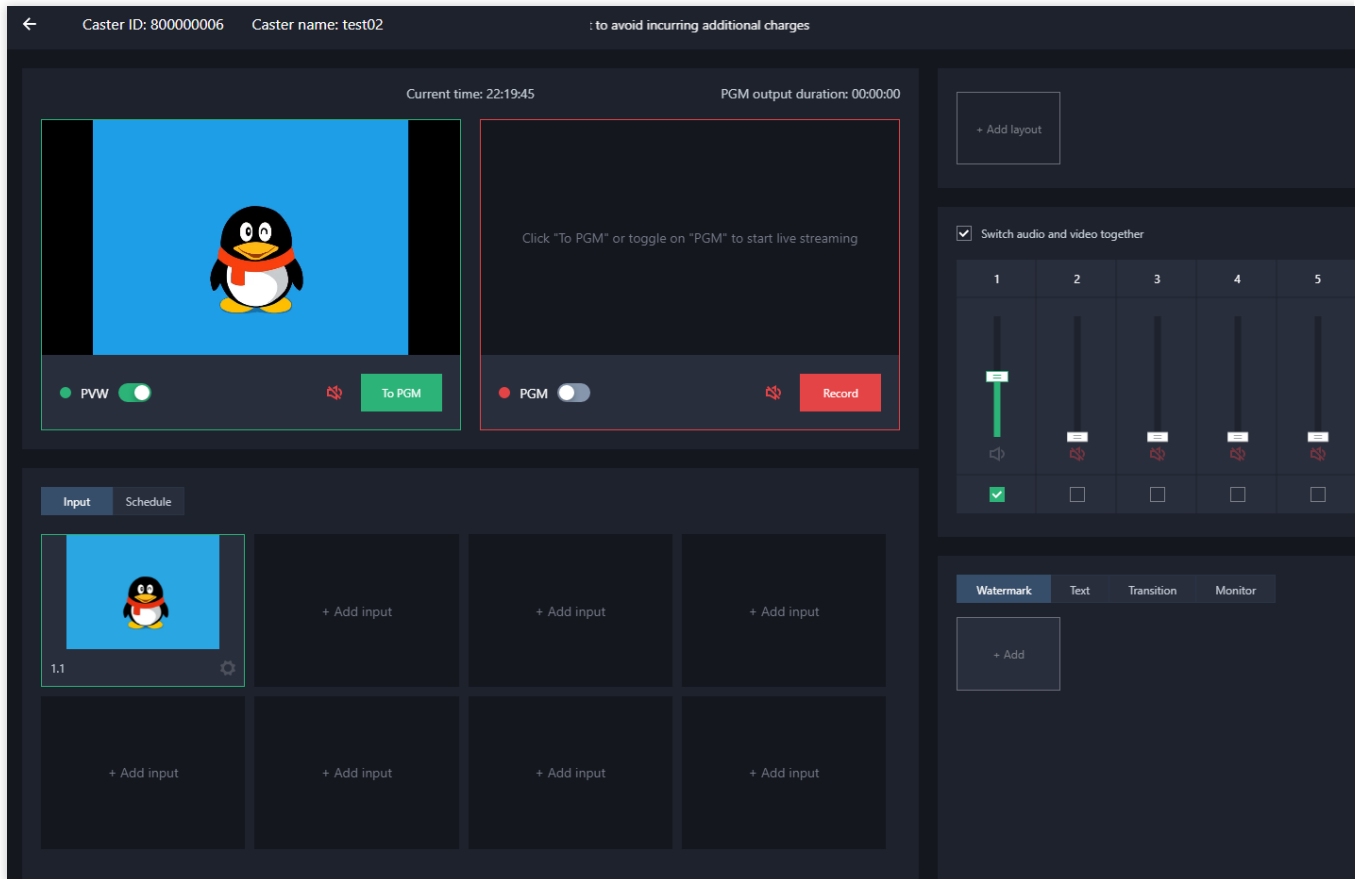
ID	Name	Description	Billing status	End time	Status
	test01	test	Pay-as-you-go billing...	Permanent	Running
	test02	-	Pay-as-you-go	2023-12-31 00:00:00	Idle
	Copy of test01	test	Pay-as-you-go	Permanent	Idle

3 in total

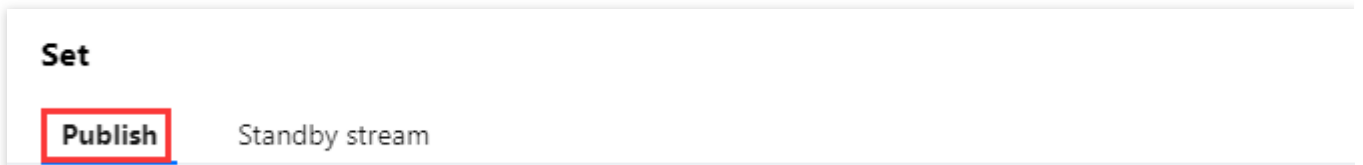
2. On the caster editing page, click



in the upper-right corner.



3. Click **Publish** to enter the settings page.



4. Configure the following items in the **Output video** section:

Output videoType Custom

If only one stream is published, and the parameters below are not specified or are 0, the parameters of the original stream are used. If more than one stream is published, and the parameters below are not specified or are 0, the output resolution will be 720p.

Video width px

Max 1920 px

Video height px

Max 1920 px

Frame rate fps

Max 60 fps

Video bitrate kbps

Max 10,000 kbps

Audio bitrate kbps

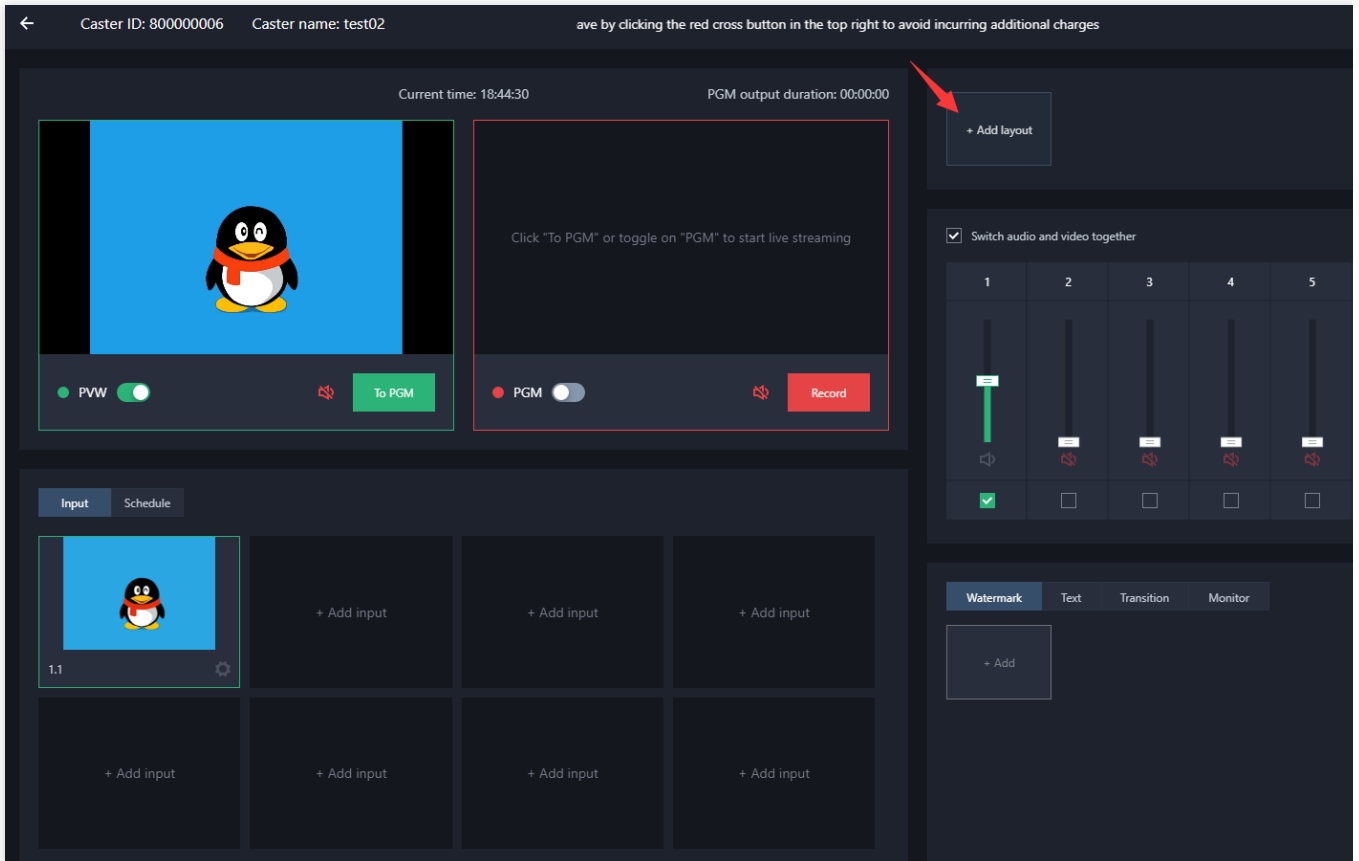
Configuration Item	Description
Video width	Value range: Less than or equal to 1920px. To customize a size, set both the width and height fields.
Video height	Value range: Less than or equal to 1920px. To customize a size, set both the width and height fields.
Frame rate	Value range: Less than or equal to 60fps.
Video bitrate	Value range: Less than or equal to 10,000kbps.
Audio bitrate	Options: 128kbps, 192kbps, and 256kbps.

Note:

If only one stream is published and the parameters above are not specified or are 0, the parameters of the original stream will be used. If more than one stream is published and the parameters above are not specified or are 0, the output resolution will be 720p.

Step 2: Configuring a Layout

1. Click **Add layout** in the layout component of the function area to enter the layout creation page.



2. Select a layout style and create the corresponding layout:

Select a [template layout](#).

Select a [custom layout](#).

3. The layout you created is displayed in the layout component area.
4. Click the successfully added layout to push it to the preview (PVW) window.

Note:

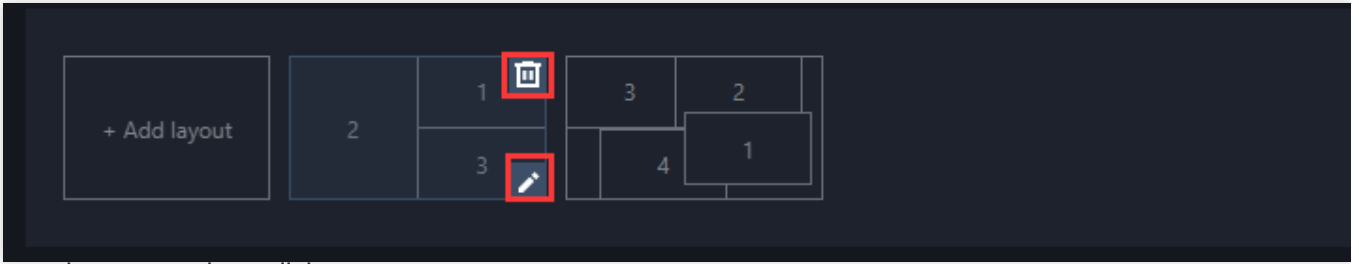
LVC comes with five layout templates. Select an appropriate template based on your needs or customize a layout.

The layout in use in PVW is marked by a green frame. The layout in use in PGM is marked by a red frame. Layouts in use cannot be edited or deleted.

To edit a layout template, click



in the lower-right corner of the layout.



To delete a layout template, click

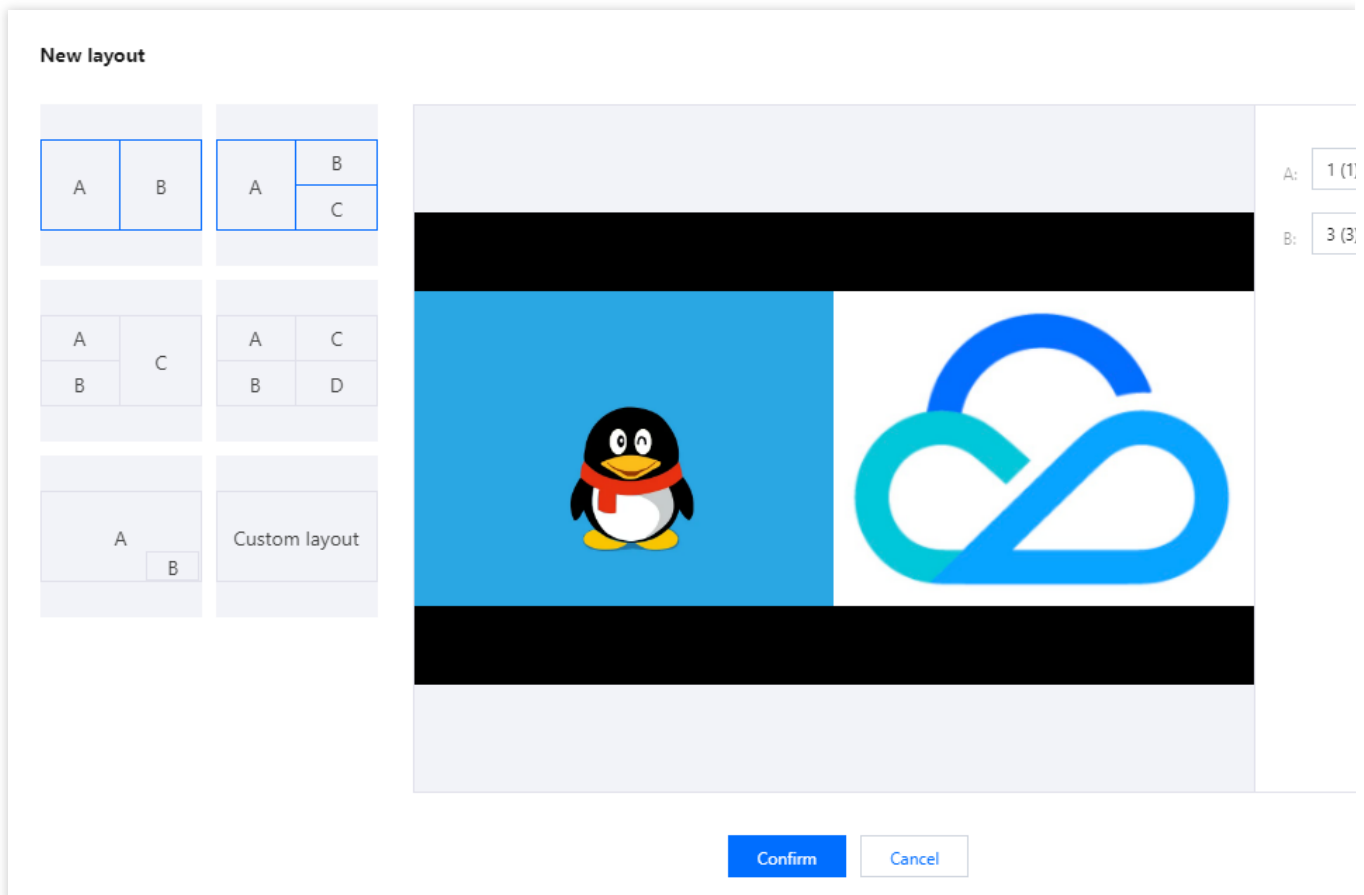


in the upper-right corner of the layout.

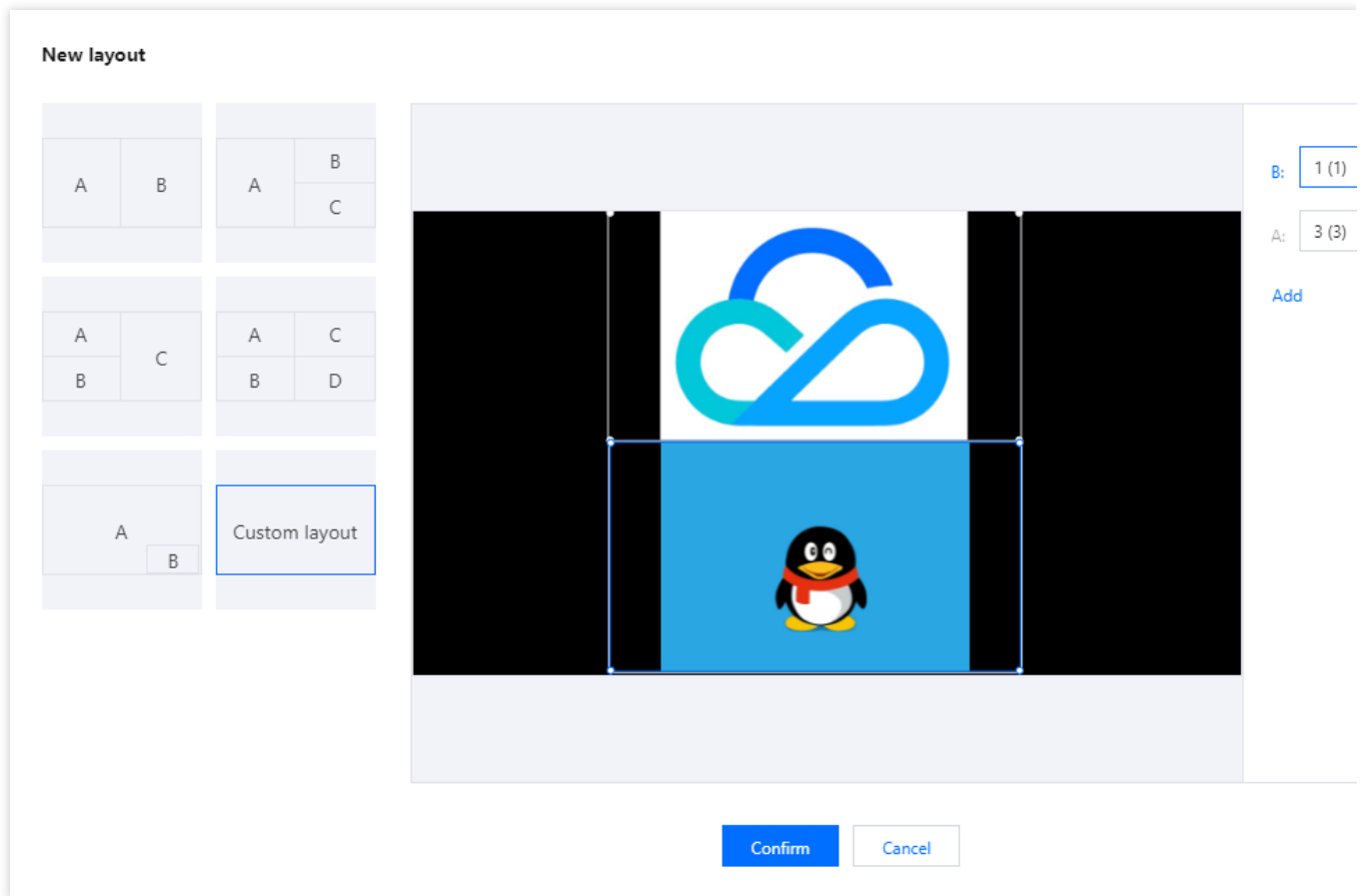
Layout Guide

LVC supports multiple layout modes in different output sizes.

Landscape mode:



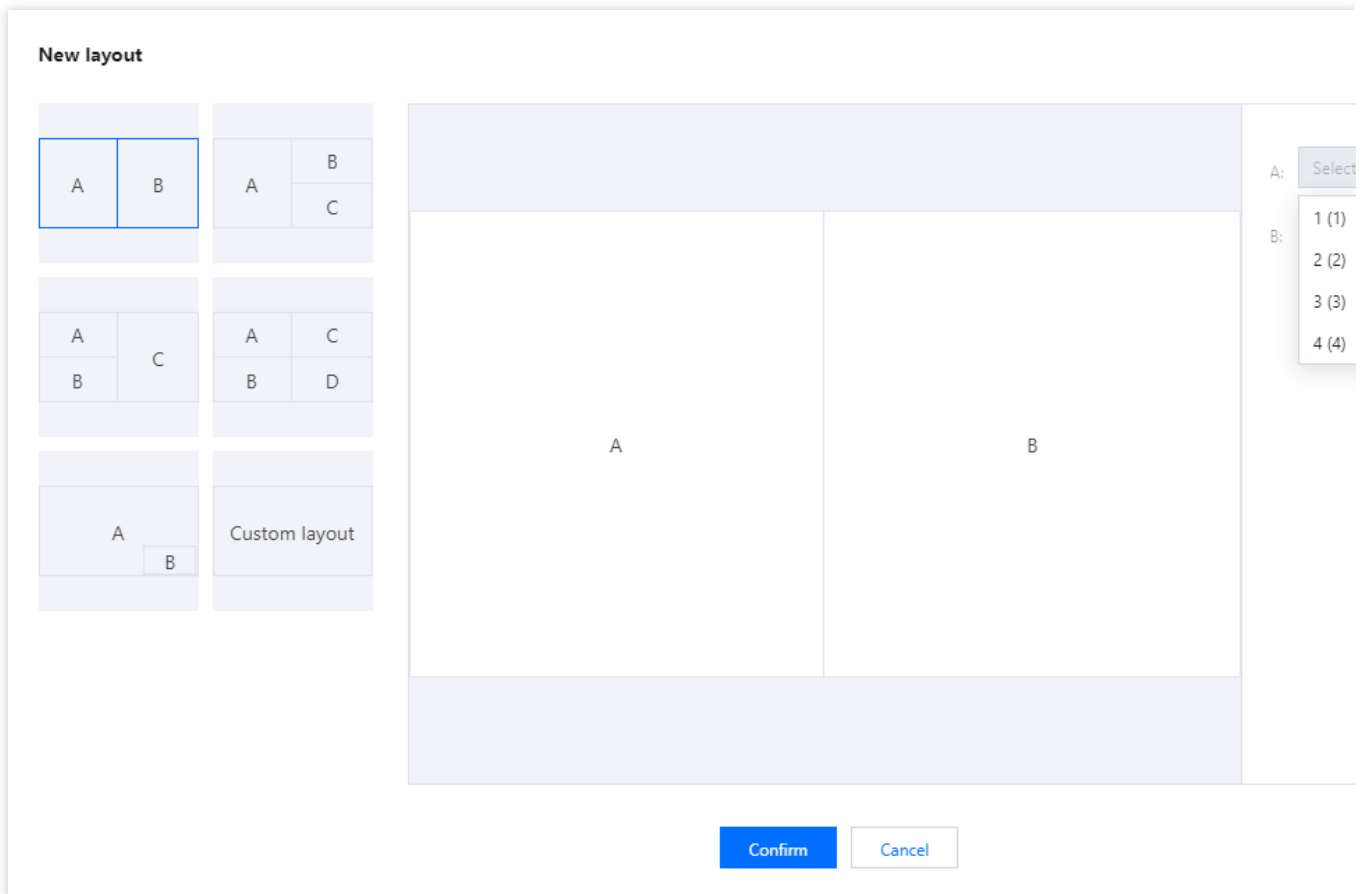
Portrait mode: To use the portrait layout for output, click **Set** in the upper-right corner of the main page to enter the page for changing the [output size](#).



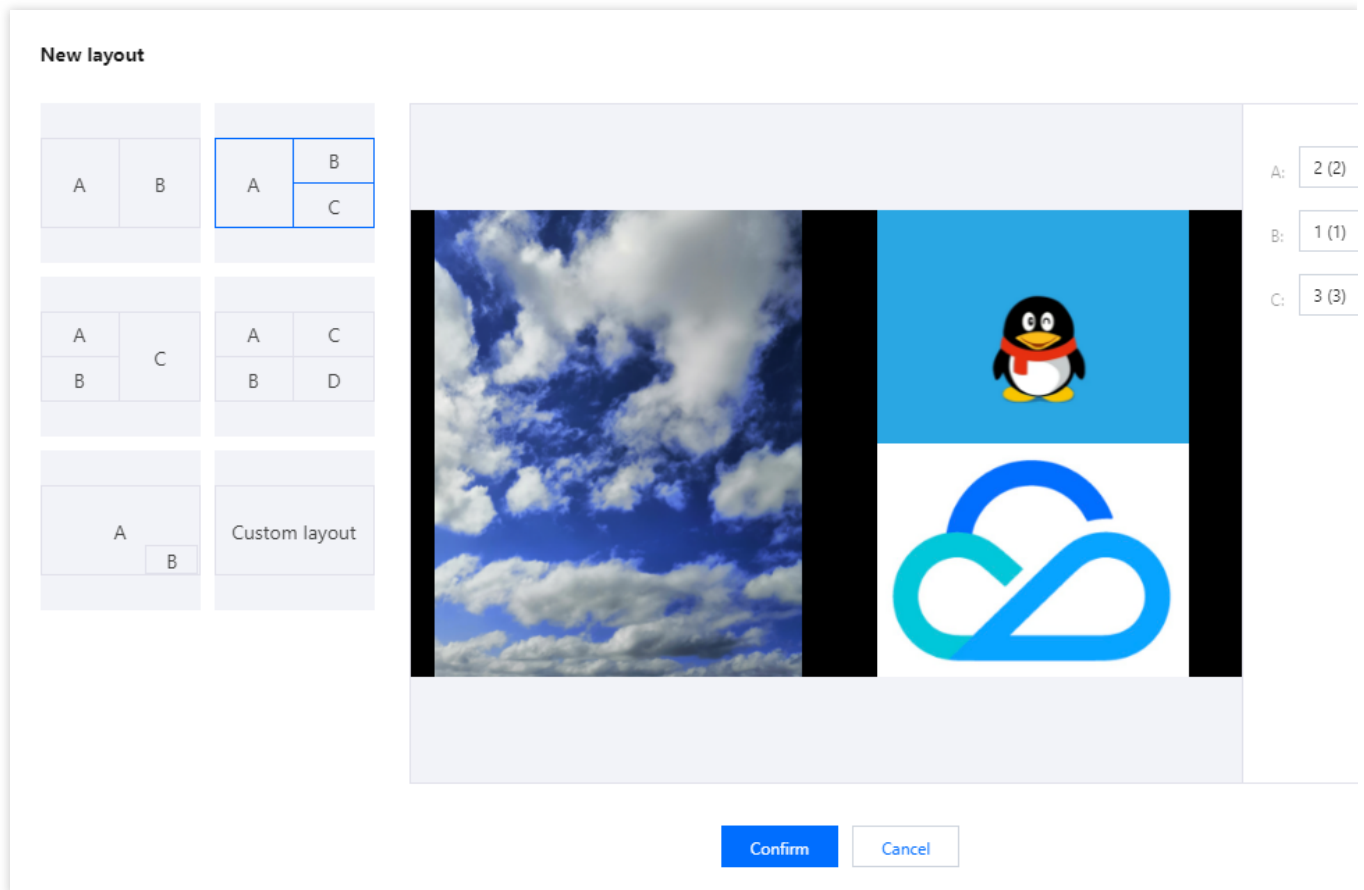
Template Layout

LVC comes with five built-in templates. You may select a template based on your needs, as detailed below:

1. Click to select the layout template you want to use.
2. Click each **Select an input** drop-down list to select input sources.



3. After selecting input sources, you can preview your video in the preview box.

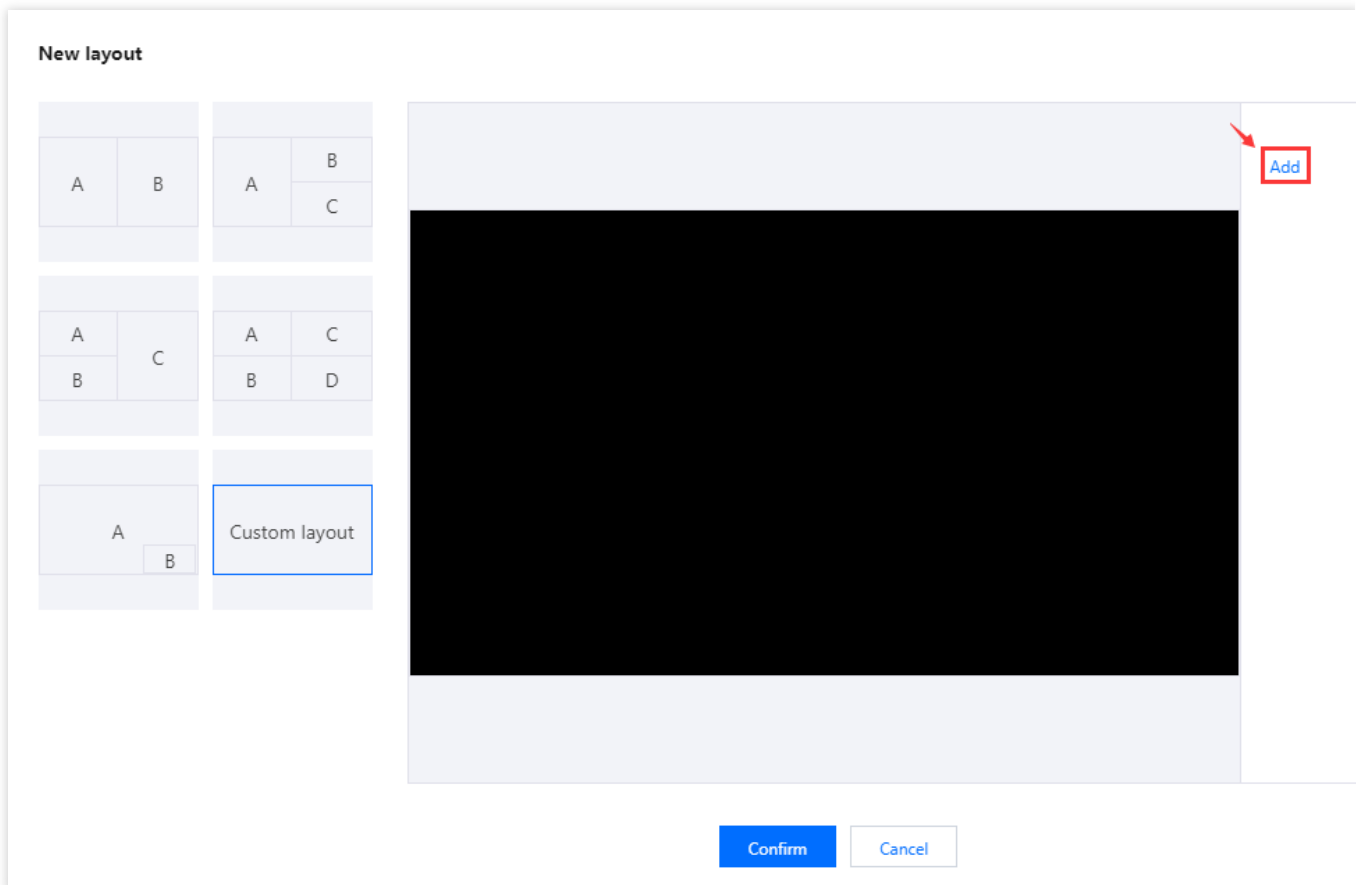


4. Click **Confirm** to complete the creation of the layout.

Custom Layout

LVC allows you to customize the arrangement, stacking order, and sizes of input sources and drag and drop them as needed.

1. Click **Custom layout** and click **Add** to add input sources.

**Note:**

You can add a maximum of four input sources; to remove an input source, click

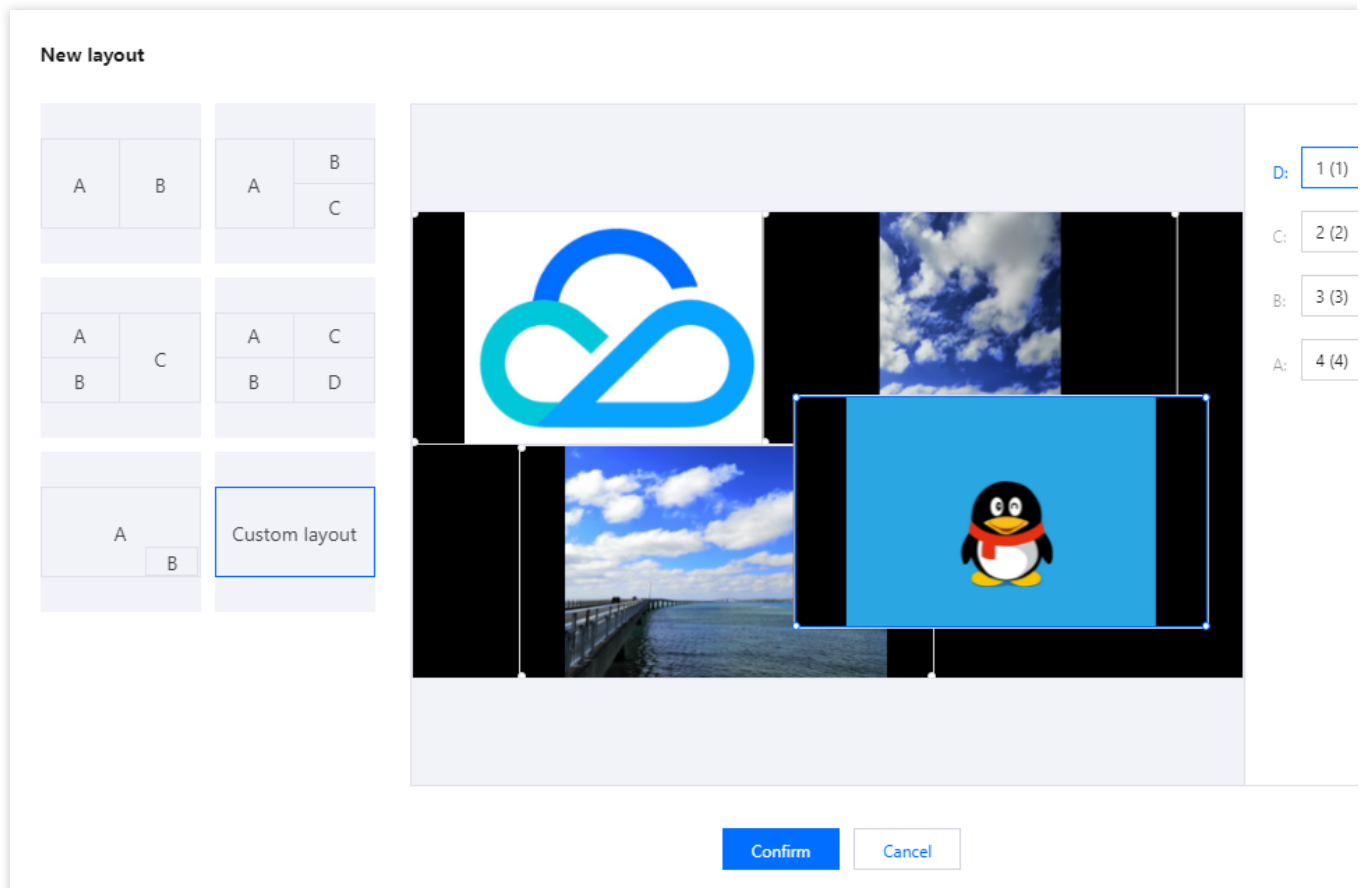


2. Adjust the layout of the input sources:

Click and hold the mouse button while dragging to adjust the sizes and positions of input sources.

Click **Front** or **Back** to adjust the stacking order of the input sources.

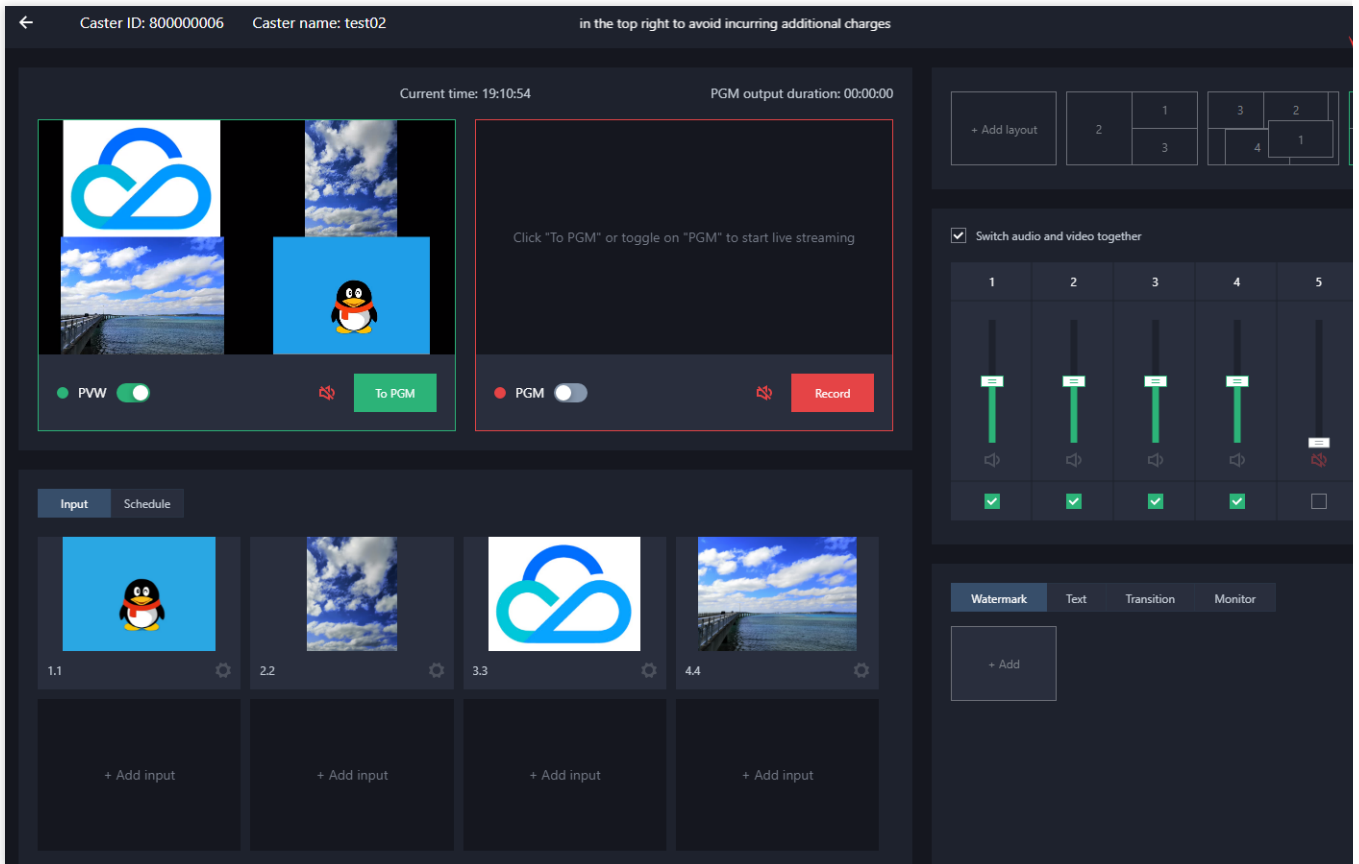
3. Click each **Select an input** drop-down list to select input sources. After selecting input sources, you can verify the video effect in the preview window.



4. Click **Confirm** to complete the creation of the layout.

Step 3: Starting Preview

View the video input source area and click an added input source or a created layout template to start preview (PVW).

**Note:**

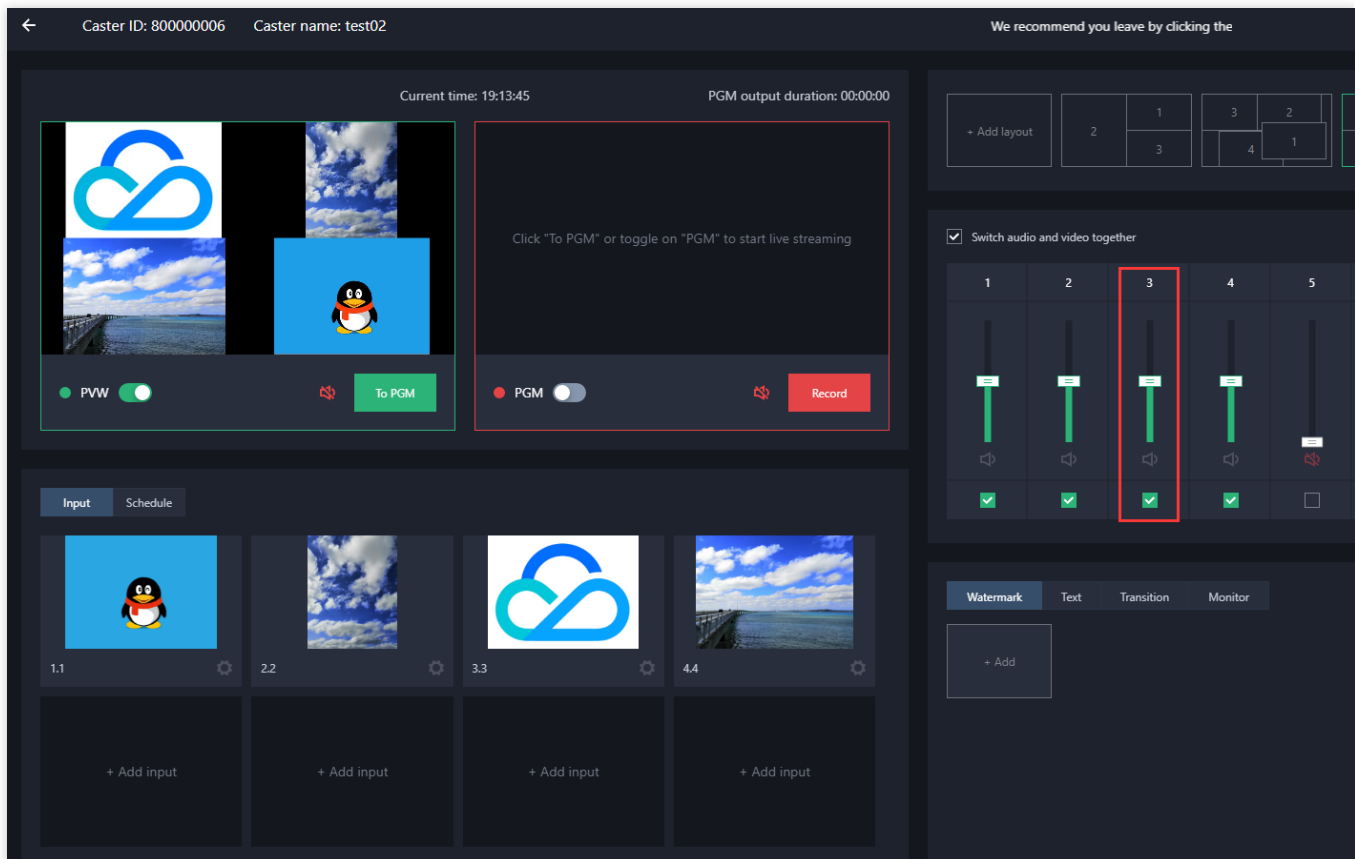
The layout in use in PVW is marked by a green frame. An input source or layout in use cannot be deleted directly. To delete a layout in use, manually close PVW or PGM or stop the caster first.

Step 4: Setting Audio

LVC allows you to adjust the volume of each input stream in the output stream. When the **Switch audio and video together** box is checked, the audio and video in the PVW playback are from the same input source. For example: If PVW is playing the video from input source 1, the audio being played is also from input source 1. If PVW is playing a mixed stream of video from input sources 1 and 3, the audio being played is also a mix of audio from input sources 1 and 3.

When the **Switch audio and video together** box is unchecked, audio and video can be selected separately. For example:

If the video from input source 1 is being played, you can choose to play the audio from input source 3. If a mixed stream of video from input sources 1 and 3 is being played, you can choose to play the audio from input source 1 only.



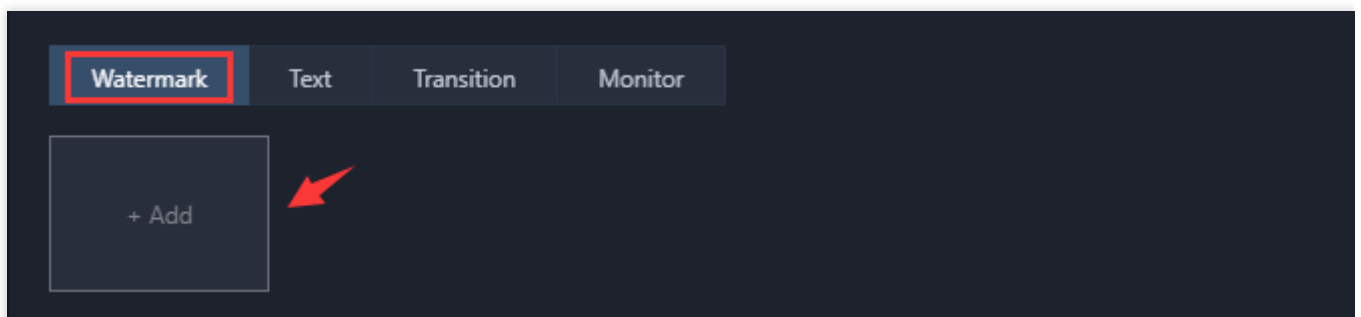
Step 5: Adding a Component

Watermarking

Creating a Watermark Template

LVC supports multiple watermark overlays. To add a watermark in your directed footage, follow these steps:

1. Select the Watermark tag and click **Add** to enter the watermark creation page.



2. Click **Upload** to upload your watermark image.

Note:

The watermark image can be in PNG, JPG, JPEG or GIF format, with a maximum size of 2M and a width and height not exceeding 1024px. Dynamic watermarks are supported.

After the upload, you can position the watermark by dragging it or specifying its coordinates for a higher positioning precision.

3. Adjust the position and size of the watermark image by dragging the image on the editing screen or clicking



to **enter coordinates manually** and entering the precise pixel values.

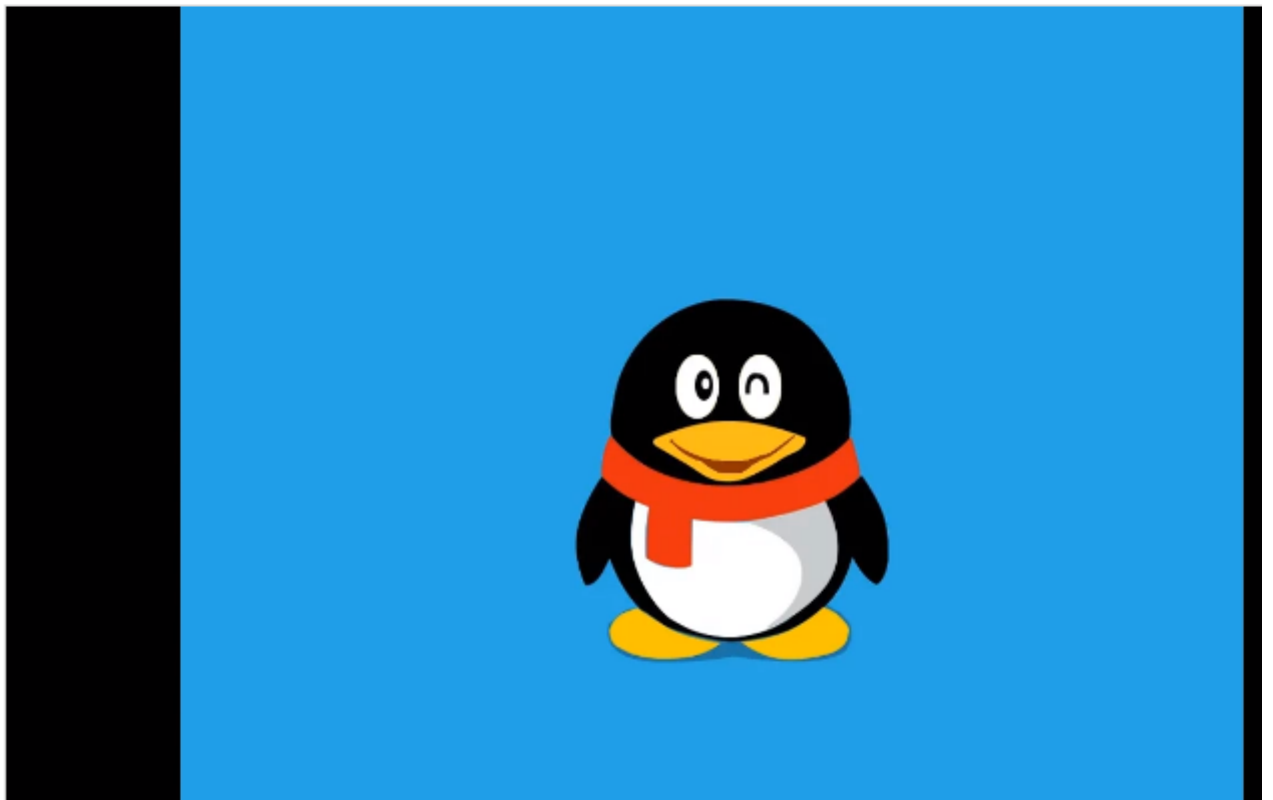
4. Customize a name for the watermark.

Add watermark



Upload a PNG, JPG, JPEG, or GIF image not larger than 2 MB. The width and height of the image should not exceed 1024 px.
After upload, you can drag the watermark or manually enter the coordinates to adjust its position.

Upload



Resize

Enter coordinates manually *i*

Watermark name

Relative position % X: % Y: %

Confirm

Cancel

Note:

To enter coordinates manually, you must start preview (PVW) first.

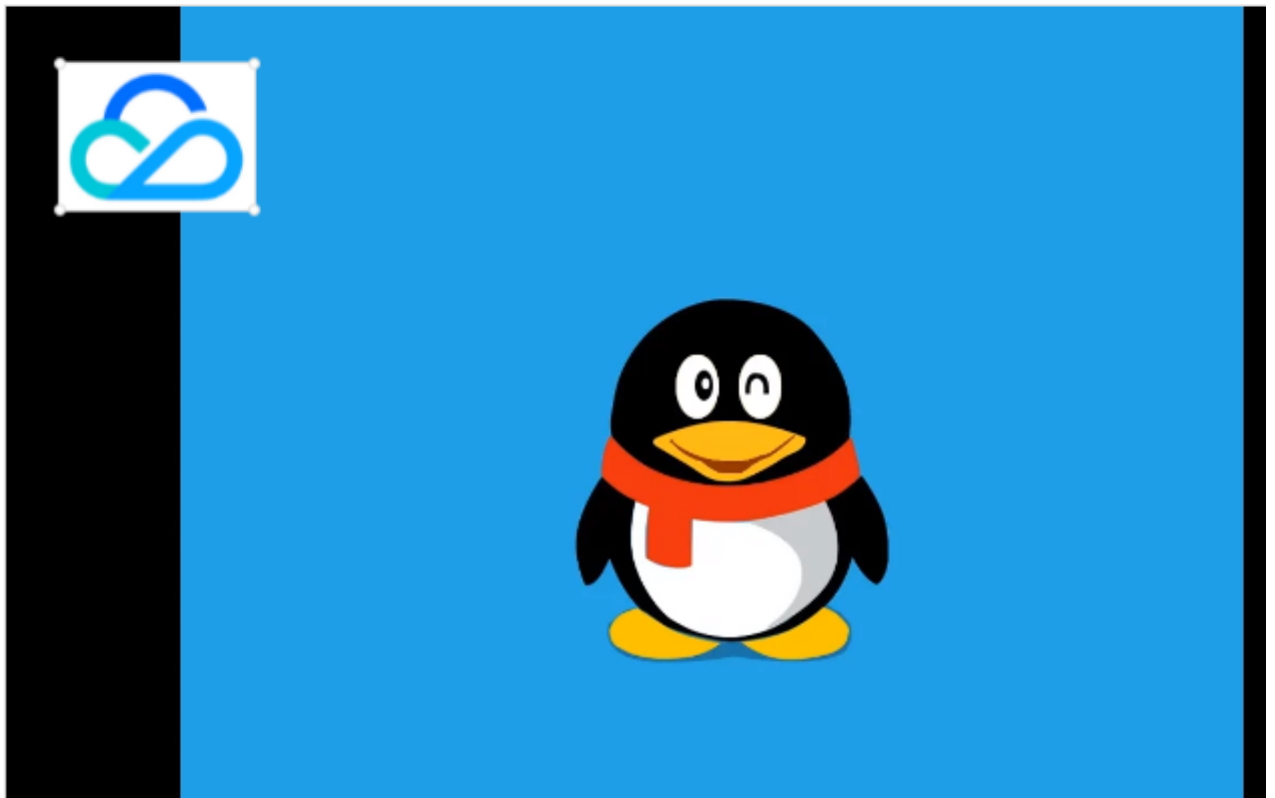
5. After the adjustment, you can click **Preview** to view the watermark effect.

Edit watermark



Upload a PNG, JPG, JPEG, or GIF image not larger than 2 MB. The width and height of the image should exceed 1024 px.
After upload, you can drag the watermark or manually enter the coordinates to adjust its position.

Upload



Resize

Enter coordinates manually

Watermark name

Enter a watermark name

Absolute position



X:

47

px



Y:

50

px

Dimensions



Width:

181

px



Height:

135

px

Preview

Confirm

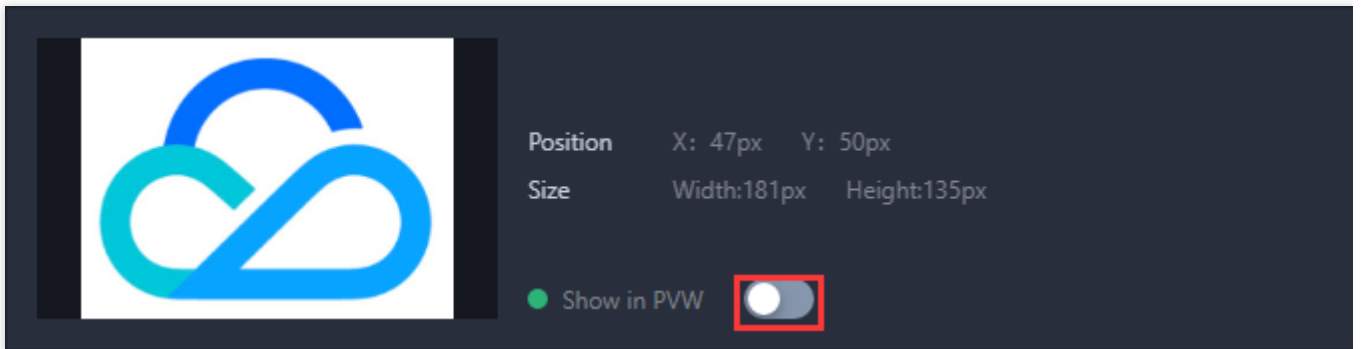
Cancel

6. After the editing, click **Confirm** to save the watermark template.

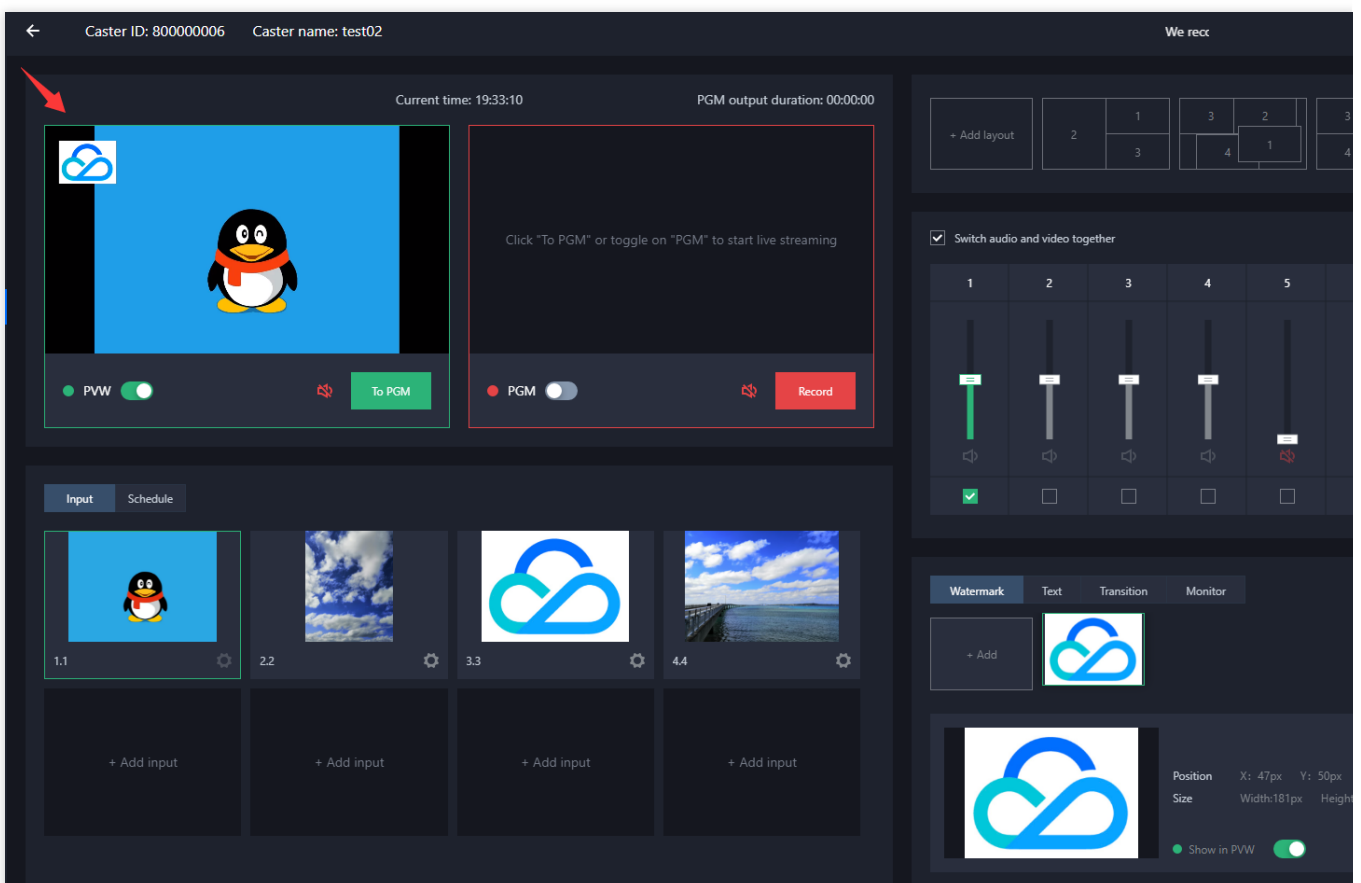
7. Select the watermark template you want to enable, and click



to turn on the **PVW window**.



8. The watermark is displayed in the PVW window.



Editing a Watermark Template

1. Select a watermark template you created and click **Edit** on the right to modify the template data.



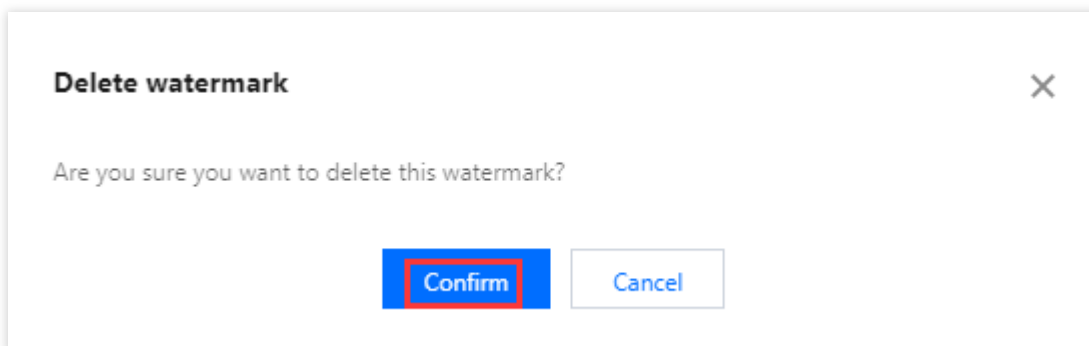
2. Adjust the watermark template based on your business requirements. After the adjustment, click **Confirm**.

Deleting a Watermark Template

1. Select a watermark template you created and click **Delete** on the right.



2. Confirm whether to delete the watermark template. Click **Confirm** to delete it.

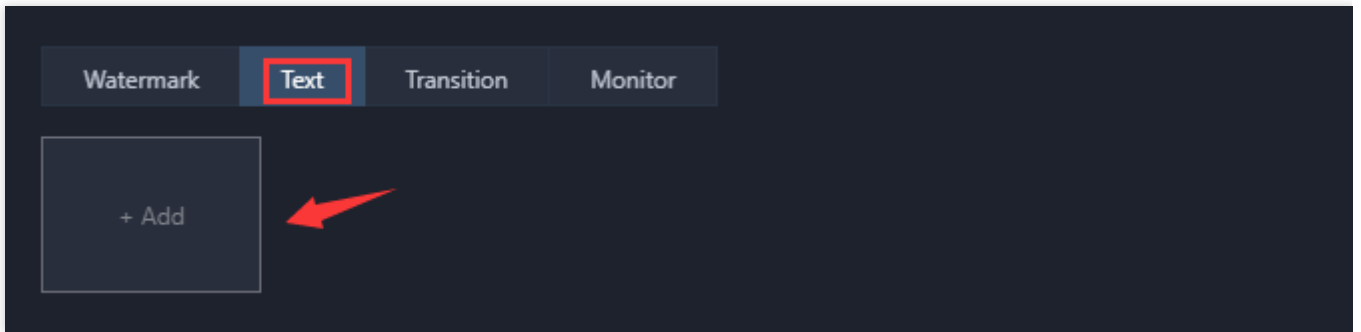


Adding Text

Creating a Text Template

LVC supports multiple text overlays, as well as text and watermark overlays. To add text in your directed footage, follow these steps:

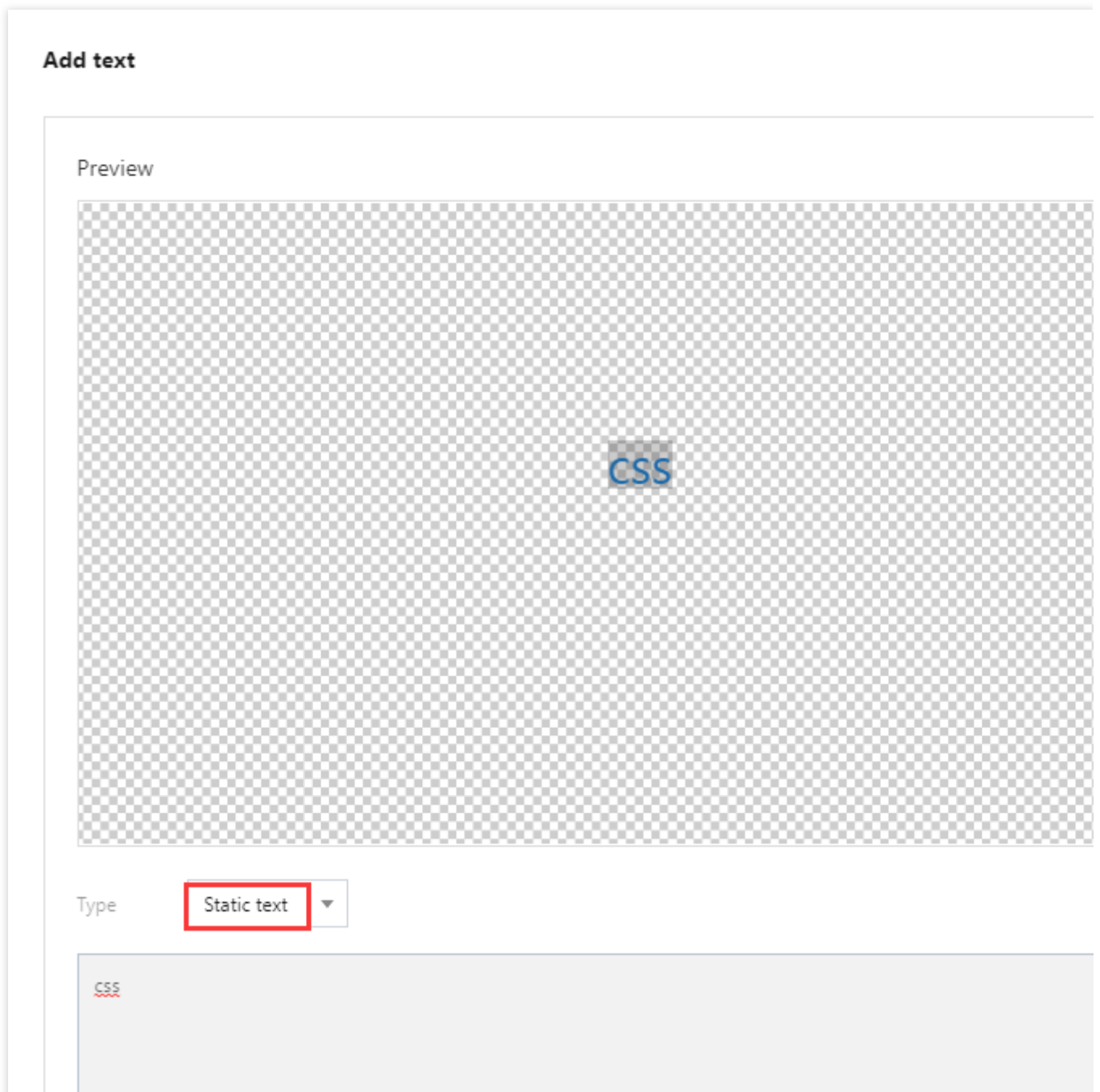
1. Select the Text tag and click **Add** to enter the text creation page.





2. Configure the following items based on your business requirements:

Static text

Current time



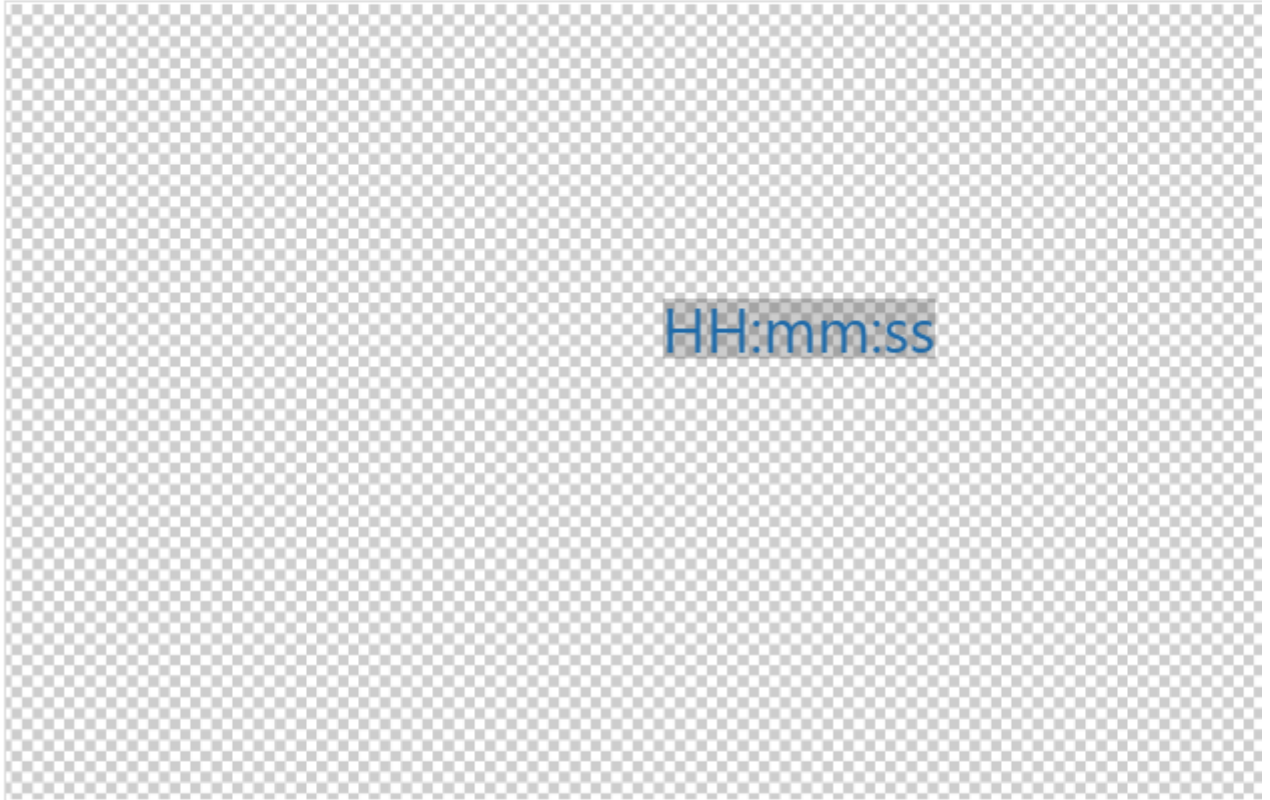
Font Size

Position  X: %  Y: %

Display

Add text

Preview



Type

Type Time (HH:mm:ss)
 Date+Time (yyyy-MM-dd HH:mm:ss)

Font Size

Position % X: % Y:

Configuration Item	Description
Type	The options are Static text (default) and Current time. Static text:

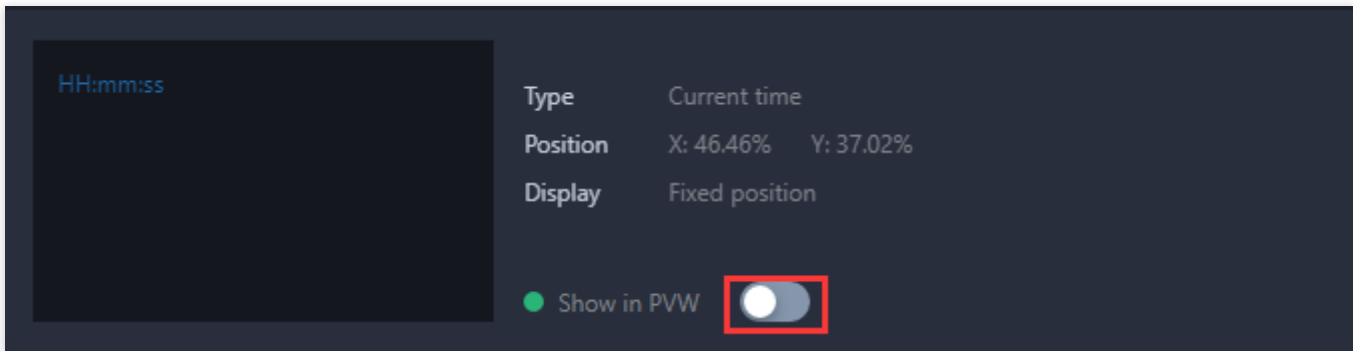
	Enter the text in the field below. Current time: Set the type to either Time or Date + Time.
Font	Options: Songti and Heiti.
Size	Value range: 16 to 60.
Font color	Customize the font color according to your preference.
Position	Drag and drop the text to adjust its position.
Display	Options: Fixed position and Scroll .

3. After the editing, click **Confirm** to save the text template.

4. Select the text template you want to enable, and click

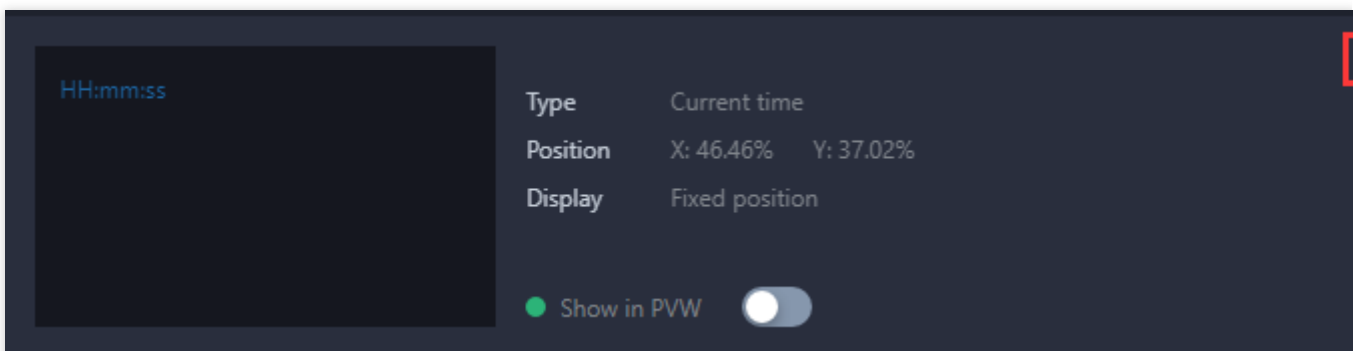


to turn on the **PVW window**. The text is displayed in the PVW window.



Editing a Text Template

1. Select a text template you created and click **Edit** on the right to modify the template data.



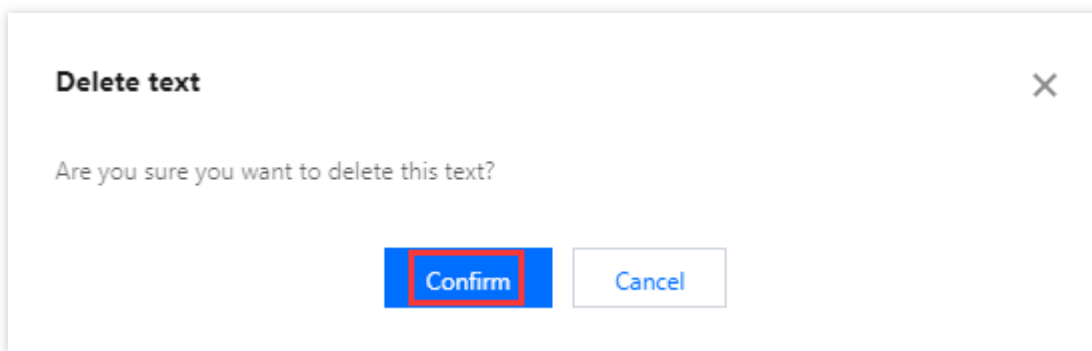
2. Adjust the text template based on your business requirements. After the adjustment, click **Confirm**.

Deleting a Text Template

1. Select a text template you created and click **Delete** on the right.

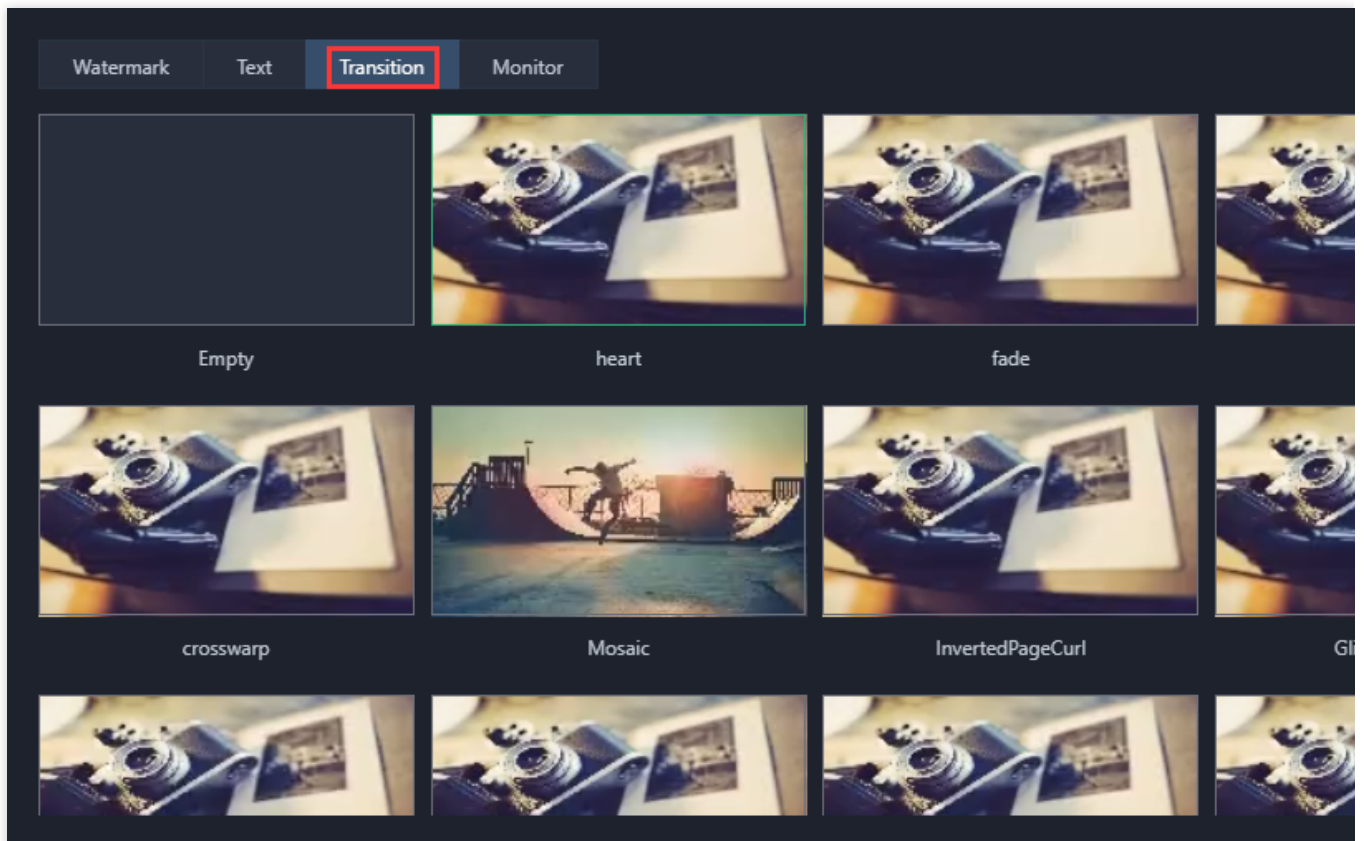


2. Confirm whether to delete the text template. Click **Confirm** to delete it.



Adding a Transition

LVC offers a variety of transition effects. Click any transition template to use it. Once selected, the transition effect will appear upon the next switching of video sources.



Step 6: Adding a Standby Video or Image

Adding a Standby Video

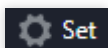
A standby video serves as an auxiliary input source. LVC automatically switches to the auxiliary input source when your live stream is interrupted unexpectedly.

Note:

If the standby video function is enabled, when the input source or pulled stream for the PGM (primary stream) fails or is interrupted, LVC automatically switches to the standby video. Once the primary stream recovers, LVC switches back to the primary stream.

Set this function by following these steps:

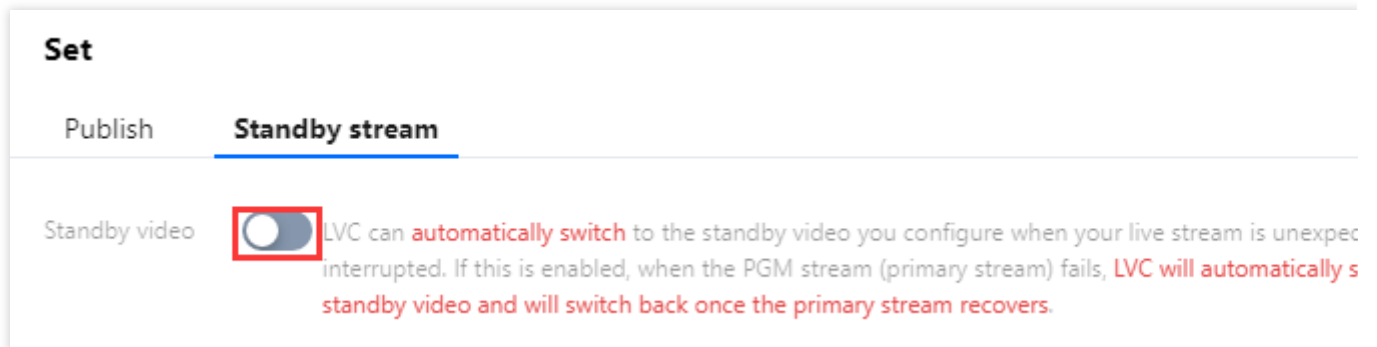
1. Click



in the upper-right corner, select **Standby stream** to enter the configuration page, and click



to enable standby video.



2. Set the input type and fill in the corresponding URL. **On demand URL** and **Live URL** are supported.

3. After the configuration, click **Confirm** to save the settings.

Note:

If added successfully, the video can be previewed in this window.

Set

Publish **Standby stream**

Standby video LVC can **automatically switch** to the standby video you configure when your live stream is unexpectedly interrupted. If this is enabled, when the PGM stream (primary stream) fails, **LVC will automatically switch to the standby video and will switch back once the primary stream recovers.**

Input type

On demand URL

You can preview the standby video here

Adding a Standby Image

A standby image serves as an auxiliary image input source. LVC automatically switches to the auxiliary input source when your live stream is interrupted unexpectedly.

Note:

If the standby video function is not enabled, when the input source or pulled stream for the PGM (primary stream) fails or is interrupted, LVC automatically switches to the standby image. Once the primary stream recovers, LVC switches back to the primary stream.

If the standby video and standby image functions both are enabled, LVC switches to the standby video first. Only when the standby video also fails, LVC switches to the standby image.

Enable the standby image function by following these steps:

1. Click



in the upper-right corner, select **Standby stream** to enter the configuration page, and click



to enable standby image.

Set

Publish **Standby stream**

Standby video LVC can **automatically switch** to the standby video you configure when your live stream is unexpectedly interrupted. If this is enabled, when the PGM stream (primary stream) fails, **LVC will automatically switch to the standby video and will switch back once the primary stream recovers.**

Standby image LVC can **automatically switch** to the standby image you configure if your live stream is unexpectedly interrupted. If this is enabled and a standby video is not configured, when the PGM stream (primary stream) fails, **LVC will automatically switch to the standby image and will switch back once the primary stream recovers.** If both a standby video and image are configured, the video will be published first. If the video also fails, the image will be used.

2. Click **Upload** and select and upload a local image.

Note:


The maximum image size is 5MB. The PNG, JPG, and JPEG formats are supported.

Set

Publish **Standby stream**

Standby video LVC can **automatically switch** to the standby video you configure when your live stream is unexpectedly interrupted. If this is enabled, when the PGM stream (primary stream) fails, **LVC will automatically switch to the standby video and will switch back once the primary stream recovers.**

Standby image LVC can **automatically switch** to the standby image you configure if your live stream is unexpectedly interrupted. If this is enabled and a standby video is not configured, when the PGM stream (primary stream) fails, **LVC will automatically switch to the standby image and will switch back once the primary stream recovers.** If both a standby video and image are configured, the video will be published first. If the video also fails, the image will be used.

 Upload a PNG, JPG, or JPEG image not larger than 5 MB

3. Click **Confirm** to save the settings.

Step Three: Generate Output

Last updated : 2024-03-21 14:14:09

After setting the Live Video Caster (LVC), you can turn on output. LVC also supports recording and relay, enriching downstream live broadcast systems.

Prerequisites

You have completed [Incorporating Input Sources](#).

You have completed [Directing and Editing](#).

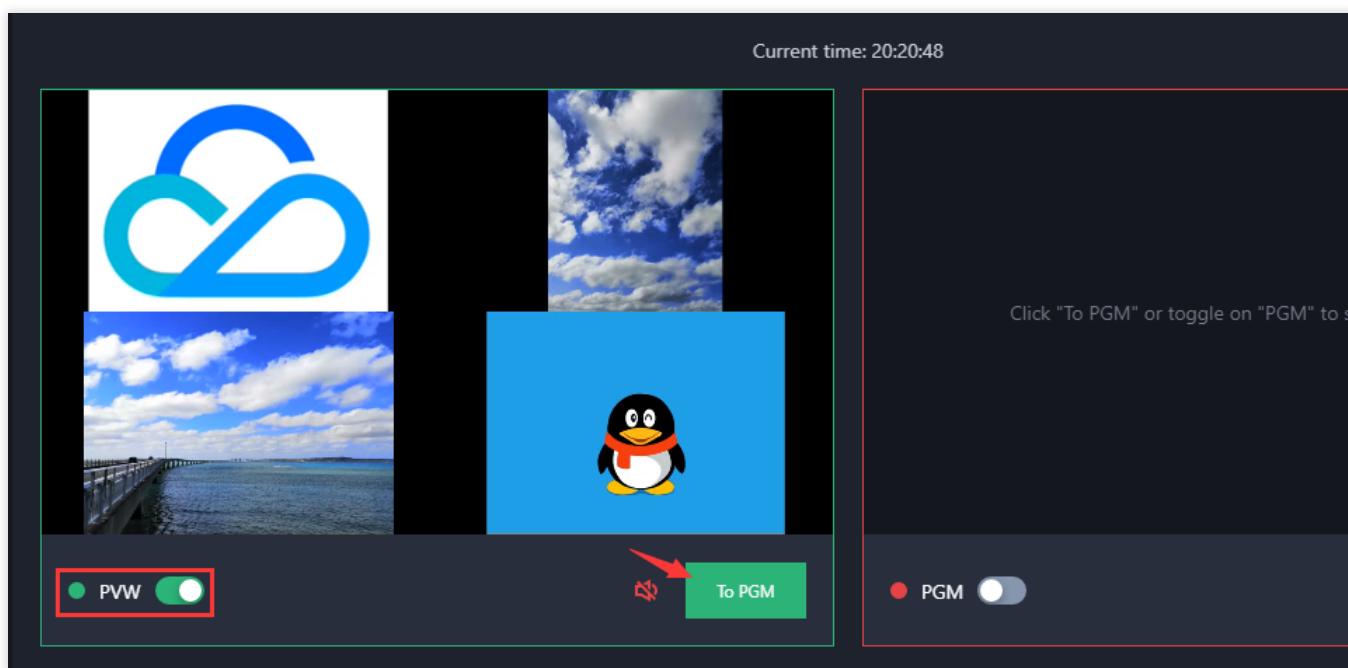
Step 1: Starting Output

1. If the preview effect meets your requirements, you can click **To PGM** to start the output.

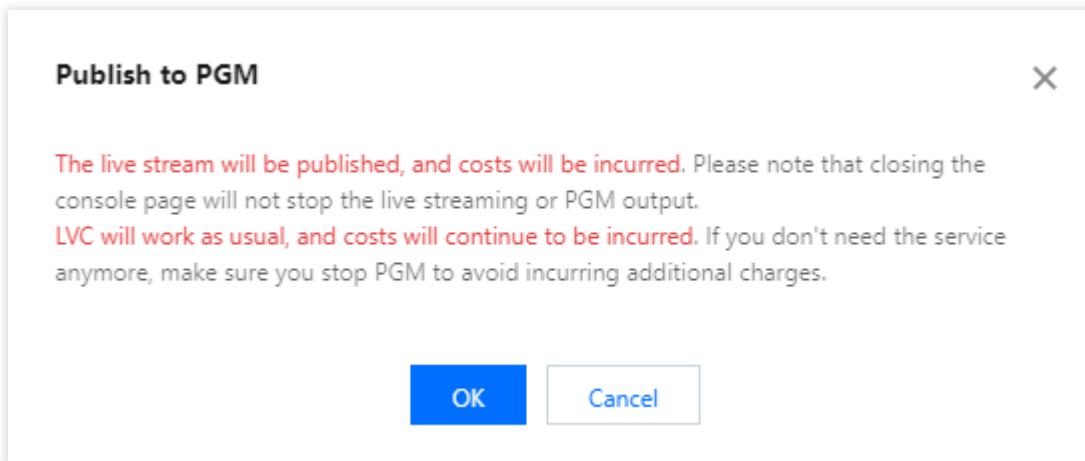
Note:

A red frame appears on the input source or layout being used for output, indicating that the input source or layout is in use in PGM.

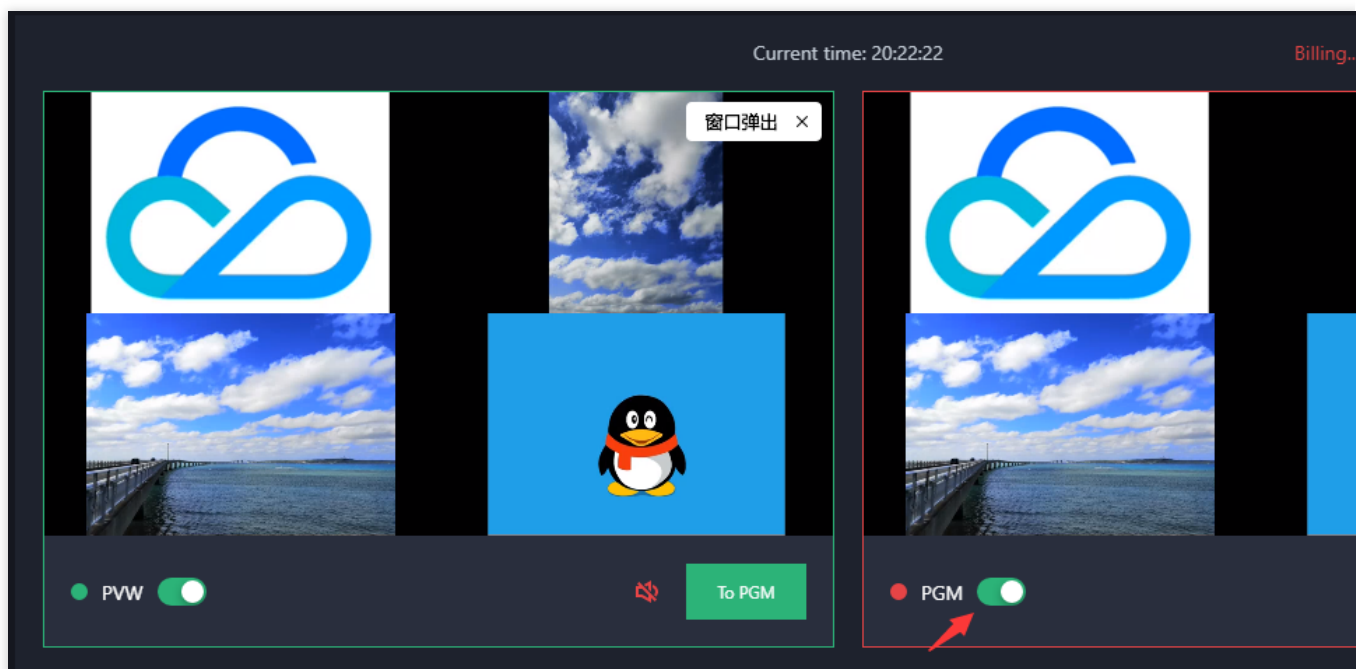
Once the stream is published to PGM, formal output and billing start. Closing the LVC console will not stop the live streaming or PGM output; in contrast, the LVC remains in operation and the billing continues. To stop the LVC, you need to manually turn off the PGM.



2. Before publishing the stream, the system once again verifies whether to turn on the main monitor (PGM).

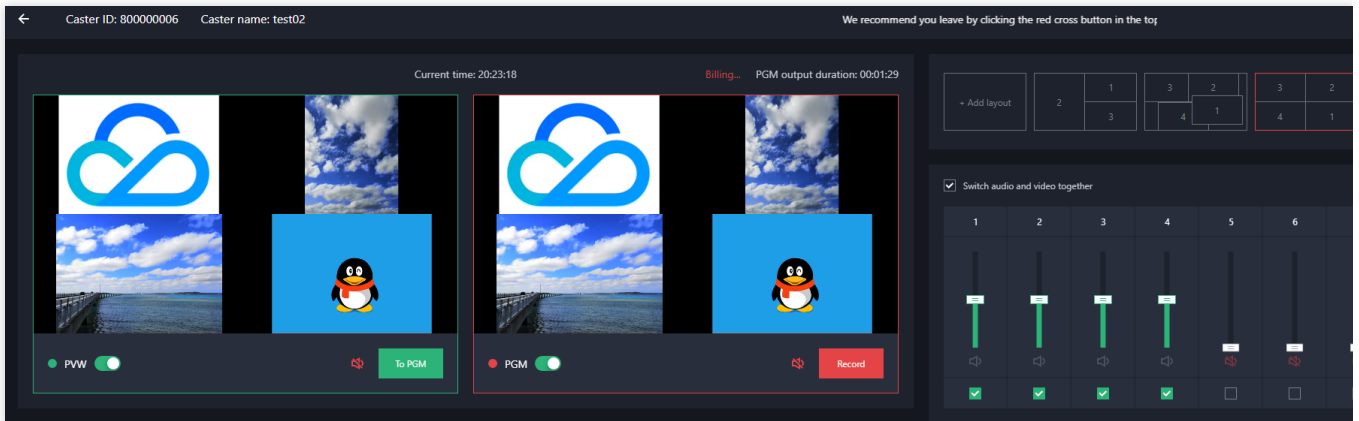


3. Once the output starts, you can see the published stream in the main monitor.

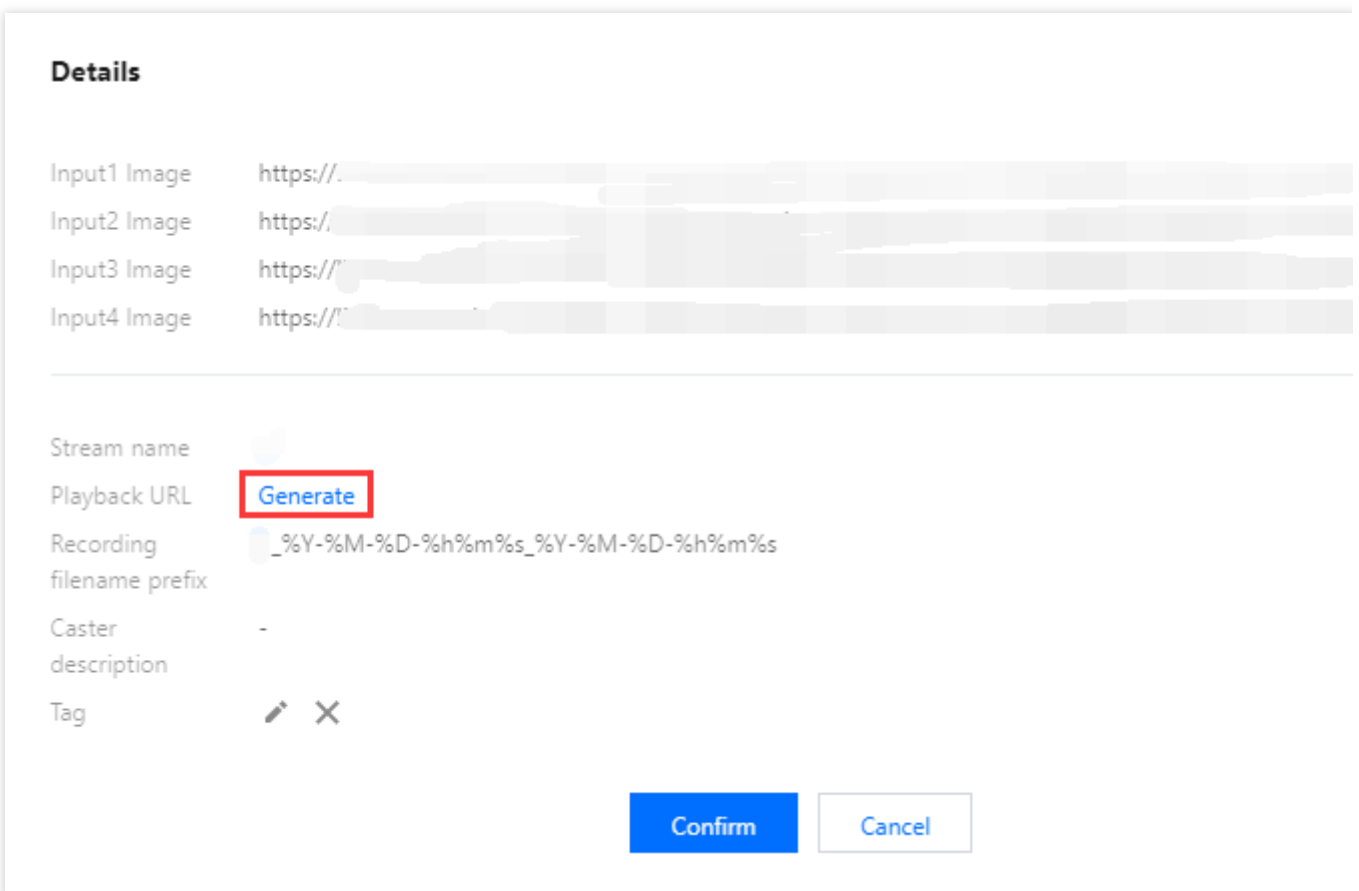


Step 2: Obtaining the Output Playback URL

1. After the stream is published to PGM, if you want to obtain the output playback URL, you may click **Details** in the upper-right corner to enter the details page.



2. Click **Generate** to enter the [Address Generator](#) to generate the URL.



Note:

Make sure that your [configuring CNAME](#) was successful.

If you have not set a live streaming playback domain, this section is blank and you cannot play the stream through Tencent Cloud CDN.

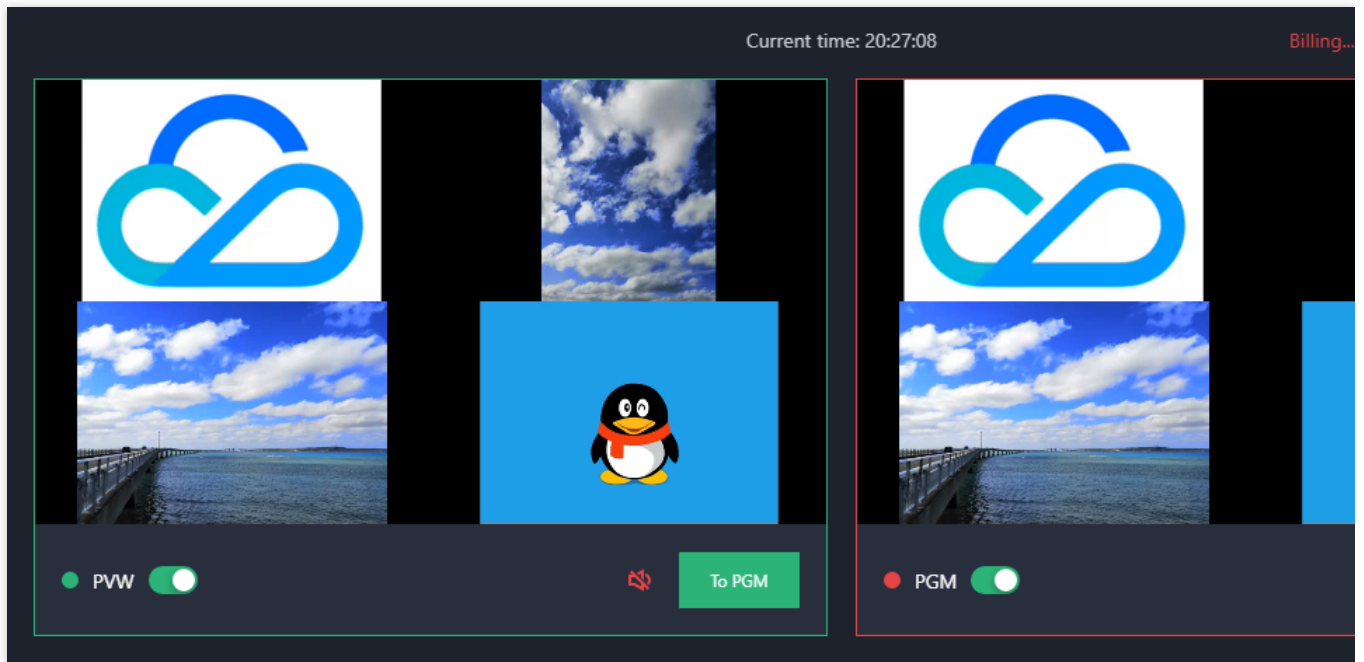
If you have multiple domains, the LVC system will randomly select a domain to compute a playback URL for display. If the randomly selected domain does not meet your needs, you may go to the live streaming system to generate a playback URL.

Step 3: Recording the Live Stream

1. Click

A red rectangular button with the word "Record" in white text.

in the main monitor (PGM) to enter the recording configuration page.



2. Select a recording template you configured and set the recording end time. The maximum recording duration is 24 hours. Click **Confirm** to start recording.

Record

Recording template ▾

File type	Max file duration (min)	Retention period (days)	Resumption timeout (sec)	Subapplicati
HLS	No limit	Permanent	0	None
MP4	2	Permanent	Not supported	test
FLV	2	Permanent	Not supported	None

Make sure you have already [created](#) a recording template. To modify your template, click [here](#)
 The recording file will be saved to VOD. To use this value-added feature, you need to activate [VOD f](#)
 This feature will incur recording and storage costs. [Learn more](#)

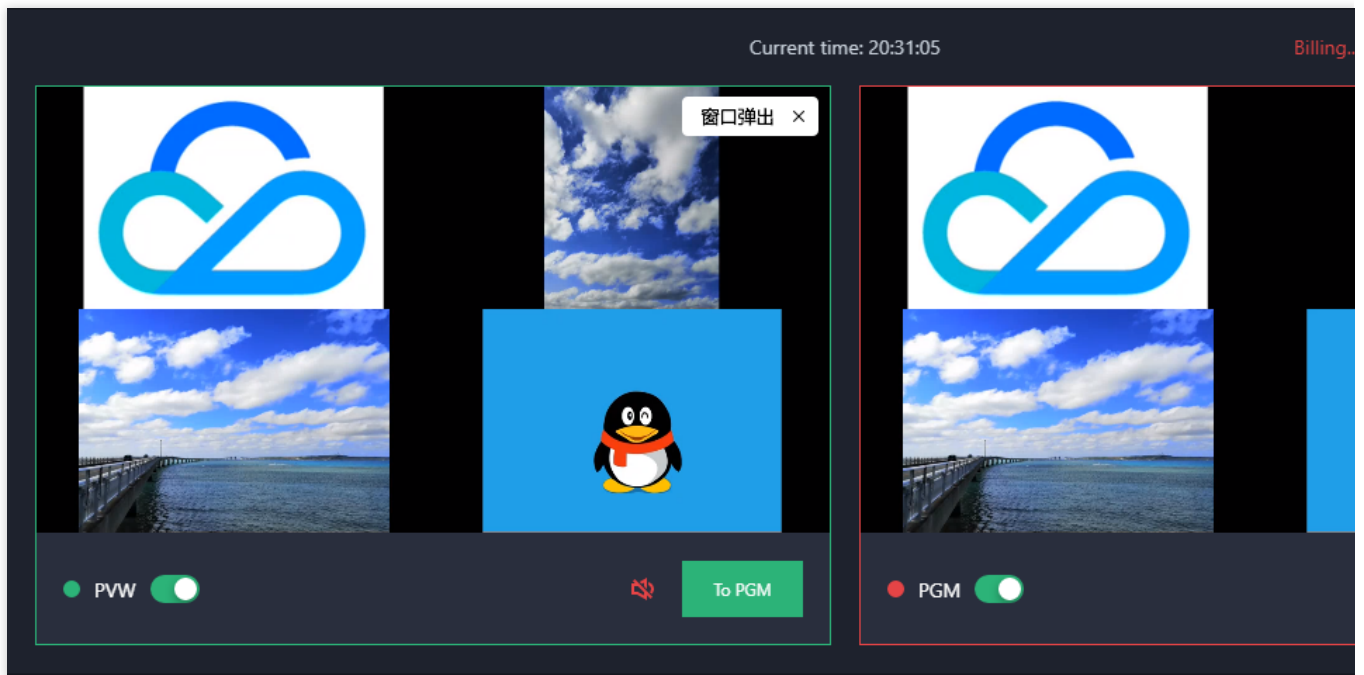
End time 📅

The max recording duration is 24 hours

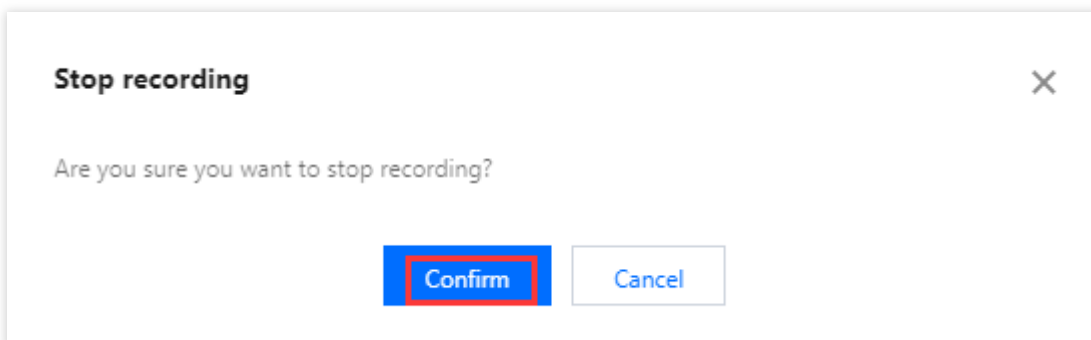
Confirm
Cancel

3. When the recording is completed, click

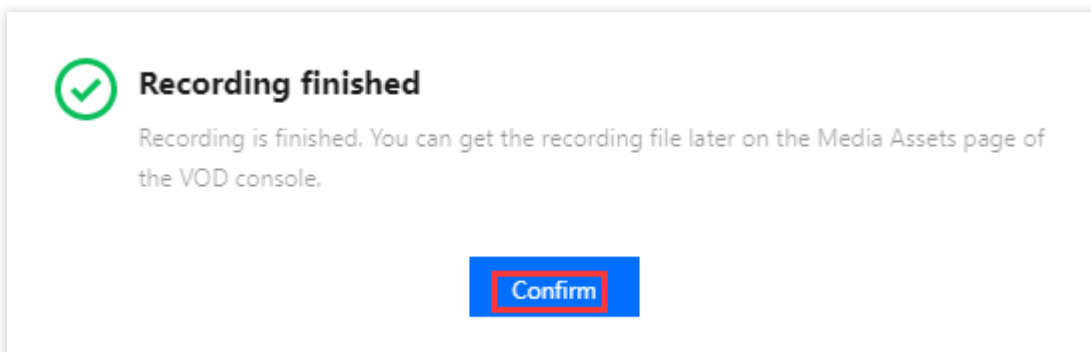




4. Click **Confirm** to finish the recording.



5. The system transmits the recorded file to the Video on Demand (VOD) system. You can view the recorded file in VOD.



6. Click **Details** in the upper-right corner to enter the details page and view or copy the prefix of your recording file.

Details

Input1 Image [https://\[redacted\]](#)



Input2 Image [https://\[redacted\]](#)

Input3 Image [https://\[redacted\]](#)



Input4 Image [https://\[redacted\]](#)

Stream name [redacted]

Playback URL [Generate](#)

Recording filename prefix 1_%Y-%M-%D-%h%m%s_%Y-%M-%D-%h%m%s  

Caster description -

Tag  

[Confirm](#) [Cancel](#)

Note:

You may navigate to [VOD > Application Management](#), select an application, and click **Enter Application** to access the **Media Asset Management Guide**.

VOD Application Management

Service Overview
Application Management
Usage Statistics
Resource Package Management
License Management

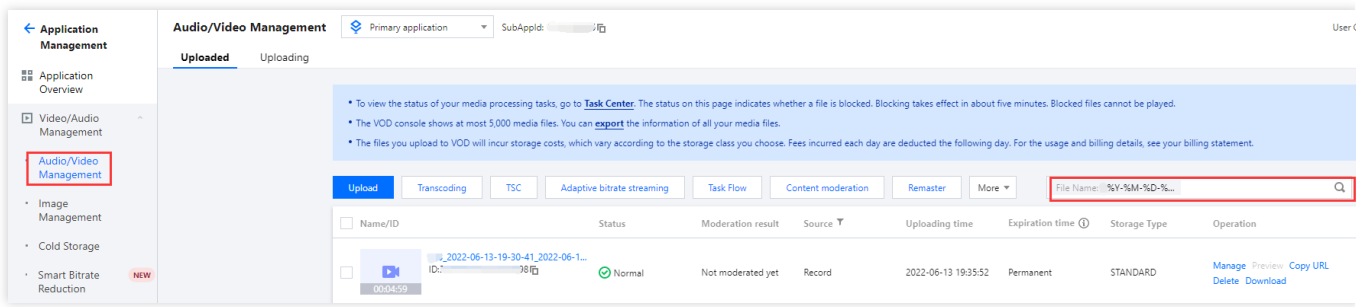
After a subapplication is disabled, all its data and configurations will be retained. It can no longer be accessed, but will incur costs. For details, see [Billing Overview](#).

After the subapplication is terminated, its data and configurations will be cleared and cannot be recovered.

[Create application](#) [Edit tags](#) [Disable](#) [Terminate](#) [Enable](#) [Cost allocation by tag](#)

<input type="checkbox"/>	Application Name/ SubAppld	Subapplication Description	Creation Time	Update Time	Status	Operation
<input type="checkbox"/>	Primary application Default Application	-	2020-03-11 12:01	2022-07-27 10:14	Enabled	Enter Application
<input type="checkbox"/>	test	-	2020-03-16 06:53	2020-03-16 06:53	Enabled	Enter Application

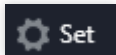
On the **Audio/Video Management** page, you can search for a recorded video by entering its file prefix.



Step 4: Setting a Relay

To push your live stream to a third-party cloud vendor, configure a relay first.

1. Click



in the upper-right corner and select **Publish** to enter the push settings page.

2. Fill in the **CSS stream name**.

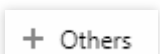
3. You may enable delayed playback. The maximum delay is 300 seconds.

4. Click **Advanced settings** to configure the domain and parameters.

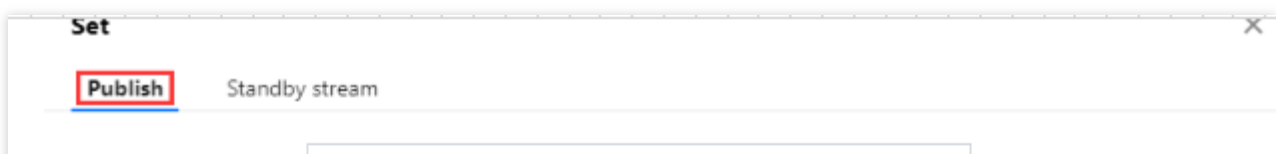
Advanced Settings	Required	Description
Push domain	No	Select an available push domain. If not filled out, this field will be populated by a backend-generated value when you save settings.
AppName	No	Use English letters, numbers, and underscores only.
Custom parameters	No	Enter stream push parameters.

5. Set a relay address:

5.1 Click



to add a custom third-party vendor address.



CSS stream name ⓘ

Delay playback s

The playback can be delayed by up to 300 seconds

Advanced settings ▾

Domain

Push domain

AppName

Parameters

Custom parameters

Relay configuration

Relay URL

Platform	Relay URL ⓘ	Operation
No data yet		

Note:
Relaying to another platform will incur **relaying costs**. [Learn more](#)

Output video

Type Custom

If only one stream is published, and the parameters below are not specified or are 0, the parameters of the original stream will be used. If more than one stream is published, and the parameters below are not specified or are 0, the output resolution will be 720p.

Video width px

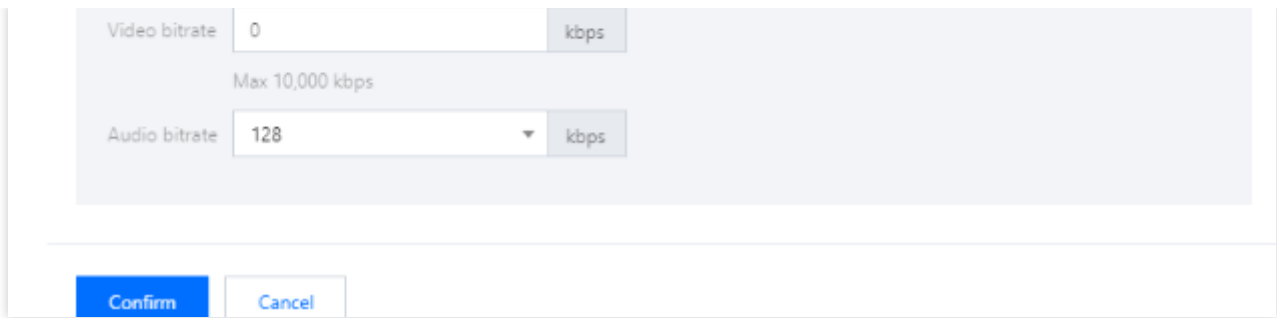
Max 1920 px

Video height px

Max 1920 px

Frame rate fps

Max 60 fps



The screenshot shows a configuration window for video streaming. It has two input fields: 'Video bitrate' with a value of 0 and a unit of 'kbps', and 'Audio bitrate' with a value of 128 and a unit of 'kbps'. A note below the video bitrate field says 'Max 10,000 kbps'. At the bottom, there are two buttons: 'Confirm' (in blue) and 'Cancel' (in white).

Note:

Third-party relays can only be RTMP-based. Platform push addresses should be in the format of

```
rtmp://domain/app/stream?arg1=xxx .
```

To use the third-party relay feature, you must use Tencent Cloud Streaming Services.

A maximum of three target addresses are supported in third-party relay. One of the target addresses defaults to the current Tencent Cloud Streaming Services account, and the other two can be third-party addresses, excluding streaming domain names under the current account. Relay to third parties incurs relay bandwidth-based fees, which are calculated according to the relay charging standard.

Relay to other Tencent Cloud Streaming Services accounts (other than those under the current account) also incurs bandwidth-based fees, which are calculated according to the relay charging standard. For more information, see [Live Video Caster Charging Instructions](#).

6. Set the size of video output.

Select **Custom**, and set the following parameters:

Video width: Must be less than or equal to 1920px. Video height: Must be less than or equal to 1920px.

Frame rate: Must be less than or equal to 60fps. Video bitrate: Must be less than or equal to 10,000kbps.

Audio bitrate: Supports 128kbps, 192kbps, and 256kbps.

Output video

Type Custom

If only one stream is published, and the parameters below are not specified or are 0, the parameters of the original stream are used. If more than one stream is published, and the parameters below are not specified or are 0, the output resolution will be the same as the original stream.

Video width px

Max 1920 px

Video height px

Max 1920 px

Frame rate fps

Max 60 fps

Video bitrate kbps

Max 10,000 kbps

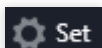
Audio bitrate kbps

7. Click **Confirm** to save the settings.

Step 5: Setting a Standby Input Source

You may enable a standby input source on the standby stream page.

1. Click



in the upper-right corner and select **Standby stream** to enter the standby stream page.

2. Enable or disable the standby video. A standby video serves as an auxiliary input source. If the standby video function is enabled, when the input source or pulled stream for the PGM (primary stream) fails or is interrupted, LVC automatically switches to the standby video. Once the primary stream recovers, LVC switches back to the primary stream.

3. Set the input type to On demand URL or Live URL.

On demand URL: You may set multiple on-demand URLs, which should be separated with semicolons (;) or line breaks.

Live URL: Fill in this field with the stream/playback URL.

4. Enable or disable the standby image. A standby image serves as an auxiliary image input source. If the standby video function is not enabled, when the input source or pulled stream for the PGM (primary stream) fails or is interrupted, LVC automatically switches to the standby image. Once the primary stream recovers, LVC switches back to the primary stream.

5. Click **Upload** and upload a standby image. The size limit is 5MB, and the image format should be PNG, JPG or JPEG.

6. Click **Confirm** to save the settings.

Set

Publish **Standby stream**

Standby video LVC can **automatically switch** to the standby video you configure when your live stream is unexpectedly interrupted. If this is enabled, when the PGM stream (primary stream) fails, **LVC will automatically switch to the standby video and will switch back once the primary stream recovers.**


Input type

On demand URL

You can preview the standby video here

Standby image LVC can **automatically switch** to the standby image you configure if your live stream is unexpectedly interrupted. If this is enabled and a standby video is not configured, when the PGM stream (primary stream) fails, **LVC will automatically switch to the standby image and will switch back once the primary stream recovers.** If both a standby video and image are configured, the video will be published first. If the video also fails, the

used.



Upload a PNG, JPG, or JPEG image not larger than 5 MB

[Upload](#)

[Confirm](#)

[Cancel](#)

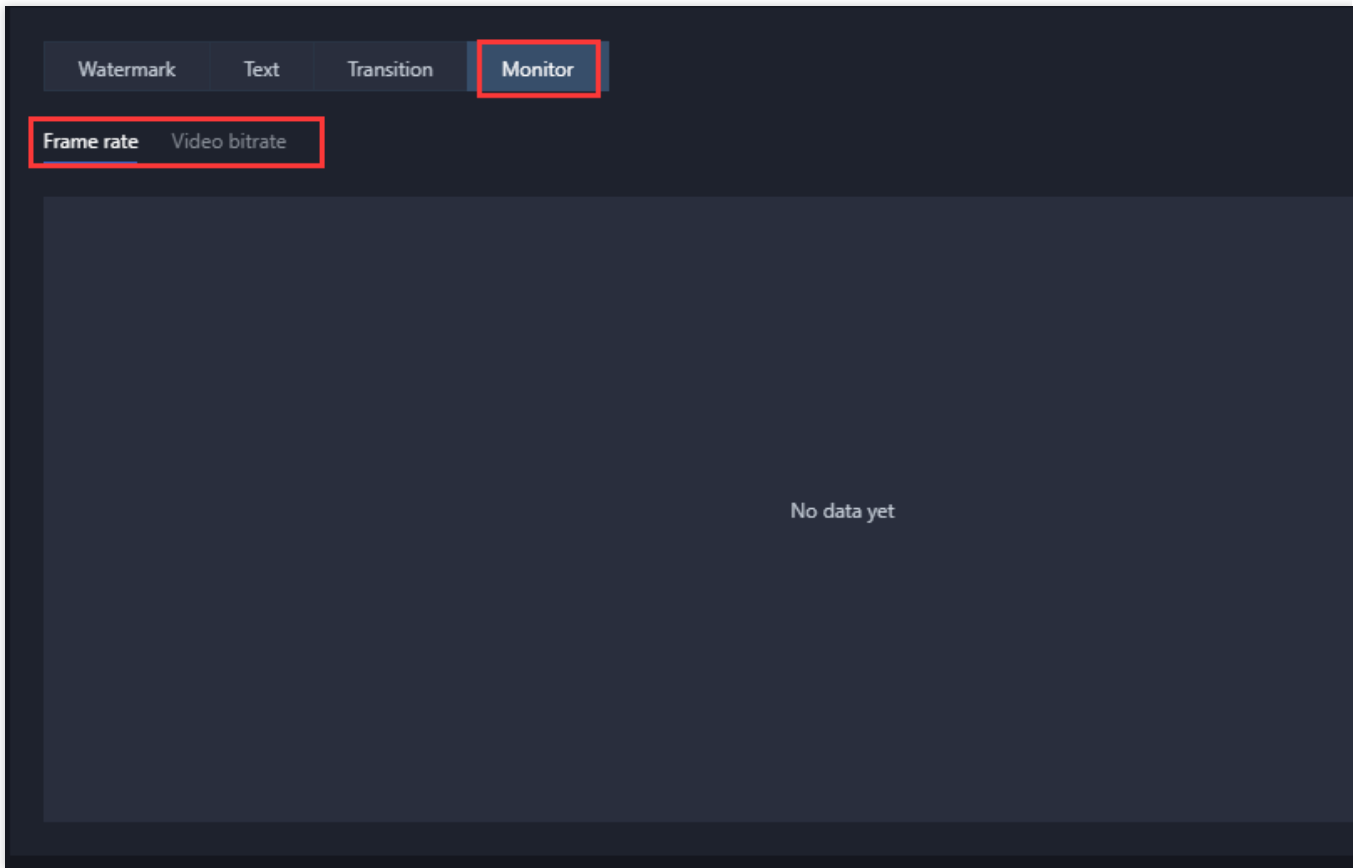
Note:

If the standby video and standby image functions both are enabled, LVC switches to the standby video first. Only when the standby video also fails, LVS switches to the standby image.

Step 6: Monitoring Output Stream Quality

After the stream is output from the LVC, you can view the frame rate and bit rate curves in the **Monitor** section.

1. Click **Refresh** in the upper-right corner to refresh the current chart.
2. Click **Stream data** to enter the stream detail query page where you can view the detailed push stream data.



Configuring Program Lists and Automated Broadcasting

Last updated : 2024-03-21 14:14:09

Live Video Caster (LVC) allows you to create schedules and set automated broadcasting. This enables input sources or layouts to be published in a planned way.

Prerequisites

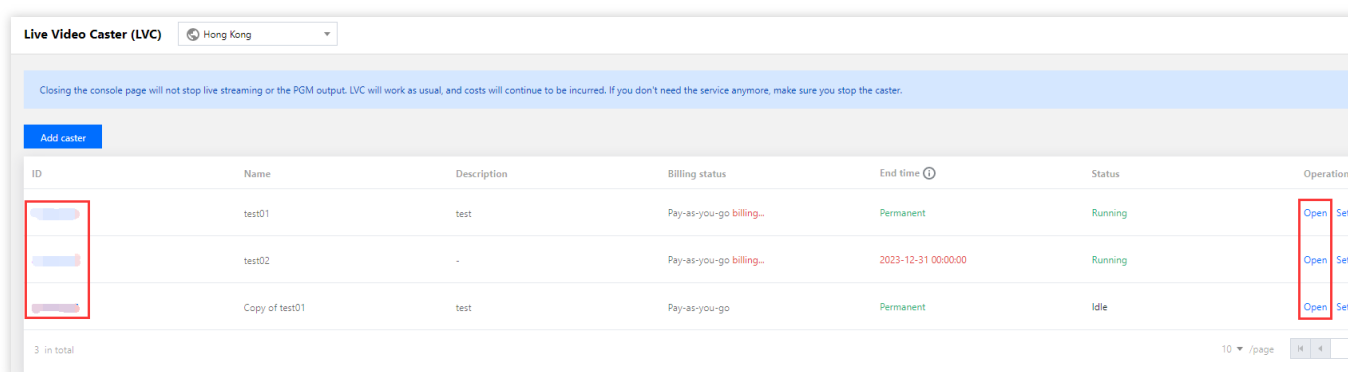
You have completed [Incorporating Input Sources](#).

You have completed [Directing and Editing](#).

Configuring a Schedule

Creating a Schedule

1. In the [Live Video Caster](#) list, find the target caster and click its **ID** or click **Open** on the right to enter the caster editing page.



Live Video Caster (LVC) Hong Kong

Closing the console page will not stop live streaming or the PGM output. LVC will work as usual, and costs will continue to be incurred. If you don't need the service anymore, make sure you stop the caster.

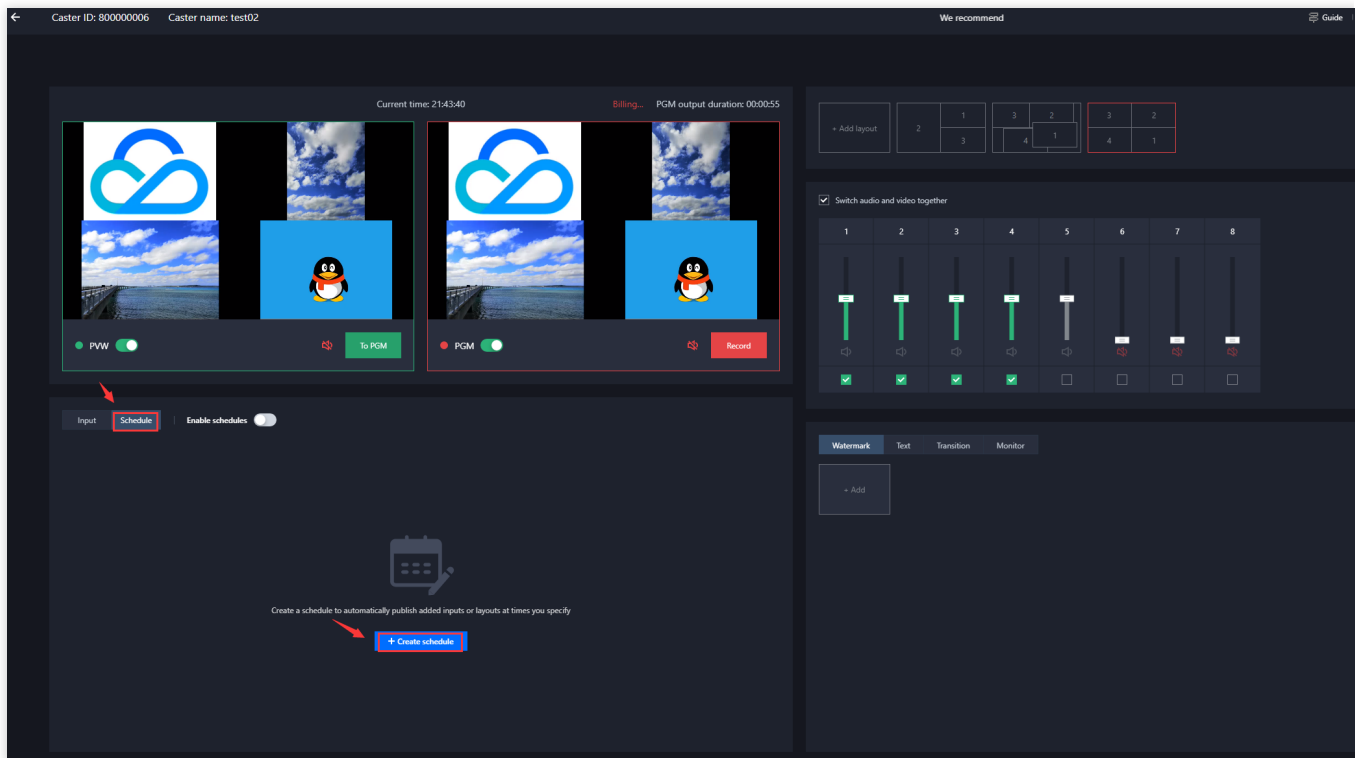
[Add caster](#)

ID	Name	Description	Billing status	End time	Status	Operation
test01	test01	test	Pay-as-you-go billing...	Permanent	Running	Open Set
test02	test02	-	Pay-as-you-go billing...	2023-12-31 00:00:00	Running	Open Set
Copy of test01	Copy of test01	test	Pay-as-you-go	Permanent	Idle	Open Set

3 in total

10 /page

2. Select **Schedule**, click **Create schedule**, and proceed with the following configurations:



Set the schedule name, which can consist of up to 10 characters.

Set the start time of the schedule, which should be later than the time the schedule is saved. If automated broadcasting is enabled, at the start time, LVC automatically turns on the main monitor (PGM) to start streaming and starts billing.

Set the end time of the schedule, which must be later than the start time and not exceed the expiration time of the caster. If automated broadcasting is enabled, at the end time, LVC automatically stops the PGM to stop streaming and stops billing.

Create schedule ✕

1 **Basic info** > 2 **Add program**

Schedule name

Start time

LVC will **start PGM** at this time

End time

LVC will **stop PGM** at this time

Next

3. Click **Next** and configure the following items in the **Add program** area:

Configuration Item	Description
Program name	Enter a program name, which can consist of up to 10 characters.
Stream time	For the first program, the stream time must be the schedule's start time. For others, the stream time should be between the schedule's start time and end time.
Program type	You can choose pre-configured sources or layouts.
Watermark	You can choose up to five watermarks.
Text	You can choose up to five texts.

4. Click **Add to schedule** to add the program. You may add multiple programs to a single schedule.

5. After adding programs, click **Save** to complete the creation of the schedule.

Create schedule

✓ Basic info >
2 Add program

1 2023-12-08 22:56:34 to 2023-12-09 15:00:00 Edit

- Live streaming starts 2023-12-08 22:56:34 Program 1 Edit Delete
-
- Live streaming ends 2023-12-09 15:00:00

Add program

Program name

Stream time *

For the first program, the stream time must be the schedule's start time. For other programs, the stream time should be between the schedule's start time and end time.

Program type * Input 3 (3) Change

Watermark

Text

Add to schedule

Save Cancel

Note:

The stream time you set for an inserted program should be later than the current time.

Editing a Schedule

1. In the [Live Video Caster](#) list, find the target caster and click its **ID** or click **Open** on the right to enter the caster editing page.

Live Video Caster (LVC) Hong Kong

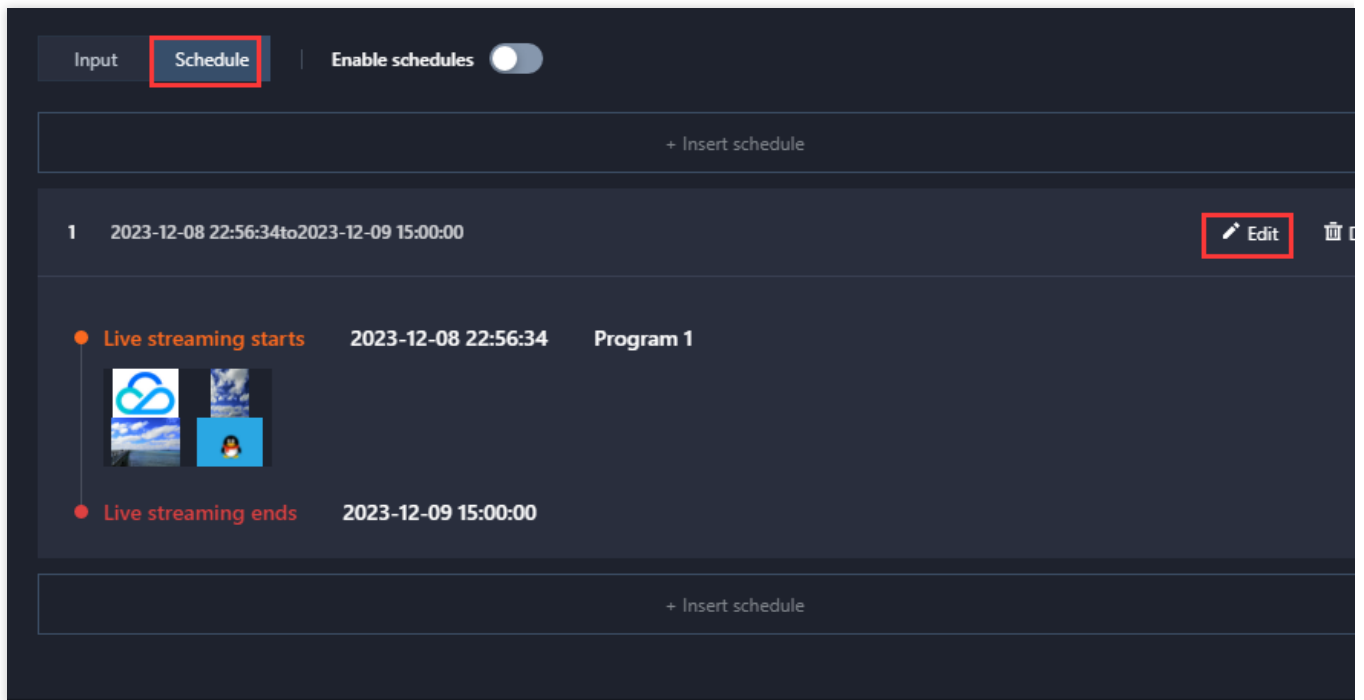
Closing the console page will not stop live streaming or the PGM output. LVC will work as usual, and costs will continue to be incurred. If you don't need the service anymore, make sure you stop the caster.

Add caster

ID	Name	Description	Billing status	End time	Status	Operation
test01	test01	test	Pay-as-you-go billing...	Permanent	Running	Open Set
test02	test02	-	Pay-as-you-go billing...	2023-12-31 00:00:00	Running	Open Set
Copy of test01	Copy of test01	test	Pay-as-you-go	Permanent	Idle	Open Set

3 in total 10 /page

2. Select a successfully created schedule, and click **Edit** on the right to enter the schedule editing page.

**Note:**

Expired schedules cannot be edited.

If automated broadcasting is enabled, the ongoing schedule's start time cannot be changed, though the end time can be changed.


Click **Schedule** to navigate to the ongoing program.

3. Click **Edit** on the right of the schedule to edit the start time and end time of the schedule.

Edit schedule

1 2023-12-08 22:56:34to2023-12-09 15:00:00 [Edit](#)


● **Live streaming starts** 2023-12-08 22:56:34 Program 1 [Edit](#) [Delete](#)




● **Live streaming ends** 2023-12-09 15:00:00

Basic info

Schedule name

Start time 
LVC will **start** PGM at this time

End time 
LVC will **stop** PGM at this time

[Confirm](#) [Cancel](#)

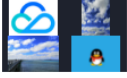
[Save](#) [Cancel](#)

4. Select the program you want to edit, and click **Edit** on the right to edit the program.

Edit schedule

1 2023-12-08 22:56:34 to 2023-12-09 15:00:00 [Edit](#)


● **Live streaming starts** 2023-12-08 22:56:34 Program 1 [Edit](#) [Delete](#)



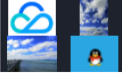
● **Live streaming ends** 2023-12-09 15:00:00

Edit program

Program name

Stream time * 

For the first program, the stream time must be the schedule's start time. For other programs, the stream time should be between the schedule's start time and end time.

Program type *  Layout 3 [Change](#)

Watermark

Text

[Confirm](#) [Cancel](#)


[Save](#) [Cancel](#)

5. Select the program you want to delete, and click **Delete** on the right to delete the program.


Edit schedule

1	2023-12-08 22:56:34to2023-12-09 15:00:00	Edit
---	--	----------------------

Live streaming starts 2023-12-08 22:56:34 Program2 [Edit](#) [Delete](#)




2023-12-09 00:56:34 Program 3 [Edit](#) [Delete](#)




Live streaming ends 2023-12-09 15:00:00

Add program

Program name

Stream time * 

For the first program, the stream time must be the schedule's start time. For other programs, the stream time should be between the schedule's start time and end time.

Program type *  Input 2 (2) [Change](#)

Watermark

Text

[Add to schedule](#)

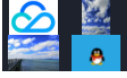
[Save](#) [Cancel](#)

6. Click **Change** to change the program content.


Edit schedule

1	2023-12-08 22:56:34 to 2023-12-09 15:00:00	Edit
---	--	----------------------

Live streaming starts 2023-12-08 22:56:34 Program2 [Edit](#) [Delete](#)




2023-12-09 00:56:34 Program 3 [Edit](#) [Delete](#)




Live streaming ends 2023-12-09 15:00:00

Add program

Program name:

Stream time: 

For the first program, the stream time must be the schedule's start time. For other programs, the stream time should be between the schedule's start time and end time.

Program type:  Input 2 (2) [Change](#)

Watermark:

Text:

[Add to schedule](#)

[Save](#) [Cancel](#)

7. After the editing, click **Save** to save the modifications.

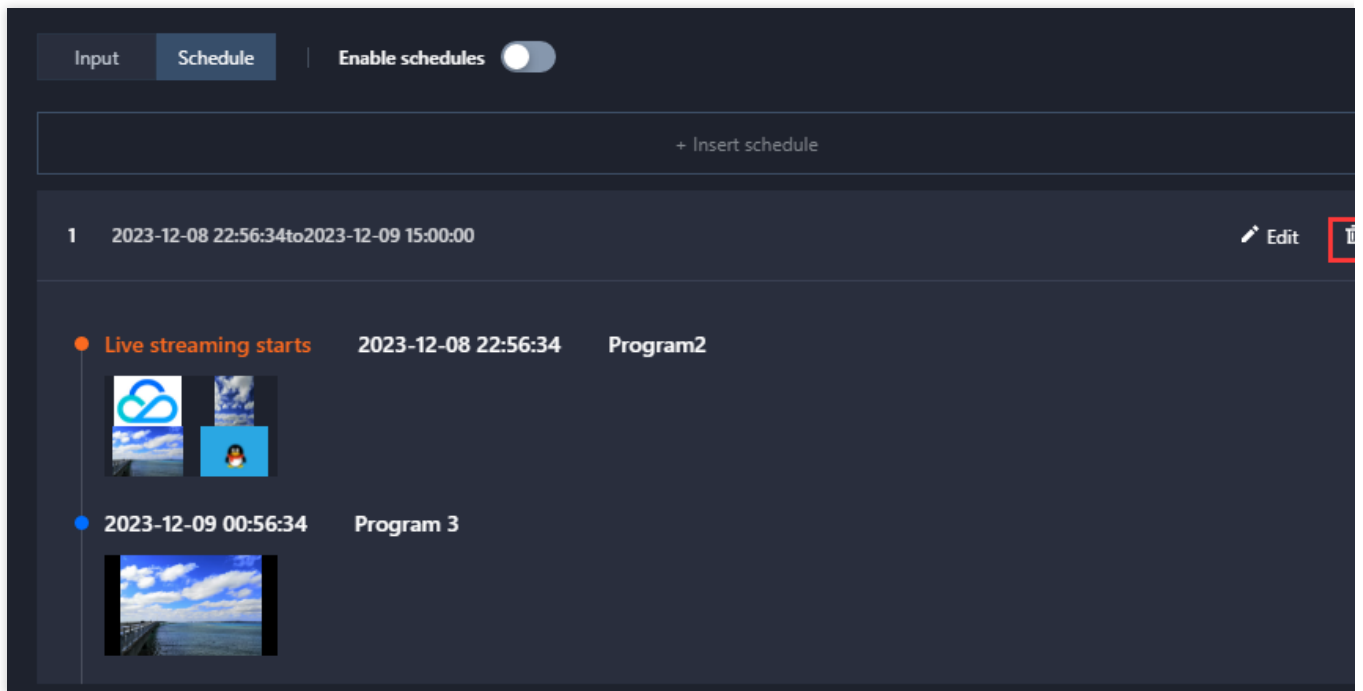
Deleting a Schedule

Note:

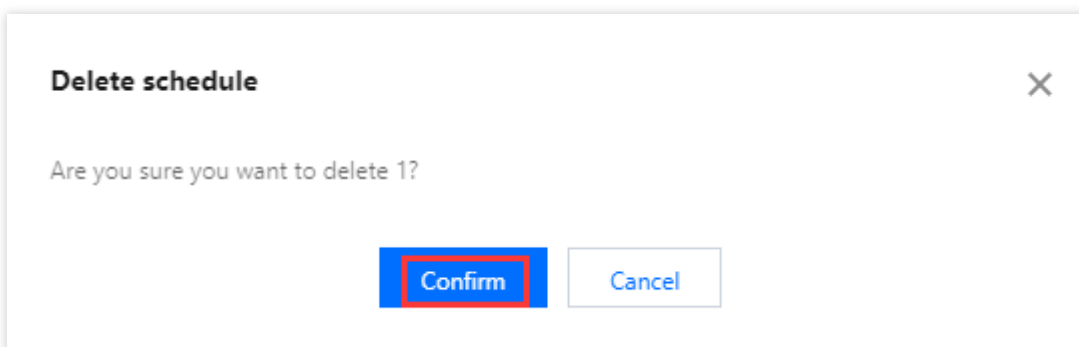
Schedules cannot be recovered once deleted. **Exercise utmost caution when deleting a schedule.**

The system automatically clears each schedule seven days after its end time.

1. On the Schedule tab page, select the target schedule, and click **Delete** on the right.

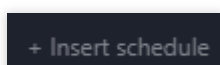


2. Click **Confirm** to delete the schedule.

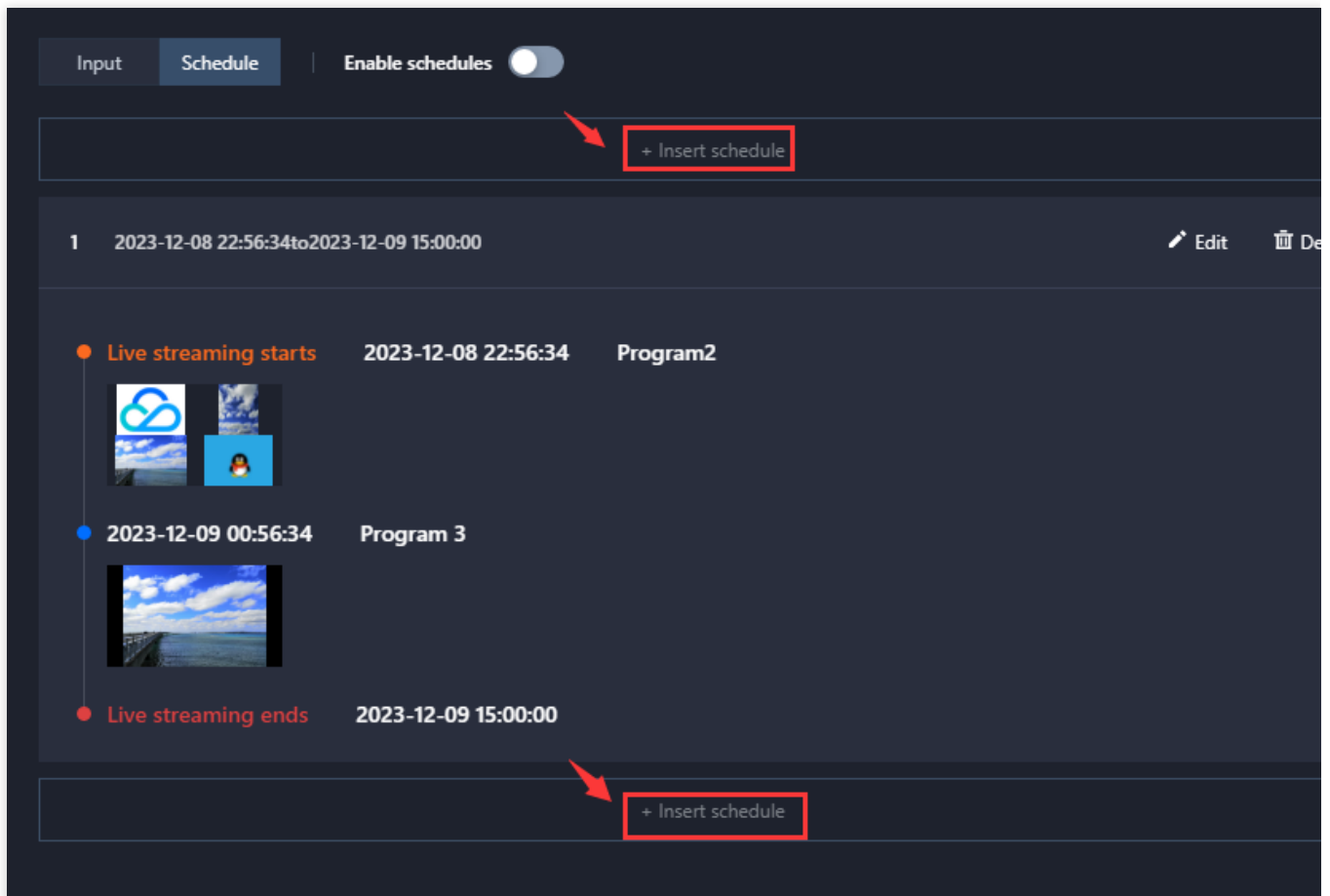


Inserting a Schedule

1. Click



to insert a newly created schedule based on business needs.

**Note:**

- The time period you set for an inserted schedule should not be earlier than the current time.
- Repeat the previous step to insert more schedules, or edit or delete existing schedules.

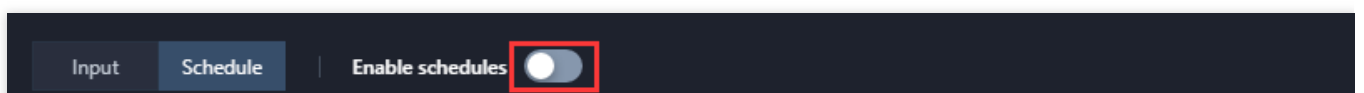
Configuring Automated Broadcasting

Enabling Automated Broadcasting

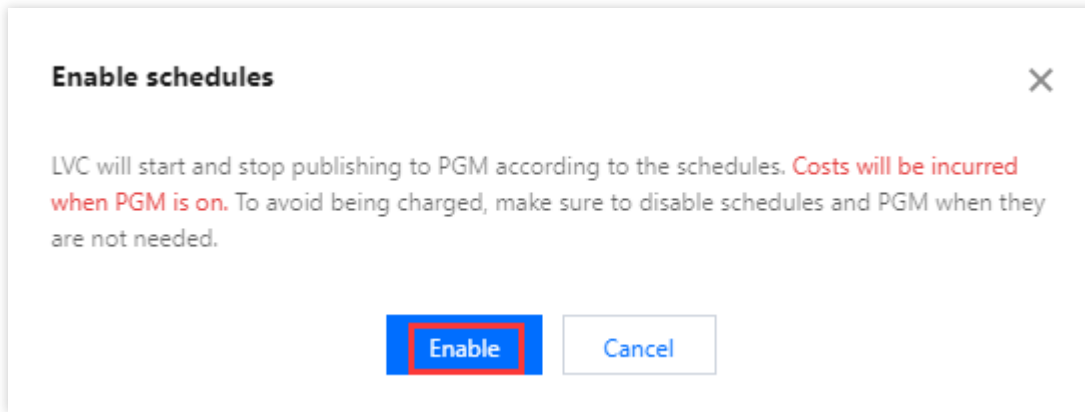
- After configuring schedules, you may opt to enable automated broadcasting.
- Click



to enable automated broadcasting. If this function is enabled, LVC will automatically start and stop the PGM output according to the start and end time of the schedules. **The caster will run and incur charges while the PGM output is on.** To stop the current and future billing, ensure that both automated broadcasting and PGM are turned off.



- Click **Enable** to enable automated broadcasting.



Schedule start time (when live broadcast starts): If automated broadcasting is enabled, at the schedule start time, LVC automatically turns on the PGM to output the first program and starts billing.

Program stream time (excluding the first program): If automated broadcasting and the PGM are both enabled, at the stream time of a program, LVC automatically switches to the program and push it to the PGM.

Note:

If the PGM or automated broadcasting is disabled midway in the schedule broadcasting, program switching will not take effect.

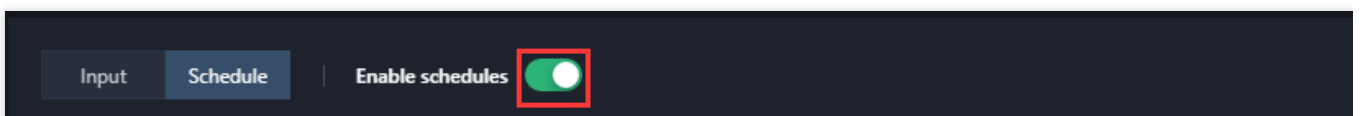
Schedule end time (when live broadcast ends): If automated broadcasting is enabled, at the schedule end time, LVC automatically turns off the PGM and stops billing.

Terminating Automated Broadcasting

Note:

After automated broadcasting is disabled, LVC will no longer start and end live broadcasts according to the schedules' start and end time. To avoid incurring unnecessary charges, ensure that the main monitor (PGM) is also turned off.

1. To terminate automated broadcasting, click



2. Consider your actual business needs before deciding to turn off automated broadcasting; proceed with caution.

Click **Disable** to turn off automated broadcasting.

Disable schedules ✕

The schedules will no longer be executed. Are you sure?