

**MetaStudio**

# User Guide

**Issue** 01  
**Date** 2024-09-27



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## **Huawei Cloud Computing Technologies Co., Ltd.**

Address: Huawei Cloud Data Center Jiaoxinggong Road  
Qianzhong Avenue  
Gui'an New District  
Gui Zhou 550029  
People's Republic of China

Website: <https://www.huaweicloud.com/intl/en-us/>

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# 1 Prerequisites

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## Registration

1. [Register](#) a Huawei Cloud account.
2. Complete [real-name authentication](#).
3. [Top up](#) your account.
4. Log in to the [MetaStudio console](#) and subscribe to MetaStudio as prompted.

## Permissions Management

If your Huawei Cloud account cannot meet your requirements, you can create IAM users by following [Creating a User and Assigning MetaStudio Permissions](#) for refined permissions management.

## Recommended Browsers

Access the MetaStudio console from the Chrome browser.

# 2 Permissions Management

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## 2.1 Creating a User and Assigning MetaStudio Permissions

This section describes how to use [Identity and Access Management \(IAM\)](#) to implement refined permissions management for your MetaStudio resources. With IAM, you can:

- Create IAM users for employees based on your enterprise's organizational structure. Each IAM user will have their own security credentials for accessing MetaStudio resources.
- Assign only the permissions required for users to perform a specific task.
- Assign an account of Huawei Cloud or a cloud service the permissions needed for professional and efficient O&M on your MetaStudio resources.

If your Huawei Cloud account does not need individual IAM users, skip this section.

This section describes the procedure for assigning permissions (see [Process Flow](#)).

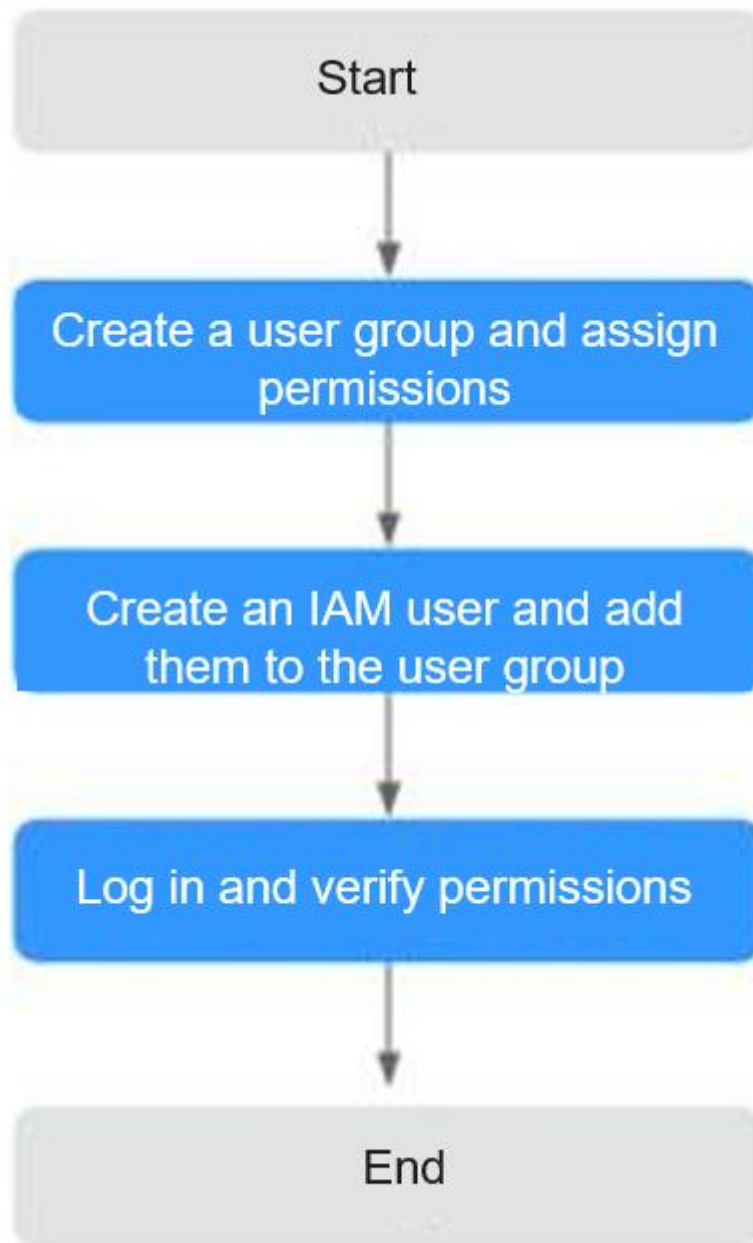
### Prerequisites

Before assigning permissions to user groups, you should learn about system policies supported by MetaStudio and select the policies based on service requirements.

For details about the system-defined policies supported by MetaStudio, see [MetaStudio Permissions](#). For the permissions of other services, see [System-defined Permissions](#).

## Process Flow

**Figure 2-1** Process for assigning MetaStudio permissions



1. **Create a user group and assign permissions.**  
Create a user group on the IAM console, and assign the group the **MetaStudio FullAccess** permission (of MetaStudio administrator).
2. **Create an IAM user and add them to the user group.**  
Create a user on the IAM console and add the user to the user group created in **1**.
3. **Log in** and verify permissions.

Log in to the console as the newly created user, and verify whether the user has the **MetaStudio FullAccess** permission.

Choose **MetaStudio** from the service list. On the page displayed, click **Create** under **Image modeling** and create a virtual avatar by referring to **Image Modeling**. If the creation is successful, **MetaStudio FullAccess** has taken effect.



# 3 Image Modeling

## 3.1 Shooting a Human Video

### 3.1.1 Overview

Before customizing a virtual avatar image on Huawei Cloud MetaStudio, you need to shoot a video of a human by referring to [Shooting a Human Video](#).

Please note that the quality of virtual avatar image modeling is closely related to your recordings.

To create better virtual avatars, please read the following virtual avatar video shooting standards carefully.

**Table 3-1** Overview of virtual avatar video shooting standards

Preparation Item	Preparation Subitem	Shooting Standard
<a href="#">Shooting Specifications</a>	-	The total video duration is 5 minutes, the resolution and frame rate are 4K/25 FPS or higher, and the format is MP4/MOV.
Site layout	Background	Use a green-screen background with even color and without damage or wrinkles.
	<a href="#">Site Lighting</a>	Use even and stable illumination and standard daylight color temperature. Ensure that the model is well-lighted and there is no shadow on his/her face. The light does not change significantly during the recording.

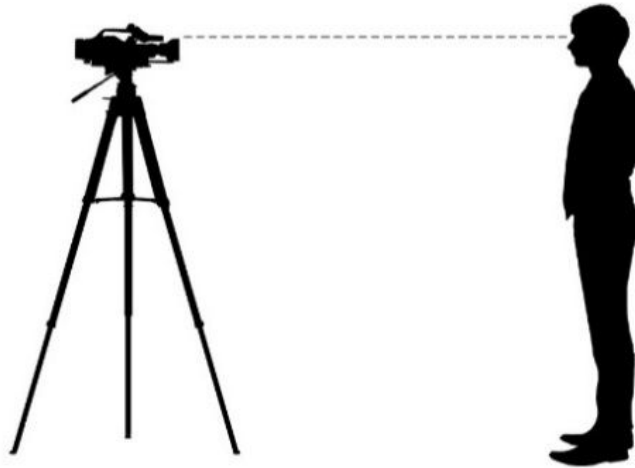
Preparation Item	Preparation Subitem	Shooting Standard
	<b>Camera Installation</b>	The camera is aligned with the person's eyes and focuses on the face area to ensure that the face is clear. <b>It is recommended that you take photos vertically.</b>
	<b>Suggestions</b>	Keep the recording environment quiet and free from noise interference.
Model	<b>Facial Requirements</b>	Avoid light reflection caused by excessive oil on the face. Ensure that <b>there is no scattered hair on the face.</b> To avoid light reflection, <b>do not wear glasses.</b> Ensure that the facial outline is clear and the model is enthusiastic.
	<b>Dress Code</b>	Do not wear clothes whose color is similar to the green screen, or clothes with green patterns. Do not wear metal earrings, bracelets, or watches that may reflect light.
	<b>Model Performance</b>	The model should smile and act naturally (including the head). After the action is complete, the hand should be put back to the initial position. <b>The model should keep the mouth closed when he or she is not speaking.</b>
Script	-	Use the provided Chinese/English script. A teleprompter is recommended to ensure smooth reading. Errors in reading will not affect the final delivery. There is no need to pause the recording when an error occurs. If possible, <b>use a piece of script that you are familiar with.</b>
<b>Video Submission</b>	-	The <b>original voice</b> of the video for training <b>must be retained</b> , and the audio and video must be in sync. Do not clip the video. <b>Ensure that the narration, silence, and gestures of the video are exported to the same video.</b>

## 3.1.2 Camera Installation and Shooting Specifications

### Camera Installation

- You are advised to use a lens with an equivalent focal length of 40 mm to 85 mm. Do not use an ultra wide angle lens.
- Place the camera vertically on the tripod at a proper height.  
The camera is aligned with the person's eyes and focuses on the face area to ensure that the face is clear.  
**If you record the whole body, ensure that there is a green-screen gap at the bottom of the model's feet.**

**Figure 3-1** Shooting example



- **It is recommended that you use the camera to take photos vertically.** The model is in the middle of the frame. Keep the margin to ensure that **the model is within the frame when he or she is making a gesture.**

**Figure 3-2** Shooting example (full coverage of green screen)



**Full coverage of green screen**

**Figure 3-3** Shooting example (gesture within the frame)



**Gesture within the frame**

- Avoid overexposure and underexposure.
- The model should be at least 1.5 meters away from the green-screen background to avoid shadows.

## Shooting Specifications

**Table 3-2** lists the recommended camera shooting specifications.

**Table 3-2** Camera shooting specifications

Shooting Specifications	Standard
Resolution and frame rate	4K/25 FPS or higher
Aperture	Lower than F4 to avoid obvious depth of field

Shooting Specifications	Standard
ISO	100–800 to avoid noise caused by excessive ISO
White balance	3,500–5,500 K, fixed white balance throughout the process
Recording format	H.264/H.265 encoding
Bitrate	> 60 Mbit/s
Color bit depth	10 bits or 8 bits
Shutter speed	$\leq 1/(\text{Frame rate} \times 4)$ Example: When the frame rate is 60, the shutter speed must be $\leq 1/(60 \times 4 = 240)$ .

## FAQs

1. **What if my device can shoot videos of only 1080p?**

If the device cannot shoot 4K videos, try 1080p (1080 x 1920) half-body shooting to capture face details.

2. **Can I use my phone for shooting if I do not have a camera?**

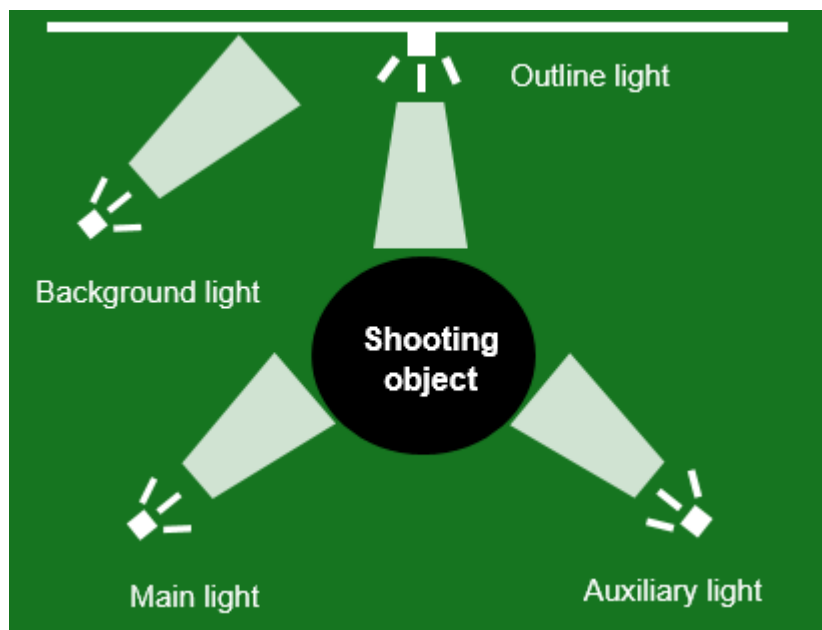
You are advised not to use your phone to shoot videos. If necessary, adjust the recording specifications of your phone to 4K/30 FPS or 4K/60 FPS and use a stabilizer to ensure image stability. Other shooting requirements, such as lighting and green screen, are the same as those in [Camera Installation](#).

## 3.1.3 Lighting

### Site Lighting

**A proper lighting environment will significantly improve the shooting.** We recommend that:

- Use three or four professional photography lights for lighting, including the main light, auxiliary light, product light (for the shooting of desktop products), background light, and outline light (optional). For details, see [Figure 3-4](#).
- The light does not change significantly during the recording.
- The green-screen background is even and bright to avoid shadows or uneven brightness.
- Ensure that there is no shadow or reflection between the actor/object and the green-screen background.

**Figure 3-4** Site lighting (for site preparations)

## FAQs

### What if I do not have so many lighting devices?

There is no need to worry about this. You only need to ensure that the person is evenly and stably illuminated and can be clearly distinguished from the green-screen background. **Ensure that there is no obvious shadow on the face or body of the person.**

If the number of lighting devices is limited, **light the subject to be photographed first**, and then fill light on the green screen.

## 3.1.4 Voice Pickup

### Suggestions

MetaStudio will **synchronize the voice in the video with the lip movement of the person to improve lip sync training. The training result will go through technical review of experts.**

Therefore, in terms of voice pickup, we recommend that:

- The audio and video must be in sync.
- The environment is quiet and free from noise interference, and the voice of the model is clear. **Minimize the background noise of the video.**

Use a loudspeaker or other professional microphones with the camera, which will greatly reduce the background noise and other environmental noise. **Avoid including the microphone in the frame.** Otherwise, the image of the virtual avatar will contain the microphone.

## FAQs

1. **If someone intrudes or there is unexpected sound, such as thunder or car horn, during my shooting, do I need to shoot the video again?**

According to our experience, a sound intrusion shorter than three seconds does not significantly affect the final training. You only need to minimize the occurrences of similar burst sounds.

2. **If I do not have a professional microphone or loudspeaker, can I use the built-in microphone of the camera for recording?**

Most cameras' built-in microphones can also meet our voice recording requirements. MetaStudio can make a moderate compromise on the clarity of the voice, but **ensure that the background noise is not too loud and there is no other sound, especially when the model is speaking.**

## 3.1.5 Model Image

Virtual avatars do not support replacement of clothes, so **the wearing of the model during recording will be the wearing of the virtual avatar.**

Before shooting, check the following items of the image.

### Dress Code

- Avoid any color that is similar to that of the background. For example, **do not wear green clothes or clothes with any green pattern when a green screen is used.**
- Avoid using semi-transparent, transparent, and reflective materials.
- Avoid wearing clothes with face patterns or excessive wrinkles.
- Avoid wearing clothes with dense stripes, grids, or spots because clothes of these types may cause moire patterns on the image.
- Avoid wearing **reflective and green watches, ear nails, necklaces, or bracelets.**

### Facial Requirements

- Keep a light and clean makeup to **avoid reflection caused by excessive oil on the face.**
- **Do not** wear glasses, sunglasses, or hats that will **block your forehead and eyebrows.**
- **There is no scattered hair on the face and the background cannot be seen through the hair gap.**
- There is no long scattered beard on the face.

## 3.1.6 Model Performance

### Requirements

**The hand movements, facial expressions, and postures of the model determine the postures and actions of the virtual avatar.** Therefore, models should act and speak **as naturally as possible** during video shooting.



Record the video as instructed and **evaluate the recording process based on the actual requirements.**

- **Interaction not required:** 15–30 seconds of silence + 4–5 minutes of speech
- **Interaction required:** 15 seconds of silence + non-semantic action + 4–5 minutes of speech
- **Action arrangement and interaction required:** 15 seconds of silence + non-semantic action + semantic action + 4–5 minutes of speech

Details:

- **Silent period: Record the person in silence for about 15–20 seconds.**  
The model looks at the camera, smiles with his or her mouth closed, and remains silent, **with hands put at the initial position.**
- **Action recording period: The atomic action for intelligent interaction is recorded for about 40s. (Skip this step if intelligent interaction is not required.)**  
Speak and act as guided, move naturally, slightly relax during the interval of actions, and blink naturally.
- **Natural expression period: The lip movement, action, posture, and facial expression of the model speaking naturally are recorded for about four and half minutes.**
  - The model reads the script paragraph by paragraph at a natural speaking speed and acts slightly. The head can move naturally.
  - The model's **mouth should be fully closed** and hands should be put back to the **initial position** during pauses. (Practice is recommended before shooting.)

## Precautions

- If a speech error occurs, skip it or continue the speech **without interrupting the shooting.**
- Rotate or move the head within 15 degrees.
- Avoid actions with clear meanings, such as thumbs-up signs and number.
- Avoid actions that may block the face, such as resting the cheek on hands and scratching the head.
- Move within the frame and do not block the face (such as hands above the chin).
- Keep eye contact with the lens.
- Avoid wrong pronunciation. Do not speak too fast, too slow, or abruptly.

## Requirements for Walking Virtual Avatar Video Shooting

**If you need to record the image of a walking virtual avatar, the model should:**

1. Face the camera and look at the lens when walking.
2. Walk in one direction for up to three steps.

## Requirements for Real-Scene Virtual Avatar Video Shooting

If you want to create a real-scene virtual avatar image, **ensure that the background is static and does not change regularly or significantly.**

Real-scene virtual avatar videos do not need to be cropped. Therefore, green or transparent clothes is allowed.

### 3.1.7 Video Submission

See [Table 3-3](#).

**Table 3-3** Video submission

Item	Description
Delivery content	After the shooting is complete, submit a video for virtual avatar training. Video requirements: <ul style="list-style-type: none"><li>• An MP4 file (recommended)</li><li>• Less than 5 GB</li><li>• <b>Retaining the original voice</b>, with audio-to-video synchronization</li><li>• If you want to post-process the video, ensure that the frame rate of the exported video is the same as that of the source video.</li></ul>
Duration	Five to six minutes. Do not clip the video. Ensure that the narration, silence, and gestures of the video are retained in the same video.
Filter	If you need to add filters to the video, check the filter effect and ensure that the video is not distorted, blurred, or shaken. Then you can submit the video for training.
Cropping	Within a specified period of time, the streamer's entire body must be included in the frame, and other unnecessary elements around the portrait, such as the edge of the green screen and shooting devices, must be eliminated.
Naming	Naming rule: <i>Company name_Model name_Shooting time</i> (YYYYMMDD) Example: Huawei Cloud_Yunling_20230925.mp4

## 3.2 Creating a Virtual Avatar Customization Task

You can view the preset virtual avatar images provided by MetaStudio on the [Video Production](#) page or [Page of Creating a Live Room](#). You can also refer to this section to customize a virtual avatar.

### Notes

Only enterprise users can customize virtual avatar images on MetaStudio.

When you customize a virtual avatar image, it is clearly stated in the [Authorization Letter](#) downloaded from the platform that you need to authorize the use of the customized virtual avatar image.

## Preparations

Before creating a virtual avatar customization task, you need to prepare the following items by referring to [Procedure](#):

- Shoot a green-screen video of 5 to 6 minutes by referring to [Shooting a Human Video](#).

Note: If you choose **Retain** for **Video Background** when creating a virtual avatar image, you need to prepare a video of location shooting.

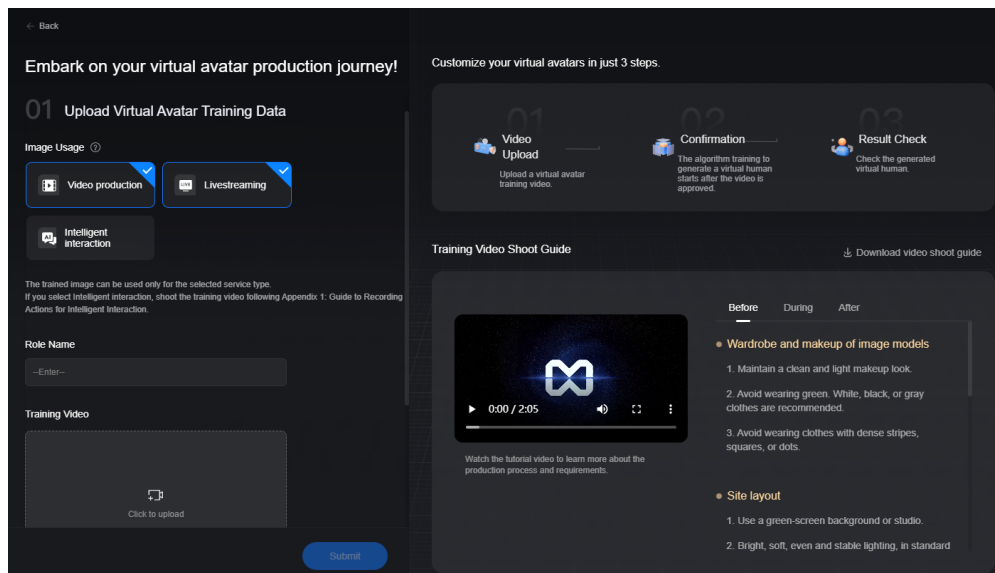
## Procedure

**Step 1** Log in to the [MetaStudio console](#).

**Step 2** Click **Create** under **Image modeling**.

- You can upload data of a customized a virtual avatar on the left of the page.
- The virtual avatar customization process is displayed on the right of the page. The training video shoot guide is displayed in the lower part. The guide is divided into three parts: before, during, and after video shoot. You can follow the guide to shoot and generate a complete video available for training your virtual avatar.

**Figure 3-5** Customizing your virtual avatar image



**Step 3** Upload data for virtual avatar training.

For details, see [Table 3-4](#).

**Table 3-4** GUI operations

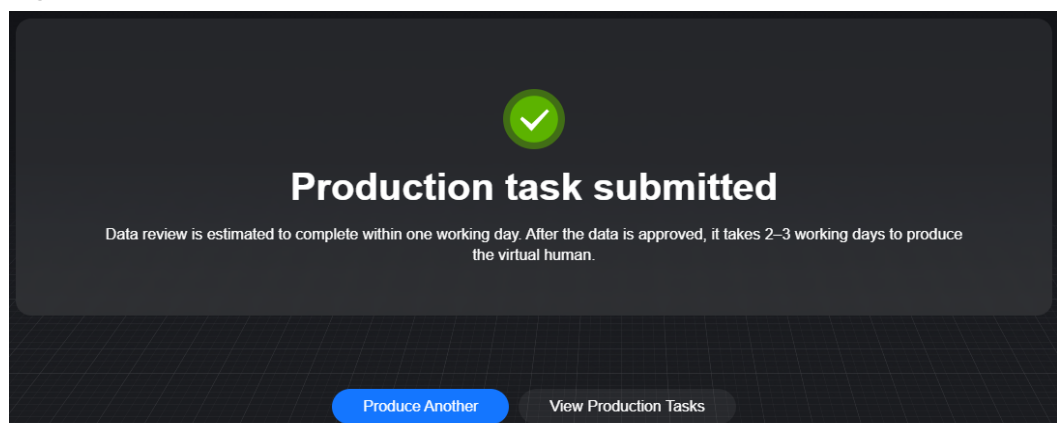
Area	Parameter	Description
Upload Virtual Avatar Training Data	Role Name	Enter the role name of the virtual avatar. Example: Sara
	Training Video	Upload a human video recording from the local PC for training to generate a virtual avatar image. Supported video: MP4/MOV, 4K, 5–6 minutes, ≥ 1080p, 16:9 (landscape) or 9:16 (portrait, recommended) The virtual avatar image generated after training is the same as the real human image.
	Video Background	Specifies whether the background of a virtual avatar can be changed. Options: <ul style="list-style-type: none"> <li>● <b>Remove</b>: You can change the background when creating a virtual avatar video.</li> <li>● <b>Retain</b>: The preset background cannot be changed.</li> </ul>

**Step 4** Click **Submit**.

After the data is uploaded, the message **Production task submitted** is displayed, as shown in [Figure 3-6](#).

After the virtual avatar customization task is submitted, it will be reviewed within one working day. After the task is approved, algorithm training will be completed within three days. Then a virtual avatar image will be generated.

**Figure 3-6** Production task submitted



**Step 5** You can click **View Production Tasks** to view the virtual avatar customization task list.

**Step 6** Click **View Details** in the row of the task. The **Customization Task Details** page is displayed.

View the review progress of the virtual avatar customization task. If the status is **Reviewing**, the status will not change to **Waiting for algorithm training** until the service administrator approves the task.

**Step 7** If the virtual avatar customization task is rejected, you need to view the rejection cause, record another video as instructed, and upload the new video.

The procedure is as follows:

1. In the navigation pane on the left, choose **Task Center**.
2. View the virtual avatar customization task list on the **Virtual Avatars** tab and find the rejected virtual avatar customization task.

The current status is **Unapproved**.

3. Click **View Causes** on the right of the task. In the dialog box displayed, view the rejection cause.

Record another video as instructed or provide a qualified video.

4. Click **Re-upload** on the right of the task to upload the updated video.

The virtual avatar customization task review starts again.

----End

### 3.3 Viewing a Virtual Avatar Customization Task

After the virtual avatar customization task is approved, algorithm training will be completed within three days. Then a virtual avatar image will be generated.

#### Procedure

**Step 1** Log in to the [MetaStudio console](#).

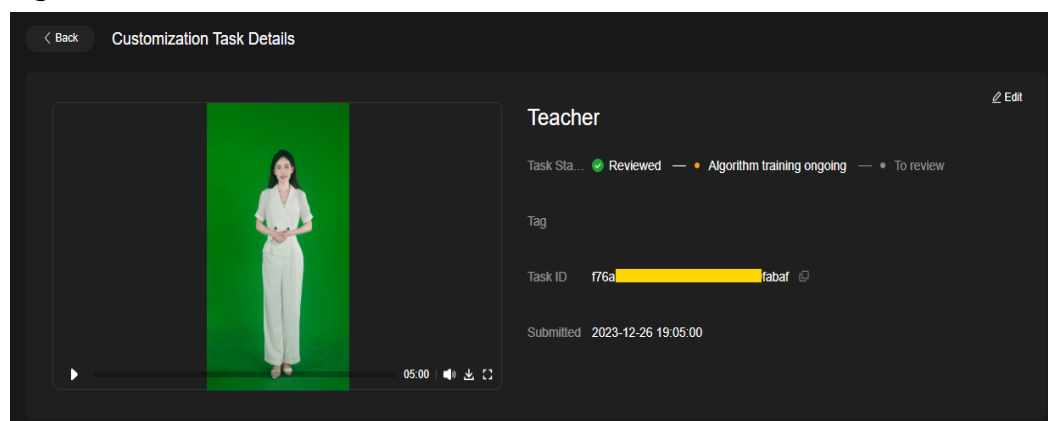
**Step 2** In the navigation pane, choose **Task Center**.

**Step 3** On the **Virtual Avatars** tab, click **View Details** on the right of a virtual avatar customization task. The **Customization Task Details** page is displayed.

After the task is approved, the task status changes to **Algorithm training ongoing**, as shown in [Figure 3-7](#).

Click **Edit** in the upper right corner to add a tag to the virtual avatar. After the tag is added, click **Save**.

**Figure 3-7** Virtual avatar customization tasks



**Step 4** The virtual avatar model training will be completed within three working days. After the training is completed, the task status becomes **Algorithm training completed**, as shown in [Figure 3-8](#).

Check whether the generated virtual avatar image meets the requirements. You can perform the following operations on the **Customization Task Details** page.

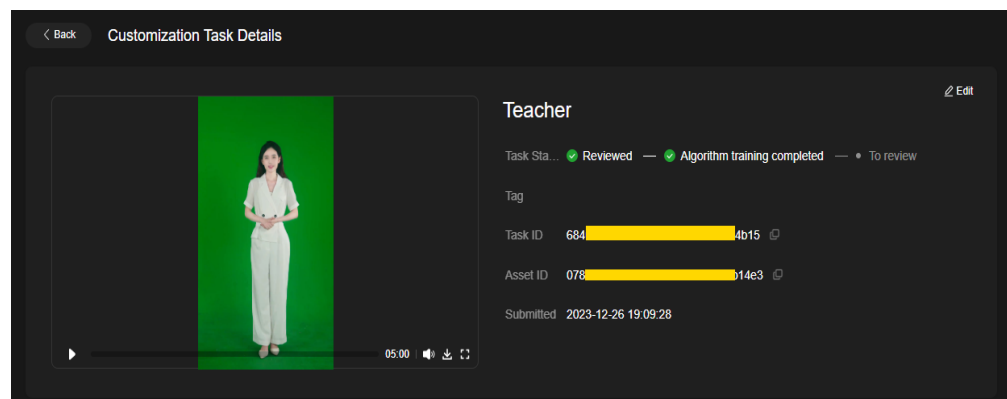
- If the trained virtual avatar image meets the requirements, click **Approve** in the lower right corner. In the dialog box displayed, click **OK**. The virtual avatar image has been generated.
- If the trained virtual avatar image does not meet the requirements, click **Reject** in the lower right corner.

On the **Fill in Question** page, enter **Question Title** and **Question Description**, and upload the corresponding attachment, such as the updated green-screen video file. If there is more than one question, you can click **Add Question** in the upper right corner of the page to add question descriptions. After all questions are added, click **OK** and wait for the handling by the service administrator.

#### NOTE

You can also click **Back** in the upper left corner to return to the task list page, where you can click **Approve** or **Reject** on the right of the desired task.

**Figure 3-8** Virtual avatar customization tasks



**Step 5** The service administrator will optimize the virtual avatar image according to your feedback.

Model training of the virtual avatar image customization task will be performed again. After the model training is completed, you can review the image again by repeating [Step 4](#) until a qualified virtual avatar image is generated.

The new virtual avatar image card is displayed on the **My Creations > Avatar Images** page. You can also click the **Virtual Humans** tab in the **Recent Projects** area to view the new virtual avatar image.

----End

# 4 Voice Modeling

---

## 4.1 Recording a Human Audio

You can upload a human audio recording to MetaStudio for AI training to obtain a voice model that reproduces the human timbre at 1:1.

The voice model can be used for text-to-speech conversion and applied to scenarios such as virtual avatar video production, livestreaming, and intelligent interaction. The recording requirements are as follows:

- Advanced edition: a WAV audio file of 10–30 minutes (recommended: 15 minutes) with 100 phrases as a whole

## Preparing for Recording

**Table 4-1** Recording preparations

Edition	Recording Device and Software	Recording Environment	Recording Script
Advanced	<p>Professional recording devices (recommended: <b>Adobe Audition</b>) are preferred for audio recording.</p> <p>If professional recording devices are not available, you can use your mobile phone for recording. See <a href="#">Recording an Audio on a Mobile Phone</a>.</p>	<ul style="list-style-type: none"> <li>• Try to record the audio in a quiet environment without echo, reverberation, and noises caused by car horns, talking, or walking.</li> <li>• You can use the decibel (dB) meter app to test the background noise in the recording environment. <b>The background noise should be lower than 0 dB.</b></li> <li>• The recording device and environment cannot be changed for the same recording task.</li> </ul>	<p>You are advised to use <a href="#">Script Examples (Advanced Edition)</a>.</p> <p>You can also customize the script. The length of one phrase must be the same as that in the example.</p> <p>Improvised recording is not recommended as there may be too many fillers that compromise the speech coherence.</p>

## Starting Recording

The recorded audio must be high-quality, free of noises and background sounds, and of the same person. You can use an iPhone or Android mobile phone to record videos. See [Recording an Audio on a Mobile Phone](#).

[Table 4-2](#) describes the precautions for recording.

**Table 4-2** Recording precautions

Item	Description
Distance from the microphone	Adjust the distance from the microphone. The one-punch distance is appropriate. To avoid pop sound effects or recording the breath sound, do not be too close to the microphone.



Item	Description
Recording content	<p>The <b>starting number</b> of each piece of script <b>does not need to be read</b>.</p> <p>For example, for the script "4. It features a multitude of functions and superior performance", <b>4</b> does not need to be read.</p>
Audio format	<p>Save the audio file in a lossless format, for example, WAV.</p> <p>The recording data should not be encoded (sample rate of 48 kHz, sample bit of 16 bits, and mono).</p>
Speech style	<p>Keep the speech style consistent throughout the recording to <b>avoid excessive emotions</b>.</p>
Pronunciation	<p><b>Pronunciation should be clear and accurate, and the volume should be moderate.</b> If there is undesired sound, record the phrase again.</p>
Speed and rhythm	<p>The speed of speech should be natural and stable. <b>Do not be too fast or too slow.</b></p>
Moderate volume	<p>The volume cannot be too low or too high, or fluctuate. Clipping noise is not allowed.</p>
Pause	<p><b>Pause naturally</b> and breathe softly <b>upon punctuations and appropriate positions</b>.</p> <p>There must be a pause of 2–3 seconds between phrases for a long audio file.</p>
Accent position	<p>Find the correct accent position to <b>avoid wrong accent</b>.</p>
Reading pronunciation	<p>Read in order, ensure the phonetic consistency (avoid <b>missing or adding words</b>), and avoid <b>wrong pronunciation</b>. If there is a misreading or the <b>reading is not smooth, record the whole phrase again</b>.</p>

## Submitting an Audio File

**Table 4-3** Recording submission

Edition	Audio Description	Audio Naming
Advanced	Record all phrases in a WAV audio file, with a pause of 2 to 3 seconds between each phrase. You can upload the WAV file to the MetaStudio console without compressing it or providing a TXT script file.  The preset script is recommended. You can also customize the script. The text is automatically split based on pauses and identified.	You can customize the audio file name, for example, Voice.wav.

## Creating a Voice Model

After the audio file is available, you can upload it to the MetaStudio console for voice training by following:

- [Creating a Voice Modeling Task \(with Huawei Models\)](#)
- [Checking a Voice](#)

It takes about one to three working days to produce a voice of advanced edition.

Application scenarios of a customized voice:

- After a customized voice is generated, it is automatically displayed in the voice list on the MetaStudio console. This voice can be used in scenarios such as virtual avatar video production and livestreaming.
- A customized voice can be called using the APIs of MetaStudio.

## 4.2 Creating a Voice Modeling Task (with Huawei Models)

You can view the preset voices of MetaStudio on the [Video Production](#) or [Livestreams](#) page. If the preset voices cannot meet your requirements, you can use Huawei models to customize voices.

### Constraints

Only enterprise users can customize voices on MetaStudio.

When you customize a voice, it is clearly stated in the [Authorization Letter](#) downloaded from the platform that you need to authorize the use of the customized voice.

## Preparations

Before creating a voice modeling task, you need to prepare the following items by referring to **Procedure**:

- If you select **Script Upload**, record an audio in advance by referring to the recording guide on the voice modeling page.

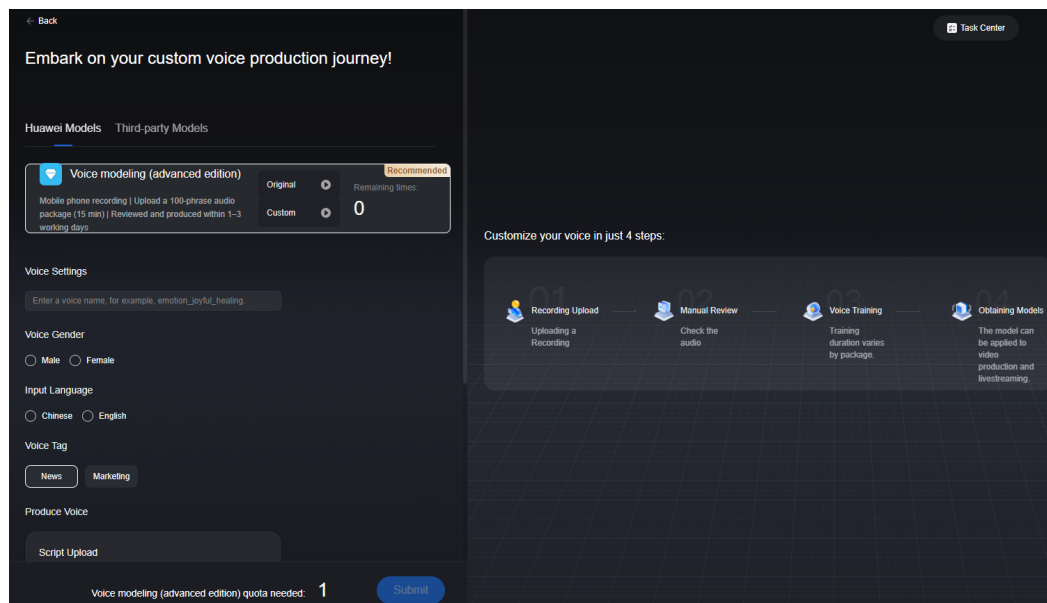
## Procedure

**Step 1** Log in to the [MetaStudio console](#).

**Step 2** Click **Create** under **Voice modeling**.

On the page displayed, the area on the left is for voice modeling, and the area on the right shows the voice modeling process.

**Figure 4-1** Customizing a voice



**Step 3** Under the **Huawei Models** tab, configure voice modeling parameters.

For details, see [Table 4-4](#).

**Table 4-4** GUI operations

Parameter	Description
Voice modeling (advanced edition)	Only 100 pieces of script are required for voice modeling (advanced edition). You need to record a WAV audio of 10 to 30 minutes (recommended: 15 minutes). The remaining voice modeling quota will be displayed.
Voice Settings	Enter a voice name. Example: emotion_joyful_healing

Parameter	Description
Voice Gender	Gender of the voice. Options: <ul style="list-style-type: none"><li>• <b>Male</b></li><li>• <b>Female</b></li></ul>
Input Language	Language of the voice. Options: <ul style="list-style-type: none"><li>• <b>Chinese</b></li><li>• <b>English</b></li></ul>
Voice Tag	Tag of the voice. Options: <ul style="list-style-type: none"><li>• <b>News</b></li><li>• <b>Marketing</b></li></ul> Script of each of the preceding tags is preset in MetaStudio, as shown in <a href="#">Script Examples (Advanced Edition)</a> . When using the preset script, you must select the corresponding tag.
Produce Voice	The method of voice modeling is <b>Script Upload</b> . You can follow the recording guide provided on the GUI to record 100 pieces of script in a WAV file, which can be directly uploaded without being compressed or containing TXT files. If the preset script is not used, the voice tag is only used to indicate the application scenario.

**Step 4** Click **Submit**.

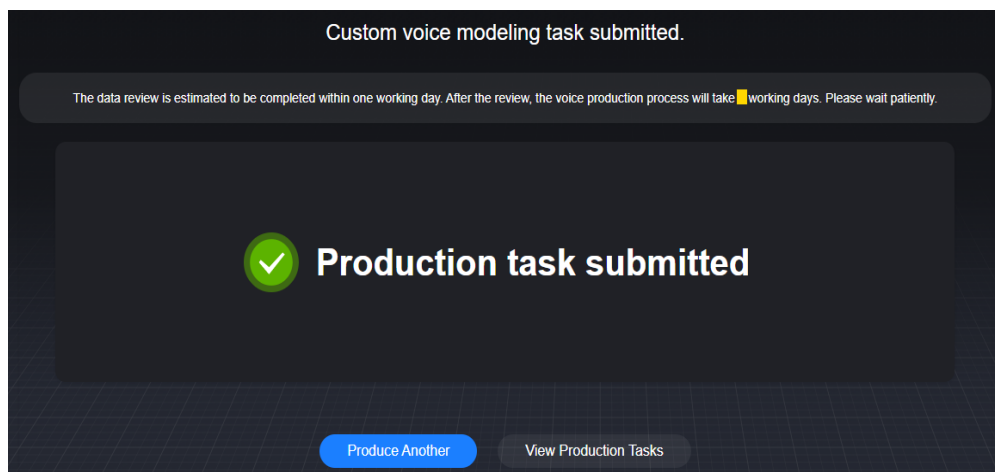
The **Information** dialog box is displayed, notifying you of the remaining voice modeling quota and indicating that one resource will be consumed this time.

**Step 5** After confirming the information, click **Submit**.

After the voice modeling task is submitted, the message **Production task submitted** is displayed, as shown in [Figure 4-2](#).

After the voice modeling task is submitted, the task review will take about one day. After the task is approved, you can start voice modeling. The task takes about 1 to 3 working days.

- **Figure 4-2** Production task submitted



- Step 6** You can click **View Production Tasks** to view the review progress of the voice modeling task.

When the status changes to **Reviewed**, algorithm training is automatically started. If there are multiple algorithm training tasks, queuing and delay may occur.

----End

## 4.3 Creating a Voice Modeling Task (with Third-party Models)

You can view the preset voices of MetaStudio on the [Video Production](#) or [Livestreams](#) page. If the preset voices cannot meet your requirements, you can use third-party models to customize voices.

The following third-party models are supported:

- DupDub: 18 input languages (Chinese, English, Cantonese, German, French, Turkish, Tagalog, Japanese, Italian, Malay, Russian, Korean, Finnish, Dutch, Spanish, Indonesian, Arabic, and Portuguese) supported. See [Procedure \(for DupDub\)](#).
- AudioX: 3 input languages (Chinese, English, and Thai) supported. See [Procedure \(for AudioX\)](#). 生成的音色，在视频制作和视频直播时，也是支持识别并播报3种语言（中文、英文、泰语）。

### Constraints

- Only enterprise users can customize voices on MetaStudio.  
When you customize a voice, it is clearly stated in the [Authorization Letter](#) downloaded from the platform that you need to authorize the use of the customized voice.
- A cloned voice cannot be used for livestreaming or intelligent interaction.

### Preparations

Before creating a voice modeling task, you need to prepare the following items by referring to [Procedure \(for DupDub\)](#):

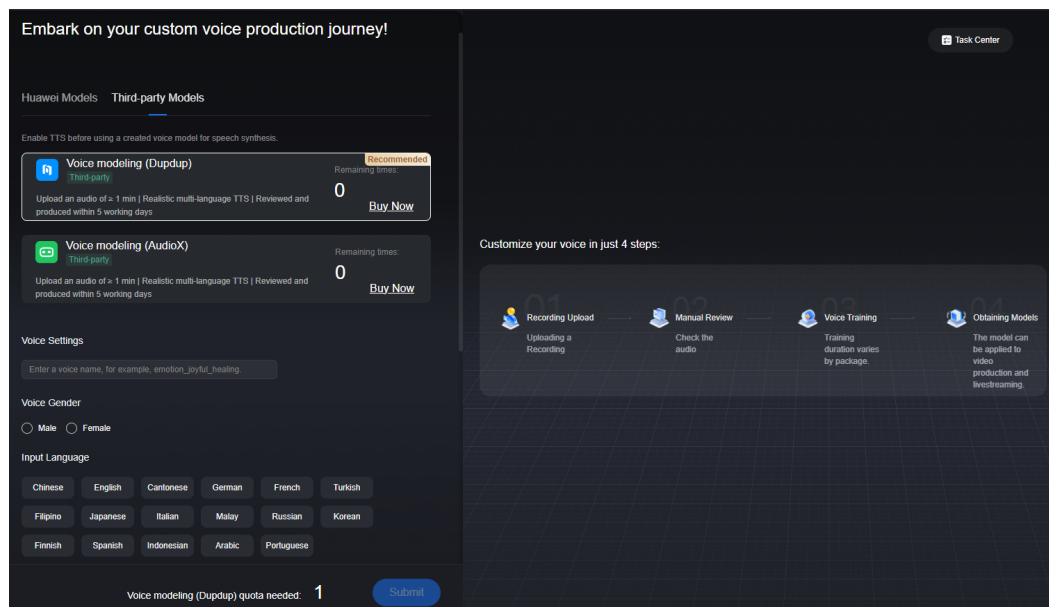
- If you select **Script Upload**, record an audio in advance by referring to the recording guide on the voice modeling page.
- Sign the voice authorization file, as shown in [Authorization Letter](#).
- Purchase and activate a DupDub non-English/Chinese language cloning package by referring to [Purchasing a DupDub Voice Package](#).

## Procedure (for DupDub)

- Step 1** Log in to the [MetaStudio console](#).
- Step 2** Click **Create** under **Voice modeling**.
- Step 3** Click the **Third-party Models** tab and select **Voice modeling (DupDub)**.

On the page displayed, the area on the left is for voice modeling, and the area on the right shows the voice modeling process, as shown in [Figure 4-3](#).

**Figure 4-3** Customizing a voice



- Step 4** Configure voice modeling parameters.

For details, see [Table 4-5](#).

**Table 4-5** GUI operations

Parameter	Description
Voice modeling (DupDub)	Select <b>Voice modeling (DupDub)</b> . The recorded audio should be a WAV file of 10 to 60 seconds (recommended: 30 seconds). Voice modeling in 18 languages is supported.  If remaining quota is 0, click <b>Buy Now</b> to purchase a non-English/Chinese language cloning package by referring to <a href="#">Process of Purchasing a DupDub Non-English/Chinese Language Cloning Package</a> .

Parameter	Description
Voice Settings	Enter a voice name. Example: emotion_joyful_healing
Voice Gender	Gender of the voice. Options: <ul style="list-style-type: none"> <li>• <b>Male</b></li> <li>• <b>Female</b></li> </ul>
Input Language	Language of the voice. Options: Chinese, English, Cantonese, German, French, Turkish, Tagalog, Japanese, Italian, Malay, Russian, Korean, Finnish, Dutch, Spanish, Indonesian, Arabic, and Portuguese.
Voice Tag	Tag of the voice. Options: <ul style="list-style-type: none"> <li>• <b>News</b></li> <li>• <b>Marketing</b></li> </ul> <p>Script of each of the preceding tags is preset in MetaStudio, as shown in <a href="#">Script Examples (Advanced Edition)</a>. When using the preset script, you must select the corresponding tag.</p>
Produce Voice	You can follow the recording guide provided on the GUI to record a 1-minute WAV file, which can be directly uploaded without being compressed or containing TXT files.  If the preset script is not used, the voice tag is only used to indicate the application scenario.
Mobile Number (Optional)	Enter a mobile number.

**Step 5** Click **Submit**.

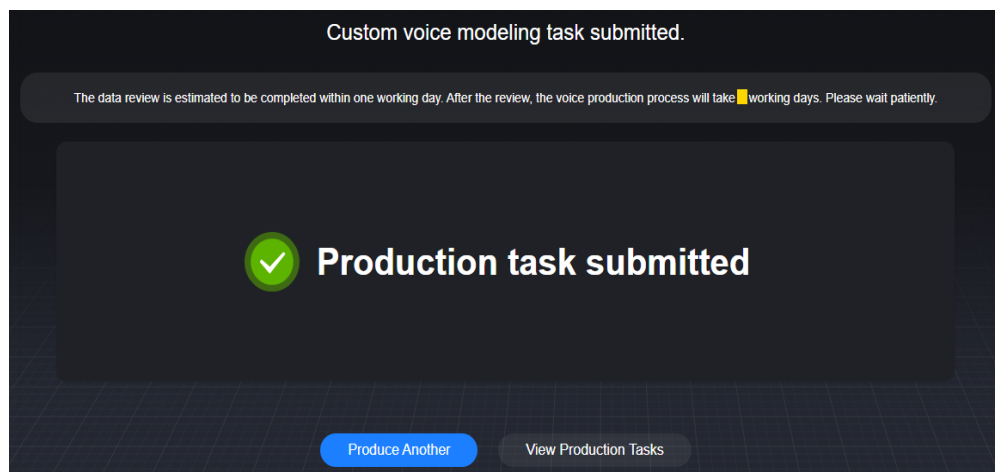
The **Information** dialog box is displayed, notifying you of the remaining voice modeling quota and indicating that one resource will be consumed this time.

**Step 6** After confirming the information, click **Submit**.

After the voice modeling task is submitted, the message **Production task submitted** is displayed, as shown in [Figure 4-4](#).

After the voice modeling task is submitted, the task review will take about one day. After the task is approved, you can start voice modeling. The task takes about 5 working days.

**Figure 4-4** Production task submitted



**Step 7** You can click **View Production Tasks** to view the review progress of the voice modeling task.

When the status changes to **Reviewed**, algorithm training is automatically started. If there are multiple algorithm training tasks, queuing and delay may occur.

----End

## Procedure (for AudioX)

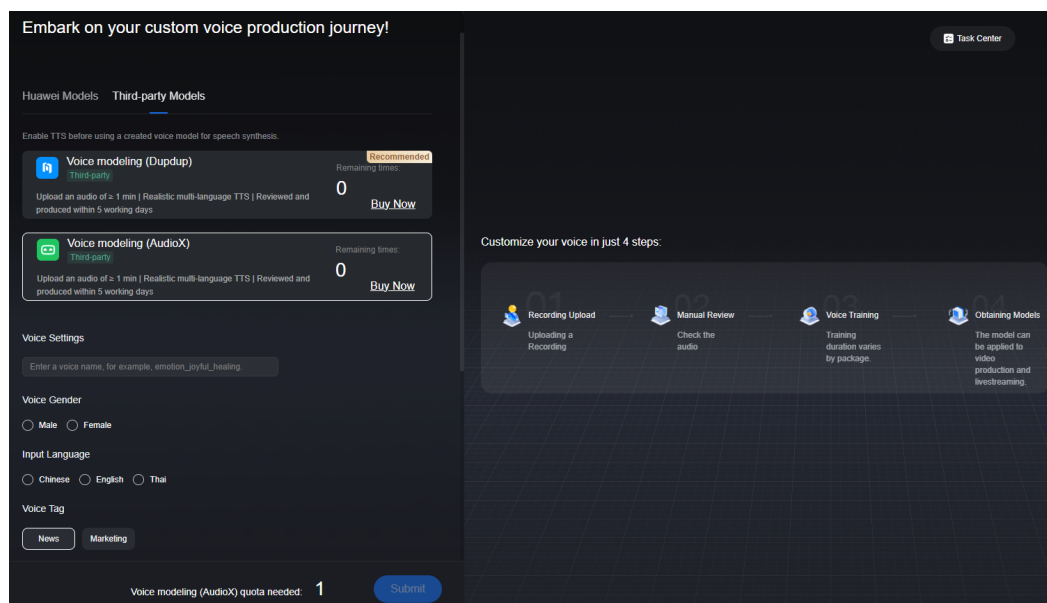
**Step 1** Log in to the [MetaStudio console](#).

**Step 2** Click **Create** under **Voice modeling**.

**Step 3** Click the **Third-party Models** tab and select **Voice modeling (AudioX)**.

On the page displayed, the area on the left is for voice modeling, and the area on the right shows the voice modeling process, as shown in [Figure 4-5](#).

**Figure 4-5** Customizing a voice





**Step 4** Configure voice modeling parameters.

For details, see [Table 4-6](#).

**Table 4-6** GUI operations

Parameter	Description
Voice modeling (AudioX)	<p>Select <b>Voice modeling (AudioX)</b>. Voice modeling in Chinese, English, and Thai is supported.</p> <p>The recorded audio should be a WAV file of 5 to 15 seconds (recommended: 10 seconds). Uploading an audio file of unsupported duration will cause the voice modeling task to fail the review. In this case, you need to submit an audio file of supported duration for training.</p> <p>If remaining quota is 0, click <b>Buy Now</b> to purchase a non-English/Chinese language cloning package by referring to <a href="#">Process of Purchasing a DupDub Non-English/Chinese Language Cloning Package</a>.</p>
Voice Settings	<p>Enter a voice name.</p> <p>Example: emotion_joyful_healing</p>
Voice Gender	<p>Gender of the voice. Options:</p> <ul style="list-style-type: none"> <li>• <b>Male</b></li> <li>• <b>Female</b></li> </ul>
Input Language	<p>Language of the voice. Options:</p> <ul style="list-style-type: none"> <li>• <b>Chinese</b></li> <li>• <b>English</b></li> <li>• <b>Thai</b></li> </ul>
Voice Tag	<p>Tag of the voice. Options:</p> <ul style="list-style-type: none"> <li>• <b>News</b></li> <li>• <b>Marketing</b></li> </ul> <p>Script of each of the preceding tags is preset in MetaStudio, as shown in <a href="#">Script Examples (Advanced Edition)</a>. When using the preset script, you must select the corresponding tag.</p>
Produce Voice	<p>You can follow the recording guide provided on the GUI to record a 1-minute WAV file, which can be directly uploaded without being compressed or containing TXT files.</p> <p>If the preset script is not used, the voice tag is only used to indicate the application scenario.</p>
Mobile Number (Optional)	<p>Enter a mobile number.</p>

**Step 5** Click **Submit**.

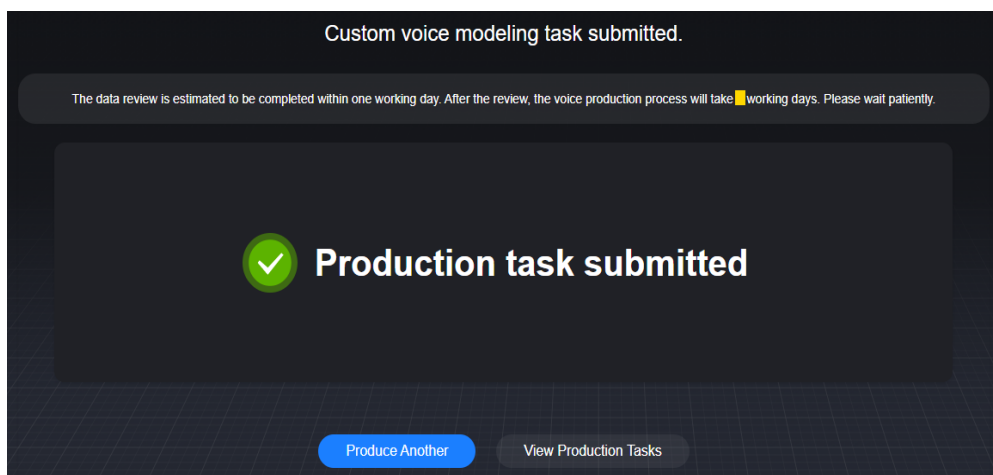
The **Information** dialog box is displayed, notifying you of the remaining voice modeling quota and indicating that one resource will be consumed this time.

**Step 6** After confirming the information, click **Submit**.

After the voice modeling task is submitted, the message **Production task submitted** is displayed, as shown in [Figure 4-4](#).

After the voice modeling task is submitted, the task review will take about one day. After the task is approved, you can start voice modeling. The task takes about 5 working days.

**Figure 4-6** Production task submitted



**Step 7** You can click **View Production Tasks** to view the review progress of the voice modeling task.

When the status changes to **Reviewed**, algorithm training is automatically started. If there are multiple algorithm training tasks, queuing and delay may occur.

----End

## 4.4 Checking a Voice

After the algorithm training of the voice modeling task is complete, you can check the voice.

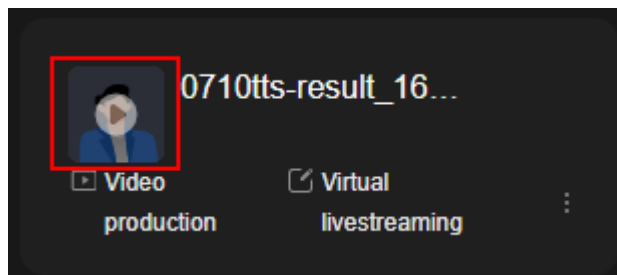
### Procedure

- Step 1** Log in to the [MetaStudio console](#).
- Step 2** In the navigation pane, choose **Task Center**.
- Step 3** Select **Voice Modeling** and confirm that the training of the voice modeling task has been completed.
- Step 4** In the navigation pane, choose **My Creations**.
- Step 5** Select the **Voices** tab, find the generated voice, and click the avatar in the voice card to preview the voice.

You can also perform the following operations:

- Click the icon next to **Video production** in the voice card to produce a video. See [Video Production](#).
- Click the icon next to **Virtual livestreaming** in the voice card to create a livestreaming task using the voice. See [Livestreams](#).

Figure 4-7 Voice



----End

## 4.5 Purchasing a Voice Package

### 4.5.1 Supported Languages

#### Languages Supported by Third-party Voices

See [Table 4-7](#).

Table 4-7 Languages

Quantity	Language
19	Chinese, English, German, French, Korean, Portuguese, Japanese, Spanish, Italian, Russian, Tagalog, Dutch, Indonesian, Vietnamese, Arabic, Turkish, Malay, Thai, and Finnish

#### Languages Supported by Non-English/Chinese Language Cloning

- DupDub: 18 input languages (Chinese, English, Cantonese, German, French, Turkish, Tagalog, Japanese, Italian, Malay, Russian, Korean, Finnish, Dutch, Spanish, Indonesian, Arabic, and Portuguese) supported. See [Procedure \(for DupDub\)](#).
- AudioX: 3 input languages (Chinese, English, and Thai) supported. See [Procedure \(for AudioX\)](#). 生成的音色，在视频制作和视频直播时，也是支持识别并播报3种语言（中文、英文、泰语）。

### 4.5.2 Purchasing a DupDub Voice Package

For details about how to purchase a DupDub text to speech (TTS) package, see [Process of Purchasing a DupDub TTS Package](#) and [Process of Purchasing a DupDub Non-English/Chinese Language Cloning Package](#).

## Process of Purchasing a DupDub TTS Package

To use a preset third-party voice, you need to purchase a DupDub TTS package. [Languages Supported by Third-party Voices](#) lists the languages supported by third-party voices.

- **Purchasing a DupDub TTS Package:** Purchase a TTS package in KooGallery to activate and use the third-party voices of DupDub.
- **Obtaining a Third-party Voice Usage Credential:** Use the username and password of the purchased package as the credential for using third-party voices on the MetaStudio console.
- **Activating a Third-party Voice Usage Credential:** On the MetaStudio console, add a credential, which is the username and password of the purchased package.
- **Viewing Expenditure Details on the MetaStudio Console:** You can view the expenditure details of a purchased package on the MetaStudio console.
- **Renewing a Package:** If the quota of a package is used up or a package expires, you can purchase another package.

## Process of Purchasing a DupDub Non-English/Chinese Language Cloning Package

If you select **Voice modeling (DupDub)**, the created voice can be used only for video production, not for intelligent interaction and livestreaming. See [Languages Supported by Non-English/Chinese Language Cloning](#).

- **Purchasing a DupDub Non-English/Chinese Language Cloning Package:** If you select **Voice modeling (DupDub)**, you need to purchase a DupDub non-English/Chinese language cloning package in KooGallery.
- **Obtaining a Third-party Voice Usage Credential:** Use the username and password of the purchased package as the credential for using third-party voices on the MetaStudio console.

After purchasing a DupDub non-English/Chinese language cloning package, you also need to obtain a credential.

- **Activating a Third-party Voice Usage Credential:** On the MetaStudio console, add a credential, which is the username and password of the purchased package.  
After purchasing a DupDub non-English/Chinese language cloning package, you also need to activate the credential. If you purchase multiple packages using the same Huawei Cloud account, the credentials of these packages are the same by default. You only need to configure the credential once.
- **Viewing Expenditure Details on the MetaStudio Console:** You can view the expenditure details of a purchased DupDub non-English/Chinese language cloning package on the MetaStudio console. See the operation for DupDub TTS packages.
- **Renewing a Package:** If the quota of a package is used up or a package expires, you can purchase another package.

## Prerequisites

The Huawei Cloud account must be bound to a valid mobile number.

## Purchasing a DupDub TTS Package

Purchase a TTS package in KooGallery to activate and use the third-party voices of DupDub.

**Step 1** Go to the [DupDub Text to Speech](#) page.

The following packages can be purchased:

- **DupDub Text to Speech:** All preset third-party voices can be used after you purchase this package. The video compositing fee of each voice is \$20 USD per one million characters, which is deducted from the purchased **DupDub Text to Speech** package.

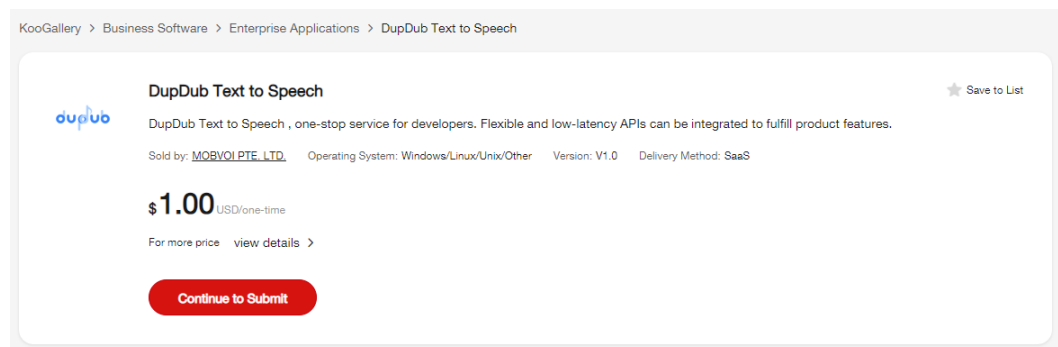
The following specifications are included:

- **Text To Speech Experience Package**
- **Text To Speech Small Package**
- **Text To Speech Medium Package**
- **Text To Speech Large Package**

- **Voice Clone Basic Edition**

A cloned voice can be used for video compositing and the fee is \$300 USD per one million characters, which is deducted from the purchased **DupDub Text to Speech** package.

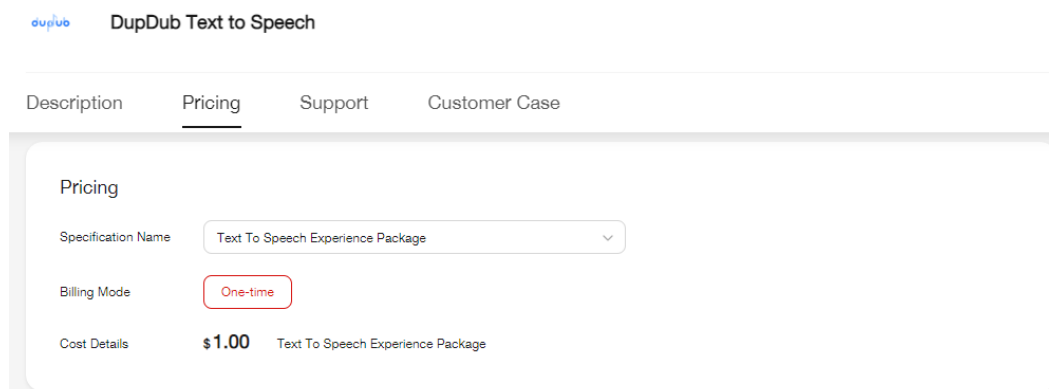
**Figure 4-8** KooGallery



**Step 2** Click **view details** to view the package specifications and prices, as shown in [Figure 4-9](#).

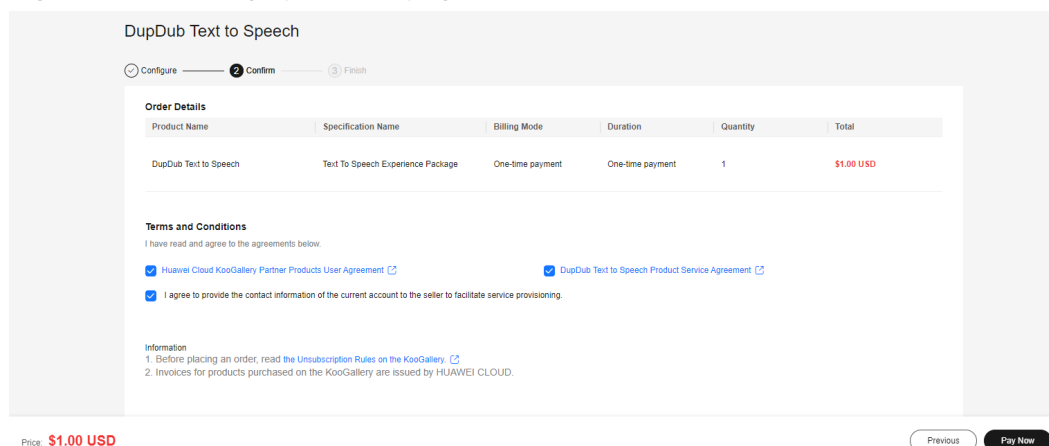
Purchase the specification that fits your needs. The following is an example of purchasing a **Text To Speech Experience Package**.

**Figure 4-9** Package specifications



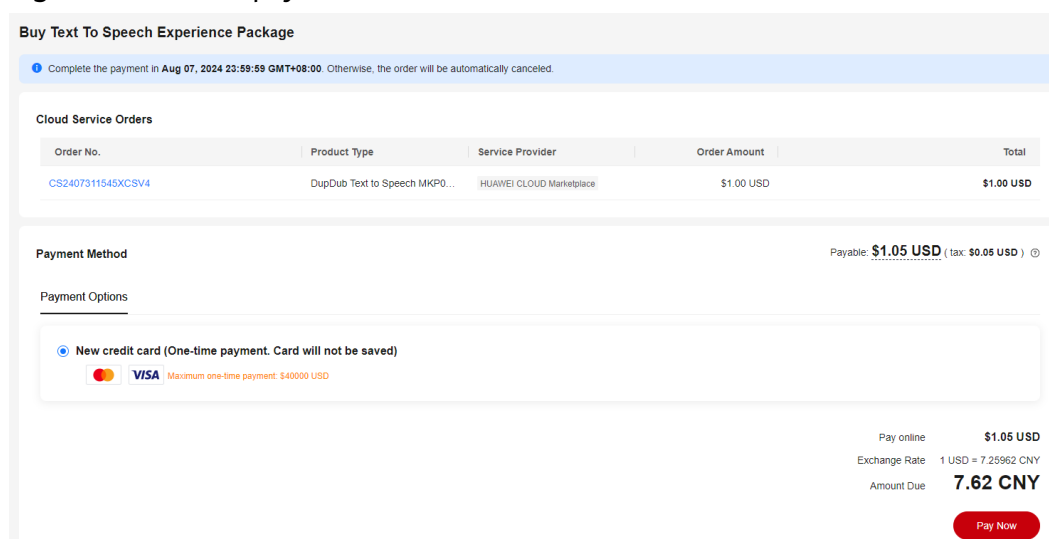
**Step 3** Select **Text To Speech Experience Package** for **Specification Name** and click **Continue to Submit**. The purchase page is displayed.

**Figure 4-10** Package purchase page



**Step 4** Read and select all agreements and related authorizations, and click **Pay Now**. The order payment page is displayed.

**Figure 4-11** Order payment



**Step 5** Select a payment method and complete the payment.

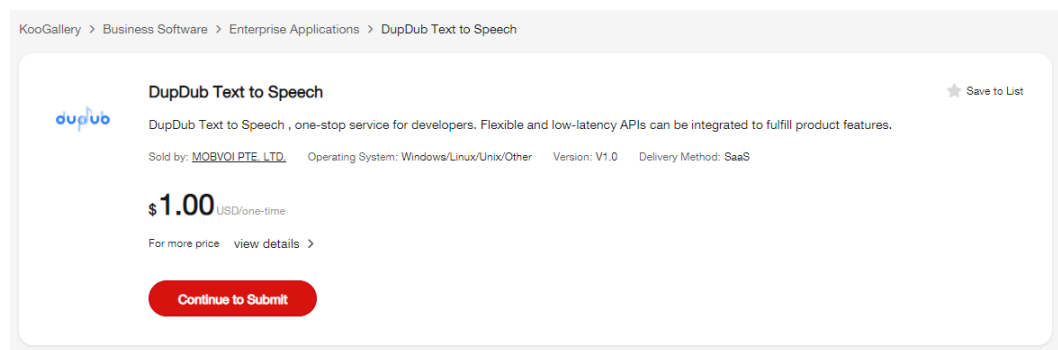
----End

## Purchasing a DupDub Non-English/Chinese Language Cloning Package

If you select **Voice modeling (DupDub)**, you need to purchase a DupDub non-English/Chinese language cloning package in KooGallery.

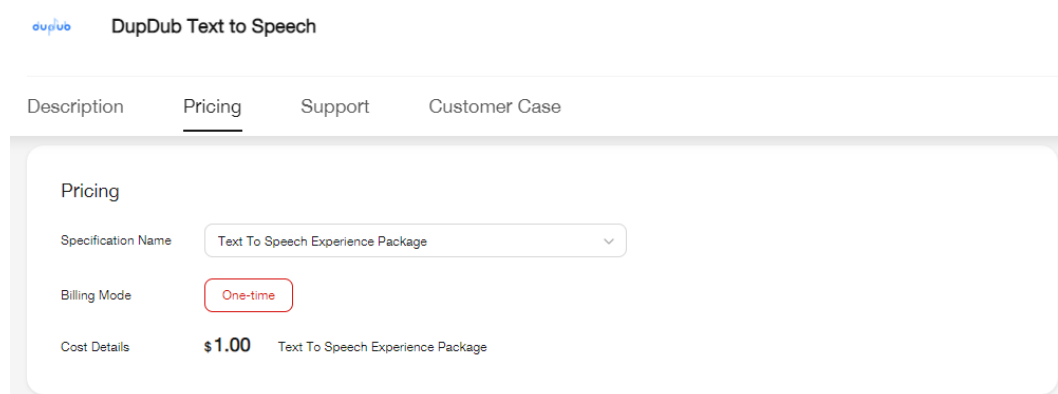
**Step 1** Go to the [DupDub Text to Speech](#) page.

**Figure 4-12** KooGallery



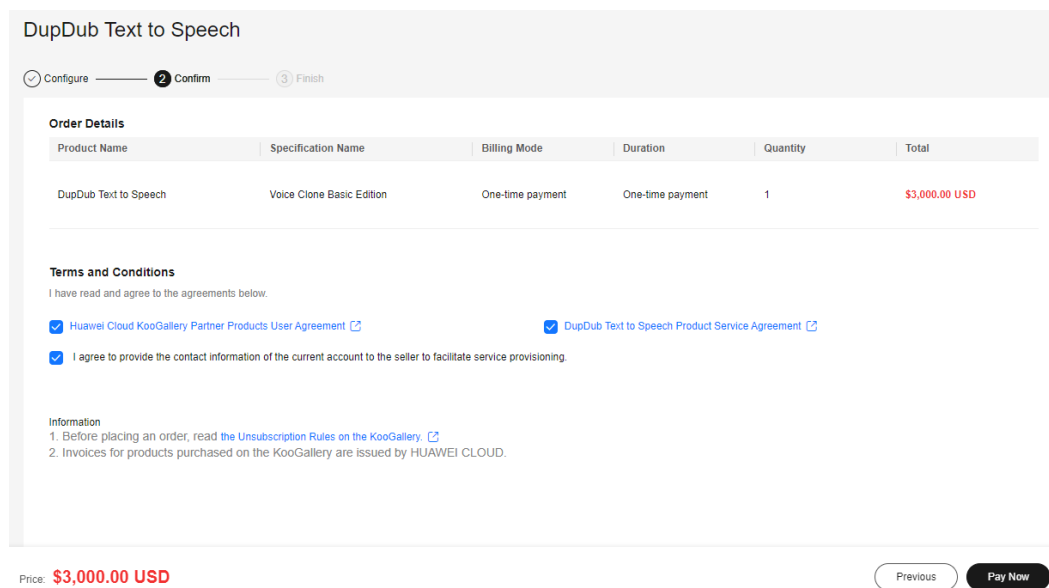
**Step 2** Click **view details** to view the package specifications and prices, as shown in [Figure 4-13](#).

**Figure 4-13** Package specifications



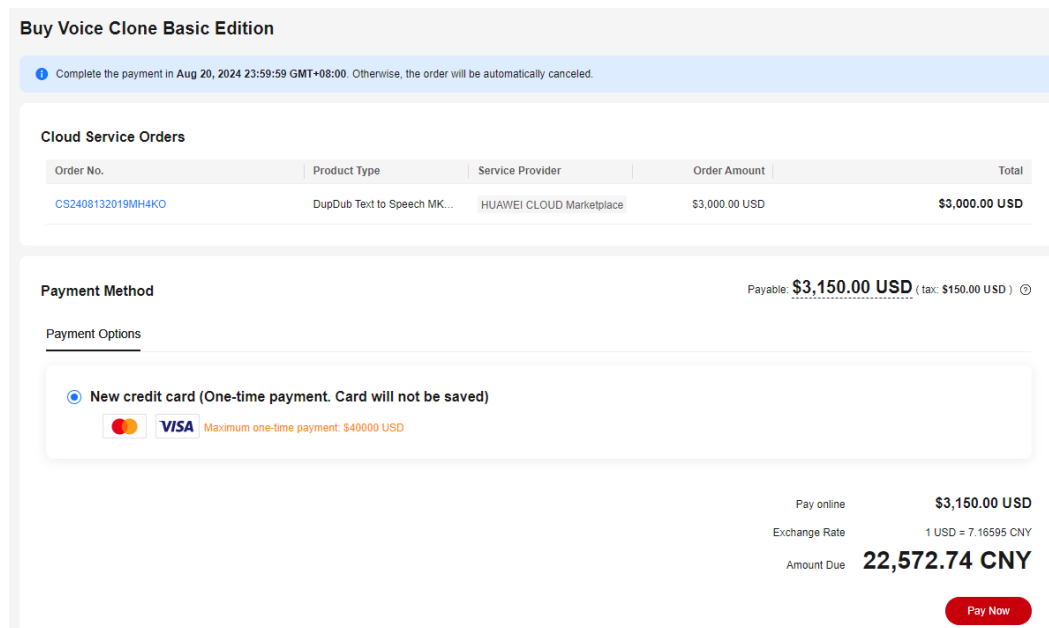
**Step 3** Select **Voice Clone Basic Edition** for **Specification Name** and click **Continue to Submit**. The purchase page is displayed.

**Figure 4-14** Package purchase page



**Step 4** Read and select all agreements and related authorizations, and click **Pay Now**. The order payment page is displayed.

**Figure 4-15** Order payment



**Step 5** Select a payment method and complete the payment.

----End

## Obtaining a Third-party Voice Usage Credential

The following uses the TTS package as an example. The operation is the same for other voice packages.

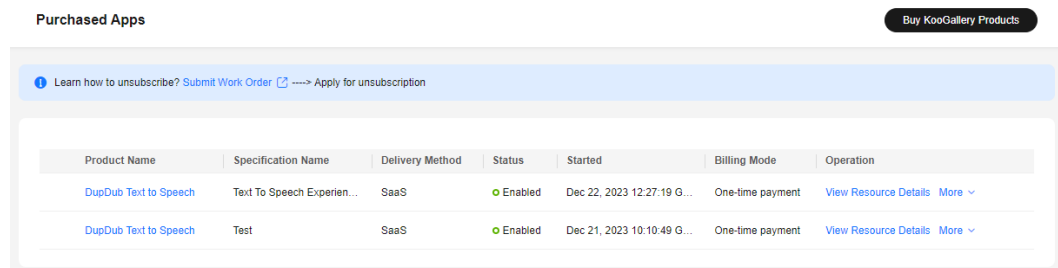


View the purchased TTS package and obtain the username and password of the package, which are the credential for activating third-party voices on the MetaStudio console.

**Step 1** Access [KooGallery Buyer Console](#). The page of purchased services is displayed.

You can see information about the purchased TTS package.

**Figure 4-16** Purchased services



Purchased Apps Buy KooGallery Products

[Learn how to unsubscribe?](#) [Submit Work Order](#)  ----> [Apply for unsubscription](#)

Product Name	Specification Name	Delivery Method	Status	Started	Billing Mode	Operation
<a href="#">DupDub Text to Speech</a>	Text To Speech Experien...	SaaS	Enabled	Dec 22, 2023 12:27:19 G...	One-time payment	<a href="#">View Resource Details</a> <a href="#">More</a> ▾
<a href="#">DupDub Text to Speech</a>	Test	SaaS	Enabled	Dec 21, 2023 10:10:49 G...	One-time payment	<a href="#">View Resource Details</a> <a href="#">More</a> ▾

**Step 2** Click **Resource Details** on the right of the purchased package. The resource details page is displayed.

Record the username and password, as shown in [Figure 4-17](#).

As shown in [Activating a Third-party Voice Usage Credential](#), the access key and secret key are used to add or update a credential on MetaStudio to activate third-party voices.

**Figure 4-17** Resource details

**Purchased Apps / Details**

**DupDub Text to Speech**

✓
Enabled

**Application Information**

Username	98 <span style="background-color: yellow; display: inline-block; width: 150px; height: 1em;"></span> 48D0
Password	*****
Management URL	<a href="https://clone-hw.dupdub.com">https://clone-hw.dupdub.com</a>
Frontend URL	<a href="https://clone-hw.dupdub.com">https://clone-hw.dupdub.com</a>
Remarks	you can reset the password, and then, log in through <span style="background-color: yellow; display: inline-block; width: 80px; height: 1em;"></span> @qq.com
Product Guide	<a href="#">View</a>

**Basic Information**

Specification Name	Text To Speech Experience Package
Delivery Method	SaaS
Resource Status	Enabled
Billing Mode	One-time payment
Started	Dec 22, 2023 12:27:19 GMT+08:00

----End

## Activating a Third-party Voice Usage Credential

After purchasing a third-party voice, you need to activate it on the MetaStudio console.

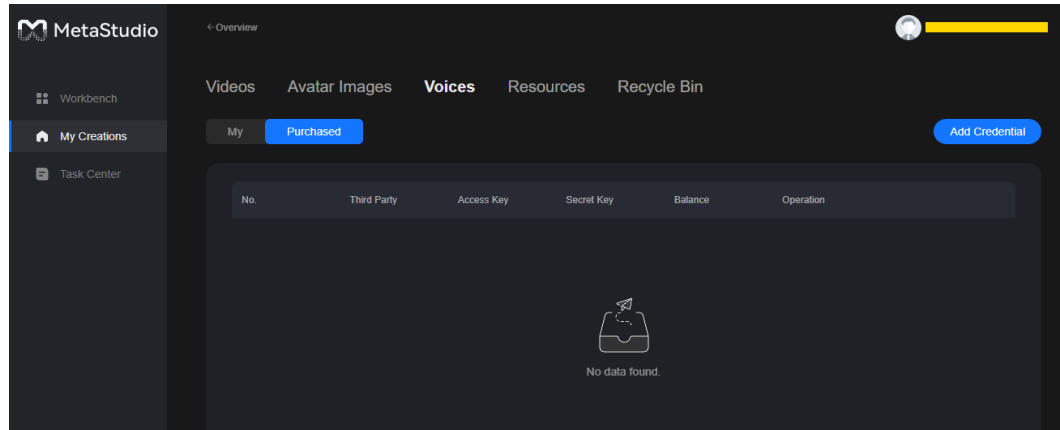
After purchasing a DupDub non-English/Chinese language cloning package, you also need to activate the credential. If you purchase multiple packages using the same Huawei Cloud account, the credentials of these packages are the same by default. You only need to configure the credential once.

**Step 1** Log in to the [MetaStudio console](#).

**Step 2** In the navigation pane, choose **My Creations**.

**Step 3** Choose **Voices > Purchased**, as shown in **Figure 4-18**.

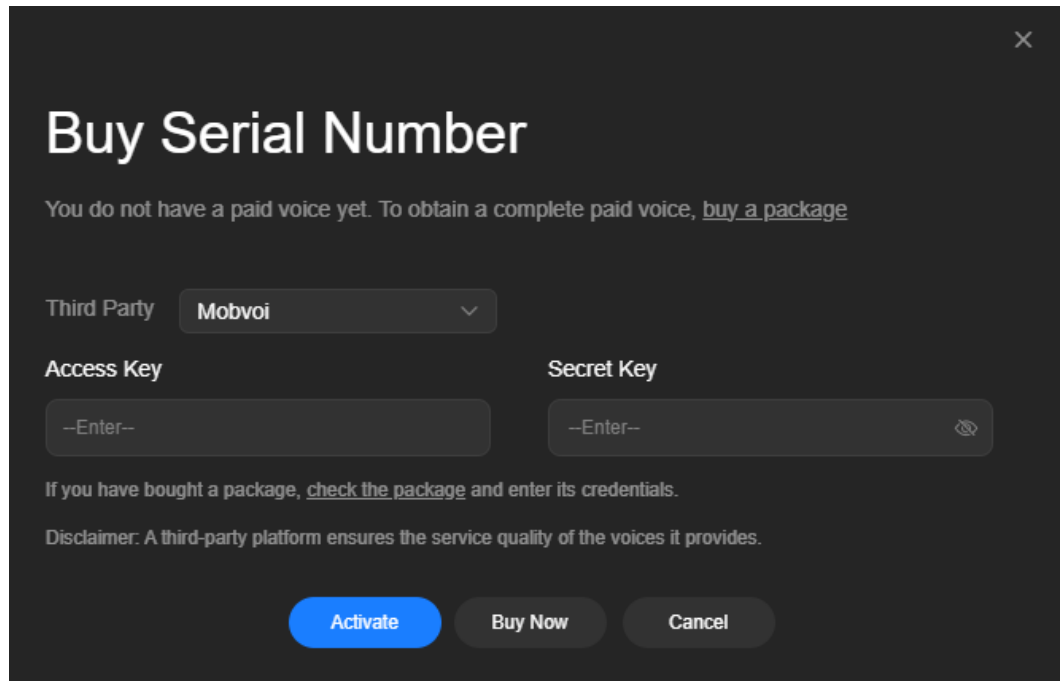
**Figure 4-18** Purchased voice credentials



**Step 4** Click **Add Credential** in the upper right corner of the page. The **Buy Serial Number** dialog box is displayed, as shown in **Figure 4-19**.

See **Table 4-8**.

**Figure 4-19** Buying a serial number



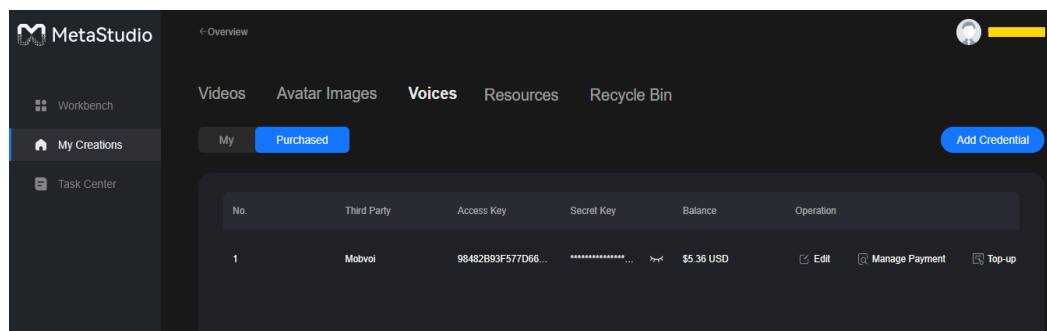
**Table 4-8** Parameter description

Parameter	Description
Third Party	<p>Owner of the package purchased in <a href="#">Purchasing a DupDub Voice Package</a>. Select <b>Mobvoi</b> from the drop-down list box.</p> <p>If you purchase multiple packages using the same Huawei Cloud account, the credentials of these packages are the same by default. You only need to configure the credential once.</p> <ul style="list-style-type: none"> <li>The voices marked as <b>Third-party</b> are of DupDub. You need to purchase a DupDub TTS package to use the voices.</li> <li>Before selecting <b>Voice modeling (DupDub)</b>, you need to purchase a DupDub non-English/Chinese language cloning package.</li> </ul>
Access Key	This parameter will be set as <b>Username</b> on the <b>Resource Details</b> page, as shown in <a href="#">Step 2</a> .
Secret Key	This parameter will be set as <b>Password</b> on the <b>Resource Details</b> page, as shown in <a href="#">Step 2</a> .

**Step 5** Click **Activate**. The message **Activated.** is displayed.

A new user credential is displayed on the page. Now you can use the third-party voice on MetaStudio. You can purchase a non-English/Chinese language cloning package to use **Voice modeling (DupDub)**.

**Figure 4-20** Voice credentials



----End

## Viewing Expenditure Details on the MetaStudio Console

The following uses the TTS package as an example. The operation is the same for other voice packages.

You can view the expenditure details of a purchased package on the MetaStudio console.

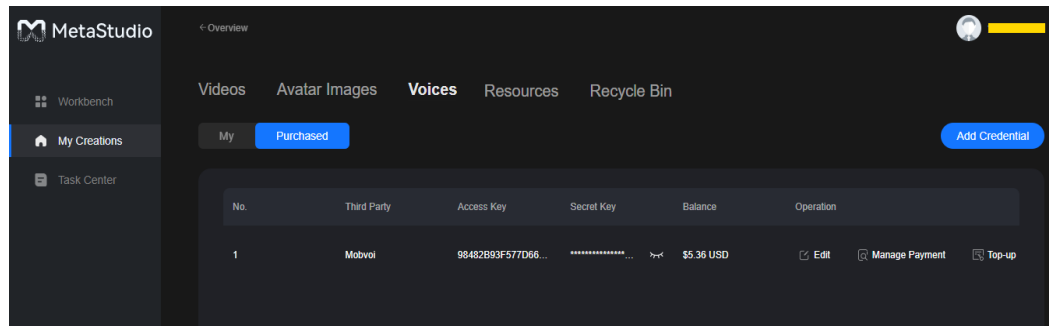
**Step 1** Log in to the [MetaStudio console](#).

**Step 2** In the navigation pane, choose **My Creations**.

**Step 3** Choose **Voices > Purchased**, as shown in **Figure 4-21**.

On the page displayed, you can view access keys, secret keys, and balance.

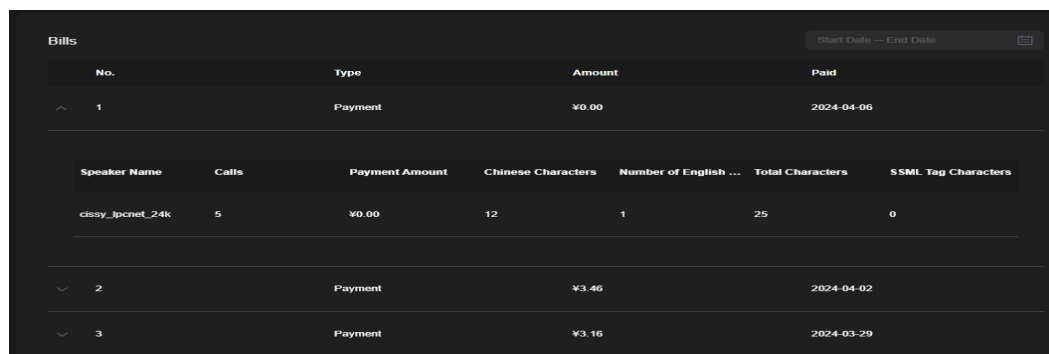
**Figure 4-21** Voice credentials



**Step 4** Click **Manage Payment** in the **Operation** column of the target voice. The **Resource Details** dialog box displayed, as shown in **Figure 4-22**.

In the **Bills** area, view expenditure details.

**Figure 4-22** Viewing expenditure details



----End

## Renewing a Package

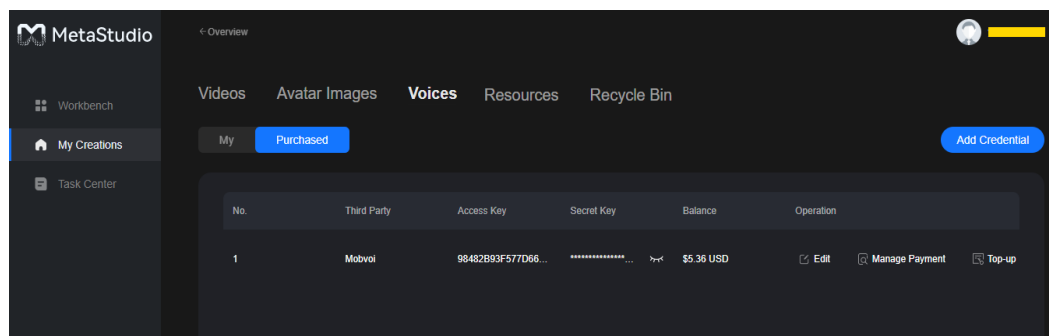
The following uses the TTS package as an example. The operation is the same for other voice packages.

After the purchased TTS package resources are used up:

- If you use the same Huawei Cloud account to purchase a package, the access key and secret key remain unchanged.
- If you use another Huawei Cloud account to purchase a package, update the access key and secret key by referring to **Renewing a Package**.

**Step 1** On the **Voices > Purchased tab**, you can view the activated access keys and secret keys.

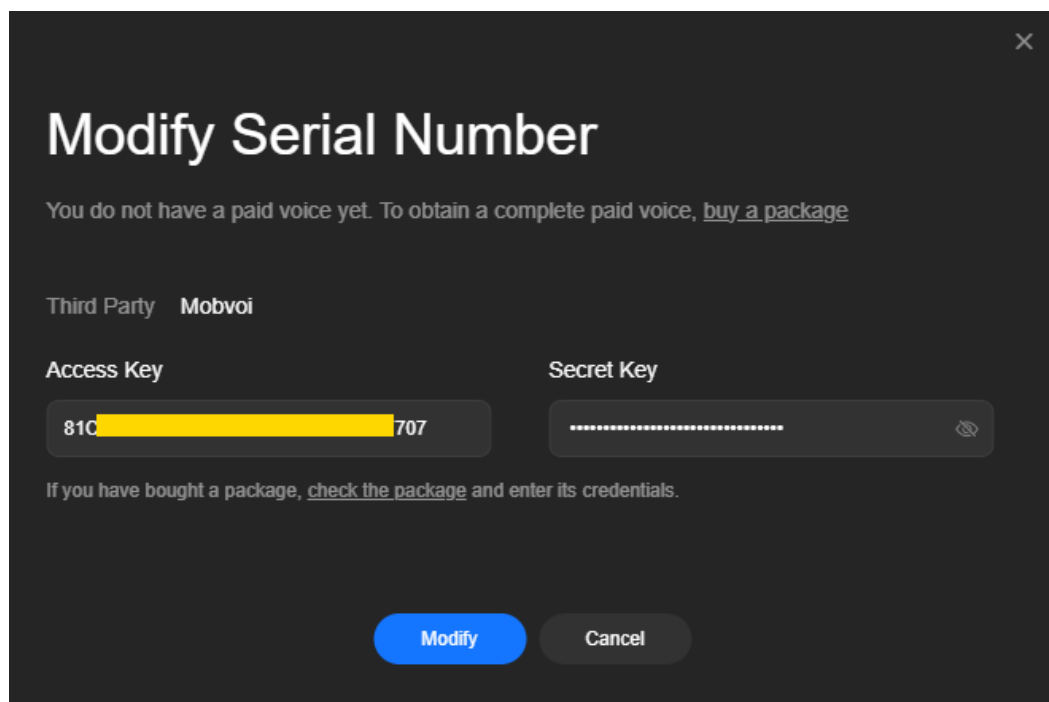
**Figure 4-23** Voice credentials



**Step 2** Click **Edit** in the **Operation** column of the target voice. In the **Modify Serial Number** dialog box displayed, enter the user credential of the TTS package that is purchased using another Huawei Cloud account, as shown in [Figure 4-24](#).

[Obtaining a Third-party Voice Usage Credential](#) describes how to query user credentials.

**Figure 4-24** Updating a credential



**Step 3** Click **Modify**. The message **Modified.** is displayed.

The modification takes effect automatically. You do not need to activate the third-party voice again.

----End

### 4.5.3 Purchasing an AudioX Voice Package

If you select **Voice modeling (AudioX)** for video production, perform the operation by referring to [Process of Purchasing an AudioX Non-English/Chinese Language Cloning Package](#).

The created voice can be used only for video production, not for intelligent interaction and livestreaming. See [Languages Supported by Non-English/Chinese Language Cloning](#).

## Process of Purchasing an AudioX Non-English/Chinese Language Cloning Package

- **Purchasing an AudioX Non-English/Chinese Language Cloning Package:** If you select **Voice modeling (AudioX)**, you need to purchase an AudioX non-English/Chinese language cloning package in KooGallery.
- **Obtaining a Third-party Voice Usage Credential:** Use the username and password of the purchased package as the credential for using third-party voices on the MetaStudio console.  
After purchasing an AudioX non-English/Chinese language cloning package, you also need to obtain a credential.
- **Activating a Third-party Voice Usage Credential:** On the MetaStudio console, add a credential, which is the username and password of the purchased package.  
After purchasing an AudioX non-English/Chinese language cloning package, you also need to activate the credential. For AudioX, only one credential needs to be configured for each Huawei Cloud account.
- **Viewing Expenditure Details on the MetaStudio Console:** You can view the expenditure details of a purchased AudioX non-English/Chinese language cloning package on the MetaStudio console. See the operation for DupDub TTS packages.
- **Renewing a Package:** If the quota of a package is used up or a package expires, you can purchase another package.

## Prerequisites

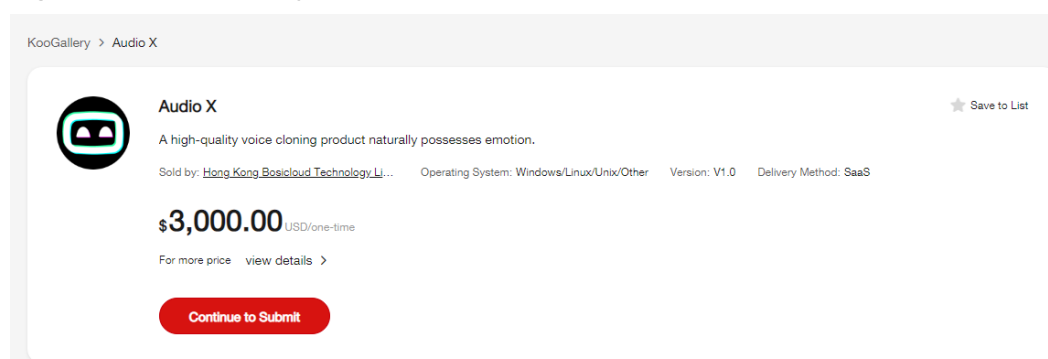
The Huawei Cloud account must be bound to a valid mobile number.

## Purchasing an AudioX Non-English/Chinese Language Cloning Package

If you select **Voice modeling (AudioX)**, you need to purchase an AudioX non-English/Chinese language cloning package in KooGallery.

**Step 1** Go to the [AudioX](#) page in KooGallery.

**Figure 4-25** KooGallery

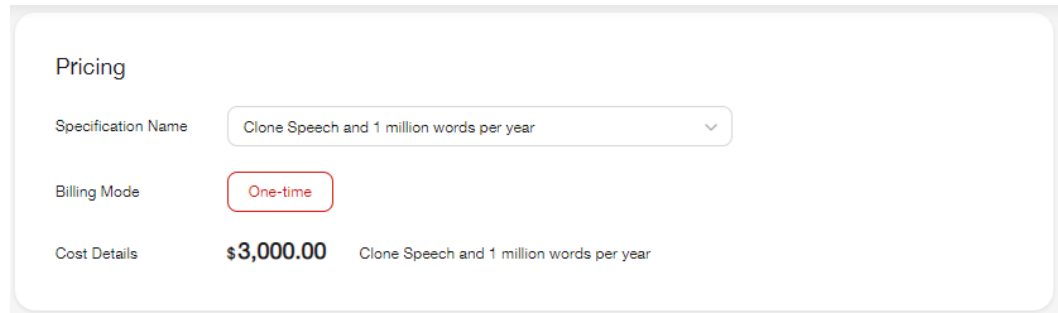


**Step 2** Click **view details** to view the package specifications and prices, as shown in **Figure 4-26**.

Currently, only the **Clone Speech and 1 million words per year** specification can be purchased for voice cloning and video production.

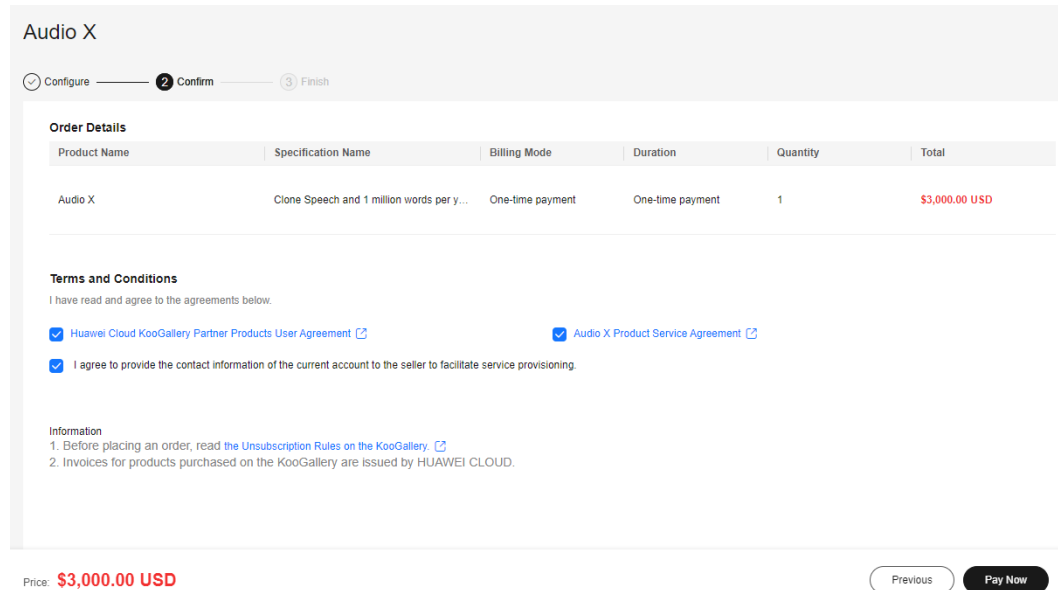
A cloned voice can be used for video compositing and the fee is \$300 USD per one million characters, which is deducted from the purchased package.

**Figure 4-26** Package specifications



**Step 3** Select **Clone Speech and 1 million words per year** and click **Continue to Submit**. The purchase page is displayed.

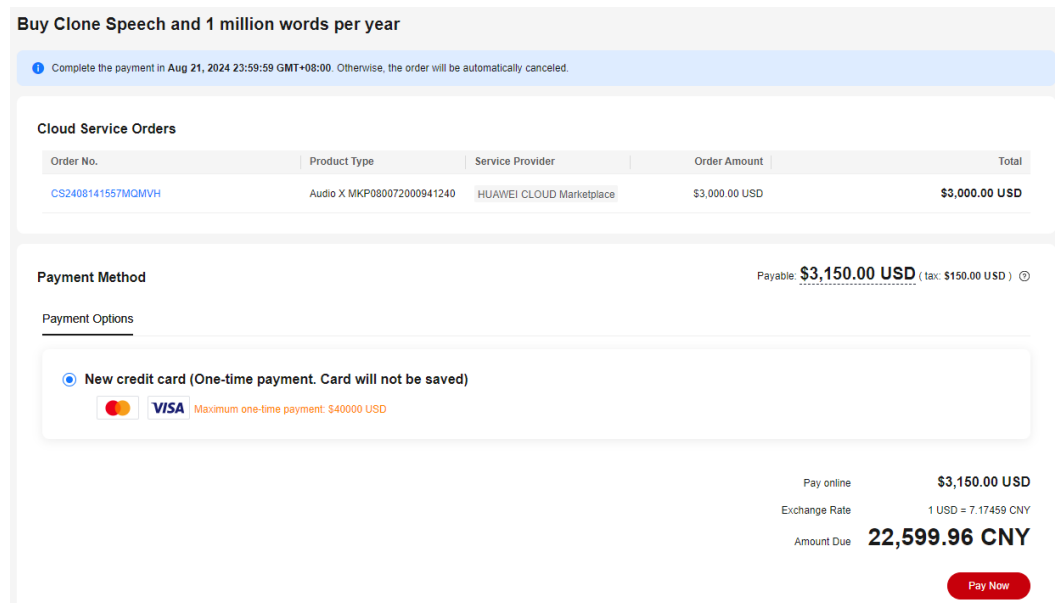
**Figure 4-27** Package purchase page



**Step 4** Read and select all agreements and related authorizations, and click **Pay Now**. The order payment page is displayed.



**Figure 4-28** Order payment



**Step 5** Select a payment method and complete the payment.

----End

## Obtaining a Third-party Voice Usage Credential

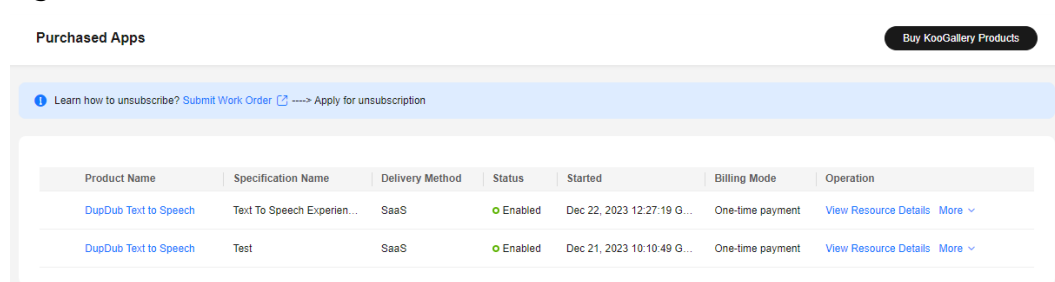
The following uses the TTS package as an example. The operation is the same for other voice packages.

View the purchased TTS package and obtain the username and password of the package, which are the credential for activating third-party voices on the MetaStudio console.

**Step 1** Access [KooGallery Buyer Console](#). The page of purchased services is displayed.

You can see information about the purchased TTS package.

**Figure 4-29** Purchased services



**Step 2** Click **Resource Details** on the right of the purchased package. The resource details page is displayed.

Record the username and password, as shown in [Figure 4-30](#).

As shown in [Activating a Third-party Voice Usage Credential](#), the access key and secret key are used to add or update a credential on MetaStudio to activate third-party voices.

**Figure 4-30** Resource details

**Purchased Apps / Details**

---

**DupDub Text to Speech**

✓
Enabled

**Application Information**

Username	98 <span style="background-color: yellow; display: inline-block; width: 100px; height: 1em;"></span> 48D0
Password	*****
Management URL	<a href="https://clone-hw.dupdub.com">https://clone-hw.dupdub.com</a>
Frontend URL	<a href="https://clone-hw.dupdub.com">https://clone-hw.dupdub.com</a>
Remarks	you can reset the password, and then, log in through <span style="background-color: yellow; display: inline-block; width: 80px; height: 1em;"></span> @qq.com
Product Guide	<a href="#">View</a>

**Basic Information**

Specification Name	Text To Speech Experience Package
Delivery Method	SaaS
Resource Status	Enabled
Billing Mode	One-time payment
Started	Dec 22, 2023 12:27:19 GMT+08:00

----End

## Activating a Third-party Voice Usage Credential

After purchasing a third-party voice, you need to activate it on the MetaStudio console.

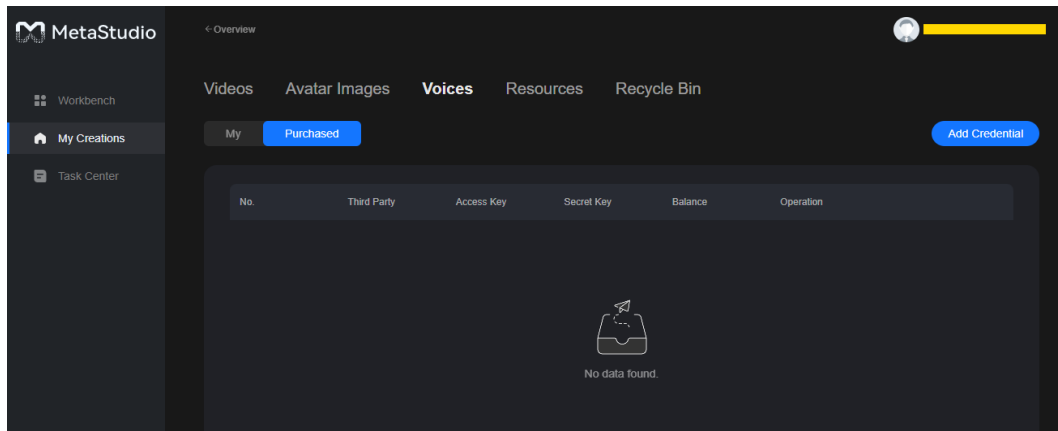
After purchasing an AudioX non-English/Chinese language cloning package, you also need to activate the credential. For AudioX, only one credential needs to be configured for each Huawei Cloud account.

**Step 1** Log in to the [MetaStudio console](#).

**Step 2** In the navigation pane, choose **My Creations**.

**Step 3** Choose **Voices > Purchased**, as shown in **Figure 4-31**.

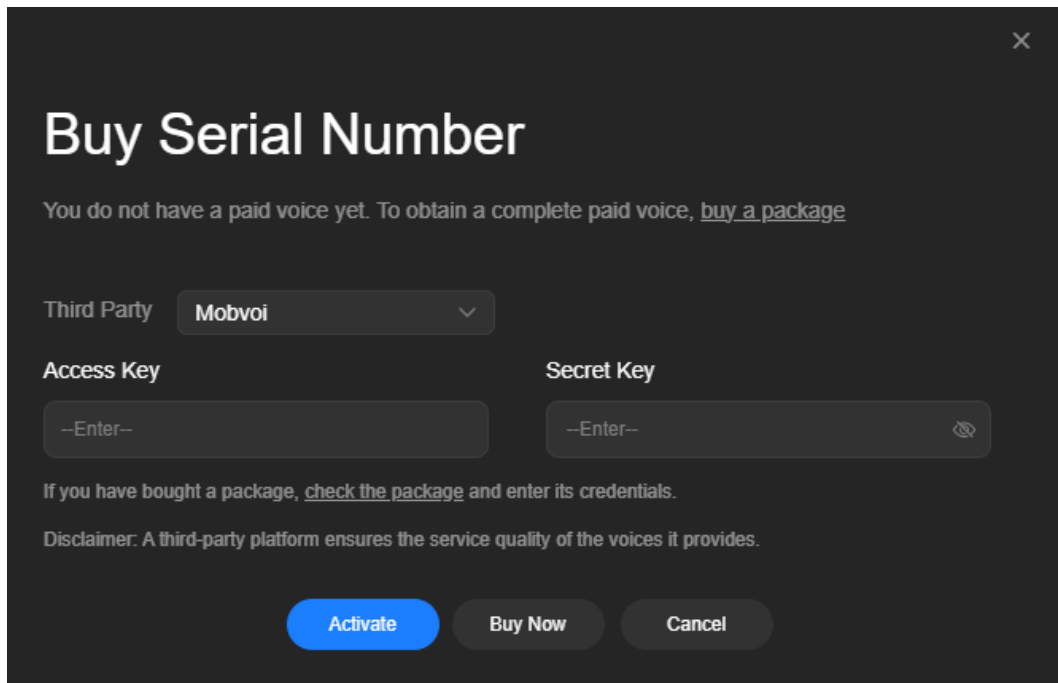
**Figure 4-31** Purchased voice credentials



**Step 4** Click **Add Credential** in the upper right corner of the page. The **Buy Serial Number** dialog box is displayed, as shown in **Figure 4-32**.

See **Table 4-9**.

**Figure 4-32** Buying a serial number



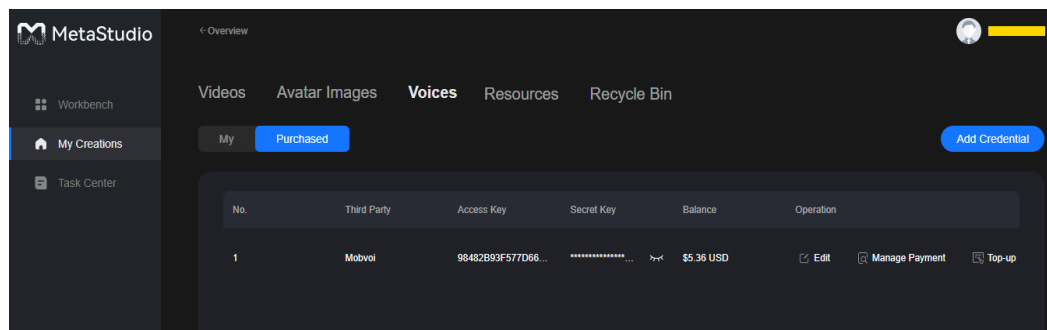
**Table 4-9** Parameter description

Parameter	Description
Third Party	Owner of the package purchased in <a href="#">Purchasing an AudioX Voice Package</a> . Select <b>AudioX</b> from the drop-down list box. If you select <b>Voice modeling (AudioX)</b> , you need to purchase a non-English/Chinese language cloning package and add a credential.
Access Key	This parameter will be set as <b>Username</b> on the <b>Resource Details</b> page, as shown in <a href="#">Obtaining a Third-party Voice Usage Credential</a> . The operation for AudioX is the same as that for DupDub.
Secret Key	This parameter will be set as <b>Password</b> on the <b>Resource Details</b> page, as shown in <a href="#">Obtaining a Third-party Voice Usage Credential</a> . The operation for AudioX is the same as that for DupDub.

**Step 5** Click **Activate**. The message **Activated.** is displayed.

There is a new user credential on the page, meaning that you can use **Voice modeling (AudioX)**.

**Figure 4-33** Voice credentials



----End

## Viewing Expenditure Details on the MetaStudio Console

The following uses the TTS package as an example. The operation is the same for other voice packages.

You can view the expenditure details of a purchased package on the MetaStudio console.

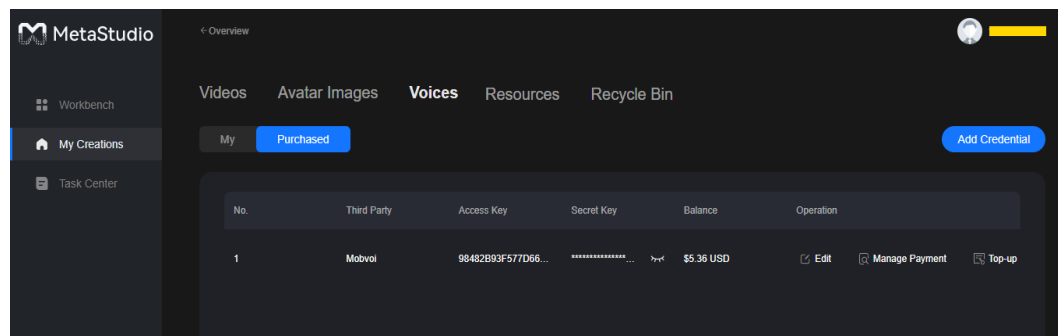
**Step 1** Log in to the [MetaStudio console](#).

**Step 2** In the navigation pane, choose **My Creations**.

**Step 3** Choose **Voices > Purchased**, as shown in [Figure 4-34](#).

On the page displayed, you can view access keys, secret keys, and balance.

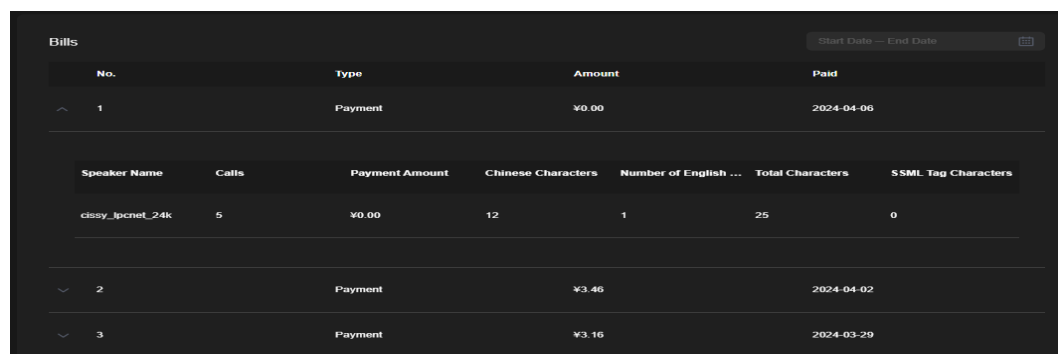
**Figure 4-34** Voice credentials



**Step 4** Click **Manage Payment** in the **Operation** column of the target voice. The **Resource Details** dialog box displayed, as shown in [Figure 4-35](#).

In the **Bills** area, view expenditure details.

**Figure 4-35** Viewing expenditure details



----End

## Renewing a Package

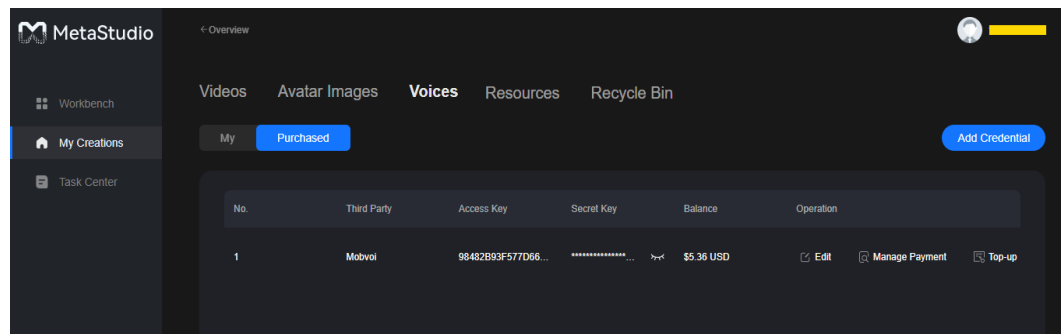
The following uses the TTS package as an example. The operation is the same for other voice packages.

After the purchased TTS package resources are used up:

- If you use the same Huawei Cloud account to purchase a package, the access key and secret key remain unchanged.
- If you use another Huawei Cloud account to purchase a package, update the access key and secret key by referring to [Renewing a Package](#).

**Step 1** On the **Voices > Purchased tab**, you can view the activated access keys and secret keys.

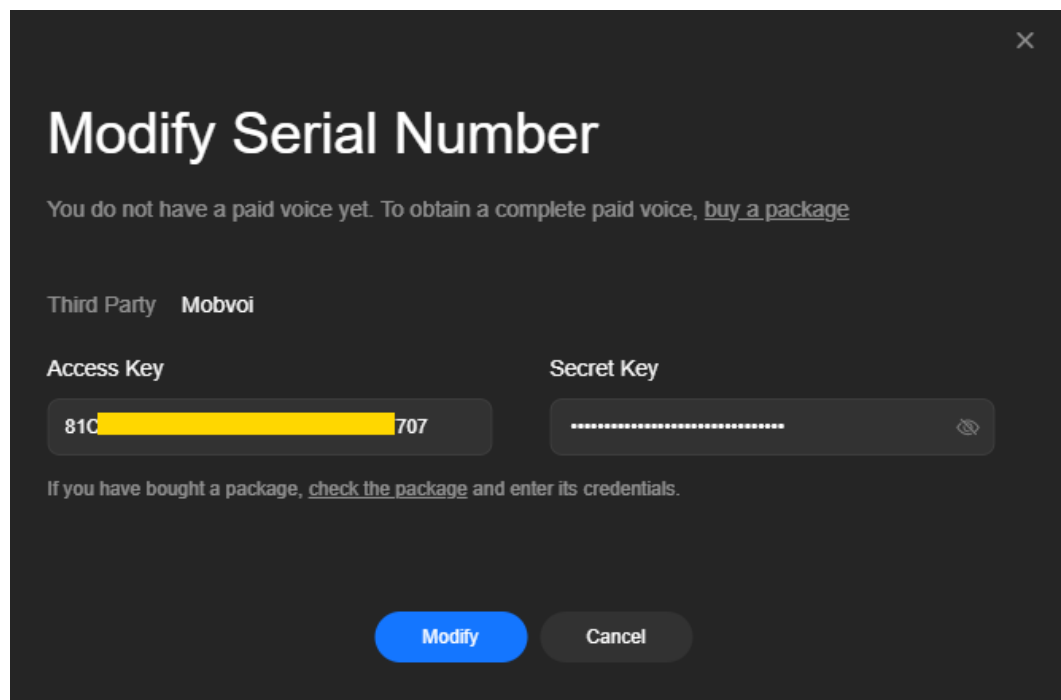
**Figure 4-36** Voice credentials



**Step 2** Click **Edit** in the **Operation** column of the target voice. In the **Modify Serial Number** dialog box displayed, enter the user credential of the TTS package that is purchased using another Huawei Cloud account, as shown in [Figure 4-37](#).

[Obtaining a Third-party Voice Usage Credential](#) describes how to query user credentials.

**Figure 4-37** Updating a credential



**Step 3** Click **Modify**. The message **Modified.** is displayed.

The modification takes effect automatically. You do not need to activate the third-party voice again.

----End

## 4.6 Script Examples (Advanced Edition)

## 4.6.1 100 Phrases for Live Commerce

1. Hello, everybody. Welcome to our live room.
2. Stay tune to our live room if you want to learn more about cuisines or shopping.
3. This is our first time of livestreaming, so we bring many amazing special offers for you guys.
4. If you are already in the live room, do type 1 in the comments.
5. First, let's start with a lucky draw!
6. We will send gifts to five of the people in this live room.
7. We have cookies, chips, and one of my favorites: Mala Xiang Guo.
8. But the quantity is limited. So first come, first served, guys!
9. During the livestream today, we will offer flash sales that help you save more than the Double Eleven.
10. We will livestream from eight to twelve. Please type what you want to know in the live comments.
11. If you have not followed me, just click Follow in the upper left corner.
12. I would appreciate if you could click Likes in the lower right corner. We will have lucky draws for people who give likes during the livestream.
13. The first item I would like to show you is cookies that are suitable even for people on a diet.
14. This package looks very attractive, doesn't it?
15. It is good for people who are really into snacks but don't want to gain too many calories.
16. You won't feel a thing even if you have three packets at a time.
17. The calories of these three packets are the same as one packet of other brands.
18. More importantly, there are no additives. Let me show you the ingredients.
19. You can eat a lot without gaining weight. That's fantastic, isn't it?
20. There is no oil in the cookies but you can still feel the fragrance of oil. Tasty and healthy.
21. Non-fried and no additives. You can eat them without worrying about getting acne.
22. Whether you are watching TV series, shopping, or working, a packet of cookies will bring you energy when you are hungry.
23. The cookies taste very special. Even my colleagues who do not love snacks like these cookies.
24. As I said, we will offer you some special offers today.
25. So the prices will be lower.
26. Generally it is 7.9 yuan per packet.
27. Today, you can grab ten packets for just 49 yuan in our live room!
28. If you buy ten packets, I will give you two more for free.
29. That would be 49 yuan for twelve packets! You can save a lot.

30. Less than five yuan for each packet. The price is almost halved.
31. However, we have only 500 discounted packets. Please buy as soon as possible!
32. I will show you the purchase link after countdown. Five, four, three, two, one.
33. Now you can click the number one link of the yellow shopping cart to enjoy the discount.
34. The half-price cookies are available only during the livestreaming.
35. 49.9 yuan for 12 packets. You can save more than the Double Eleven.
36. Only 500 packets tonight. First come, first served.
37. No more hesitation, guys!
38. Tell me on the live comments if you have placed orders. We will give priority to the delivery of your orders.
39. All of our products have passed food safety tests. There is no need to worry.
40. If you take a look at the comments of these cookies, you will know how good they are.
41. Click the link and place orders right now! These discounts are available only in our live room.
42. What you buy during the livestreaming will be covered with freight insurance.
43. Take advantage of the discounts in the live room!
44. I know many of you want to buy the cookies, but I have to tell you that only 500 packets will have discounts.
45. We got only five seconds to go for the discounted cookies. Then I will show you the next discounted offering.
46. No more discounts in five seconds.
47. Let's count down. Five, four, three, two, one. Now let's move on to the next offering.
48. I will recommend one of my favorite Mala Xiang Guo brands.
49. This brand is the most stunning one that I have ever seen.
50. Today we will present two flavors: sauce and spicy.
51. With the sauce flavor, you can enjoy Mala Xiang Guo even if you don't like spicy food.
52. Choose the sauce flavor if you don't want to eat spicy.
53. You can also try both flavors at the same time.
54. Now let me tell you what makes this Mala Xiang Guo brand different.
55. First, it is tasty but not salty.
56. Second, there are abundant ingredients, including Udon, vegetables, and fish balls.
57. Third, the vegetables are fresh, such as the crispy lotus roots.
58. Let's see what there are in the Mala Xiang Guo.
59. First, we have a water bag.
60. It is drinking water, not tap water.
61. Then we have a dish bag that contains both meat and vegetables.
62. All the stuff is fresh and good for health.



63. All of our products have obtained food safety certificates.
64. This dish is one of the good choices for a family dinner.
65. What's more, the dining boxes are made of aluminum foil.
66. Actually most self-heating food uses plastic boxes.
67. When these plastic boxes get heated, there will be unpleasant odor.
68. Our aluminum foil dining boxes can be heated without producing harmful substances.
69. Each Mala Xiang Guo hotpot is 450 grams. That's enough for a meal.
70. If you eat alone, generally you can't finish all of them.
71. The shelf life is eight months.
72. You can just store them at room temperature at home, without occupying refrigerator capacity.
73. This offering is suitable for us that go home after working a whole day.
74. When we go home, we don't need to buy food or cook.
75. What we need is just a glass of cold water. After 15 minutes, we can have delicious Mala Xiang Guo.
76. The price of Mala Xiang Guo is also amazing today. Generally one box costs 29.9 yuan.
77. If you buy three boxes in our live room, the first box is 29.9 yuan, the second 19.9 yuan, and the third is free!
78. Only 49.8 yuan for three boxes. That is, 16.6 yuan per box!
79. I will show you the purchase link after countdown. Five, four, three, two, one. Just buy three boxes at a time. That will save the most.
80. If you have any questions, leave them in the comments to let me know.
81. You can buy one box for just 16.6 yuan in our live room.
82. That's way cheaper than the price of restaurants.
83. It is convenient and economical.
84. If you click the number 2 link, you can get some instant noodles and three fried tofu rolls for free.
85. These gifts will cost ten plus yuan.
86. But they are free of charge if you buy Mala Xiang Guo in our live room.
87. First come, first served.
88. There are very few special offers left. Grab them right now!
89. No more hesitation. Just come on board!
90. If you have any questions, contact our customer service in the live room. We will guarantee the after-sales service.
91. The delivery of any orders purchased in the live room will be started tomorrow.
92. I would appreciate if you guys can give more likes. If there are ten thousand plus likes, we will have a lucky draw.
93. Here comes the lucky draw. You can participate in the lucky draw only after following our live room.
94. We have lucky draws every day in the live room. Join us at eight o'clock every night and stand a chance of receiving benefits.

95. Type "I want it" in the live comments!
96. Let's give a second to our newcomers so that they can follow the live room and send on-screen comments.
97. Okay, now let's count down for the lucky draw. Five, four, three, two, one.
98. There are just ten minutes left before our livestreaming ends. Feel free to ask any questions in the live comments.
99. If you haven't got the exclusive coupon of our live room, claim it as soon as possible. The coupons are available only during the livestreaming.
100. We're about to stop the streaming today. See you guys at 8 p.m. tomorrow. Stay tuned! See you.

## 4.6.2 100 Phrases for Marketing

1. Learn about the recent technology trends and the latest intelligent products.
2. In this fast-changing world, technology has become an indispensable part of our lives.
3. It constantly drives society progress and human development.
4. A cutting-edge intelligent product will soon be launched.
5. The domestic robot is an intelligent device built on advanced technologies.
6. It frees you from a variety of domestic tasks and makes life more convenient and comfortable.
7. The abundant built-in functions of domestic robots can meet a diverse range of requirements.
8. It connects to home devices and can be tasked with housework through voice control.
9. Domestic robots make your home smarter and your life more convenient.
10. The smarter your home, the happier your family will be.
11. Domestic robots are innovative in many ways.
12. It features a simple yet pretty design and is easy to use.
13. It can be connected to smart home devices for smart control.
14. Domestic robots are ever-evolving.
15. New functions and services are continuously launched to meet changing needs.
16. Now we will introduce the functions and performance of this domestic robot.
17. The domestic robot can be a smart cleaner, chef, housekeeper, and even companion.
18. These functions make the domestic robot an essential part of a smart home.
19. The domestic robot makes short work of all cleaning tasks.
20. It smoothly navigates around your furniture and can clean your entire house with ease.
21. The domestic robot can also adapt its cleaning methods based on its environment and your preferences.
22. The robot is able to clean different areas of a house.
23. The intelligent robot is also a powerful cleaner.

24. It rotates its brushes to complete cleaning faster.
25. It can remove all kinds of dirt from floors, including pet hair.
26. Our intelligent robots are equipped with advanced sensors for intelligent navigation.
27. The robots will not knock into furniture, and will move only in areas where they have been permitted to.
28. The intelligent robot also supports automatic charging.
29. When the battery level is low, it can automatically return to the charging station.
30. The intelligent robot can also be controlled through voice commands.
31. You can select the most appropriate cleaning method as needed.
32. The domestic robot can also adapt its cleaning methods based on its environment and your preferences.
33. The intelligent robot provides you with fast and efficient home cleaning services.
34. A domestic robot will refresh your kitchen.
35. It is not only a good chef, but also a qualified kitchen cleaner.
36. It can cook meals that suit your taste and make a variety of food.
37. You just need to deliver an instruction and the robot will make whatever food you desire.
38. Domestic robots save you time in the kitchen, so that you can spend more time with your loved ones.
39. A smart kitchen is powered by smart technology.
40. Smart kitchens can change the traditional way of cooking, making it more convenient, fast, and healthy.
41. Smart kitchens can adapt traditional cooking methods to make meals more convenient and healthy.
42. Natural language processing allows smart robots to understand your needs and automatically adjust cooking parameters as needed.
43. Smart robots can also work with intelligent ovens to make cooking smarter.
44. Smart robots can automatically cook meals based on your taste and needs.
45. They can provide nutritional information and suggest recipes based on what you have.
46. They can automatically add what you need.
47. They can also recommend dishes based on your personal preferences and historical cooking records.
48. A smart kitchen not only improves the efficiency and quality of cooking, but also provides a new view on healthy eating.
49. A smart kitchen makes our lives healthier, more convenient, and more efficient.
50. A domestic robot is not just an assistant. It can be your housekeeper too.
51. They can remind you of your schedule and keep you on time.
52. They can answer your questions and provide various forms of entertainment, such as playing your favorite music.

53. Domestic robots will immediately respond to you once they receive your instructions.
54. Speech recognition and natural language processing enable the smart housekeeper to interact and even talk with your family.
55. Tell the smart housekeeper what you need, and it will execute the task immediately.
56. The smart housekeeper is qualified for all kinds of housework.
57. The smart housekeeper helps you manage your schedule and reminds you of important meetings and appointments.
58. Simply tell it about an appointment, and it will remind you at the appropriate time.
59. The smart housekeeper can also record and monitor your health data, such as heart rate and sleep quality.
60. It will provide personalized health suggestions to help you manage your health.
61. After being connected to a health device, the smart housekeeper transmits data in real time and generates a health report, which allows you to better understand your health status.
62. The smart housekeeper can also connect to smart home devices for remote control and automatic operations.
63. You can adjust the brightness and volume of your home devices simply by running commands on your phone.
64. The smart housekeeper can also provide you with personalized shopping and take-out services.
65. It will recommend suitable food for you and help you place orders and pay.
66. Smart domestic robots provide you with considerate home services and life management.
67. The smart housekeeper makes your life more comfortable.
68. Ensuring home safety is one of our top priorities.
69. Domestic robots will become a powerful assistant in safeguarding your home.
70. Multiple built-in sensors and cameras allow domestic robots to monitor everything in your home.
71. Once a problem is detected, an alert notification will be sent to you immediately and appropriate actions will be taken.
72. Domestic robots will inform you of what is happening in your home, no matter where you are.
73. Robots can check whether doors and windows are closed, whether there is unauthorized access, smoke, or fire.
74. Once an anomaly is detected, an alert notification will be sent to you and your family.
75. They patrol around your area of residence to ensure the safety and privacy of your home.
76. Domestic robots can also monitor the air quality of your home.
77. Robots can detect the indoor environment and temperature, and even dangers such as fires in a timely manner.

78. They are able to quickly extinguish a fire.
79. Robots can provide help for your family, such as caring for the elderly.
80. Robots can protect your home network from hacker intrusion and data loss.
81. They can monitor network traffic, track abnormal activities, and provide solutions that ensure secure data storage.
82. Domestic robots are powerful in terms of home protection and assistance services.
83. Domestic robots are not just your assistants. They can even be your housekeepers and loyal companions.
84. They can entertain you and talk with you to enrich your life.
85. You can enjoy your time at home by dancing or watching movies with smart robots.
86. Domestic robots can be an interactive and valued companion.
87. They can tell jokes and stories, sing, and even dance and play instruments.
88. You can talk with robots and ask them questions about anything, such as today's weather forecast, current news, and recipes.
89. Domestic robots can monitor your health data and provide health suggestions.
90. Domestic robots can be your study buddies, providing answers to your questions and educational support.
91. They can answer your questions, explain concepts and knowledge.
92. As a thank you to our customers, we are presenting a limited-time offer.
93. Snap up a smart robot at a discounted price with our limited-time offer.
94. Place an order in just a few clicks and you can enjoy not only the convenience brought by the product, but also free installation and considerate after-sales service.
95. Why wait? Make a purchase now! Don't miss out on our limited-time offer!
96. We guarantee good after-sales service and assurance for designated domestic robots.
97. We will provide comprehensive support to ensure a good experience and high satisfaction.
98. Domestic robots purchased during the promotion can enjoy free after-sales services and upgrade support.
99. At such a low price, why wait?
100. Get a domestic robot to make your home smarter.

# 5 Video Production

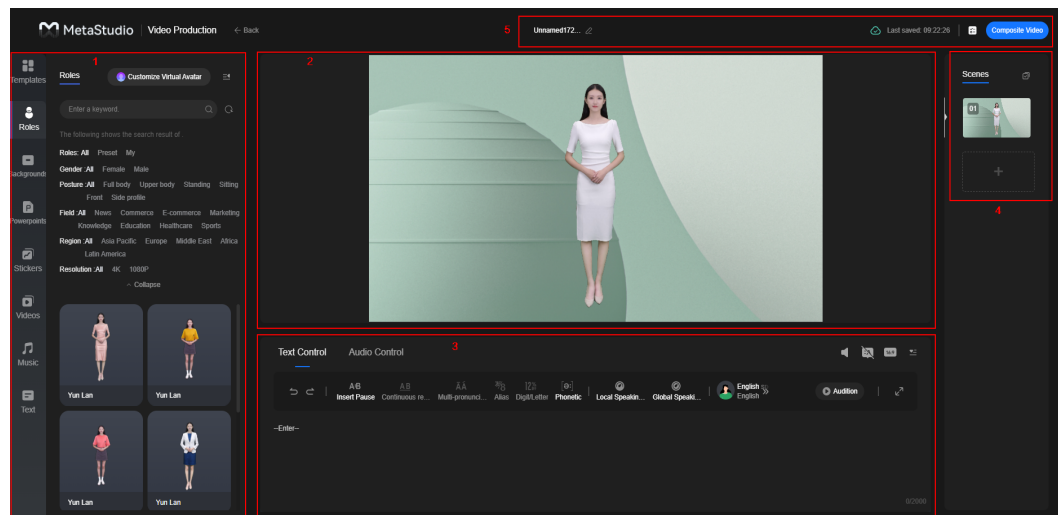
## 5.1 About the GUI

Before producing a video, you can familiar yourself with the **Virtual production** page.

**Figure 5-1** shows the page of video production. **Table 5-1** describes details of the page.




Videos that you created using virtual avatar images are automatically saved on the **Video Projects** tab in the **Recent Projects** area on the MetaStudio console. You can edit these videos as needed.

**Figure 5-1** Video production



**Table 5-1** About the GUI

No.	Area	Description
1	Video materials	<p>Set the following elements of a video scene by referring to <a href="#">Operations of Video Materials</a>.</p> <ul style="list-style-type: none"> <li>• <b>Templates:</b> list of preset video templates, which can be used to produce virtual avatar videos Note: Only the administrator can customize new templates.</li> <li>• <b>Roles:</b> The list of preset virtual avatars is automatically displayed. You can use them to produce videos. If the preset virtual avatars do not meet your requirements, click <b>Customize Virtual Avatar</b>.</li> <li>• <b>Backgrounds:</b> background image list. You can import images from the local PC, or use the preset images of transparent background or solid color background.</li> <li>• <b>PowerPoints:</b> PowerPoint file list, which needs to be imported from the local PC</li> <li>• <b>Stickers:</b> sticker list. You can import materials from the local PC. You can overlay stickers on the video.</li> <li>• <b>Videos:</b> silent video list. You can import a video file from the local PC, and set it as the background video.</li> <li>• <b>Music:</b> music file list. You can import an audio file from the local PC, and set it as the background music.</li> <li>• <b>Text:</b> used to add text to a video</li> </ul>
2	Image layout	You can create and preview video images.
3	Audio production	<p>You can select one of the following methods to generate an audio:</p> <ul style="list-style-type: none"> <li>• <b>Text Control:</b> Enter text to generate an audio. You can insert pauses and adjust the speaking speed of the text. For a multi-pronunciation word, you can set the correct pronunciation. You can preview the generated audio with different voices, and enable subtitling.</li> <li>• <b>Audio Control:</b> Upload an audio file as the voice of the video from the local PC. For audio control, subtitling can be enabled only in Mandarin Chinese.</li> </ul> <p>You can also set the audio volume and adjust the landscape/portrait display of the image layout.</p>
4	Video scenes	If a video needs to contain multiple scenes, you can add and play these scenes in sequence.

No.	Area	Description
5	File settings	<p>From left to right:</p> <ul style="list-style-type: none"><li>• Click  on the right of the file name to customize the video draft name.</li><li>• Click  to save a video production task.</li><li>• Click . In the <b>Video Production Task Center</b> dialog box displayed, you can view the video production task list and the video compositing progress.</li><li>• Click <b>Composite Video</b> to composite a virtual avatar video.</li></ul>

## 5.2 Video Production

You can use the **Video production** function on the home page of the MetaStudio console to create a virtual avatar video.

### Preparations

If the preset virtual avatar images do not meet requirements, customize a virtual avatar image in advance by referring to [Image Modeling](#).

### Constraints







- The preset virtual avatar images on the MetaStudio console are valid for three years (till the the middle of 2027). The notice of bringing a preset image offline will be released on the live network three months in advance.
- See [Constraints on virtual avatar video production](#).

### Procedure

**Step 1** Log in to the [MetaStudio console](#).

**Step 2** Choose **Workbench** in the left navigation pane. Click **Create** under **Video production**.

The video production page is displayed, as shown in [Figure 5-1](#). The operations are as follows:

- In the video material area, in addition to preset materials, roles can be a customized virtual avatar, and backgrounds, PowerPoint files, stickers, videos, and music can be imported from the local PC.
- PowerPoint files, stickers, videos, and virtual avatars added from the video material area to the image layout area can be managed layer by layer, for example, moving up () , moving down () , pinning to top () , pinning to bottom () , applying globally () , and deleting () . You can also set the size and drag these materials to change their positions.



- You can click **16:9** in the upper part of the image layout area to switch the video aspect ratio to 16:9 in landscape mode or 9:16 in portrait mode.

### Step 3 Create an audio file.

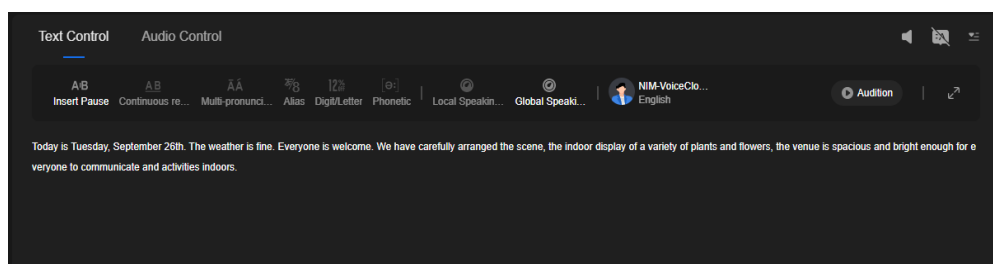
You can create an audio file in either of the following ways. Select only one way for each scenario:

- Text control**

Enter text in the text box to generate an audio file, as shown in [Figure 5-2](#).

Example: Today is September 26, Tuesday. The weather is agreeable. Welcome all of you. The site is well decorated with various types of plants and flowers, and is spacious and bright for all of you to talk with each other comfortably.







**Figure 5-2** Text control



[Table 5-2](#) describes the operations of text control.


**Table 5-2** Operations

Operation	Description
Insert Pause	Move the cursor to the right of the text to be paused and click <b>Insert Pause</b> . In the displayed dialog box, select <b>Changes in Breathing</b> or the pause duration.
Continuous reading	Select the text to be read continuously and click <b>Continuous reading</b> .
Multi-pronunciation Word	Select a multi-pronunciation word in the text and click <b>Multi-pronunciation Word</b> . In the dialog box displayed, select the correct pronunciation or customize one.
Alias	Select the text to be read in a different way and click <b>Alias</b> . Then set the reading method for the selected text.

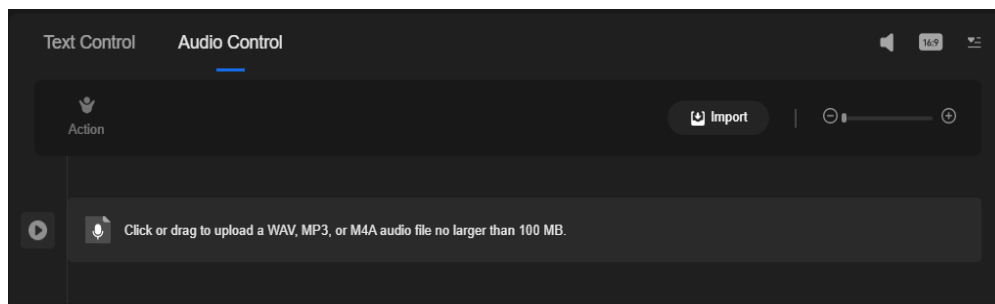
Operation	Description
Digit/Letter	<p>For example, the number 1024 can be read as follows:</p> <ul style="list-style-type: none"> <li>- Digit: One zero two four</li> <li>- Value: One thousand and twenty-four</li> <li>- Date: October twenty-fourth</li> <li>- Phone number: One zero two four</li> </ul> <p>For example, the word API can be read as follows:</p> <ul style="list-style-type: none"> <li>- Letter: A P I (read one by one)</li> <li>- Word: api</li> </ul>
Phonetic	Select an English word and enter its appropriate phonetic.
Local Speaking Speed	<p>Select the text that requires adjustment to speaking speed. The value ranges from <b>0.5x</b> to <b>2x</b>:</p> <ul style="list-style-type: none"> <li>- <b>0.5x</b>: read at the 0.5x speed</li> <li>- <b>2x</b>: read at the 2x speed</li> </ul>
Global Speaking Speed	<p>Set the global speaking speed. The value ranges from <b>0.5x</b> to <b>2x</b>:</p> <ul style="list-style-type: none"> <li>- <b>0.5x</b>: read at the 0.5x speed</li> <li>- <b>2x</b>: read at the 2x speed</li> </ul>
Timbre selection	<p>Click the name of a timbre. In the displayed window, select the desired voice.</p> <ul style="list-style-type: none"> <li>- Preset voices that are not marked can be used free of charge.</li> <li>- Voices marked with <b>Third-party</b> can be used only after being purchased and activated. For details, see <a href="#">Purchasing a DupDub Voice Package</a>.</li> </ul>
Audition	Click <b>Audition</b> to listen to the voice.
	<p>You can click  to zoom in the <b>Text Control</b> tab. Click <b>OK</b> to return to the original page.</p>
	Click this icon to adjust the volume of text reading.
	<p>You can click the icon to enable subtitles and set the font, size, and position of the subtitles in the <b>Subtitle Settings</b> area on the left.</p> <p>For audio control, subtitles can be enabled only in Mandarin Chinese.</p>
	Shows the aspect ratio of the video.
	When you click this icon for the first time, the <b>Text Control</b> and <b>Video Control</b> areas will be hidden. When you click this icon again, the hidden areas will be displayed.

- **Audio control**

Upload a recorded audio file from the local PC. The audio file must be in WAV, MP3, or M4A format and the file size cannot exceed 100 MB.

You can click **Import** to upload an audio file or drag a local audio file to the prompt area. Click  on the left to listen to the audio. If the quality is below expectations, click **Import** to upload a new audio file.

**Figure 5-3** Audio control



**Step 4** After the audio file is created, you can click the volume icon to adjust the audio volume.

After the preceding operations are complete, the video content of the first scene has been created.

**Step 5** If you need to create more scenes, click the + icon under the **Scenes** tab to add a scene. The scene creation process is the same.

If you want to present a PowerPoint file in the video, click the **PowerPoints** tab, import the PowerPoint file from the local PC, and insert the PowerPoint slides to present. See [PowerPoints](#). A scene will be generated for each slide. Set all scenes in sequence.


**Step 6** After all scenes are set, click **Composite Video** in the upper right corner of the page. The **Compositing Settings** dialog box is displayed.

Configure the following parameters:

- **Resolution:** Select a video resolution.
- **Exported File Name:** Enter the name of the file to export.
- **Image Enhancement:** (Optional) After this function is enabled, the video definition is improved but more time is needed for video compositing.

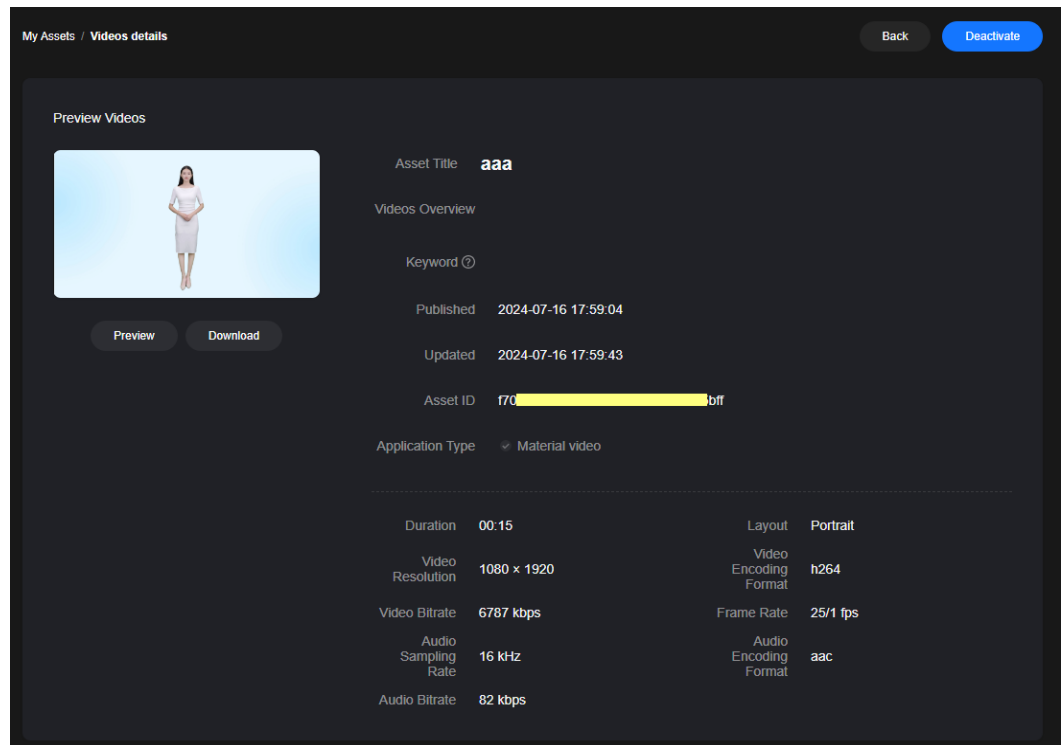
**Step 7** Click **OK**. The **Video Production Task Center** dialog box is displayed.

You can check the progress of the video compositing task.

**Step 8** When the task status becomes **Composited**, click  on the right of **Composited**. The video details page is displayed, as shown in [Figure 5-4](#).

Click **Preview** to watch the composited video. During the preview, you can play the video in full screen or download the video.

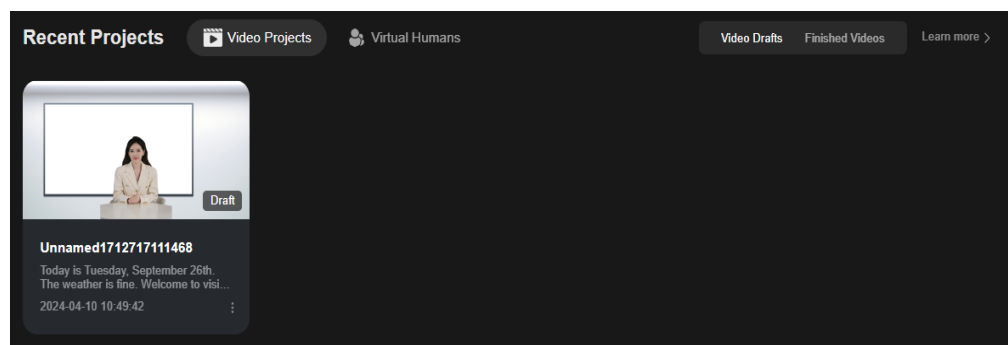
**Figure 5-4** Video details



**Step 9** If you are not satisfied with the composited video, perform the following steps to edit the video and composite it again.

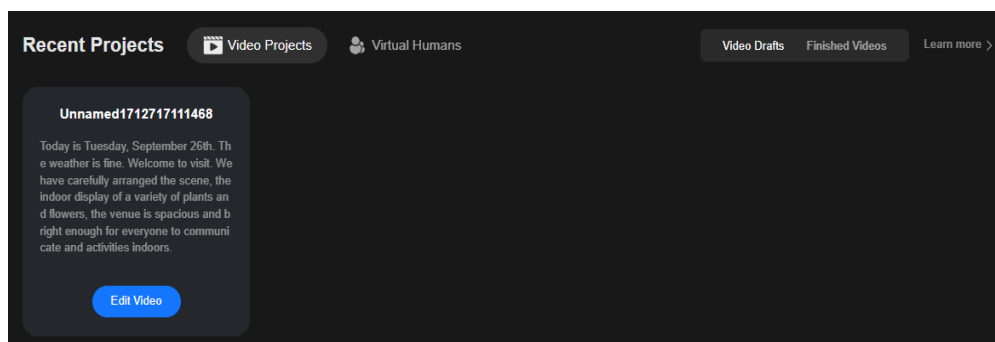
1. In the navigation pane, choose **Workbench**.
2. In the **Recent Projects** area, click the **Video Projects** tab and click **Video Drafts** on the right to view the video draft list, as shown in [Figure 5-5](#).

**Figure 5-5** Video projects



3. Move the cursor to the text description area of the card and click **Edit Video**, as shown in [Figure 5-6](#).  
On the video editing page, update the video content and composite the video again.

Figure 5-6 My videos



----End

## 5.3 Operations of Video Materials

On the **Video Production** page, you can add video materials such as **roles**, **backgrounds**, **PowerPoints**, **stickers**, **videos**, **music**, and **text**. This section describes the operation procedure of each material type.

### Roles

**Figure 5-7** shows the **Roles** area.

Figure 5-7 Roles

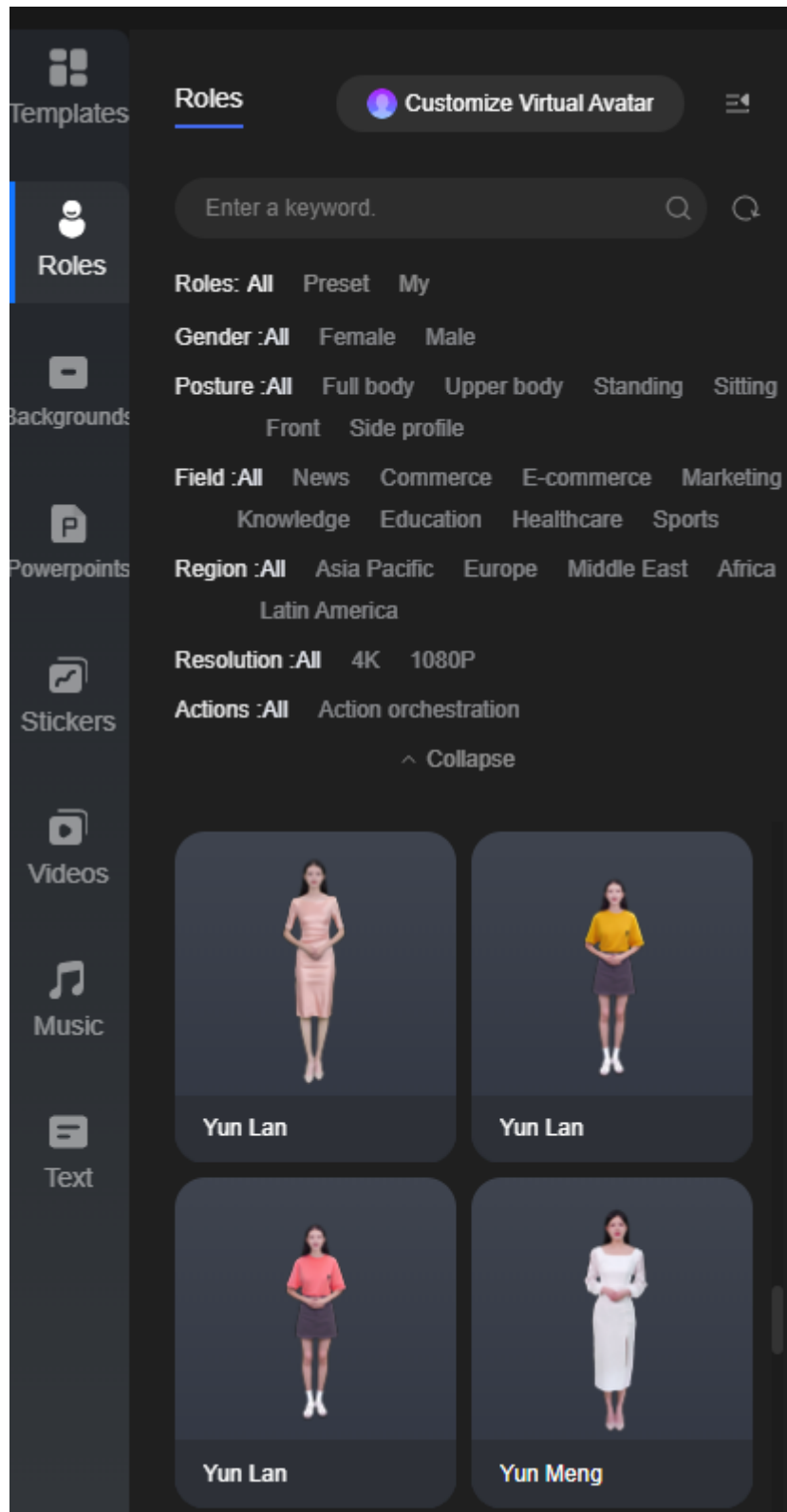













Table 5-3 describes the Roles area.

**Table 5-3** GUI elements

GUI Element	Description
Customizing virtual avatars	Click <b>Customize Virtual Avatar</b> . The image creation page is displayed. See <a href="#">Creating a Virtual Avatar Customization Task</a> .
	By default, two columns of virtual avatars are displayed in the <b>Roles</b> area. After you click  , only one column is displayed. You can click  to display two columns.
	Keyword search box. You can enter a virtual avatar name for precise search. Example: yun lan
	Icon of refreshing. If there are keywords, the virtual avatar display is refreshed based on the keywords. If no, the default settings will be used.
Filter criteria	You can filter and display virtual avatars by role, gender, posture, field, region, resolution, and action.
List of virtual avatars	By default, all virtual avatars are displayed. Click a virtual avatar image. The image will be automatically applied to all scenes in the video draft.  In the video preview area, if there are multiple types of video materials, you can manage the virtual avatar layer by layer, for example, moving up (  ) , moving down (  ) , pinning to top (  ) , pinning to bottom (  ) , applying globally (  ) , and deleting (  ) . You can also set the size and drag these materials to change their positions.

## Backgrounds

**Figure 5-8** shows the **Backgrounds** area.

Figure 5-8 Backgrounds

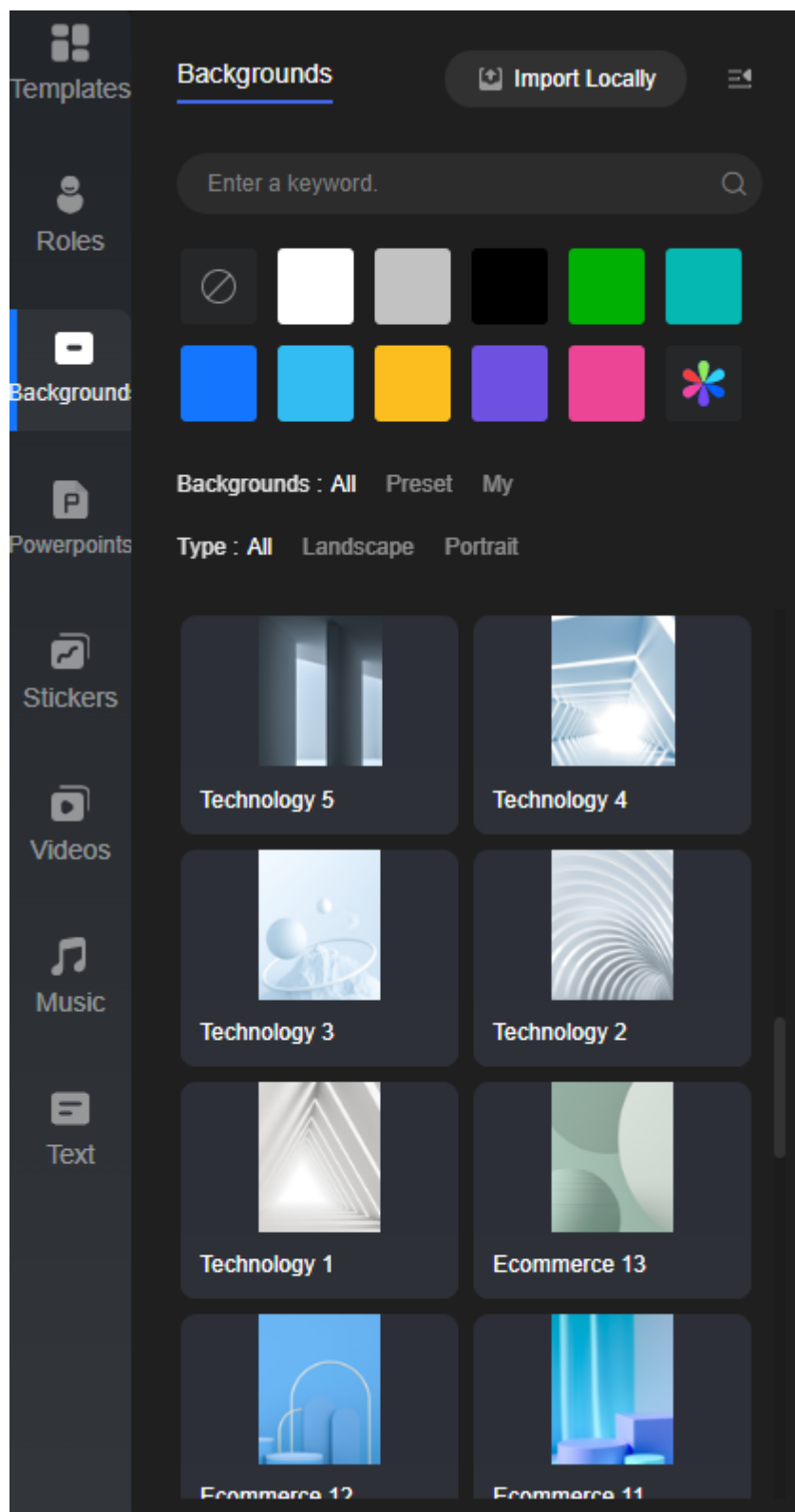



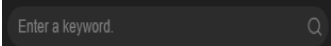




Table 5-4 describes the **Backgrounds** area.



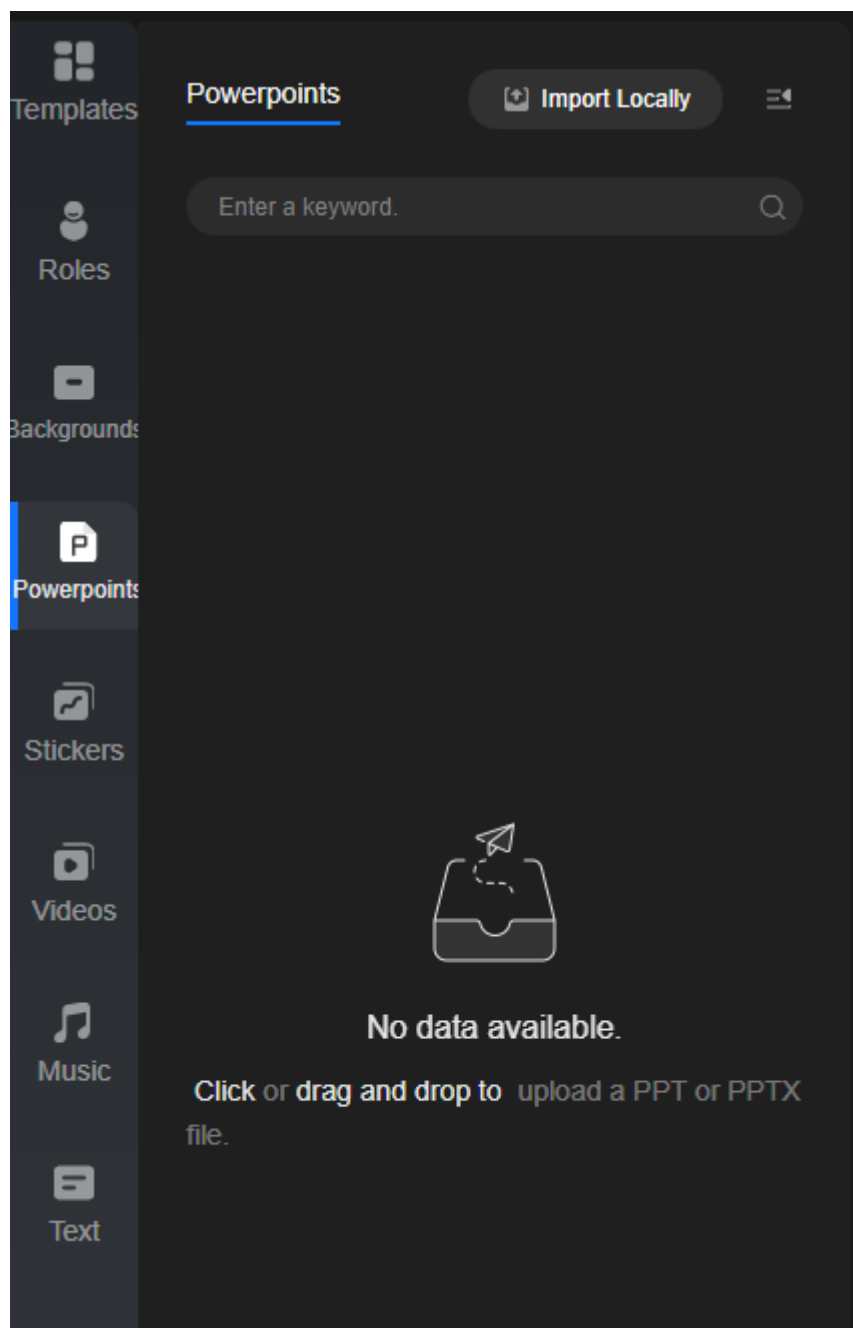
**Table 5-4** GUI elements

GUI Element	Description
Importing locally	Click <b>Import Locally</b> to upload a PNG, JPG, JPEG, or BMP image. You can also drag an image from the PC to the image list area for upload.
	By default, two columns of images are displayed in the <b>Backgrounds</b> area. After you click  , only one column is displayed. You can click  to display two columns.
	Keyword search box. You can enter an image name for precise search. Example: Technology
Solid color background	<ul style="list-style-type: none"> <li>You can set a transparent background using the first image. In this case, you cannot add video materials, and all added materials will be cleared.</li> <li>You can set a solid color background using either the preset colors or your own colors.</li> </ul>
Filter criteria	Images can be filtered and displayed by background and type.
Image list	By default, all images are displayed. Select a scene and click an image to replace the background of the scene.
	If you move the pointer over an image,  will be displayed in the upper right corner of the image. Click the icon to use the image as the background of all scenes.

## PowerPoints




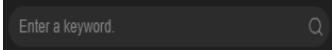

**Figure 5-9** shows the **PowerPoints** area.










**Figure 5-9** PowerPoints



**Table 5-5** describes the **PowerPoints** area.

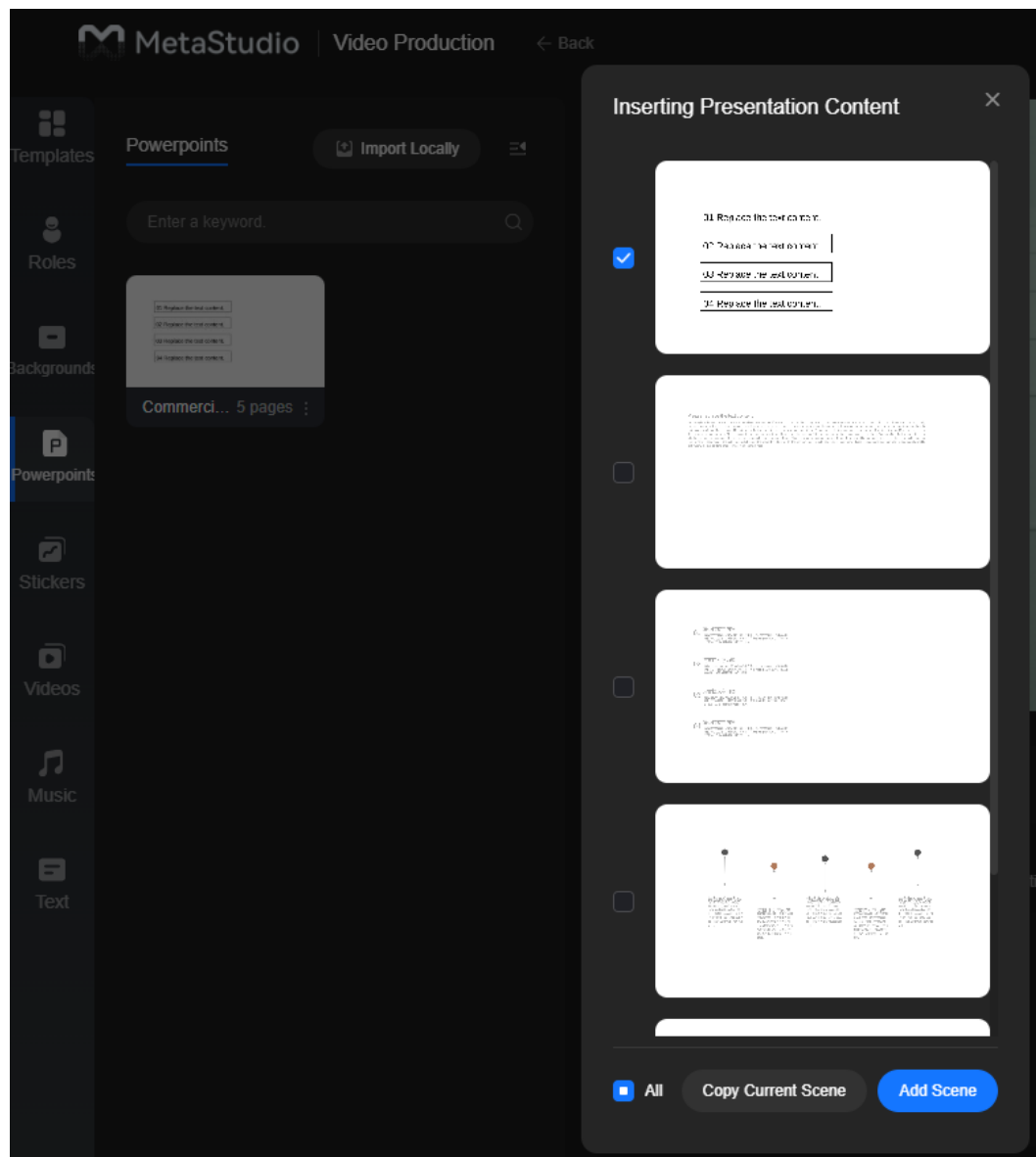
**Table 5-5** GUI elements

GUI Element	Description
Importing locally	<p>Click <b>Import Locally</b> to upload a PPTX, PPT, or PDF file from the PC.</p> <p>You can also drag a file from the PC to the file list area for upload.</p> <p>Constraints:</p> <ul style="list-style-type: none"> <li>• A PowerPoint file can contain a maximum of 50 slides and the file size cannot exceed 500 KB.</li> <li>• If the font of a PowerPoint file cannot be displayed on the MetaStudio console, you are advised to save the PowerPoint file as a PDF file and then import it. See <a href="#">How Do I Convert a PowerPoint File to a PDF File?</a></li> <li>• A PowerPoint file containing special effects such as animations cannot be displayed on the MetaStudio console. You are advised to export the PowerPoint file as a video and then import it. See <a href="#">How Do I Present Animations of a PowerPoint File on the MetaStudio Console?</a></li> </ul>
	<p>By default, two columns of files are displayed in the <b>PowerPoints</b> area. After you click , only one column is displayed. You can click  to display two columns.</p>
	<p>Keyword search box. You can enter a file name for precise search.</p> <p>Example: sales guide</p>
File list	By default, all files are displayed.
Viewing files	<p>If you move the pointer over a file,  will be displayed in the upper right corner of the file. Click the icon to preview all content of the PowerPoint file on the page displayed.</p>

GUI Element	Description
Inserting a file	<p>If you move the pointer over a file,  will be displayed in the upper right corner of the file. Click the icon to go to the page shown in <a href="#">Figure 5-10</a>. Select slides in the file to complete insertion.</p> <p>In the video preview area, if there are multiple types of video materials, you can manage the file layer by layer, for example, moving up () , moving down () , pinning to top () , pinning to bottom () , copying () , applying globally () , and deleting () . You can also set the size and drag these materials to change their positions.</p>
Deleting a file	<p>Click  in the lower right corner of the file to:</p> <ul style="list-style-type: none"> <li>• Select <b>Delete</b> from the drop-down list box to delete the file.</li> <li>• Select <b>Batch Delete</b> from the drop-down list box and select all files to be deleted. Click <b>Delete</b> in the lower right corner to delete all the selected files.</li> </ul>

After the file is uploaded, perform the following operations:

- Step 1** In the file list of the **PowerPoints** area, click the uploaded file. The dialog box shown in [Figure 5-10](#) is displayed.

**Figure 5-10** Inserting a slide

**Step 2** Select the slide to be inserted or select all slides, and click **Copy Current Scene** or **Add Scene** to add scenes to the video draft.

Each new video draft will have one scene. You can customize the scene or retain it. A scene will be generated for each slide.

Specifically:

- **Copy Current Scene:** The inserted slide copies and pastes the first scene to generate a new scene. That is, the new scene contains the background and virtual avatar of the first scene, as well as the selected slide.  
If there are multiple scenes before the file is inserted, you need to select the scene to be copied and insert slides.
- **Add Scene:** The virtual avatar and background of the first scene are copied and pasted to the inserted file, but other video materials are not copied. The copied content and the selected slides are combined to generate a new scene.

If there are multiple scenes before the file is inserted, you need to select the scene with the desired virtual avatar and background and insert slides.

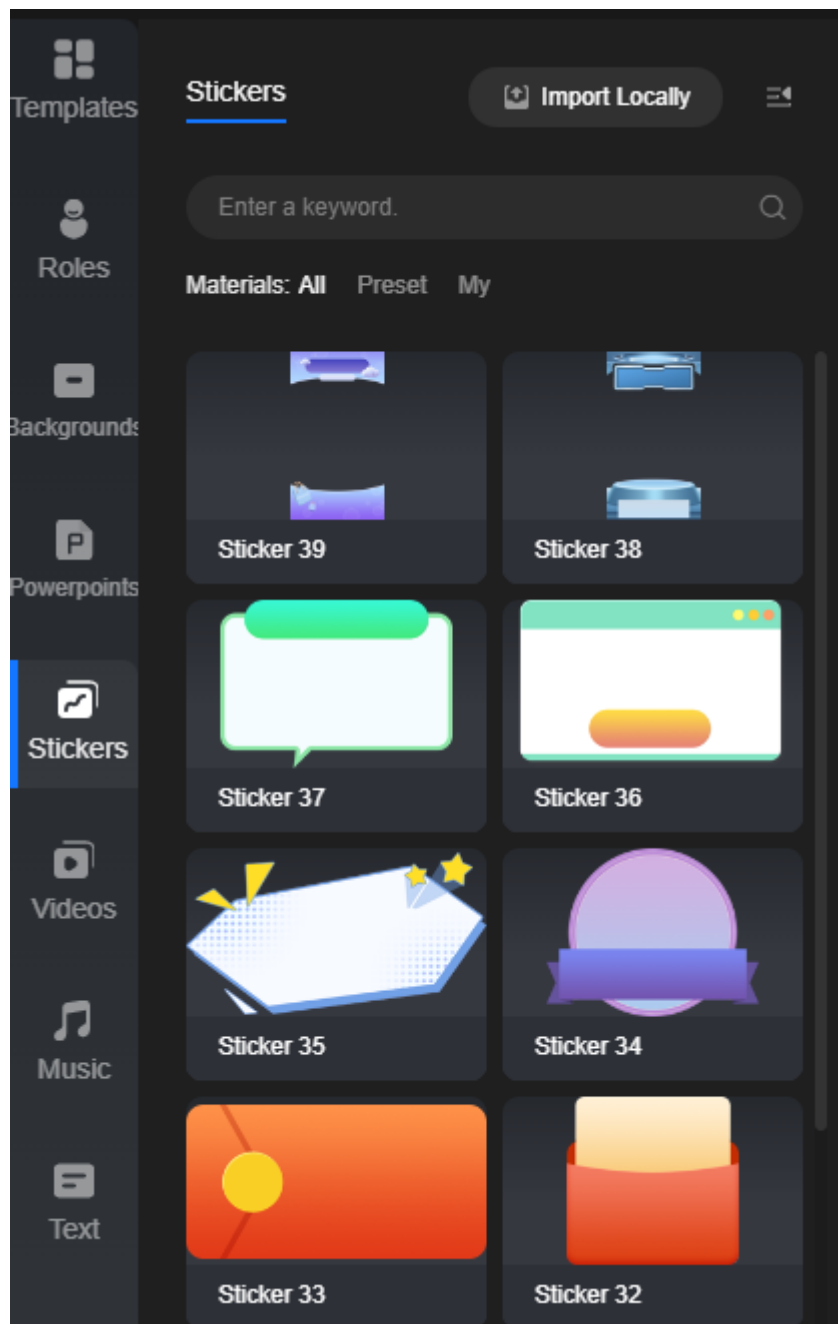
**Step 3** After all slides are inserted, customize the scene by referring to [Video Production](#).

----End

## Stickers














[Figure 5-11](#) shows the **Stickers** area.

**Figure 5-11** Stickers



[Table 5-6](#) describes the **Stickers** area.

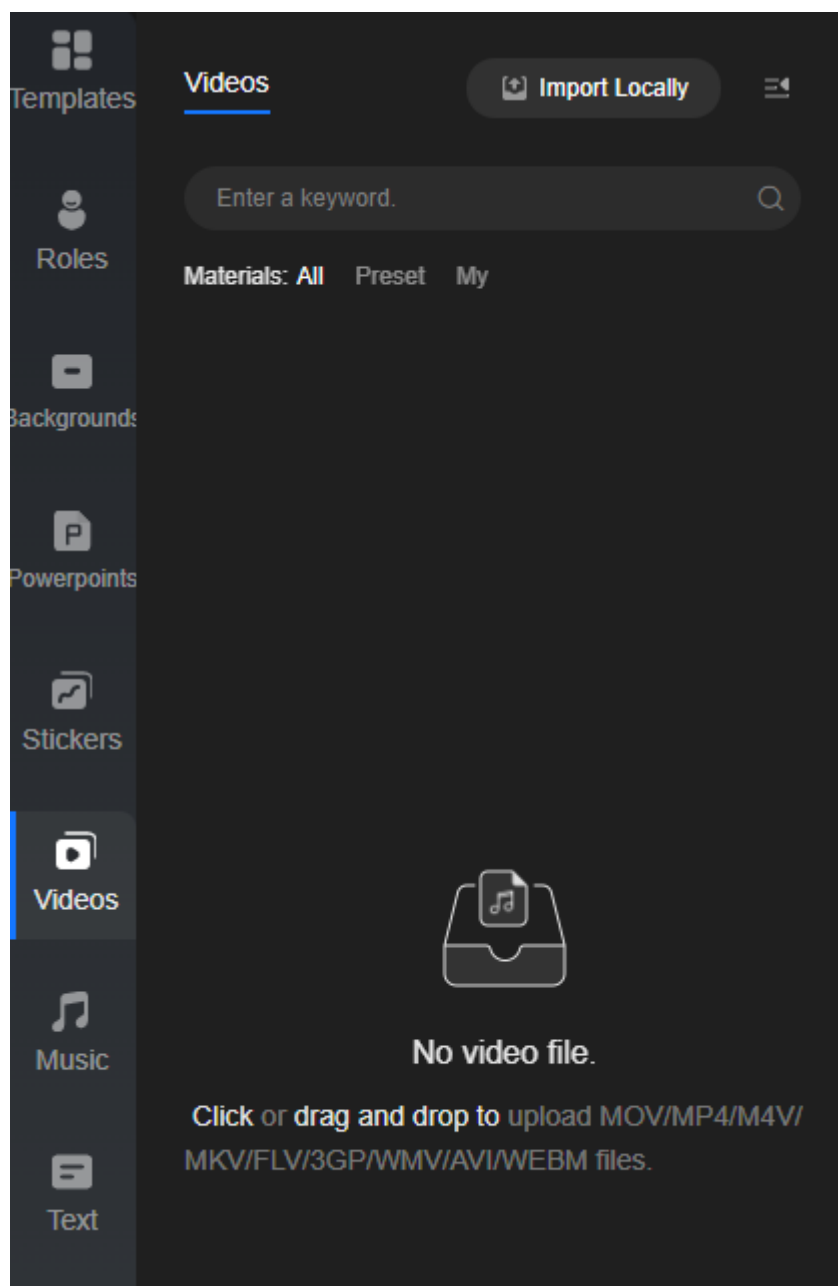
**Table 5-6** GUI elements

GUI Element	Description
Importing locally	Click <b>Import Locally</b> to upload a PNG, JPG, JPEG, or BMP image. You can also drag an image from the PC to the image list area for upload.
	By default, two columns of images are displayed in the <b>Stickers</b> area. After you click  , only one column is displayed. You can click  to display two columns.
	Keyword search box. You can enter an image name for precise search. Example: tips
Filter criteria	Images can be filtered and displayed by material.
Image list	By default, all images are displayed.
Viewing stickers	If you move the pointer over an image,  will be displayed in the upper right corner of the image. Click the icon to zoom in.
Inserting a sticker	If you move the pointer over an image,  will be displayed in the upper right corner of the image. Click the icon to add the image to the current scene. In the video preview area, if there are multiple types of video materials, you can manage the sticker layer by layer, for example, moving up (  ) , moving down (  ) , pinning to top (  ) , pinning to bottom (  ) , copying (  ) , applying globally (  ) , and deleting (  ) . You can also set the size and drag these materials to change their positions.

## Videos

**Figure 5-12** shows the **Videos** area.

**Figure 5-12** Videos




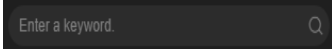













**Table 5-7** describes the **Videos** area.

**Table 5-7** GUI elements

GUI Element	Description
Importing locally	Click <b>Import Locally</b> to upload an MOV, MP4, M4V, MKV, FLV, 3GP, WMV, AVI, or WebM video file from the PC. You can also drag a video from the PC to the video list area for upload.

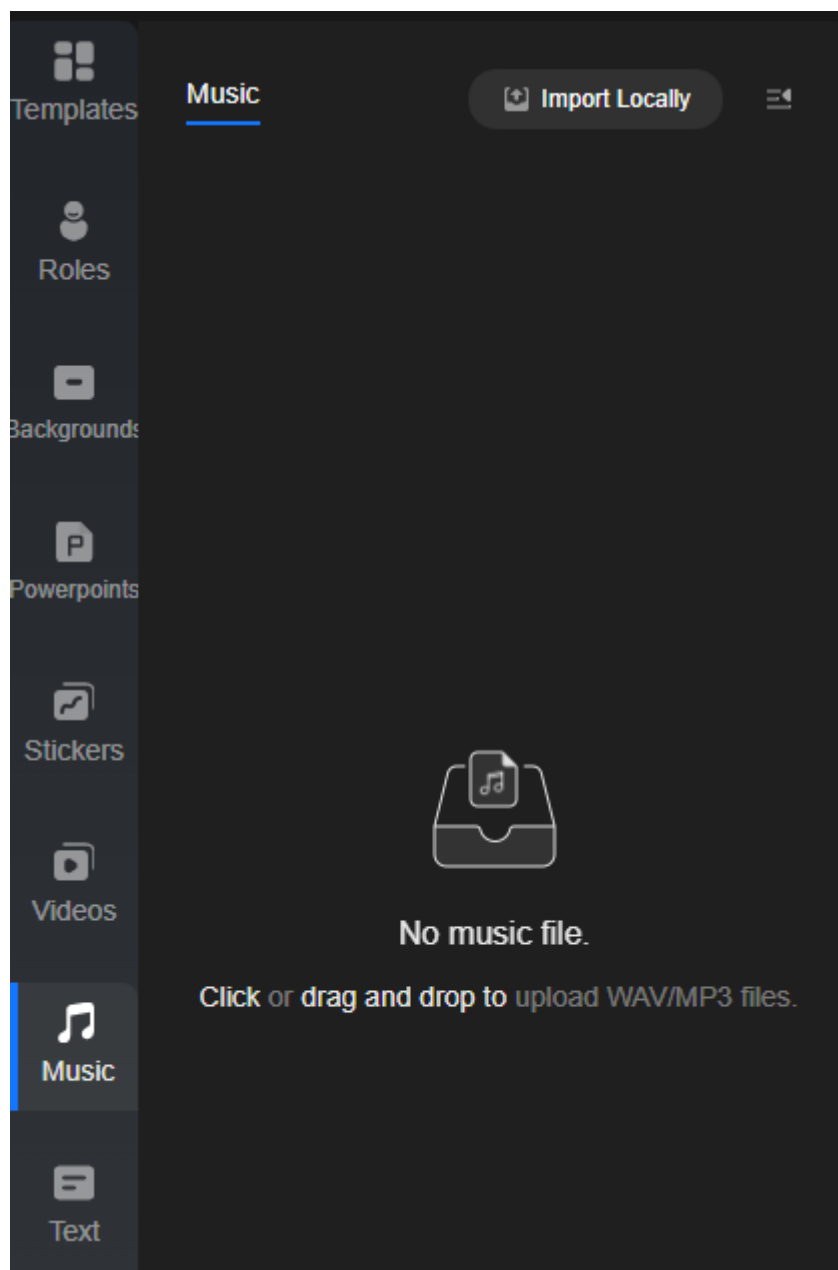


GUI Element	Description
	<p>By default, two columns of videos are displayed in the <b>Videos</b> area. After you click , only one column is displayed. You can click  to display two columns.</p>
	<p>Keyword search box. You can enter a video name for precise search. Example: marketing video</p>
<p>Filter criteria</p>	<p>Videos can be filtered and displayed by material.</p>
<p>Video list</p>	<p>By default, all videos are displayed.</p>
<p>Watching a video</p>	<p>If you move the pointer over a video,  will be displayed in the upper right corner of the video. Click the icon to watch the video.</p>
<p>Inserting a video</p>	<p>If you move the pointer over a video,  will be displayed in the upper right corner of the video. Click the icon to add the video to the current scene. An inserted video is played mutedly.</p> <p>In the video preview area, if there are multiple types of video materials, you can manage the video layer by layer, for example, repeating once () , infinite loop () , moving up () , moving down () , pinning to top () , pinning to bottom () , copying () , applying globally () , and deleting () . You can also set the size and drag these materials to change their positions.</p>

## Music

**Figure 5-13** shows the **Music** area.






**Figure 5-13** Music



**Table 5-8** describes the **Music** area.

**Table 5-8** GUI elements

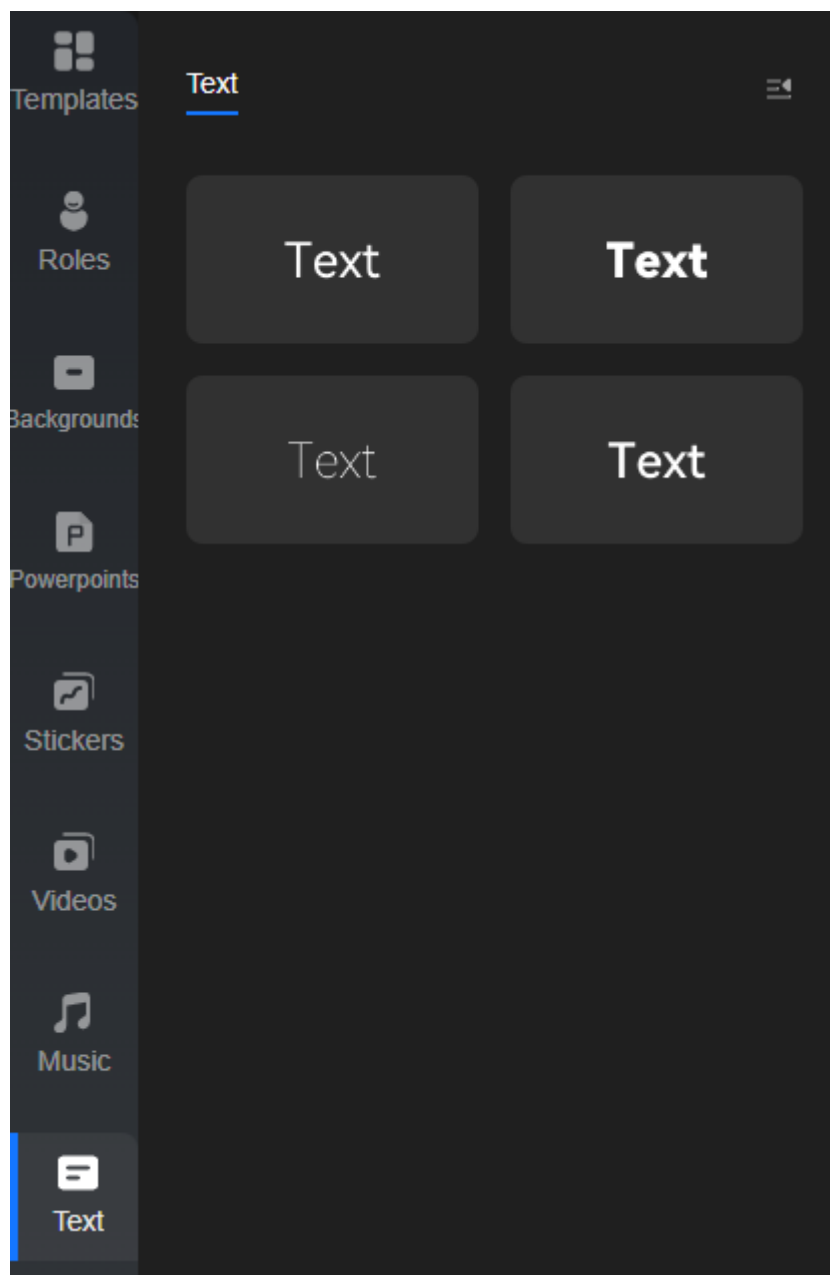
GUI Element	Description
Importing locally	Click <b>Import Locally</b> to upload a WAV or MP3 music file from the PC. You can also drag a music file from the PC to the music file list area for upload.

GUI Element	Description
	Clicking  zooms out the <b>Music</b> area. You can click  to expand the area size.
Music list	By default, all music files are displayed.
Listening to music	If you move the pointer over a music file,  will be displayed on the left of the file name. Click the icon to listen to music.
Inserting music	If you move the pointer over a music file,  will be displayed in the upper right corner of the file. Click the icon to add the music file to all scenes of the video draft, as the background music of the video.
Not using the music file as the background music	If you want to remove a music file as the background music of the video, you can click <b>Do Not Apply</b> in the upper right corner of the music file.

## Text




[Figure 5-14](#) shows the **Text** area.

**Figure 5-14** Text



**Table 5-9** describes the **Text** area.

**Table 5-9** GUI elements

GUI Element	Description
	By default, two columns of text are displayed in the <b>Text</b> area. After you click  , only one column is displayed. You can click  to display two columns.









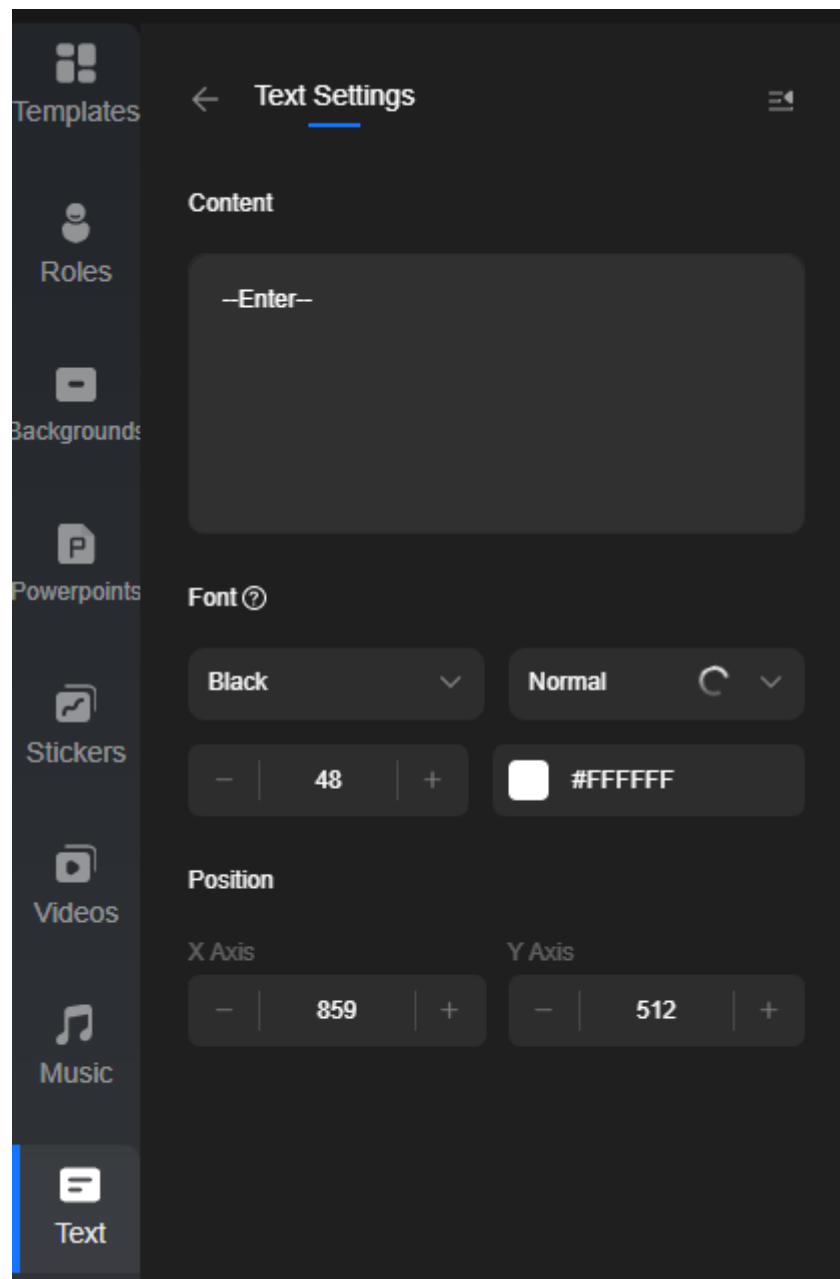
GUI Element	Description
Text list	Supported text fonts: HarmonyOS normal, HarmonyOS bold, HarmonyOS light, and HarmonyOS medium black.
Inserting text	<p>If you move the pointer over a piece of text,  will be displayed in the upper right corner of the text. Click the icon to add the text to the current scene.</p> <p>In the <b>Text Settings</b> area, set <b>Content</b> and <b>Font</b>, as shown in <a href="#">Figure 5-15</a>.</p> <p>In the video preview area, if there are multiple types of video materials, you can manage the video layer by layer, for example, moving up () , moving down () , pinning to top () , pinning to bottom () , copying () , applying globally () , and deleting () . You can also set the size and drag these materials to change their positions.</p>

Figure 5-15 Text settings



# 6 Livestreaming

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## 6.1 About the GUI

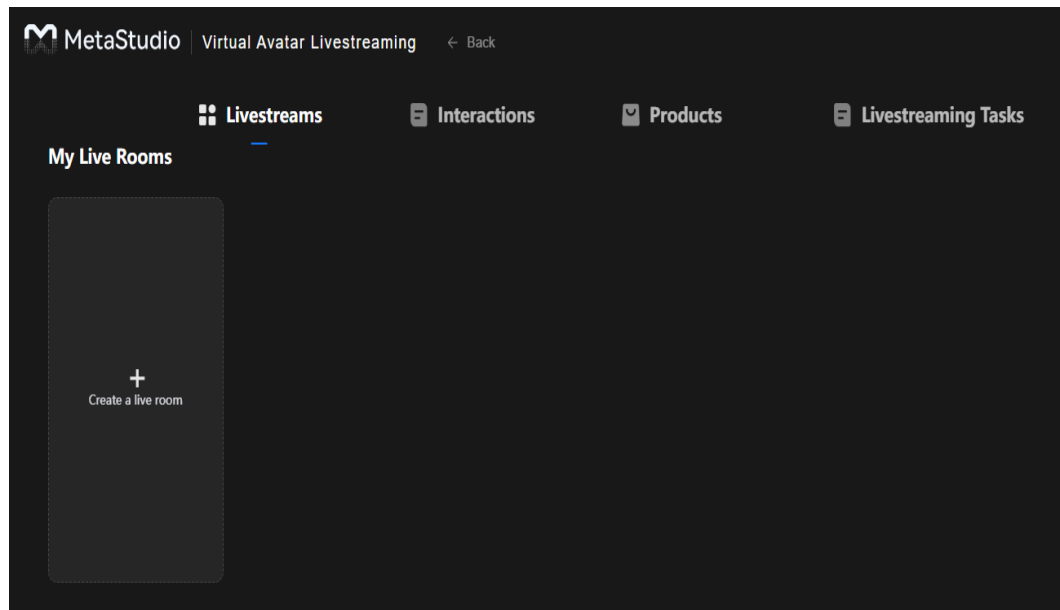
Before starting livestreaming, you can familiar yourself with the **Virtual Avatar Livestreaming** page and the page of creating a live room.

### Home page of virtual avatar livestreaming

**Figure 6-1** shows the home page of virtual avatar livestreaming. The description of each tab is as follows:

- **Livestreams:** You can create a live room with a virtual avatar. See [Livestreams](#).
- **Interactions:** You can add an interaction rule library and interaction rules. The added interaction rule library can be directly imported to and used in the live room. See [Interactions](#).
- **Products:** You can add products. Products are automatically displayed on the **Products** tab of the live room, and can be used during livestreaming. See [Products](#).
- **Livestreaming Tasks:** shows the list of live rooms you have created. You can click this tab to enter a live room, modify the content in the live room, and start the streaming again. See [Livestreaming Tasks](#).

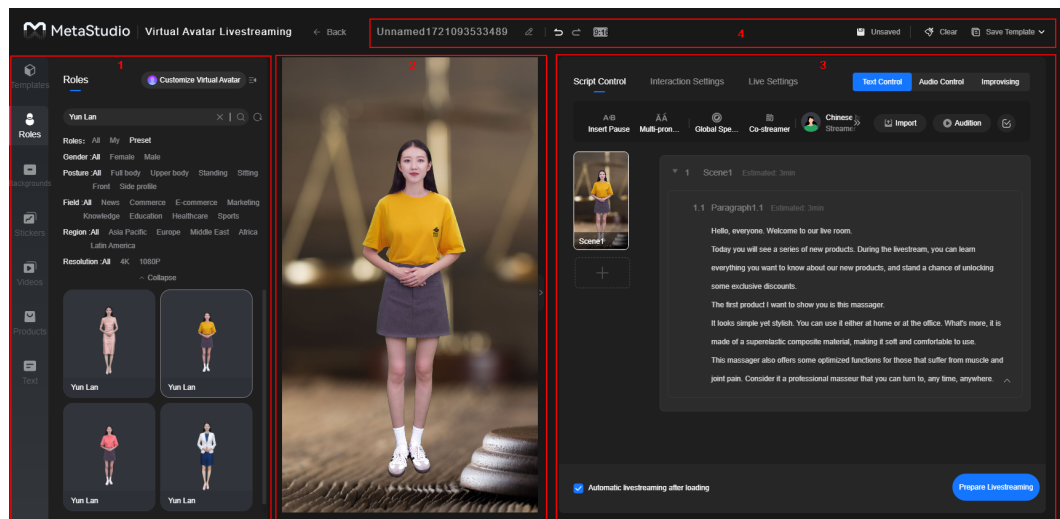
Figure 6-1 Home page



## Page of Creating a Live Room

Figure 6-2 shows the page of creating a live room. Table 6-1 describes details of the page.







Figure 6-2 Creating a live room





**Table 6-1** About the GUI

Area	Description
①	<p>Material area. For details, see <a href="#">Operations of Livestreaming Materials</a>.</p> <ul style="list-style-type: none"> <li>● <b>Templates:</b> livestreaming template. This tab is visible only to administrators.</li> <li>● <b>Roles:</b> virtual avatar image list. You can select the desired virtual avatar image or customize one.</li> <li>● <b>Backgrounds:</b> background image list. You can import images from the local PC or select a preset background image.</li> <li>● <b>Stickers:</b> sticker list. You can import stickers from the local PC to overlay stickers on the video.</li> <li>● <b>Videos:</b> muted video list. An MOV, MP4, M4V, MKV, FLV, 3GP, WMV, or AVI video can be imported from the local PC and set as the background video.</li> <li>● <b>Products:</b> product list. You need to customize a product, which can contain stickers, videos, text, and audios.</li> <li>● <b>Text:</b> text template list. You can select a text template and insert text to the live video.</li> </ul>
②	<p>Livestream preview window, which is used to preview the static live video.</p>

Area	Description
③	<p>A live script consists of multiple scenes, and each scene consists of multiple paragraphs.</p> <ul style="list-style-type: none"> <li>You can add or copy a scene, and set the virtual avatar image, background, and voice for each scene.</li> <li>You can add or copy a paragraph, or import a piece of script in TXT format. The input content will be automatically parsed.</li> </ul> <p>Live script settings:</p> <ul style="list-style-type: none"> <li><b>Script Control</b> You can select any of the following methods: <ul style="list-style-type: none"> <li><b>Text Control:</b> Enter text to control the speaking of virtual avatars.</li> <li><b>Audio Control:</b> Upload an audio to control the speaking of virtual avatars.</li> <li><b>Improvising:</b> Streaming starts without script. After the streaming starts, the virtual streamer remains silent, and will not speak until interactive content is input or the streaming is taken over by a human.</li> </ul> </li> <li><b>Interaction Settings:</b> You can choose <b>On-screen Comments</b>, <b>Joining Live Rooms</b>, <b>Likes</b>, or <b>Gifts</b>.</li> <li><b>Live Settings:</b> You can configure <b>Playback Startup</b>, <b>Output</b>, <b>Risk Control</b>, and <b>More</b>.</li> </ul> <p>In the lower part of the page, <b>Automatic livestreaming after loading</b> is selected by default. Click <b>Prepare Livestreaming</b>. The livestream starts automatically after the loading is complete.</p> <p>If you want to delay the livestream, deselect <b>Automatic livestreaming after loading</b> and click <b>Prepare Livestreaming</b>. To start the livestream, click <b>Start Streaming</b> at the same position.</p>
④	<p>The ongoing livestream name (customizable) is displayed on the left. In the middle of this area, the icons for editing the live room name () , operation undoing () , operation restoration () , and screen layout () , 9:16 by default) are displayed from left to right.</p> <p>On the right of this area:</p> <ul style="list-style-type: none"> <li> : icon of saving. The latest time of saving is automatically displayed on the right of the icon.</li> <li> : Click this icon to clear all content of a live room.</li> </ul>

## 6.2 Livestreams

You can use virtual avatars to create a live room.

## Preparations

- If the preset virtual avatar image does not meet the requirements, customize a virtual avatar image in advance by referring to [Image Modeling](#).
- Access the MetaStudio console from the Chrome browser.

## Constraints

- The preset virtual avatar images on the MetaStudio console are valid for three years (till the the middle of 2027). The notice of bringing a preset image offline will be released on the live network three months in advance.
- See [Constraints on virtual avatar livestreaming](#).

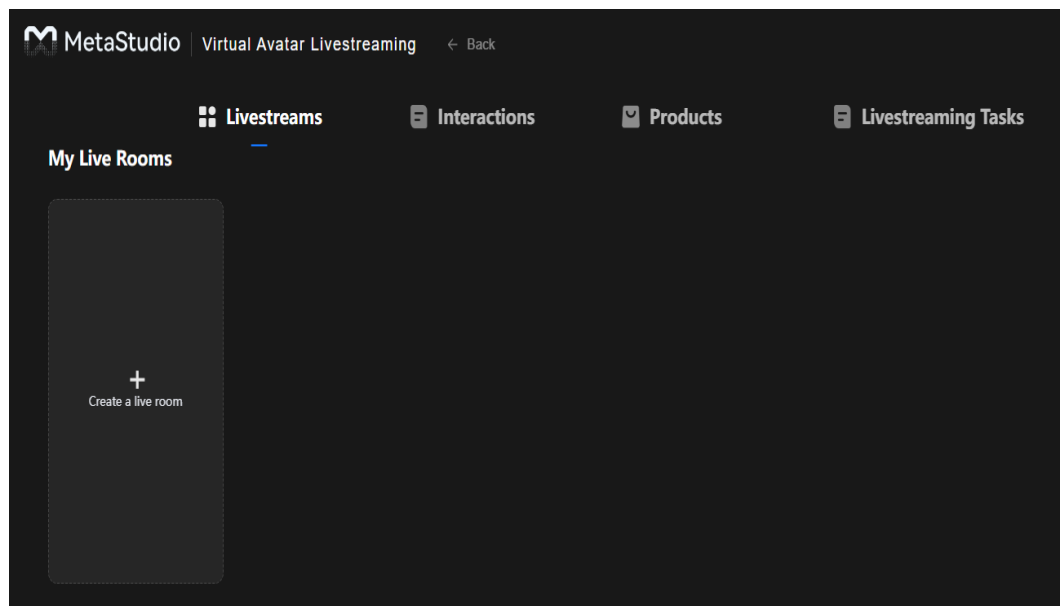
## Procedure

**Step 1** Log in to the [MetaStudio console](#).

**Step 2** Choose **Workbench** in the left navigation pane. Click **Create** under **Livestreaming**.



The **Virtual Avatar Livestreaming** home page is displayed, as shown in [Figure 6-3](#).

**Figure 6-3** Virtual Avatar Livestreaming home page



**Step 3** On the **Livestreams** tab, click the **Create a live room** area.

The page displayed is shown in [About the GUI](#). The operations are described in [Operations of Livestreaming Materials](#).

- In the material area on the left, there are preset video materials. You can customize a virtual avatar by importing backgrounds, stickers, and videos from the PC. You can also create a product and enter text.
- Stickers, videos, and virtual avatar added to the preview area can be managed layer by layer, for example, moving up () , moving down () , pinning to top


(📄), pinning to bottom (📄), applying globally (🌐), and deleting (🗑️). You can also set the size and drag these materials to change their positions.

**Step 4** After a live video feed is created, select a script control method as needed.

There are three script control methods:

- **Text control**

Text control enables virtual avatars to speak. You can add text in either of the following ways:

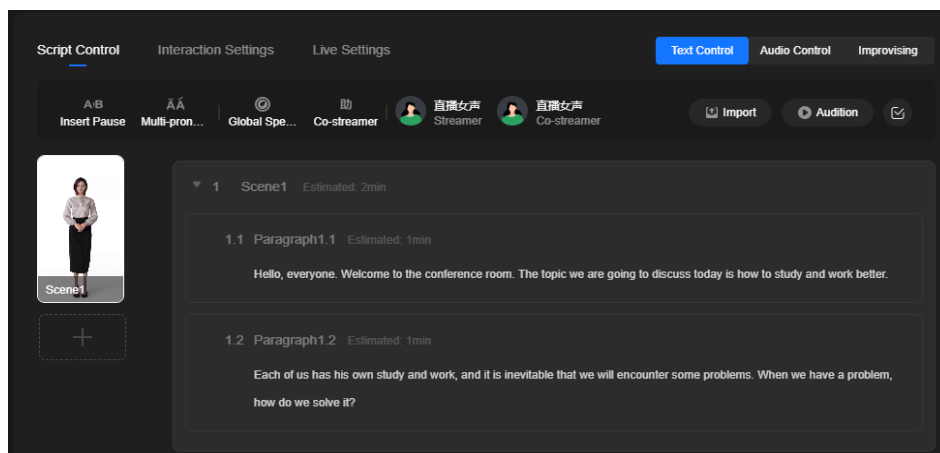
- Enter text in the paragraph box of each scene. You can click  to add paragraphs.
- Click **Import** in the upper right corner to import a TXT file of at least 200 characters from the PC. If there are multiple paragraphs, you can use line feeds. The input text will be automatically parsed.

Example of manually entering text:

These examples are for reference only. A single scene must contain at least 200 characters, and a single paragraph must contain at most 2,000 characters.

- Paragraph 1.1: Hello, everyone. Welcome to the meeting room. The topic of today is how to learn and work better.
- Paragraph 1.2: All of us will inevitably encounter some problems when learning and working. What can we do to solve these problems?



**Figure 6-4** Text control



**Table 6-2** describes the operations of text control.

**Table 6-2** Operations

Operation	Description
Insert Pause	Insert a pause in the paragraph for breathing or reading pause.
Multi-pronunciation on Word	Select the text and set the correct pronunciations of multi-pronunciation words.

Operation	Description
Global Speaking Speed	Sets the global speaking speed, which ranges from <b>0.5x</b> to <b>2x</b> . When the speed is set to <b>0.5x</b> , the voice is played at 0.5x speed. When the speed is set to <b>2x</b> , the voice is played at 2x speed.
Co-streamer	Select a piece of text for it to be read by the co-streamer.
Global voice (streamer)	Global voice of the streamer, which is applicable to all scenes in the live room. If there is a specific voice for a scene, this voice will be prioritized.  There is a default voice. You can also select other voices as needed.  If you want to use a preset voice marked with <b>Third-party</b> , perform operations in <a href="#">Purchasing a DupDub Voice Package</a> .
Global voice (co-streamer)	Global voice of the co-streamer, which is applicable to all scenes in the live room. The co-streamer's voice cannot be set separately for a single scene.  <a href="#">Figure 6-5</a> shows an ongoing livestream. If you want to interact, click  to switch to the co-streamer's voice. Enter and send the interactive content. The streamer pauses the reading and the co-streamer reads the sent interactive content.
Import	Text files can be imported from the PC and parsed to generate paragraphs.  A file to be imported must: 1. Be a TXT file of at least 200 characters. 2. Be automatically parsed into paragraphs based on the line feed.
Audition	Click <b>Audition</b> to listen to the current live room script.  By default, the global voice of the streamer is used. If there is a specific voice for a scene, this voice will be prioritized. Co-streamer's content that is separately marked will be read by the co-streamer.  You can also click  in a specific paragraph area to listen to the content of that paragraph.

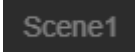





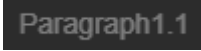





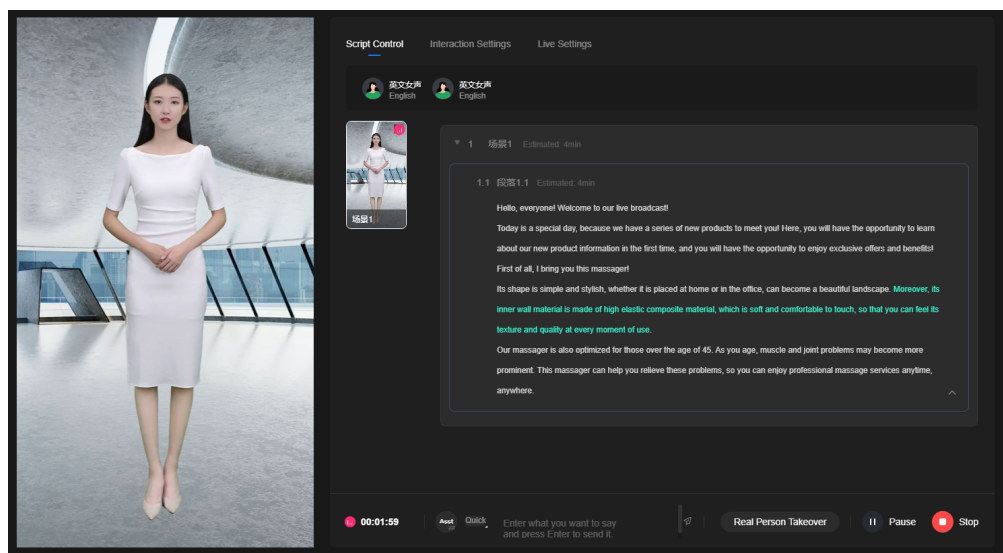
Operation	Description
Scene	<p>You can perform the following operations on a scene:</p> <ul style="list-style-type: none"> <li>- : changing the scene name, which defaults to <b>Scene 1</b></li> <li>- : setting the prioritized voice of the current scene</li> <li>- : copying a scene to add a same one</li> <li>- : deleting a scene</li> <li>- : adjusting the position of a scene</li> <li>- : adding a blank paragraph to the current scene</li> </ul>
Paragraph	<p>You can perform the following operations on a paragraph:</p> <ul style="list-style-type: none"> <li>- : changing the paragraph name, which defaults to <b>Paragraph 1.1</b></li> <li>- : listening to the reading of the current paragraph</li> <li>- : copying a paragraph to add a same one</li> <li>- : deleting a paragraph</li> <li>- : adjusting the position of a paragraph in the scene</li> <li>- : adding a blank paragraph</li> </ul>

Figure 6-5 Ongoing livestream



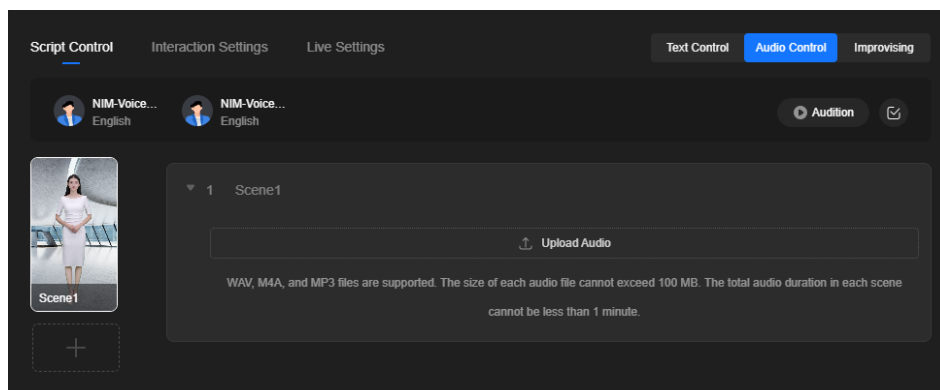
- **Audio control**

- a. Click **Upload Audio** to upload a recorded audio file from the PC, as shown in [Figure 6-6](#).


WAV, M4A, and MP3 files are supported. The size of each audio file cannot exceed 100 MB. The total audio duration in each scene cannot be less than 1 minute.

After a livestream starts, the origin voice in the audio is directly played. You can also set the voices of the streamer and co-streamer to read interactive content.

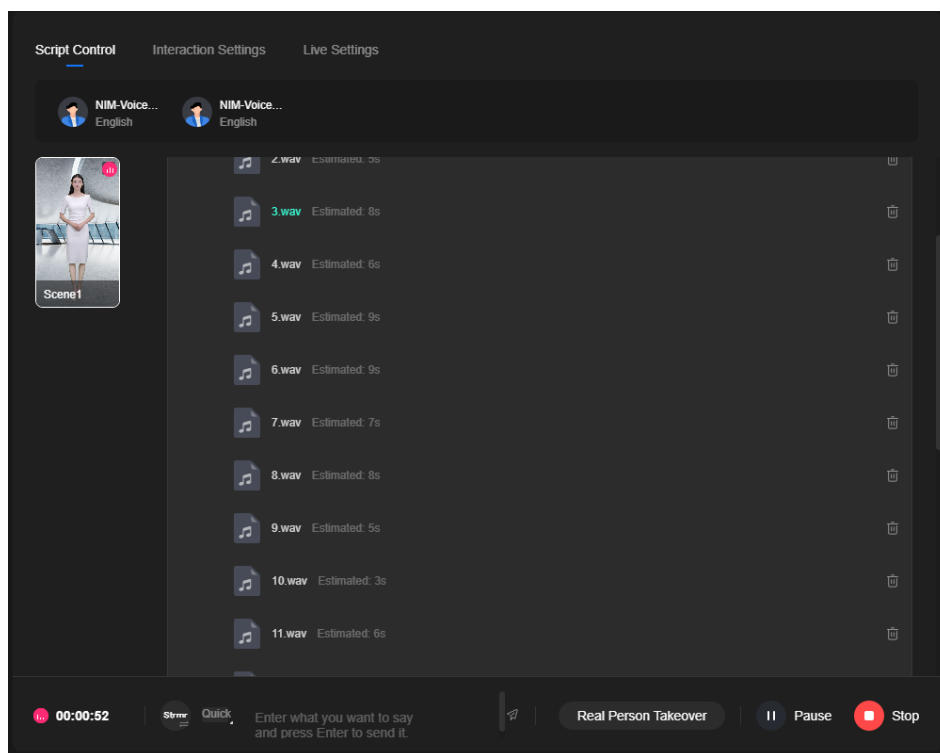
**Figure 6-6** Audio control



- b. After the audio file is uploaded, click **Audition** to listen to the audio file.

After the livestream starts, you can click  shown in [Figure 6-7](#) to switch to the global voice of the streamer or the co-streamer's voice. The sent interactive content will be read with the voice you choose.

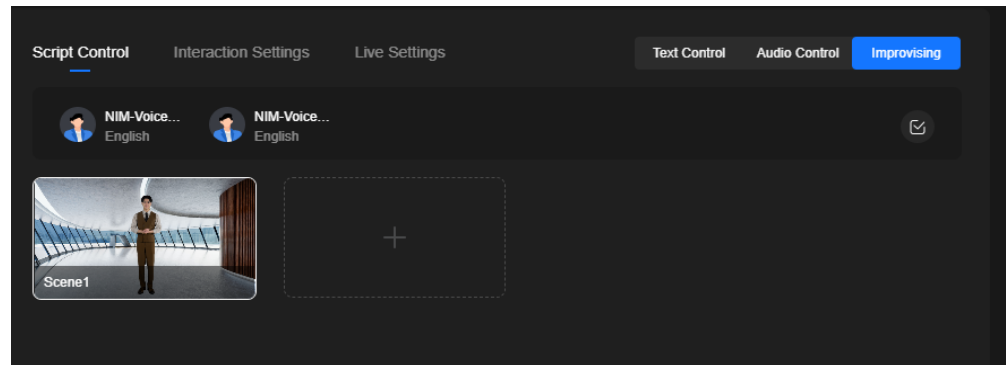
**Figure 6-7** Ongoing livestream



- **Improvising**

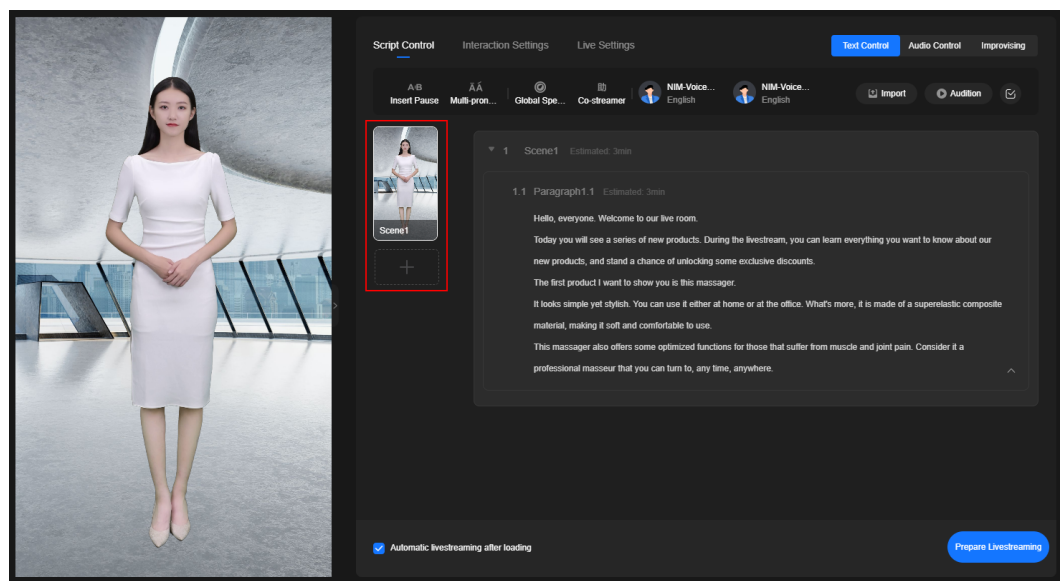
A livestream starts without script, as shown in [Figure 6-8](#). After the livestream starts, the virtual streamer remains silent, and will not speak until interactive content is input or the livestream is taken over by a human.

**Figure 6-8** Improvising



**Step 5** If you need to create multiple scenes, click the + icon under **Scene 1** on the right of the livestream preview window to add a scene. Then set the layout and script of the new scene based on the previous scene.

**Figure 6-9** Live room page

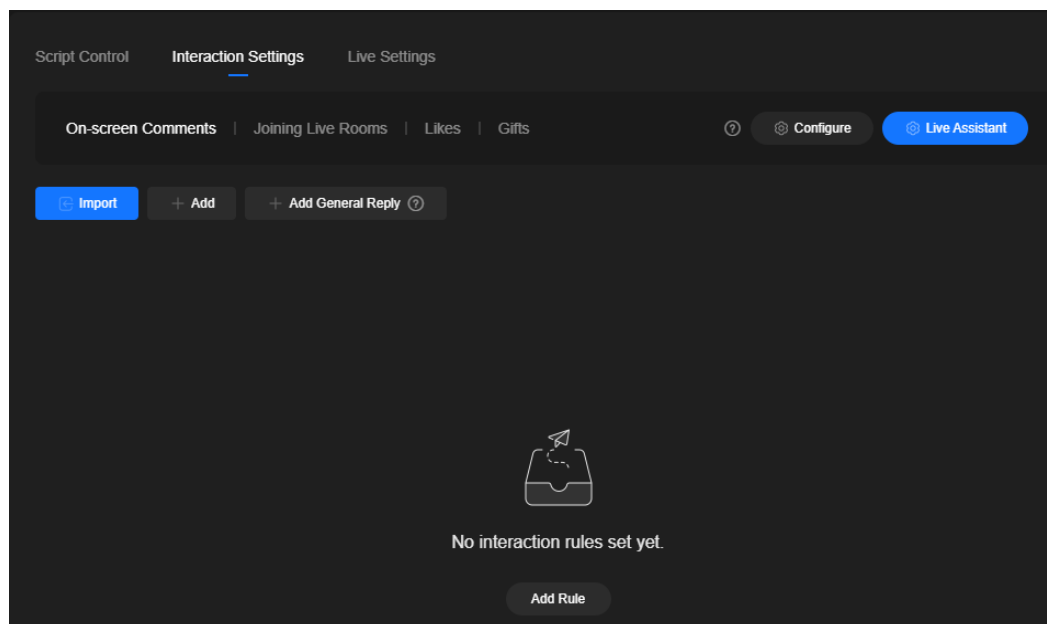


**Step 6** After setting the image layout and script of all scenes, click the **Interaction Settings** tab, as shown in [Figure 6-10](#).

There are four types of interaction settings: **On-screen Comments**, **Joining Live Rooms**, **Likes**, and **Gifts**. You can import the interaction rule library set in [Interactions](#), or set interaction rules one by one in the current live room. A maximum of 100 interaction rules can be added for all types of interaction settings.

The operation for adding interaction rules is similar for these four types. The following uses the operation for on-screen comments as an example.



**Figure 6-10** Interaction settings

1. Click **Add Rule** in [Figure 6-10](#). The page shown in [Figure 6-11](#) is displayed. You can set the rule in the lower part of the page.


Set the keywords of the on-screen comment triggering rule. If there are multiple keywords, separate them with vertical bars (|), for example, link|model|discount. When a keyword is identified in a comment, the preset reply of this keyword will be automatically read.

Select **Streamer** or **Co-streamer** to reply to the user's question. The reply can be set in one the following 3 ways:

- **Text:** Set the reply as text. A maximum of five replies can be added. After a livestream starts, the replies are matched in sequence based on the number of triggering times. Only one reply will be read each time.  
Example: For details about the link, model, and discount of the product, see the description in the upper part of the page.
- **Audio:** Upload an audio file in MP4, WAV, or M4A format from the PC. When the rule is triggered, the audio file is used for reply.


Images or videos can be displayed in the live feed to make a reply more informative. The method of adding and setting images is the same as that of adding and setting videos. The following uses the operation of images as an example.

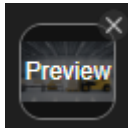


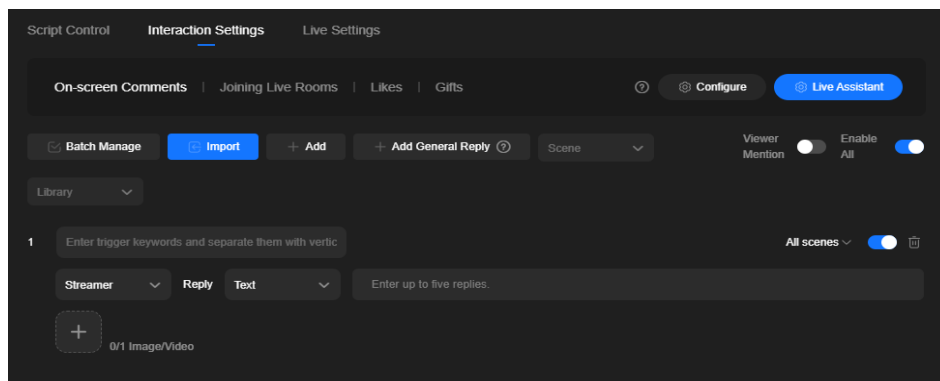
- a. Click , select an image or video from the local PC, and add it to the + area.

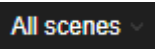


After the image is added, the thumbnail of the image is displayed in the



area, as shown in .

- b. Move the pointer to the area. The area changes to .
- c. Click **Preview**. The image is added to the livestream preview window. You can drag the image or adjust the image size.

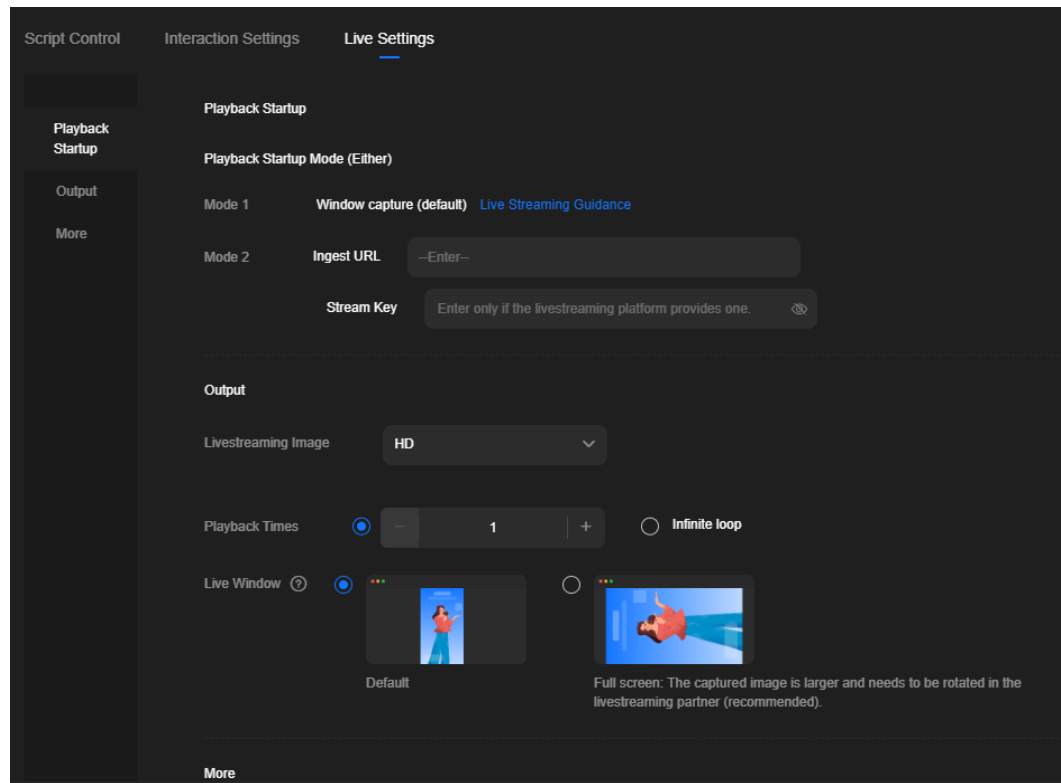
**Figure 6-11** On-screen comment settings

2. Click **Add** to add on-screen comment reply rules by referring to [6.1](#).
3. After all on-screen comment reply rules are added, you can click **Add General Reply** to add a general reply. The setting method is the same as that in [6.1](#). Only one general reply can be set. The general reply is triggered when a user question does not trigger any of the preset reply rules.
4. You can perform the following operations on a rule:
  - **Batch Manage**: You can batch set the application scenarios of selected rules or delete selected rules.
  - **Viewer Mention**: After this function is enabled, you can see a text message "Replying to *[name]*: *[content]*" on the live feed.
  - **Enable All**: You can enable all rules.
  - : Set the application scenario of a single rule.
  - : Enable or disable the current rule.
  - : Delete a rule.

**Step 7** Click the **Live Settings** tab, as shown in [Figure 6-12](#).

See [Table 6-3](#).


**Figure 6-12** My videos



**Table 6-3** Live settings

Area	Parameter	Description
Playback Startup	Playback Startup Mode (Either)	Select a livestream startup mode as needed and perform operations as prompted.
Output	Livestreaming Image	Select the definition of the livestreaming image. Options: <ul style="list-style-type: none"> <li>• <b>Smooth</b></li> <li>• <b>HD</b></li> <li>• <b>UHD</b></li> </ul> Default value: <b>HD</b>
	Playback Times	Set the number of times that a livestream should be played in a cyclical manner, or select <b>Infinite loop</b> . By default, the livestream is played once.

Area	Parameter	Description
	Live Window	Size of the live window. The window can be adjusted to vertical orientation. Options: <ul style="list-style-type: none"> <li>• <b>Portrait</b></li> <li>• <b>Full screen</b> (recommended): The captured frame is larger and needs to be rotated in the third-party live studio.</li> </ul> The default value is <b>Portrait</b> .
More	Event Callback Address	Fields of scene and paragraph events can be returned during livestreaming. This parameter is applicable to API calling or secondary development.
	Live Room ID	You do not need to set it. It is automatically displayed after the current live room is saved.

**Step 8** After the preceding operations are complete, click  in the upper right corner to save the streaming content.

**Step 9** Click **Prepare Livestreaming** in the lower right corner of the page.

**Automatic livestreaming after loading** is selected by default. Click **Prepare Livestreaming**. The livestream starts automatically after the loading is complete.

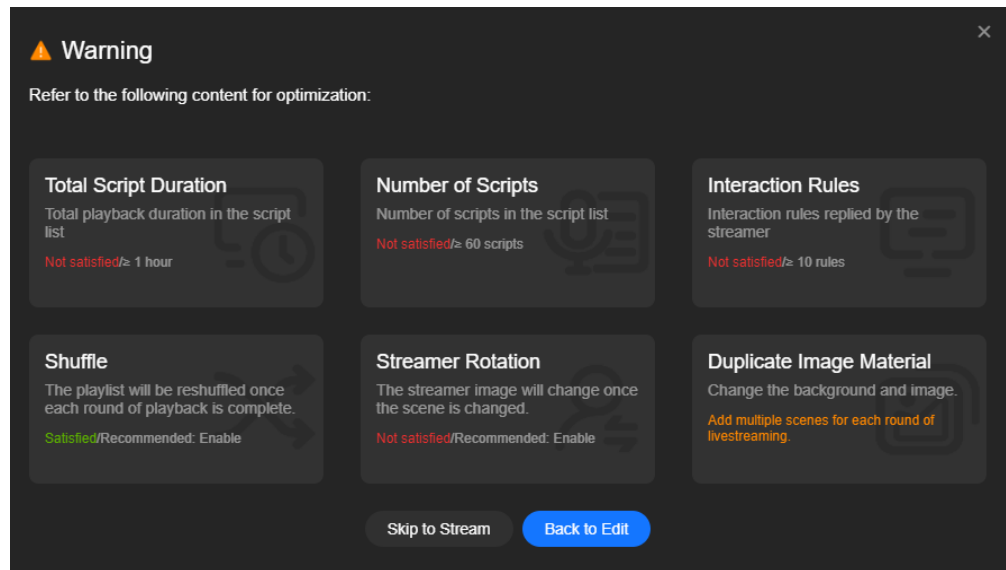
If you want to delay the livestream, deselect **Automatic livestreaming after loading** and click **Prepare Livestreaming**. To start the livestream, click **Start Streaming** at the same position.

To start a livestream with improvising, you only need to click **Prepare Livestreaming**.

**Step 10** For text control and audio control, you need to confirm the risks. You are advised to complete the optimization as instructed before starting a livestream.

1. The **Warning** dialog box is displayed, as shown in [Figure 6-13](#).  
You need to check the warning items one by one to optimize the livestreaming content.

Figure 6-13 Warning

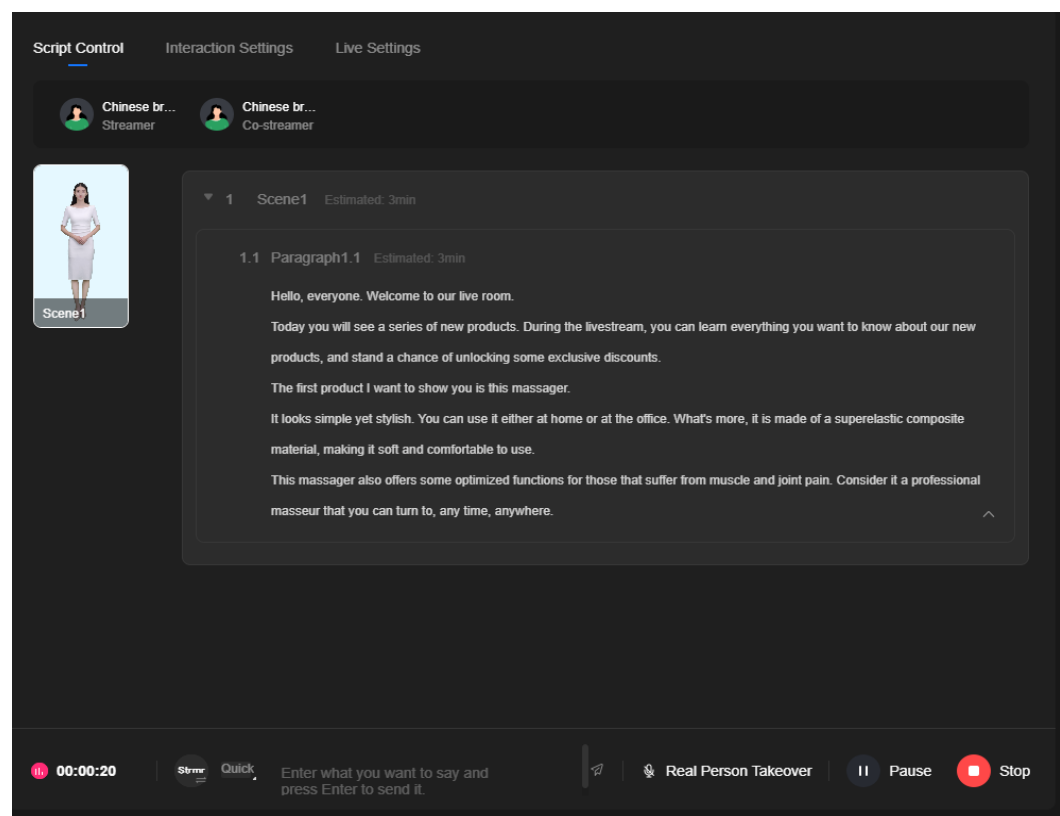


2. You can start livestreaming after the risks are eliminated, or select **Skip to Stream**.



**Step 11** After the livestream is started, the livestream startup progress is displayed in the livestream preview window.

Figure 6-14 shows an ongoing livestream. Table 6-4 describes the operations in the lower right corner of the page.

Figure 6-14 Ongoing livestream



**Table 6-4** About the GUI

GUI Element	Description
00:01:20	Livestreaming timing. For example, <b>00:01:20</b> indicates that the livestream has lasted one minute and 20 seconds.
	Switches the voice of reading interactive content. The streamer's voice is used by default. You can switch to the co-streamer's voice.
	Click this icon to select and send the preset interactive content for the streamer to read.
Entering interactive content and pressing <b>Enter</b> to send the content	After the interactive content is entered and sent, the streamer or co-streamer reads the newly inserted content. After reading the newly inserted content, the streamer or co-streamer continues reading the original content.
Real Person Takeover	Click <b>Real Person Takeover</b> . In this case, the virtual streamer stops voicing and only acts as programmed, and a real person voices for the virtual streamer. After the real person stops speaking, click <b>Cancel Real Person Takeover</b> to let the virtual streamer continue reading the original content.
Pause	Click <b>Pause</b> to pause the livestream. Click <b>Continue</b> to resume the livestream.
Stop	Click <b>Stop</b> to stop the livestream.

----End

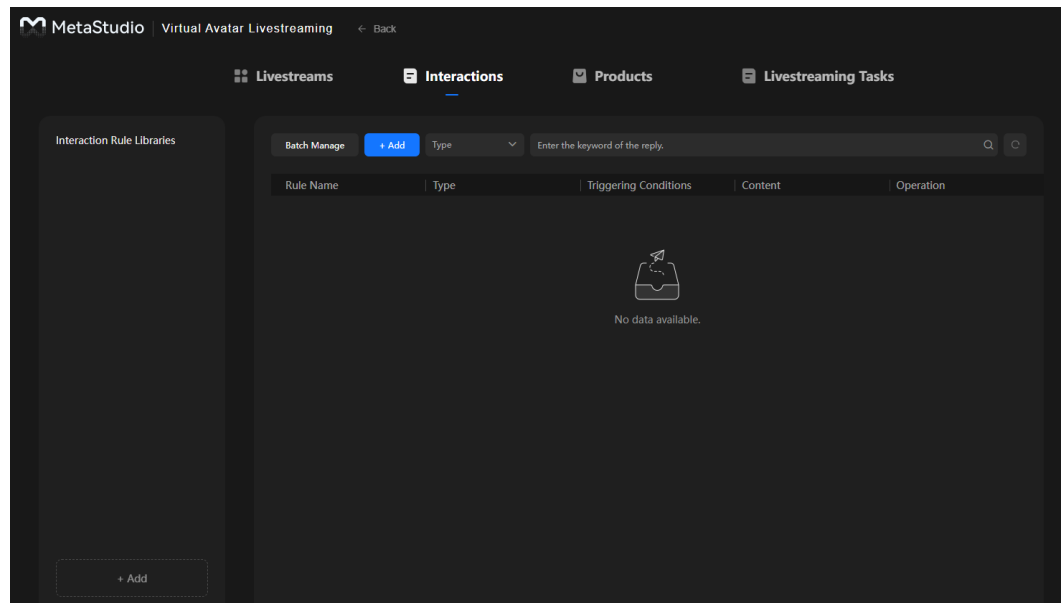
## 6.3 Interactions

On the **Interactions** tab of the **Virtual Avatar Livestreaming** page, you can add an interaction rule library and interaction rules. The added interaction rule library can be directly imported to and used in the live room.

### Procedure




- Step 1** Log in to the [MetaStudio console](#).
- Step 2** Choose **Workbench** in the left navigation pane. Click **Create** under **Livestreaming**.
- Step 3** On the page displayed, click **Interactions**, as shown in [Figure 6-15](#).

**Figure 6-15** Interactions

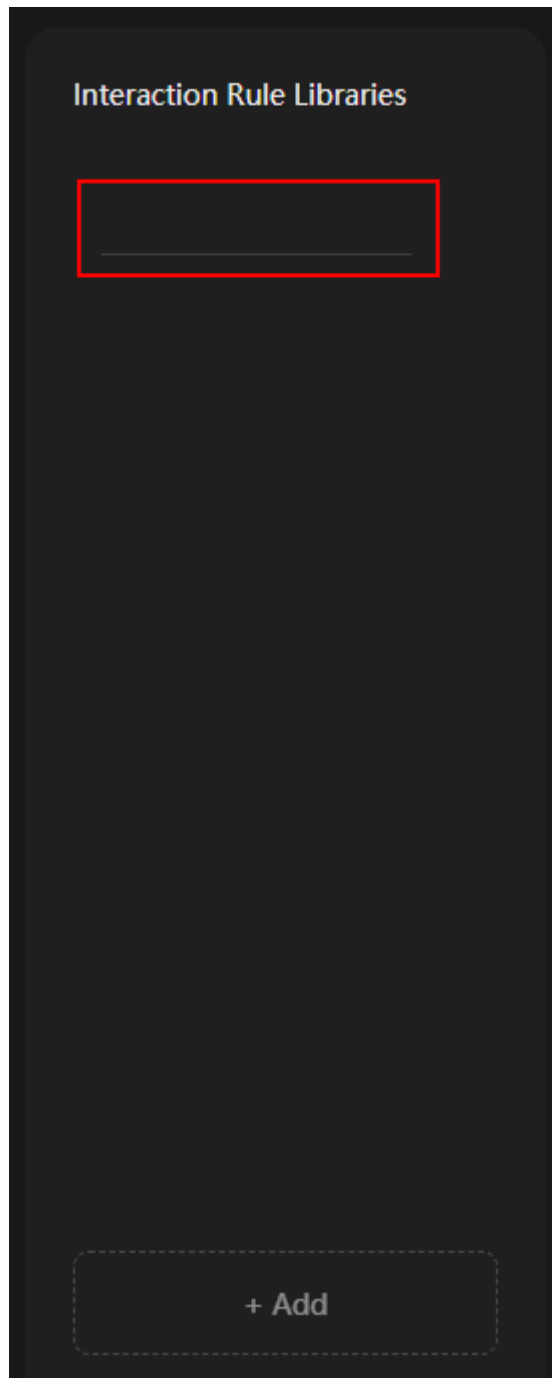


**Step 4** In the **Interaction Rule Libraries** area on the left, click **Add** in the lower part. A horizontal line will be displayed, as shown in [Figure 6-17](#).

Enter an interaction rule library name. You can perform the following operations on a library:

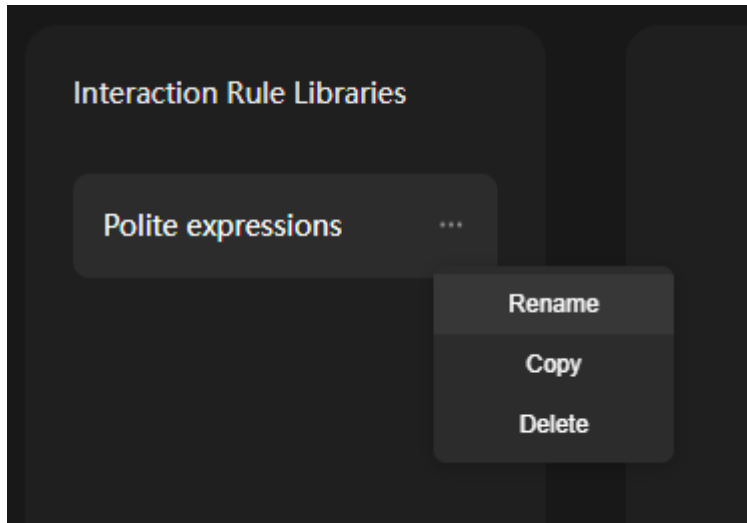
- Click  on the right of the interaction rule library and select **Rename** from the drop-down list box to rename the library.
- Click  on the right of the interaction rule library and select **Copy** from the drop-down list box to generate a new library.
- Click  on the right of the interaction rule library and select **Delete** from the drop-down list box to delete the library.

**Figure 6-16** Interaction rule libraries





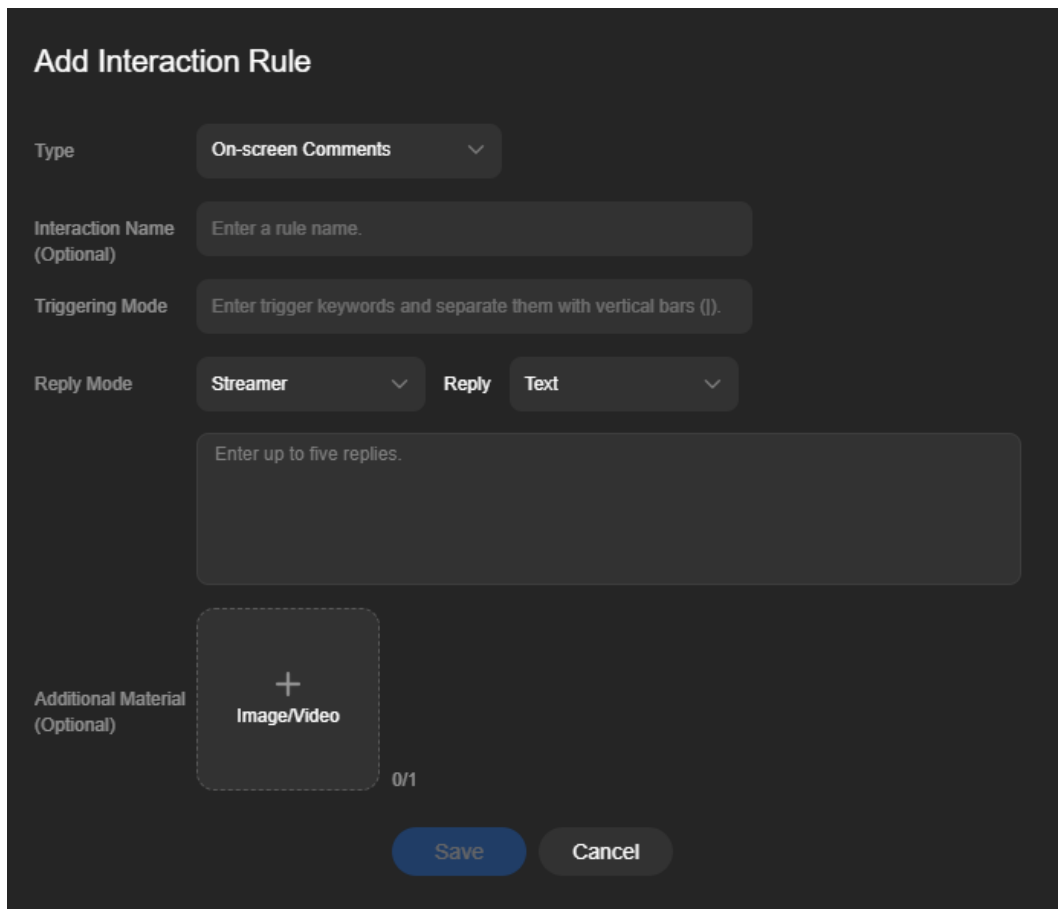
**Figure 6-17** Interaction rule libraries



**Step 5** Select an interaction rule library on the left and click **Add**. The **Add Interaction Rule** dialog box is displayed, as shown in [Figure 6-18](#).

You can add an interaction rule to the interaction rule library. See [Table 6-5](#).

**Figure 6-18** Adding an interaction rule



**Table 6-5** Parameters for adding an interaction rule

Parameter	Description
Type	Interaction type. Options: <ul style="list-style-type: none"><li>● <b>On-screen Comments</b></li><li>● <b>Joining Live Rooms</b></li><li>● <b>Likes</b></li><li>● <b>Gifts</b></li></ul>
Interaction Name (Optional)	Name of an interaction rule.
Triggering Mode	Enter trigger keywords and separate them with vertical bars ( ), for example, link model discount. When a keyword is identified in a comment, the preset reply of this keyword will be automatically read.
Reply Mode	Select <b>Streamer</b> or <b>Co-streamer</b> . The reply content can be set in the following ways: <ul style="list-style-type: none"><li>● <b>Text</b>: Set the reply as text. A maximum of five replies can be added. After a livestream starts, the replies are matched in sequence based on the number of triggering times. Only one reply will be read each time. Example: For details about the link, model, and discount of the product, see the description in the upper part of the page.</li><li>● <b>Audio</b>: Upload an audio file in MP4, WAV, or M4A format from the PC. When the rule is triggered, the audio file is used for reply.</li></ul>
Additional Material (Optional)	Upload an image or video from the local PC. When a reply related to the uploaded material is read in the live room, the image or video uploaded here will be displayed in the live video.

**Step 6** Click **Save**. An interaction rule has been added.

You can add more interaction rules to the interaction rule library or add more interaction rule libraries as needed.

You can perform the following operations on an interaction rule:

- Click **Edit** in the **Operation** column on the right of an interaction rule. In the **Edit Interaction Rule** dialog box displayed, edit the interaction rule.
- Click **Copy** in the **Operation** column on the right of an interaction rule to copy the rule and generate a new one.
- Click **Delete** in the **Operation** column on the right of an interaction rule to delete the rule.

----End

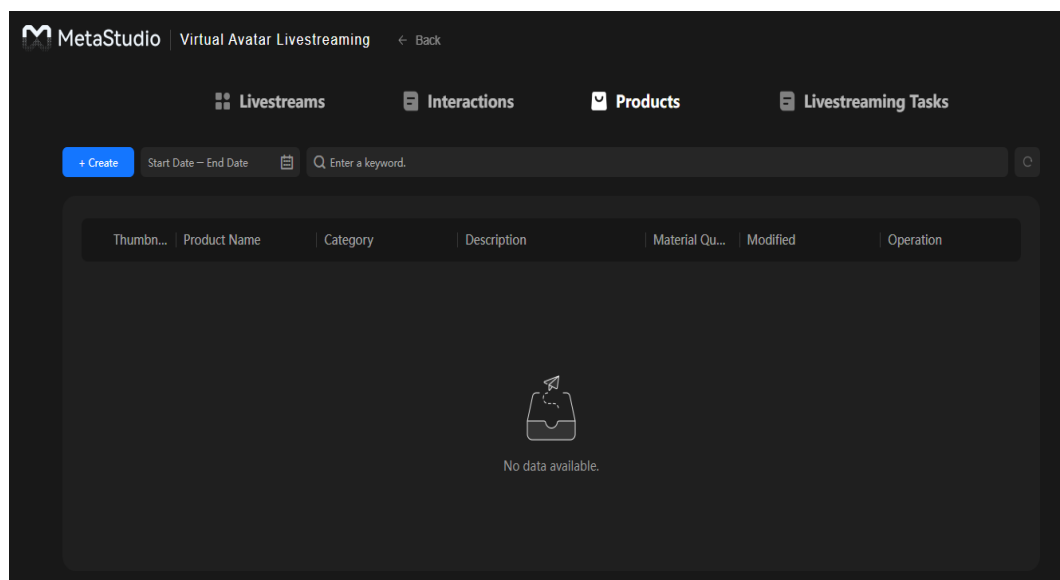
## 6.4 Products

On the **Products** tab of the **Virtual Avatar Livestreaming** page, you can add products. Products are automatically displayed on the **Products** tab of the live room, and can be used during livestreaming.

### Procedure

- Step 1** Log in to the [MetaStudio console](#).
- Step 2** Choose **Workbench** in the left navigation pane. Click **Create** under **Livestreaming**.
- Step 3** On the page displayed, click **Products**, as shown in [Figure 6-19](#).

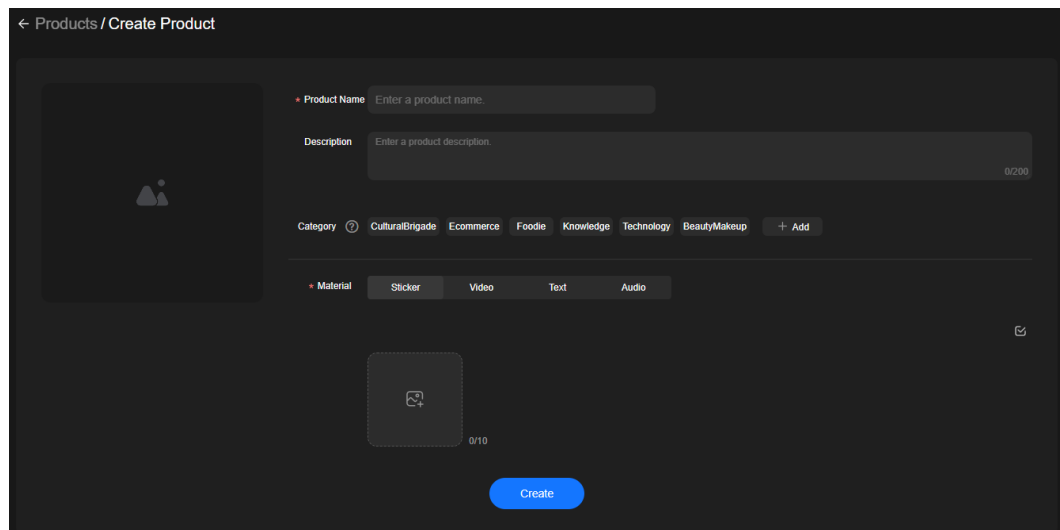
**Figure 6-19** Products



- Step 4** Click **Create**. The **Create Product** page is displayed, as shown in [Figure 6-20](#).

[Table 6-6](#) describes the required parameters.

**Figure 6-20** Creating a product



**Table 6-6** Parameters for creating a product

Parameter	Description
Product Name	Product name.
Description	Product description.
Category	Product category. The selected category will become the product tag, which facilitates product search. You can select more than one category or add new categories.
Material	Materials integrated into a product. Options: <ul style="list-style-type: none"> <li>● <b>Sticker</b>: Select a local image.</li> <li>● <b>Video</b>: Select a local video file.</li> <li>● <b>Text</b>: Enter the text.</li> <li>● <b>Audio</b>: Select a local audio file.</li> </ul>

**Step 5** Click **Create**. The message **Created successfully** is displayed.

The newly created product is displayed in the product list on the **Products** page.

You can perform the following operations on a product:

- Click **View** in the **Operation** column of a product. On the **Product Details** page displayed, click **Edit** to edit the product information.
- Click **Edit** in the **Operation** column of a product. On the page displayed, edit the product information and click **Save**.
- Click **Delete** in the **Operation** column of a product to delete the product.

----End

## 6.5 Livestreaming Tasks

The live rooms that you created are displayed in the list on the **Livestreaming Tasks** tab of the **Virtual Avatar Livestreaming** page. You can access a live room, modify the livestreaming content, and restart the livestreaming.

### Procedure

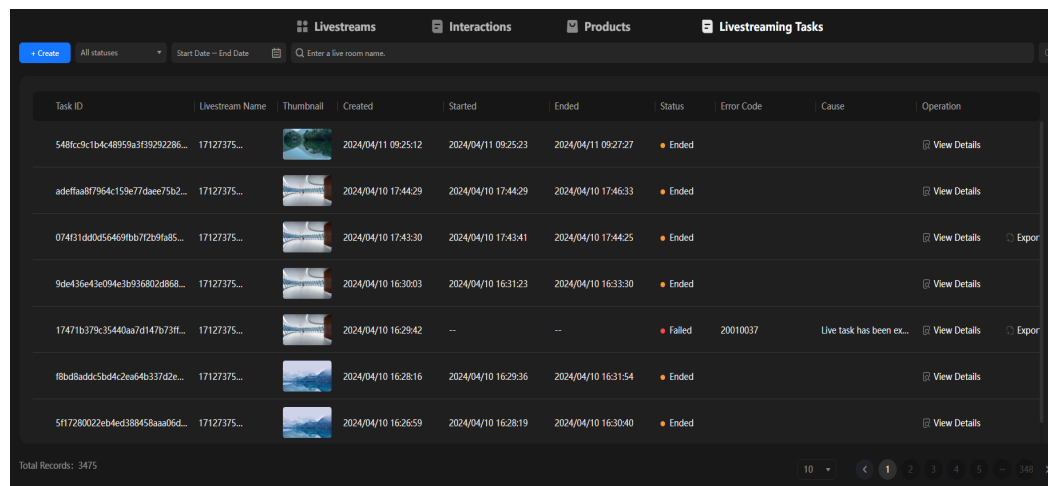
- Step 1** Log in to the [MetaStudio console](#).
- Step 2** Choose **Workbench** in the left navigation pane. Click **Create** under **Livestreaming**.
- Step 3** On the page displayed, click **Livestreaming Tasks**, as shown in [Livestreaming Tasks](#).

The list of all livestreaming tasks you created is displayed. If livestreaming is performed multiple times in one live room, a task will be generated each time livestreaming is performed.

You can view the task ID, livestream name, thumbnail, task creation time, livestreaming start time, livestreaming end time, and livestreaming status (**Ongoing** or **Ended**).

If the livestreaming ends, you can click **View Details** in the **Operation** column of the livestreaming task to access the live room, modify the livestreaming content, and restart the livestreaming.

Figure 6-21 Livestreaming tasks



Task ID	Livestream Name	Thumbnail	Created	Started	Ended	Status	Error Code	Cause	Operation
548fc9c1b4c48959a3f9292286...	17127375...		2024/04/11 09:25:12	2024/04/11 09:25:23	2024/04/11 09:27:27	Ended			<a href="#">View Details</a>
adefaa8f7964c159e77dae75b2...	17127375...		2024/04/10 17:44:29	2024/04/10 17:44:29	2024/04/10 17:46:33	Ended			<a href="#">View Details</a>
074f31ddd0564691bb7f2b9fa85...	17127375...		2024/04/10 17:43:30	2024/04/10 17:43:41	2024/04/10 17:44:25	Ended			<a href="#">View Details</a> <a href="#">Expor</a>
9de436e43e094e3b936802d868...	17127375...		2024/04/10 16:30:03	2024/04/10 16:31:23	2024/04/10 16:33:30	Ended			<a href="#">View Details</a>
174f1b379c35440aa7d147b73ff...	17127375...		2024/04/10 16:29:42	--	--	Failed	20010037	Live task has been ex...	<a href="#">View Details</a> <a href="#">Expor</a>
f8bd8addc5bd4c2ea64b337d2e...	17127375...		2024/04/10 16:28:16	2024/04/10 16:29:36	2024/04/10 16:31:54	Ended			<a href="#">View Details</a>
51f7280022ebMed388458aaa06d...	17127375...		2024/04/10 16:28:59	2024/04/10 16:28:19	2024/04/10 16:30:40	Ended			<a href="#">View Details</a>

Total Records: 3475

----End

## 6.6 Operations of Livestreaming Materials

On the **Virtual Avatar Livestreaming** page, you can add livestreaming materials such as **roles**, **backgrounds**, **stickers**, **videos**, **products**, and **text**. This section describes the operation procedure of each material type.

## Roles

Figure 6-22 shows the Roles area.

Figure 6-22 Roles

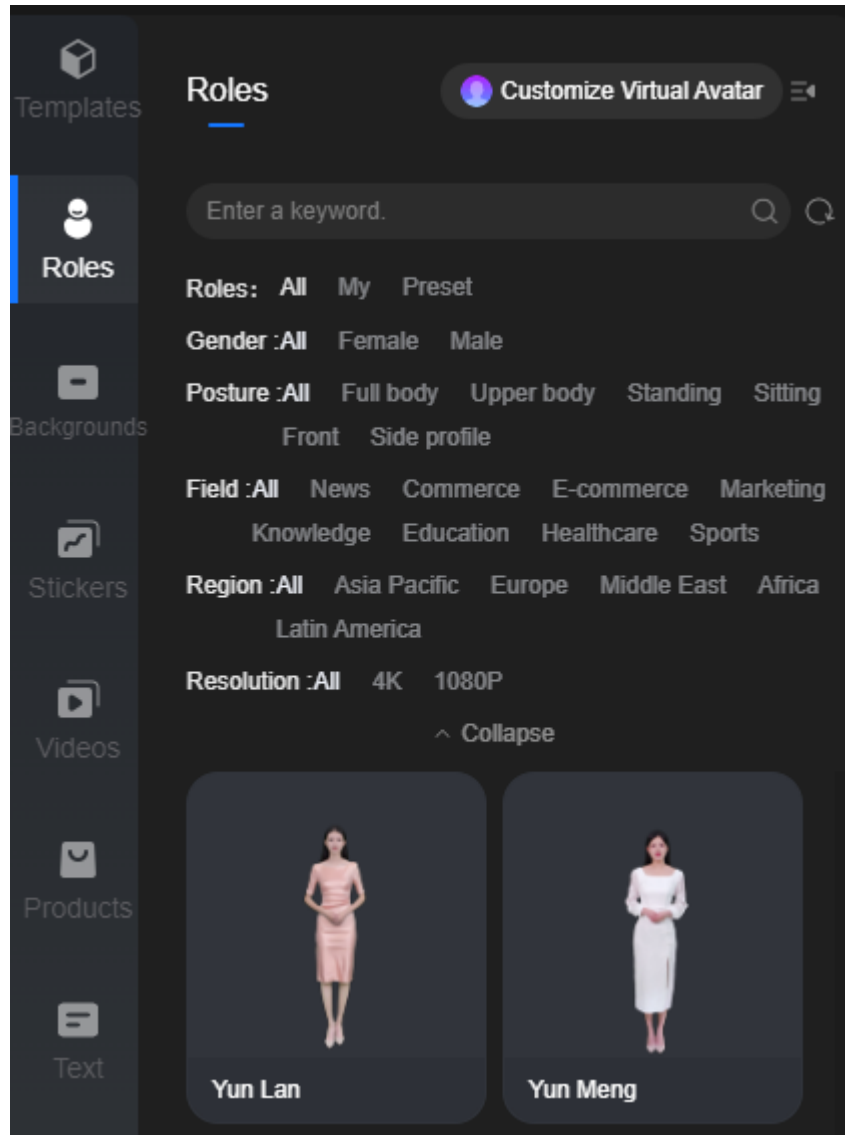















Table 6-7 describes the Roles area.

Table 6-7 GUI elements

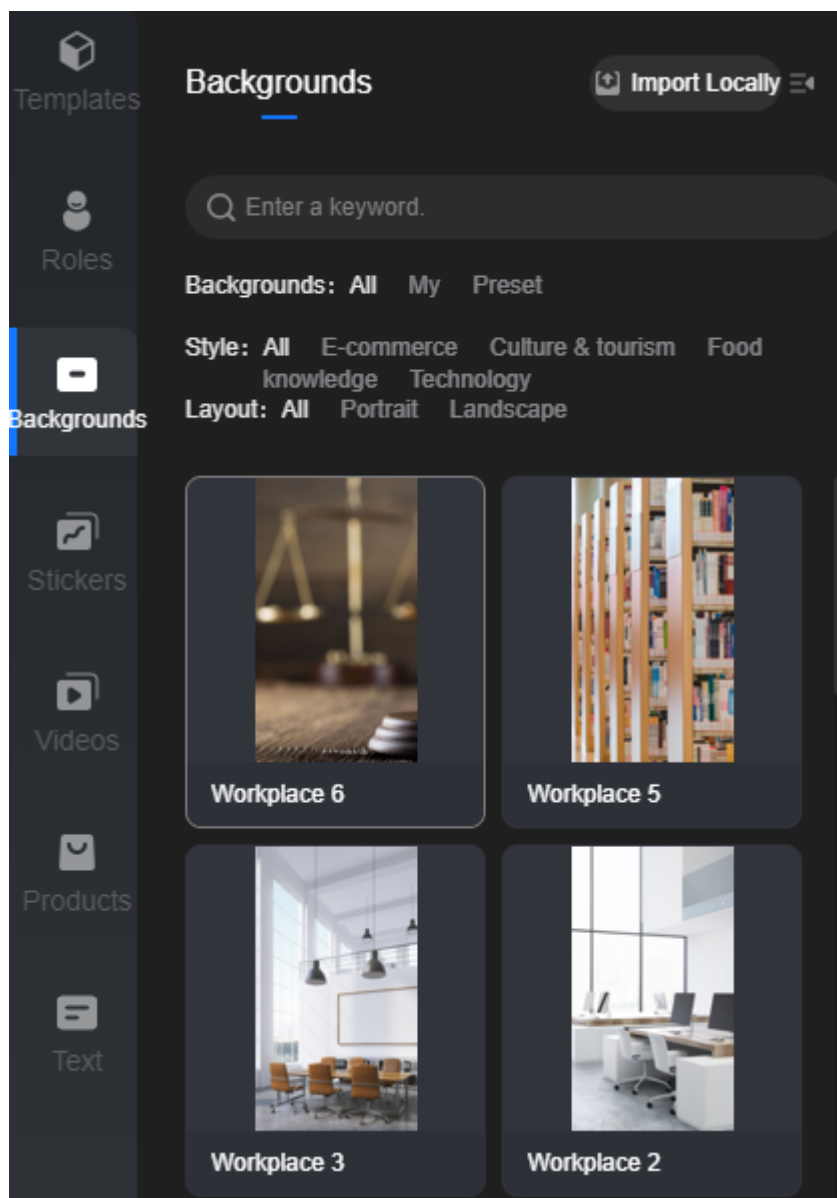
GUI Element	Description
Customizing virtual avatars	Click <b>Customize Virtual Avatar</b> . The image creation page is displayed. See <a href="#">Creating a Virtual Avatar Customization Task</a> .

GUI Element	Description
	By default, two columns of virtual avatars are displayed in the <b>Roles</b> area. After you click  , only one column is displayed. You can click  to display two columns.
	Keyword search box. You can enter a virtual avatar name for precise search. Example: yun lan
	Icon of refreshing. If there are keywords, the virtual avatar display is refreshed based on the keywords. If no, the default settings will be used.
Filter criteria	You can filter and display virtual avatars by role, gender, posture, field, region, and resolution.
List of virtual avatars	By default, all virtual avatars are displayed. Click a virtual avatar image. The image will be automatically applied to all scenes in the livestream. In the livestream preview area, if there are multiple types of video materials, you can manage the virtual avatar layer by layer, for example, moving up (  ) , moving down (  ) , pinning to top (  ) , pinning to bottom (  ) , applying globally (  ) , and deleting (  ) . You can also set the size and drag these materials to change their positions.
	If you move the pointer over an avatar,  will be displayed in the upper right corner of the avatar. Click the icon to apply the virtual avatar to all scenes of the current livestream.

## Backgrounds

**Figure 6-23** shows the **Backgrounds** area.

**Figure 6-23** Backgrounds









**Table 6-8** describes the **Backgrounds** area.

**Table 6-8** GUI elements

GUI Element	Description
Importing locally	Click <b>Import Locally</b> to upload a PNG, JPG, or JPEG image with a resolution level of 4K or below. You can also drag an image from the PC to the image list area for upload.

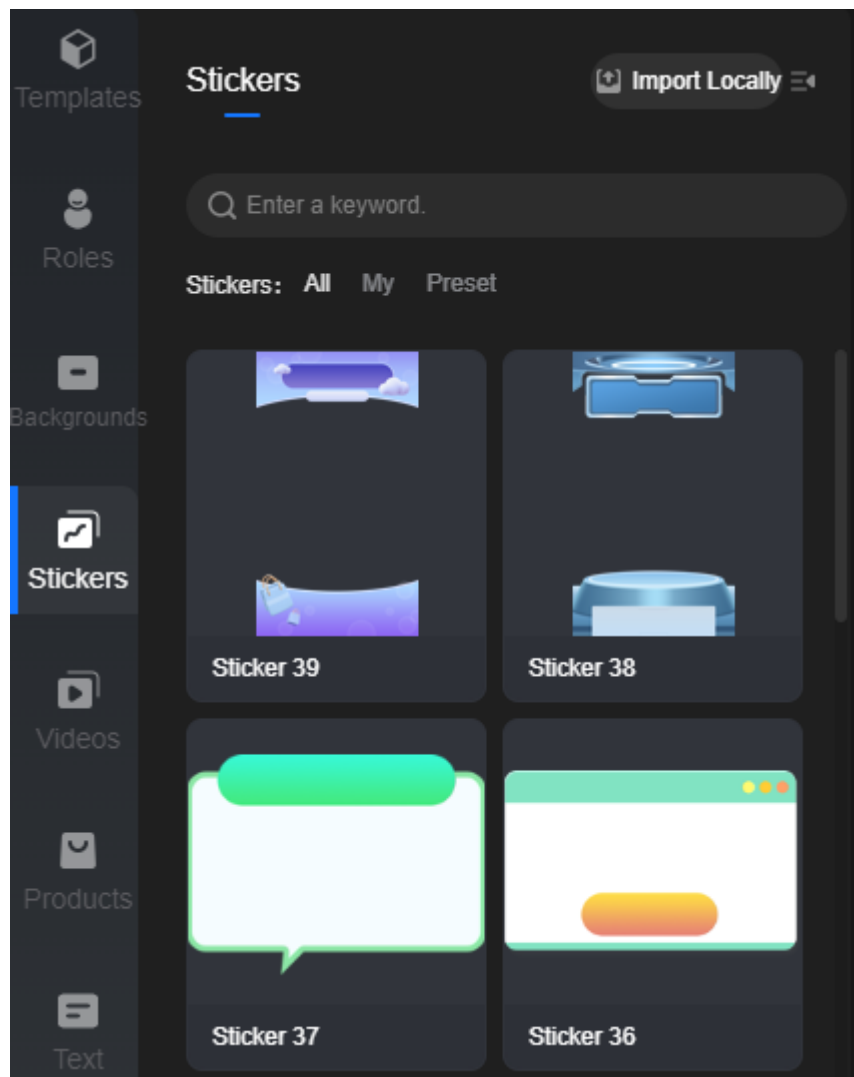


GUI Element	Description
	By default, two columns of images are displayed in the <b>Backgrounds</b> area. After you click  , only one column is displayed. You can click  to display two columns.
	Keyword search box. You can enter an image name for precise search. Example: Technology
Filter criteria	Images can be filtered and displayed by background, style, and layout.
Image list	By default, all images are displayed. Select a scene and click an image to replace the background of the scene.
	If you move the pointer over an image,  will be displayed in the upper right corner of the image. Click the icon to use the image as the background of all scenes.

## Stickers




[Figure 6-24](#) shows the **Stickers** area.











**Figure 6-24** Stickers



**Table 6-9** describes the **Stickers** area.

**Table 6-9** GUI elements

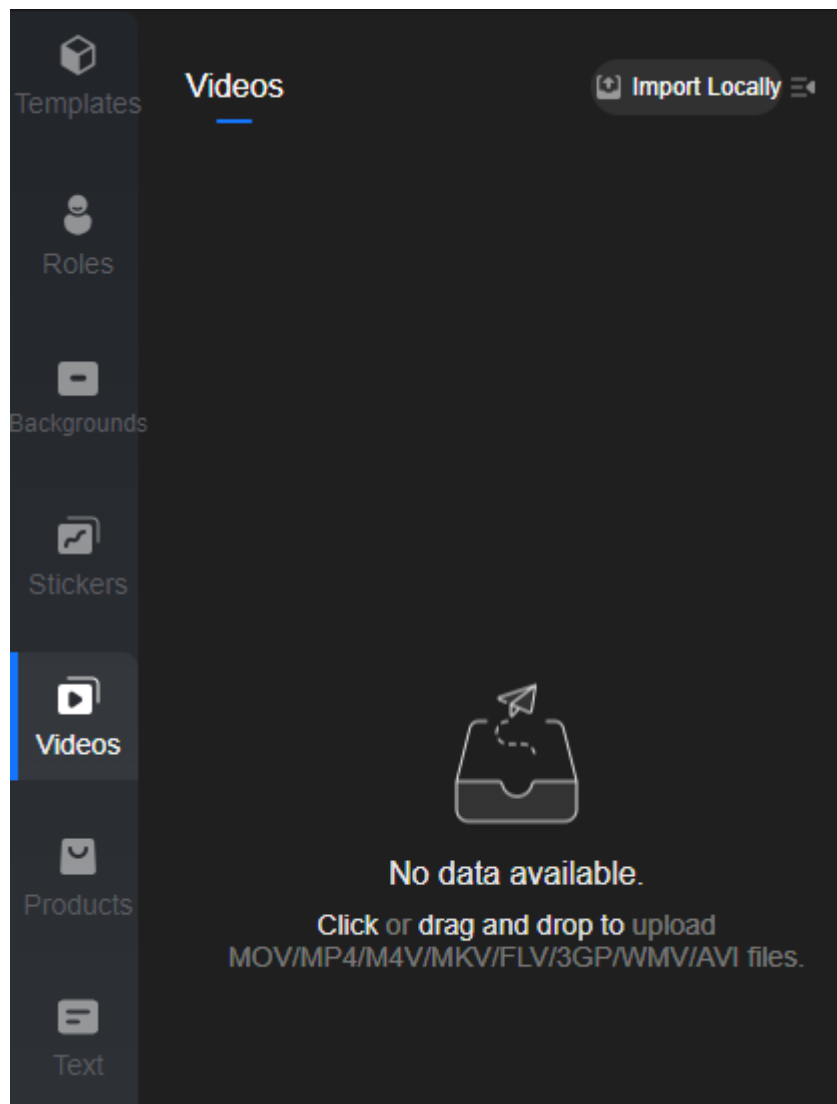
GUI Element	Description
Importing locally	Click <b>Import Locally</b> to upload a PNG, JPG, JPEG, or BMP image. You can also drag an image from the PC to the image list area for upload.
	By default, two columns of images are displayed in the <b>Stickers</b> area. After you click  , only one column is displayed. You can click  to display two columns.

GUI Element	Description
	<p>Keyword search box. You can enter an image name for precise search. Example: tips</p>
Filter criteria	Images can be filtered and displayed by sticker.
Image list	By default, all images are displayed.
Viewing stickers	<p>If you move the pointer over an image,  will be displayed in the upper right corner of the image. Click the icon to zoom in.</p>
Inserting a sticker	<p>If you move the pointer over an image,  will be displayed in the upper right corner of the image. Click the icon to add the sticker to the current scene.</p> <p>In the livestream preview area, if there are multiple types of video materials, you can manage the sticker layer by layer, for example, moving up () , moving down () , pinning to top () , pinning to bottom () , copying () , applying globally () , and deleting () . You can also set the size and drag these materials to change their positions.</p>

## Videos



[Figure 6-25](#) shows the **Videos** area.











**Figure 6-25** Videos



**Table 6-10** describes the **Videos** area.

**Table 6-10** GUI elements

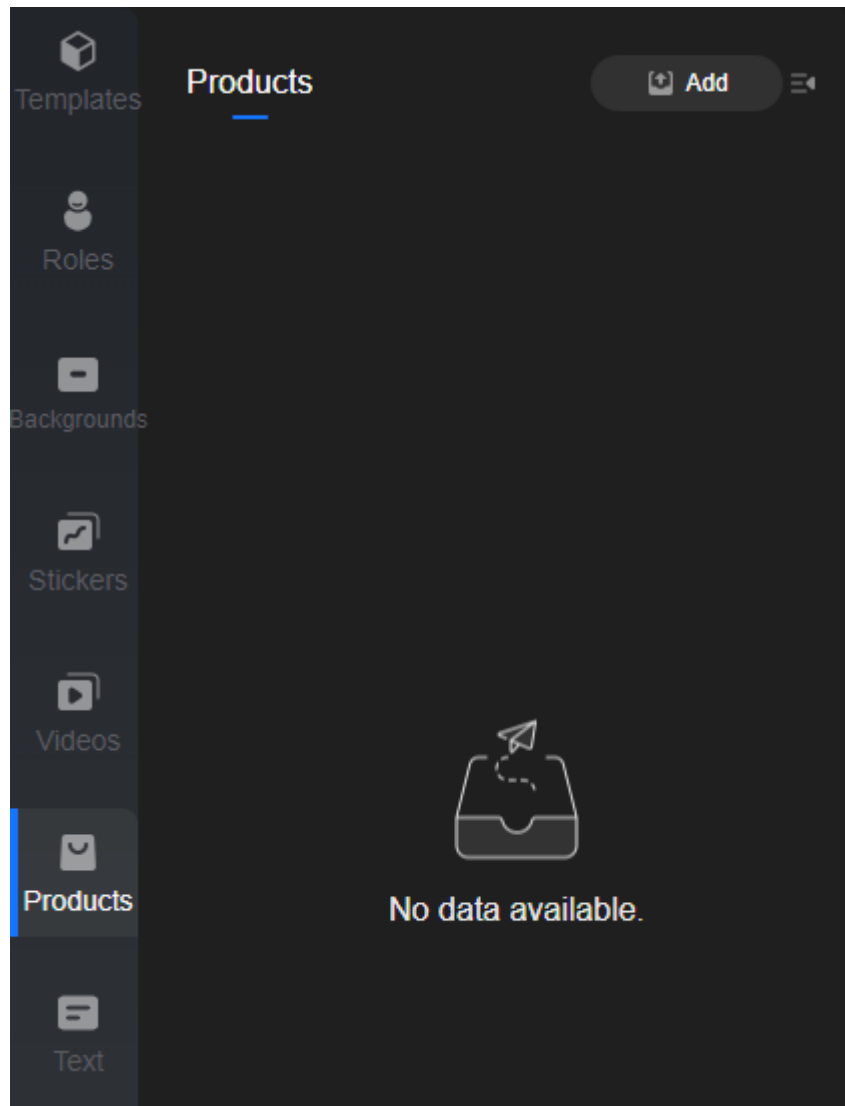
GUI Element	Description
Importing locally	Click <b>Import Locally</b> to upload an MOV, MP4, M4V, MKV, FLV, 3GP, WMV, or AVI video file from the PC. You can also drag a video from the PC to the video list area for upload.
	By default, two columns of videos are displayed in the <b>Videos</b> area. After you click  , only one column is displayed. You can click  to display two columns.

GUI Element	Description
	<p>Keyword search box. You can enter a video name for precise search.</p> <p>Example: marketing video</p>
Filter criteria	<p>Videos can be filtered and displayed by <b>My</b> or <b>Preset</b>.</p>
Video list	<p>By default, all videos are displayed.</p>
Watching a video	<p>If you move the pointer over a video,  will be displayed in the upper right corner of the video. Click the icon to watch the video.</p>
Inserting a video	<p>If you move the pointer over a video,  will be displayed in the upper right corner of the video. Click the icon to add the video to the current scene.</p> <p>An inserted video is played mutedly.</p> <p>In the livestream preview area, if there are multiple types of video materials, you can manage the video layer by layer, for example, moving up () , moving down () , pinning to top () , pinning to bottom () , copying () , applying globally () , and deleting () . You can also set the size and drag these materials to change their positions.</p>

## Products




[Figure 6-26](#) shows the **Products** area.










**Figure 6-26** Products



**Table 6-11** describes the **Products** area.

**Table 6-11** GUI elements

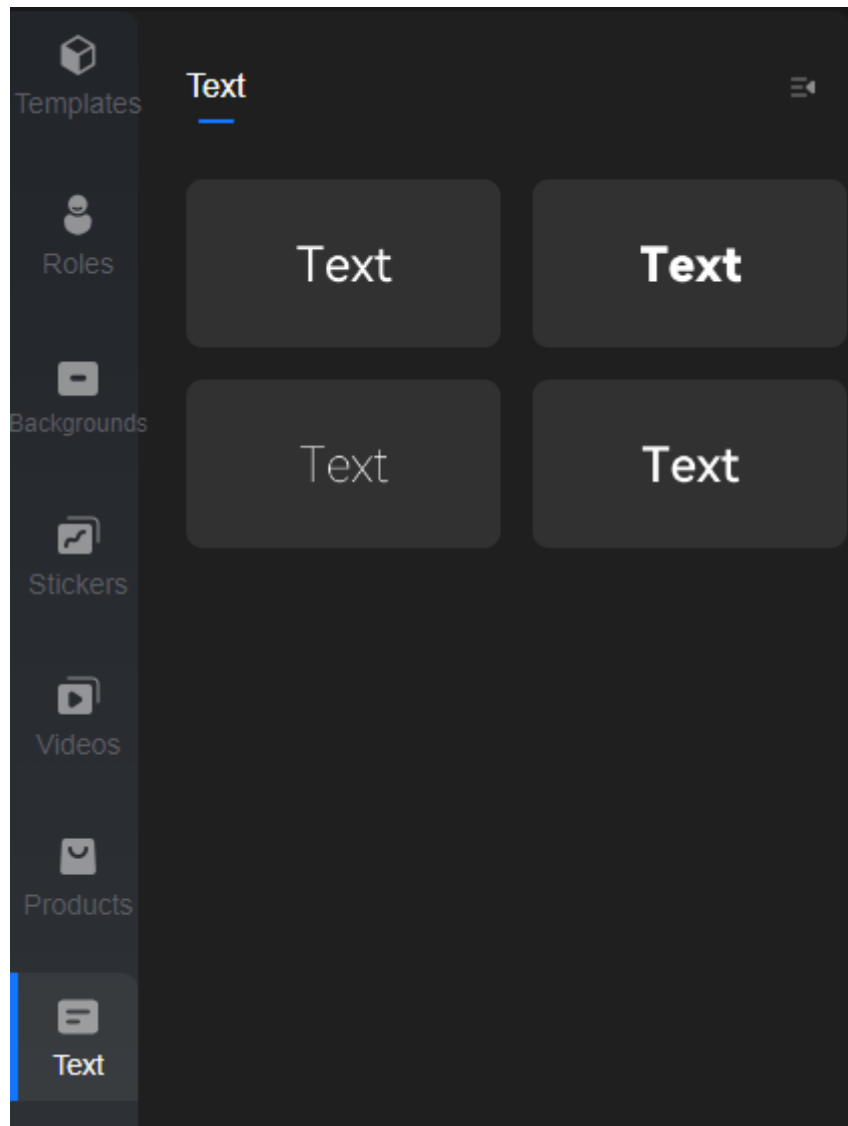
GUI Element	Description
Creating a product	Click <b>Add</b> . In the <b>Create Product</b> dialog box displayed, specify product information by referring to <b>Products</b> . You can also add products by referring to <b>Products</b> .
	Clicking  zooms out the <b>Products</b> area. You can click  to expand the area size.
Product list	By default, all products are displayed.

GUI Element	Description
Inserting materials	<p>Click <b>Insert Material</b> in the product. The existing stickers, videos, text, and audios of the product are displayed in the lower part.</p> <p>You need to select a material and click the + icon to add the material to the live video of the current scene.</p> <p>You can edit a product by:</p> <ul style="list-style-type: none"><li>• Clicking  to select a material type and add a material.</li><li>• Clicking  to delete materials that are not needed.</li></ul> <p>In the livestream preview area, if there are multiple types of video materials, you can manage the material layer by layer, for example, moving up () , moving down () , pinning to top () , pinning to bottom () , copying () , applying globally () , and deleting () . You can also set the size and drag these materials to change their positions.</p>

## Text




[Figure 6-27](#) shows the **Text** area.

**Figure 6-27** Text



**Table 6-12** describes the **Text** area.

**Table 6-12** GUI elements

GUI Element	Description
	By default, two columns of text are displayed in the <b>Text</b> area. After you click  , only one column is displayed. You can click  to display two columns.
Text list	Supported text fonts: HarmonyOS normal, HarmonyOS bold, HarmonyOS light, and HarmonyOS medium black.











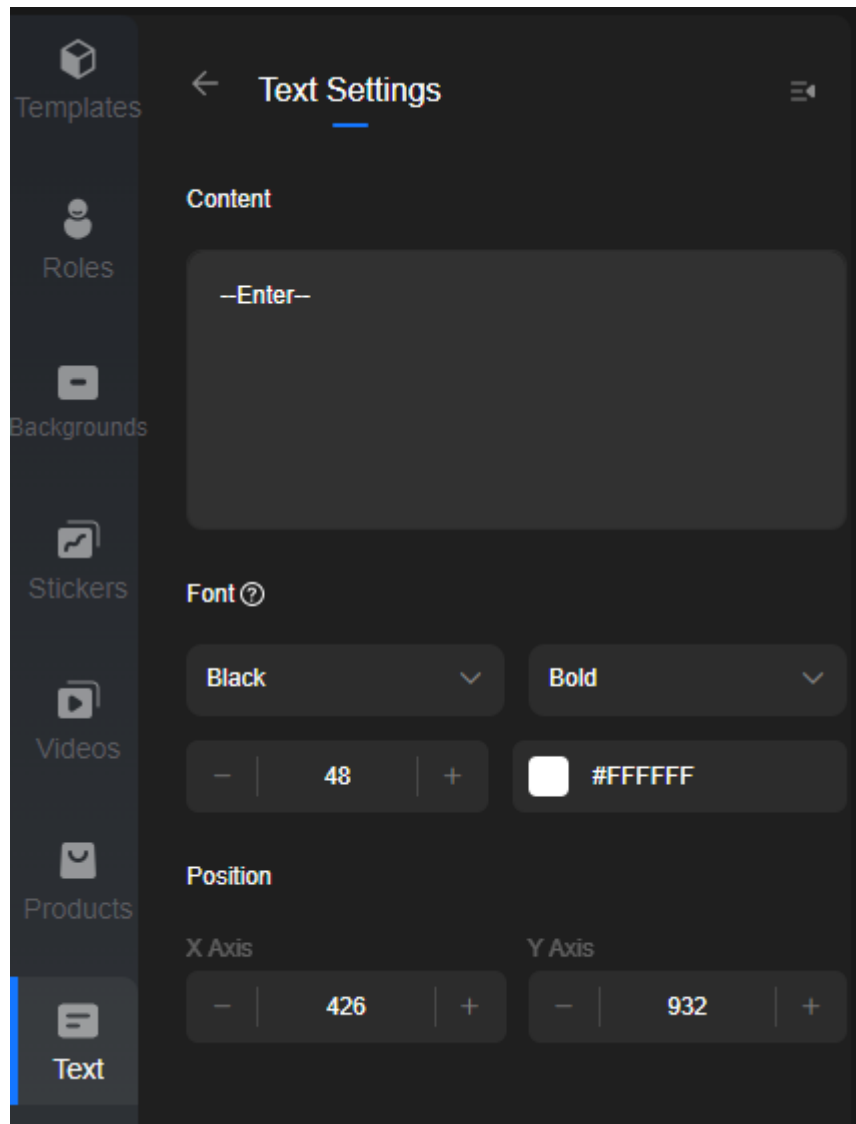
GUI Element	Description
Inserting text	<p>If you move the pointer over a piece of text,  will be displayed in the upper right corner of the text. Click the icon to add the text to the current scene.</p> <p>In the <b>Text Settings</b> area, set <b>Content</b> and <b>Font</b>, as shown in <a href="#">Figure 6-28</a>.</p> <p>In the livestream preview area, if there are multiple types of video materials, you can manage the text layer by layer, for example, moving up () , moving down () , pinning to top () , pinning to bottom () , copying () , applying globally () , and deleting () . You can also set the size and drag these materials to change their positions.</p>

Figure 6-28 Text settings



# 7 Asset Management

---

## 7.1 Asset Sources

User asset sources:

- Assets created on the MetaStudio console:
  - Virtual avatar images created on the console (as shown in [Image Modeling](#)) are displayed on the **My Creations > Avatar Images** page.
  - Voices created on the console (as shown in [Voice Modeling](#)) are displayed on the **My Creations > Voices** page.
  - Videos composited on the console (as shown in [Video Production](#)) are displayed on the **My Creations > Videos** page.
- Assets uploaded from the local PC or transferred by the asset administrator are displayed on the **My Creations > Resources** page.

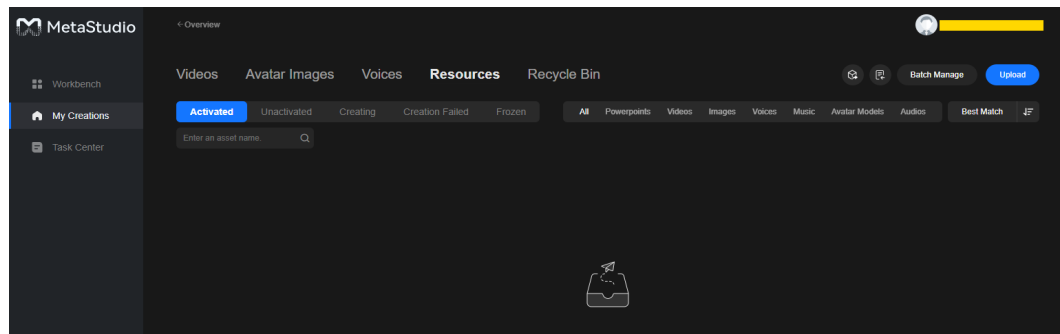
## 7.2 Uploading Assets

Assets can be uploaded from the local PC, including models, PowerPoints, animations, materials, videos, scenes, images, and music. The asset upload operation is the same for different asset types. This section uses image asset upload as an example.

### Procedure

- Step 1** Log in to the [MetaStudio console](#).
- Step 2** In the navigation pane, choose **My Creations**.
- Step 3** Click the **Resources** tab, as shown in [Figure 7-1](#).

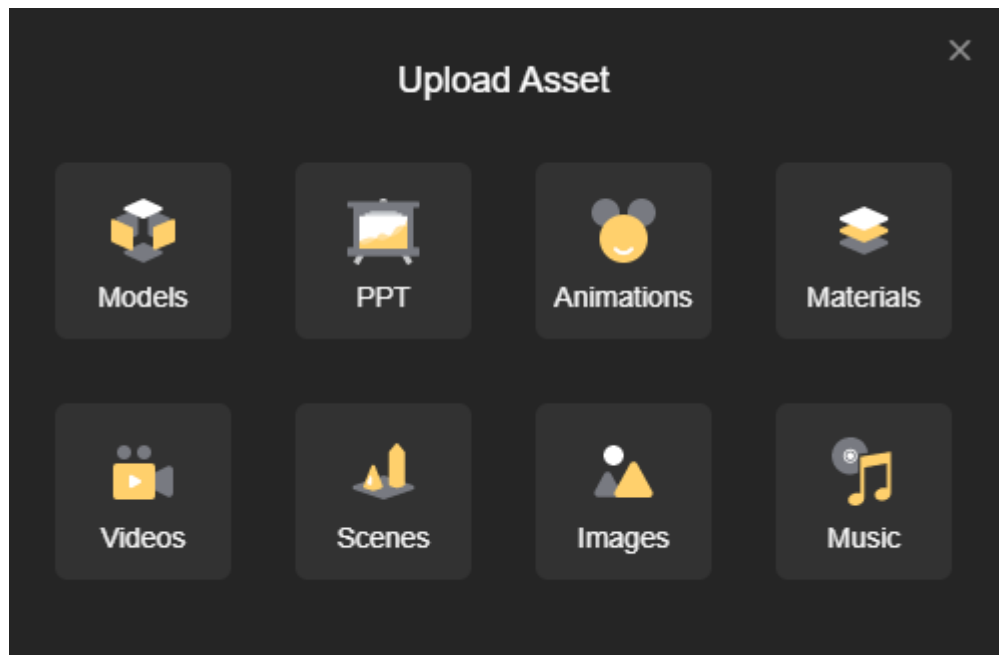
**Figure 7-1** Resources



**Step 4** Click **Upload** in the upper right corner of the page. The **Upload Asset** window is displayed, as shown in [Figure 7-2](#).

You can upload models, PowerPoints, animations, materials, videos, scenes, images, and music from the local PC.

**Figure 7-2** Uploading assets

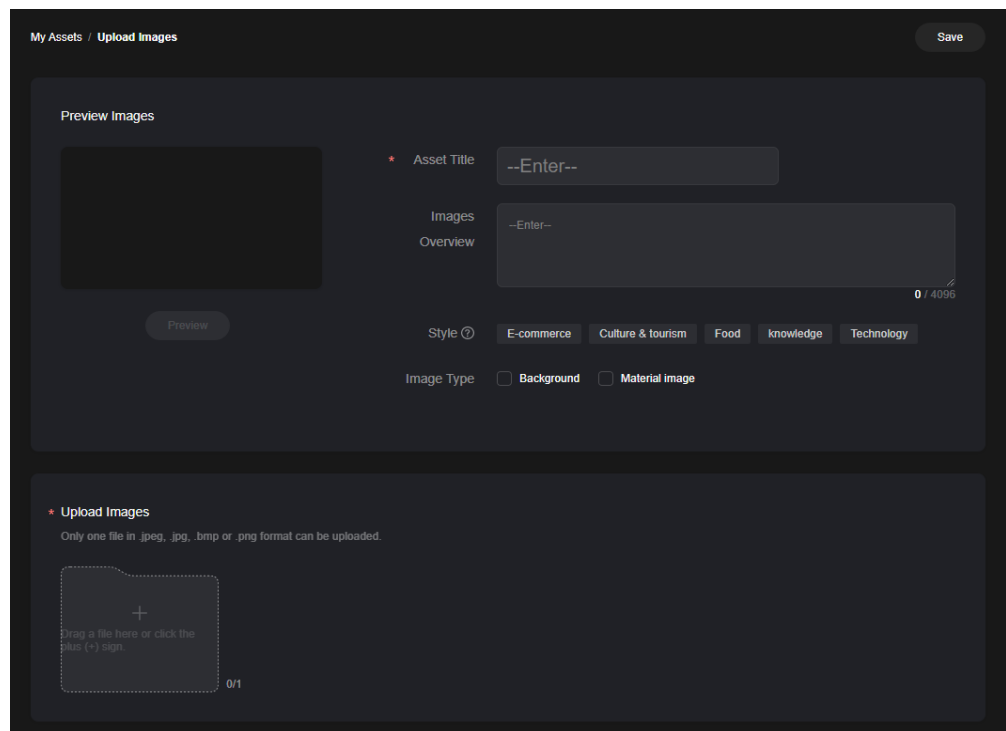


**Step 5** Choose **Images**. The **Upload Images** page is displayed, as shown in [Figure 7-3](#).

Configure the following parameters:

- **Asset Title:** title of the image
- **Images Overview:** basic introduction to the image
- **Style:** keyword tag, which is used to search for assets of this type
- **Image Type:** image usage

**Figure 7-3** Uploading an image

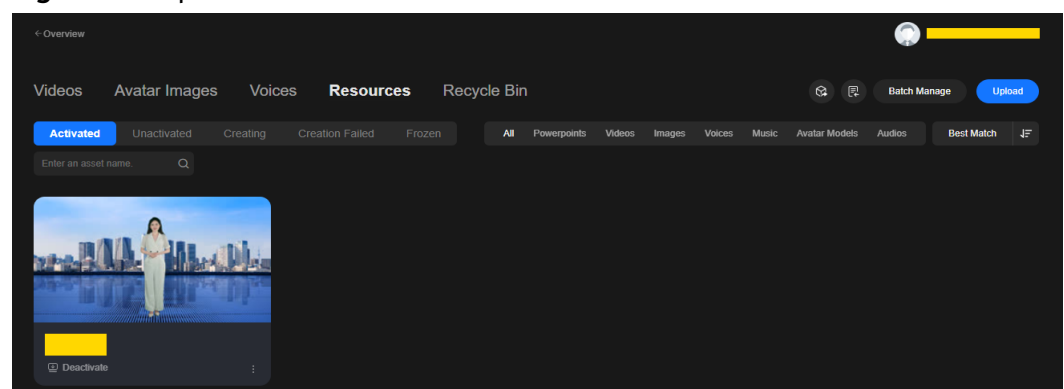


**Step 6** Click the plus sign (+) in the **Upload Images** area and select the image to be uploaded from the local PC.


**Step 7** Click **Save** in the upper right corner of the page. In the displayed dialog box, click **OK**.

After the asset is saved, return to the **My Creations > Resources > Activated** page, as shown in [Figure 7-4](#). After the asset is uploaded, it is activated by default and can be used on the console.

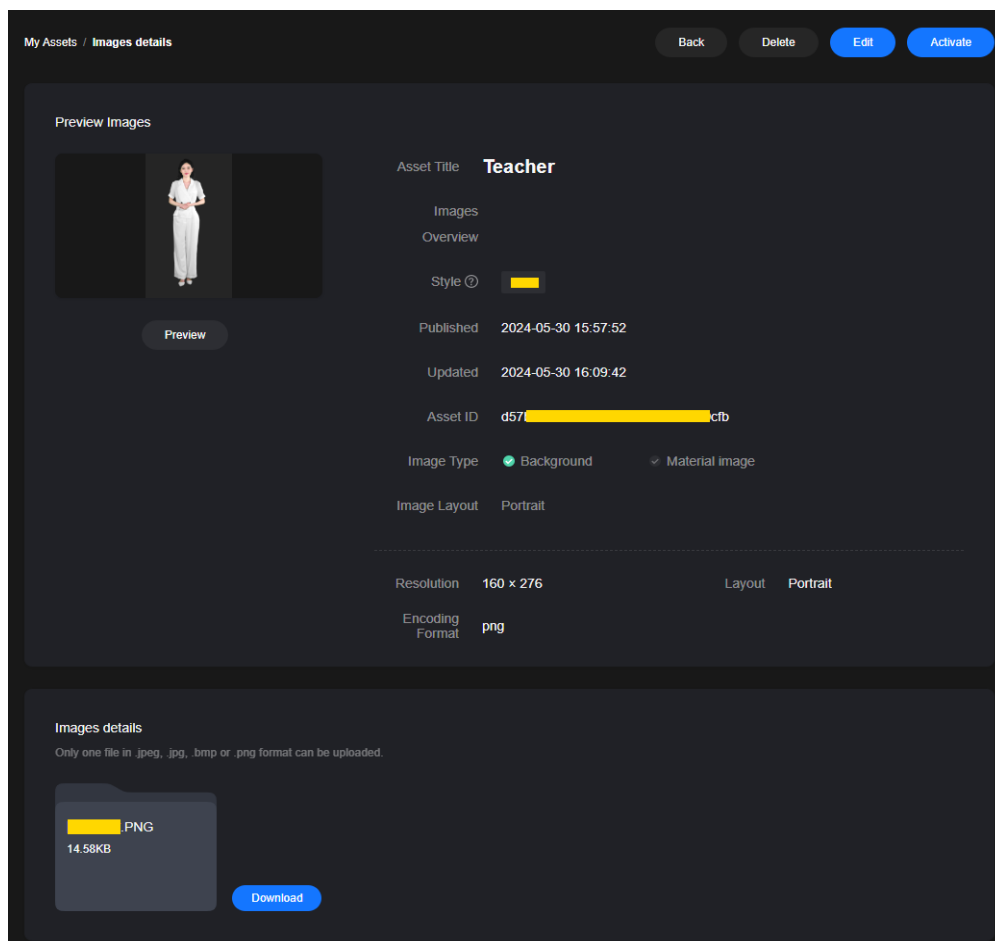
**Figure 7-4** Uploaded assets



**Step 8** You can perform the following operations on an uploaded asset:

- Renaming: Click  in the asset card area and select **Rename** from the drop-down list box to rename the asset.
- Deactivating: An uploaded asset is activated by default. You can click **Deactivate** in the asset card area to set the asset to the **Unactivated** status. Unactivated assets are unavailable on the console.

- Viewing details: Click an asset card to view information about the asset on the image details page, as shown in [Figure 7-5](#).
- Editing: Click an asset card and click **Edit** on the image details page to edit information about the asset.
- Deleting: Click an asset card and click **Delete** on the image details page to delete the asset.

**Figure 7-5** Asset details

----End

## 7.3 Transferring Assets

A tenant can transfer voice and avatar model assets to another tenant. The asset transfer operation is the same for both voice and avatar model assets. This section uses avatar model asset transfer as an example.

### Prerequisites

If a tenant wants to transfer assets to another tenant, they need to [submit a service ticket](#) or contact the key account manager and provide the obtained project ID to apply for being added to the whitelist.

For details about how to obtain the project ID of the region where the tenant is, see [Obtaining a Project ID](#).

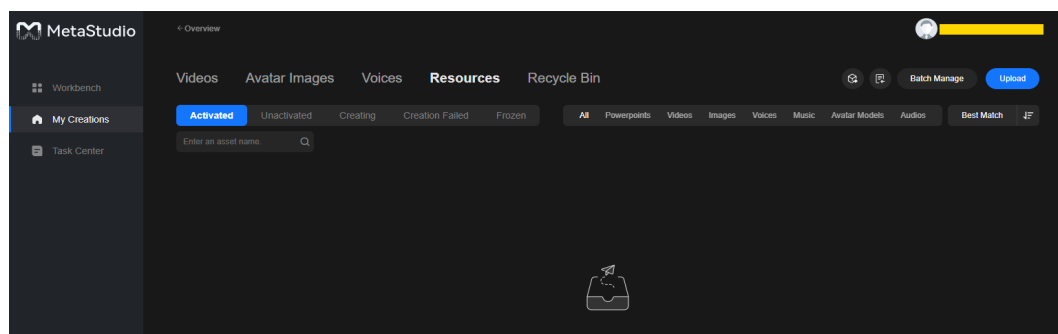
## Notes


A tenant added to the whitelist can only transfer voice and avatar model assets to another tenant.

## Procedure

- Step 1** Log in to the [MetaStudio console](#).
- Step 2** In the navigation pane, choose **My Creations**.
- Step 3** Click the **Resources** tab, as shown in [Figure 7-6](#).

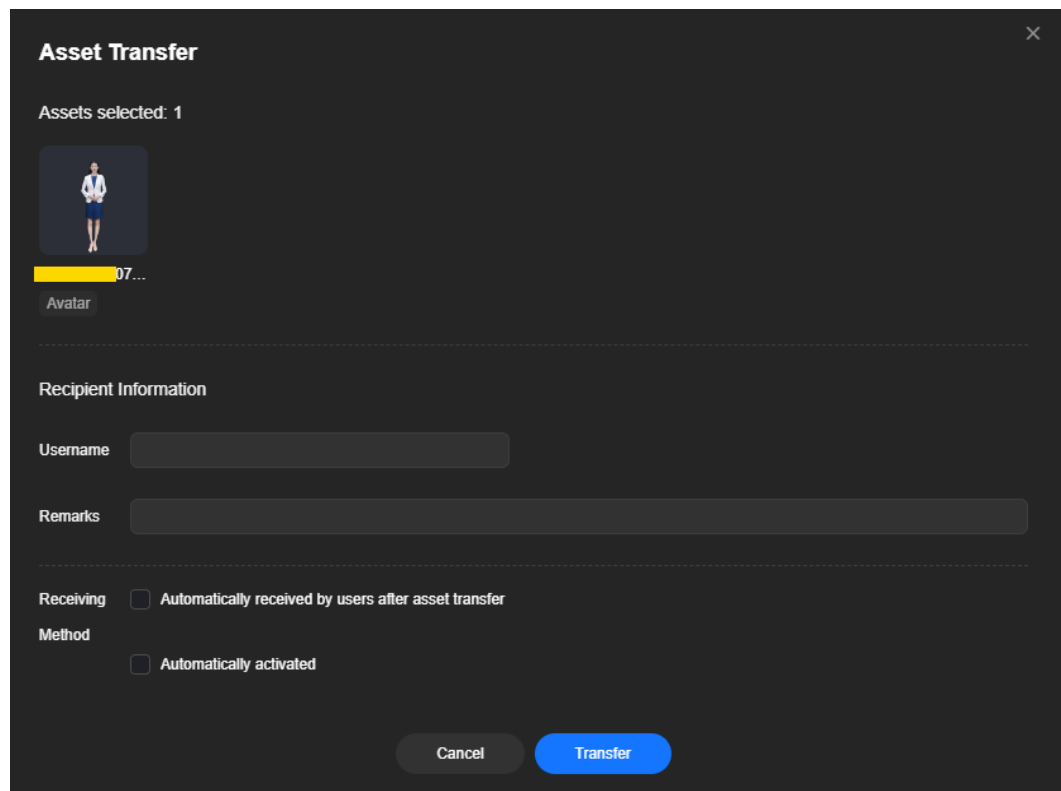
**Figure 7-6** Resources



- Step 4** Click the **Unactivated** tab on the left and the **Avatar Models** tab on the right to display all avatar model assets.
- Step 5** Find the asset to be transferred, click  in the lower right corner of the asset, and select **Transfer** from the drop-down list box. The **Asset Transfer** page is displayed, as shown in [Figure 7-7](#).

See [Table 7-1](#).

**Figure 7-7** Asset transfer



**Table 7-1** Parameter description

Parameter	Description
Username	For details about how to obtain the project ID of the region where the asset recipient is, see <a href="#">Obtaining a Project ID</a> .
Remarks	Remarks of an asset to be transferred.
Receiving Method	Method of receiving assets. Specifically: <ul style="list-style-type: none"> <li>● <b>Automatically received by users after asset transfer:</b> You are advised to select this option so that tenants do not need to perform operations in <a href="#">Receiving Assets</a> after asset transfer.</li> <li>● <b>Automatically activated:</b> You are advised to select this option so that tenants do not need to perform operations in <a href="#">Receiving Assets</a> after asset transfer.</li> </ul>

**Step 6** Click **Transfer**. In the displayed **Reminder** dialog box, click **OK**.

The **Asset Transfer Tasks** page is displayed. An asset transfer task is added on the page, as shown in [Figure 7-8](#).

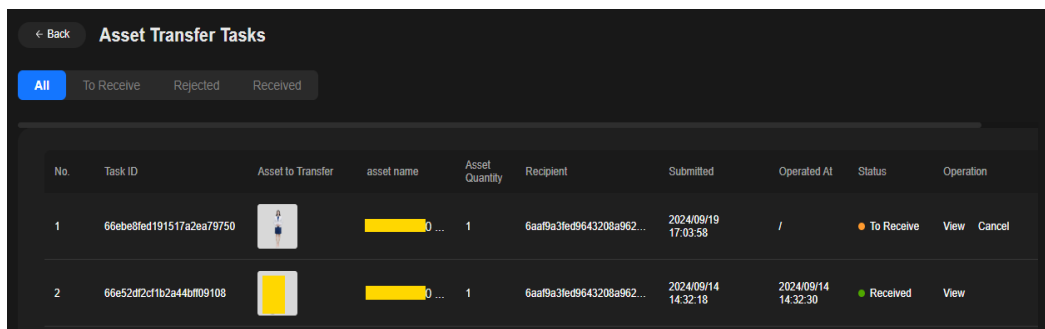




If you selected **Automatically received by users after asset transfer** and **Automatically activated** during asset transfer, the status of the asset transfer task is **Received**. If not, the status is **To Receive**.

You can perform the following operations on an asset transfer task:

- Viewing details: Click **View** on the right of the task to view the task details.
- Canceling transfer: Click **Cancel** on the right of the task to reclaim the assets that have not been received.

**Figure 7-8** Asset transfer tasks



No.	Task ID	Asset to Transfer	asset name	Asset Quantity	Recipient	Submitted	Operated At	Status	Operation
1	66ebe8fed191517a2ea79750		[Redacted]	1	6aaf9a3fed9643208a962...	2024/09/19 17:03:58	/	To Receive	View Cancel
2	66e52df2cf1b2a44ff09108		[Redacted]	1	6aaf9a3fed9643208a962...	2024/09/14 14:32:18	2024/09/14 14:32:30	Received	View

----End

## 7.4 Receiving Assets

A tenant can receive voice and avatar model assets transferred by the asset administrator or another tenant. The asset receiving and activation operations are the same for both voice and avatar model assets. This section uses avatar model asset receiving and activation as an example.

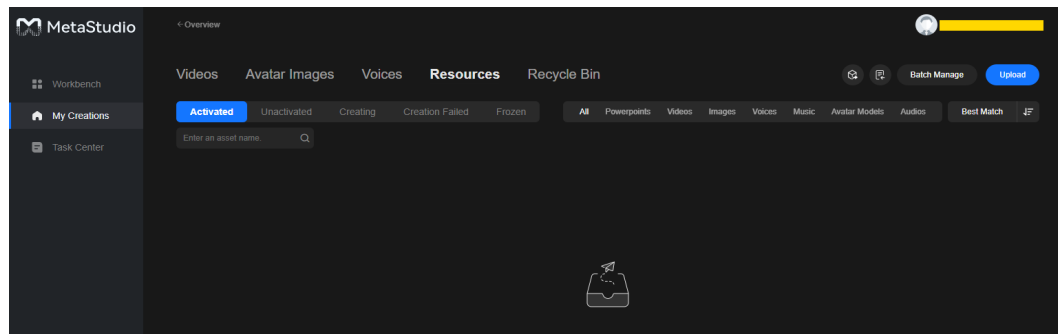
### Notes

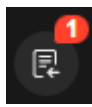
If the administrator or another tenant transfers voice or avatar model assets to a tenant, the tenant must receive and activate the assets within seven days. If not, the administrator or another tenant needs to transfer the assets to the tenant again.

### Procedure

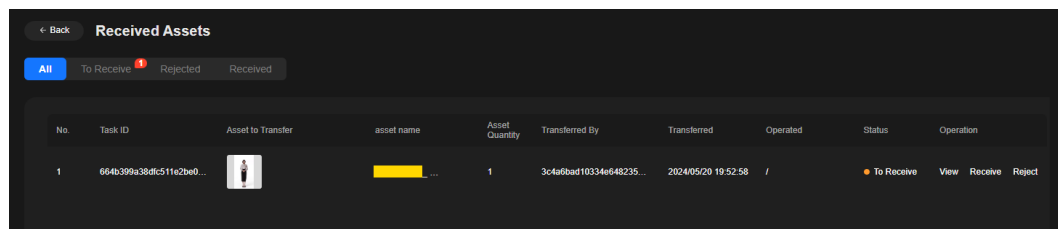
- Step 1** Log in to the [MetaStudio console](#).
- Step 2** In the navigation pane, choose **My Creations**.
- Step 3** Click the **Resources** tab, as shown in [Figure 7-9](#).

**Figure 7-9 Resources**



**Step 4** Click  in the upper right corner of the page. The **Received Assets** page is displayed.

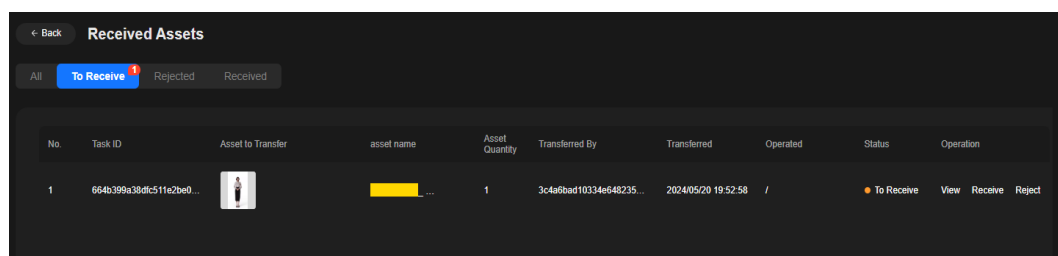
**Figure 7-10 Received assets**



**Step 5** Click the **To Receive** tab and click **Receive** in the **Operation** column of the asset, as shown in [Figure 7-11](#).

If the message **Asset received.** is displayed, the asset has been received.

**Figure 7-11 Assets to receive**

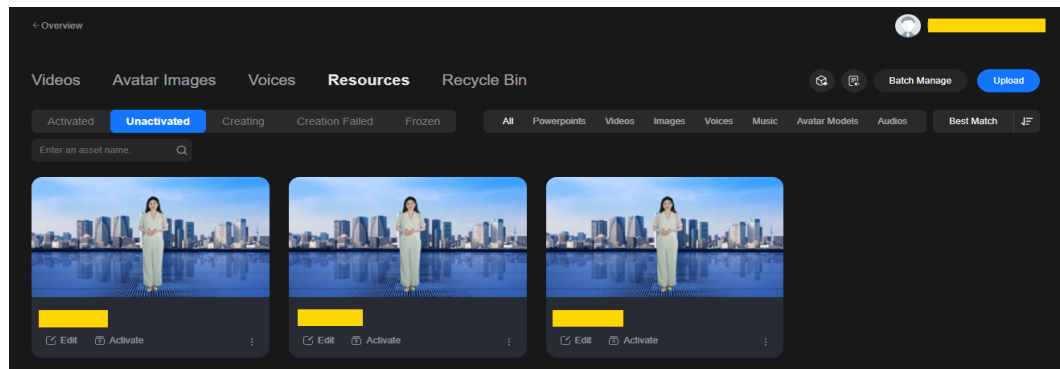


**Step 6** Click **Back** in the upper left corner of the page to return to the **Resources > Activated** page.

**Step 7** Click the **Unactivated** tab and click **Activate** in the desired received asset card. In the dialog box displayed, click **OK**.

If the message **Asset activated.** is displayed, the asset has been activated. You can click the **Activated** tab to view activated avatar model assets.

**Figure 7-12** Activating an asset



**Step 8** After the preceding operations are complete, the voice and avatar model assets of the account have taken effect. You can use the activated assets for video production or livestreaming.

----End

# 8 Appendix

## 8.1 Authorization Letter

Download the authorization letter for image or voice modeling.

## 8.2 Recording an Audio on a Mobile Phone

Perform operations based on the mobile phone type:

- [Operations on iPhone](#)
- [Operations on Android](#)

### Operations on iPhone

Easy Voice Recorder is recommended for recording on iPhone.

See [Table 8-1](#).

**Table 8-1** Audio recording requirements

Audio Recording	Description
Sampling rate	48 kHz is recommended for audio recording. Configure the recording parameters of Easy Voice Recorder: <ol style="list-style-type: none"><li>1. Open Easy Voice Recorder and switch to the <b>Settings</b> page.</li><li>2. Select <b>Format</b>. The <b>Format</b> page is displayed. Configure the following parameters:<ul style="list-style-type: none"><li>• <b>FILE FORMAT</b>: Select <b>.wav (PCM)</b>.</li><li>• <b>SAMPLE RATE</b>: Select <b>48 kHz (high quality)</b>.</li></ul></li><li>3. The recording page is displayed and the recording starts.</li></ol>

Audio Recording	Description
Sampling bit	48 bits is recommended for audio recording. The default sampling bit of Easy Voice Recorder is 16 bits. You do not need to change it.
Audio channel	Mono is recommended for audio recording. Mono is set by default for Easy Voice Recorder. You do not need to change it.
Audio format	Save the audio file in a lossless format, for example, WAV. Compressed formats such as MP3 are not allowed.
Audio naming	All script pieces are recorded in a WAV file (file name example: Voice.wav).
Audio export	Procedure: <ol style="list-style-type: none"> <li>1. Open Easy Voice Recorder and click <b>Listen</b> at the bottom.</li> <li>2. On the page displayed, click <b>Edit</b> in the upper right corner. The page for editing audio files is displayed.</li> <li>3. Select all audio files and click <b>Share</b>. You can transfer the audio files to the PC or use other third-party applications to export the audio files to the PC.</li> </ol> You can upload a long audio file to the MetaStudio console for voice training without compressing it.

## Operations on Android

Super Recorder is recommended for recording on Android.

See [Table 8-2](#).

**Table 8-2** Audio recording requirements

Audio Recording	Description
Sampling rate	48 kHz is recommended for audio recording. The default sample rate is 44,100 Hz (HD). You do not need to change it.
Sampling bit	48 bits is recommended for audio recording. The default sampling bit of Super Recorder is 16 bits. You do not need to change it.

Audio Recording	Description
Audio channel	Mono is recommended for audio recording. Mono is set by default for Super Recorder. You do not need to change it.
Audio format	Save the audio file in a lossless format, for example, WAV. Compressed formats such as MP3 are not allowed. Configure the recording parameters of Super Recorder: <ol style="list-style-type: none"><li>1. Open Super Recorder.</li><li>2. To record and save files properly, you need to grant the recording and storage permissions to Super Recorder.</li><li>3. The <b>Record Options</b> area is displayed. Configure the following parameters:<ul style="list-style-type: none"><li>• <b>Recording quality:</b> Select <b>High</b>.</li><li>• <b>Recording format:</b> Select <b>WAV</b>.</li></ul></li><li>4. Exit the settings page and go to the recording page to start recording.</li></ol>
Audio naming	All script pieces are recorded in a WAV file (file name example: Voice.wav).
Audio export	Procedure: <ol style="list-style-type: none"><li>1. Open Super Recorder and go to the audio file list page.</li><li>2. Touch and hold an audio file, select all files, and touch the icon of sharing to transfer the audio files to the PC or use other third-party applications to export the audio files to the PC. You can upload a long audio file to the MetaStudio console for voice training without compressing it.</li></ol>

## 8.3 Guide to Livestreaming on a Third-party Platform

MetaStudio allows livestreaming on a third-party platform such as Taobao, TikTok, and PDD. For details, [submit a service ticket](#) or contact the account manager.

### FAQs

- [What If the Live Video on a Third-party Live Platform Is Not Clear?](#)
- [What If the Livestream on a Third-party Live Platform Is Interrupted Unexpectedly?](#)

## 8.4 FAQs

## 8.4.1 In Which Regions Is MetaStudio Available?

MetaStudio has been put into commercial use in the CN North-Beijing4 region. MetaStudio is still in open beta testing (OBT) in the CN East-Shanghai1 and AP-Singapore regions. To use MetaStudio in these regions, [submit a service ticket](#).

## 8.4.2 How Do I Report Violations on MetaStudio?

If you find content of any of the following types on MetaStudio:

- Pornography, gambling, illegal drugs, frauds, or infringement
- Pirated games/software/videos
- P2P financial fraud
- Lottery
- Unlicensed hospitals and pharmaceutical information
- Inaccessible websites or websites that do not contain any substantial information

You can immediately [call Huawei Cloud](#) or [submit a service ticket](#) to report violations. After receiving your feedback, we will immediately respond and solve the problem to ensure that content on MetaStudio is compliant with laws and regulations.

## 8.4.3 What If the Live Video on a Third-party Live Platform Is Not Clear?

If the live video on a third-party live platform is not clear, possible causes are:

1. The computer does not have a discrete graphics card.
2. **Base (Canvas) Resolution** and **Output (Scaled) Resolution** of Open Broadcaster Software (OBS) are not the same.

### Checking the Discrete Graphics Card

The computer on which the third-party live platform is used must be installed with a discrete graphics card.

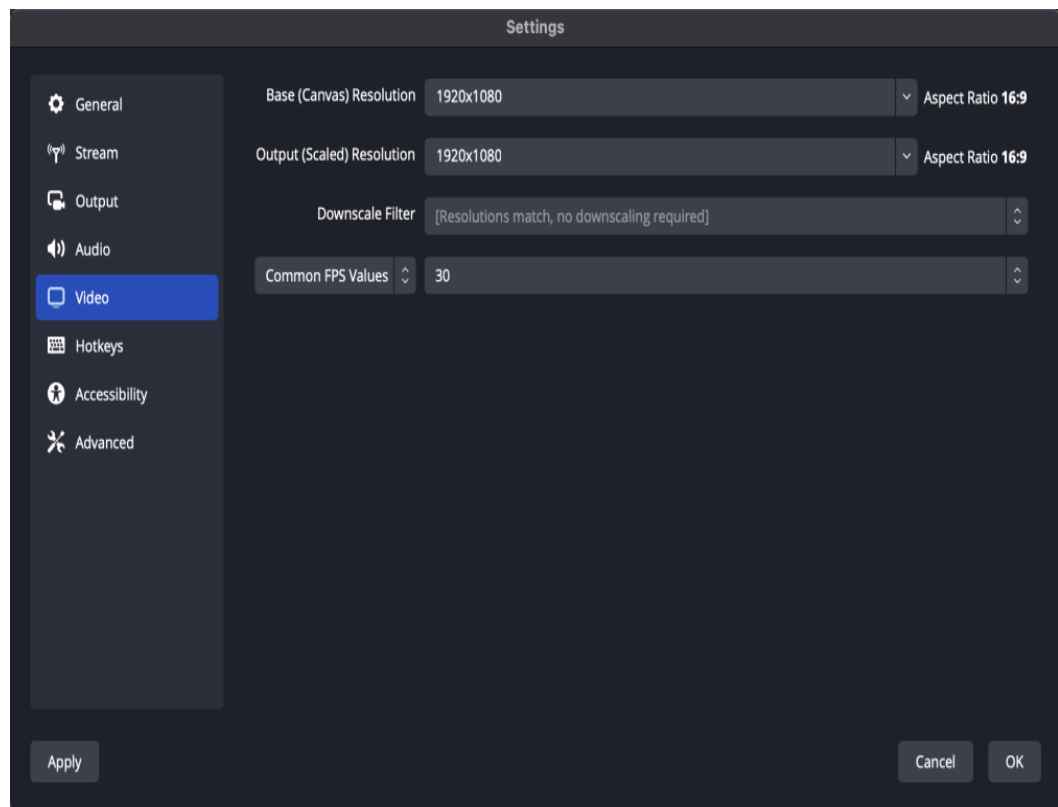
### Checking the OBS Video Resolution

**Base (Canvas) Resolution** and **Output (Scaled) Resolution** of OBS must be the same.

Check method:

- Step 1** Open OBS on the local PC.
- Step 2** On the top navigation bar, choose **File > Settings**. The **Settings** dialog box is displayed.
- Step 3** In the navigation pane on the left, choose **Video** and check whether **Base (Canvas) Resolution** and **Output (Scaled) Resolution** are the same.

If they are different, change them to the same value.


**Figure 8-1** Video settings

----End

#### 8.4.4 What If the Livestream on a Third-party Live Platform Is Interrupted Unexpectedly?

The possible cause is the automatic logout from the MetaStudio console.

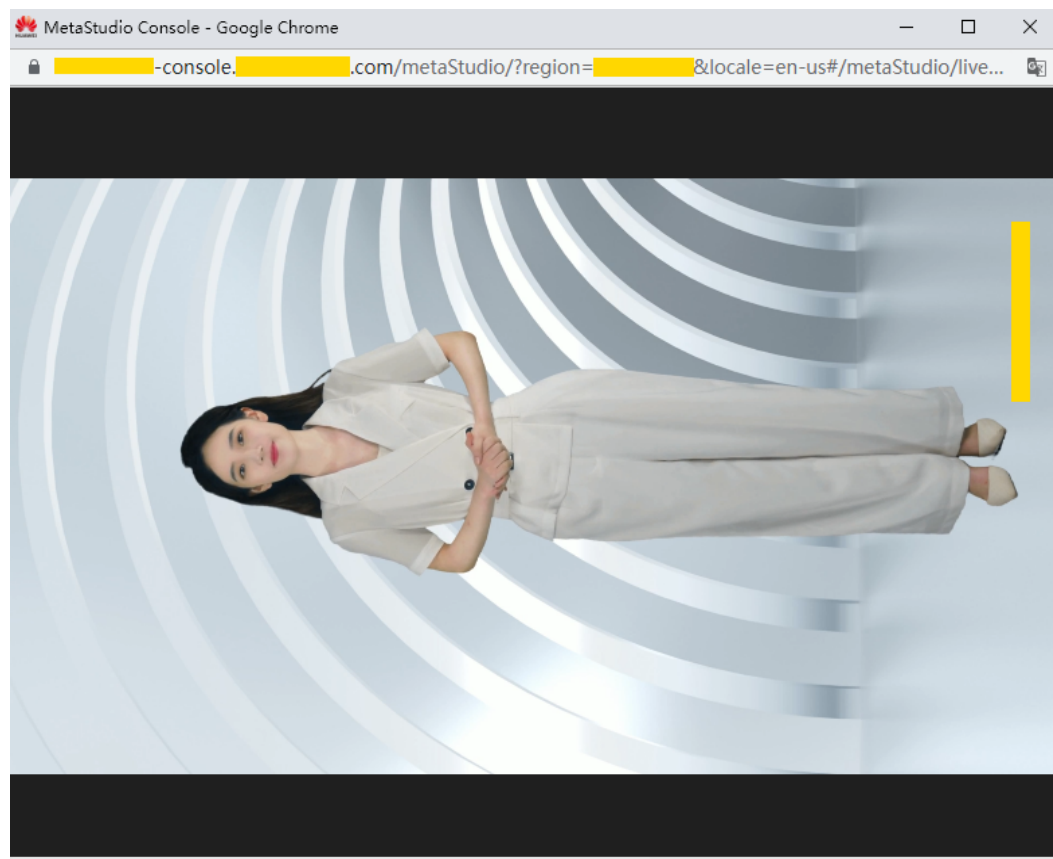
Check method:

- Step 1** After a livestream is started on the MetaStudio console, click  on the right of the URL and select the option of allowing pop-ups from the drop-down list box.
- Step 2** Click **OK**. Two new browser windows are displayed, as shown in [Figure 8-2](#) and [Figure 8-3](#).

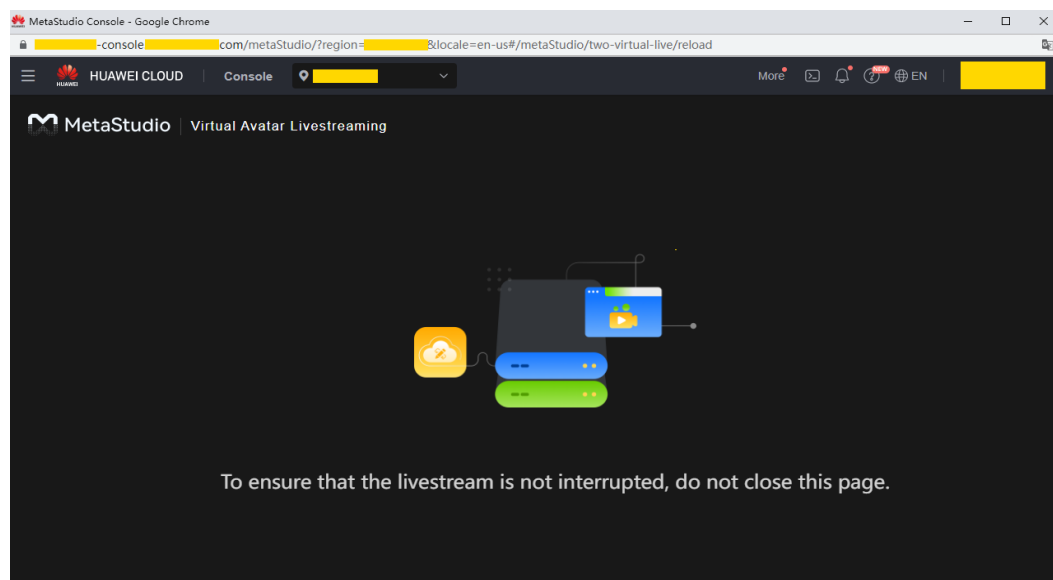
If you do not perform any operation on the MetaStudio console for more than 10 minutes, automatic logout will be triggered, causing the live video on the third-party live platform to be interrupted. Keep the page in [Figure 8-3](#) open throughout the livestream to avoid unexpected interruptions.



**Figure 8-2** Live video window



**Figure 8-3** Page for ensuring an uninterrupted livestream



----End

## 8.4.5 How Do I Receive and Activate Voice Assets or Avatar Model Assets?

If the administrator or another tenant transfers voice or avatar model assets to a tenant, the tenant must receive and activate the assets within seven days. If not, the administrator or another user needs to transfer the assets to the tenant again.

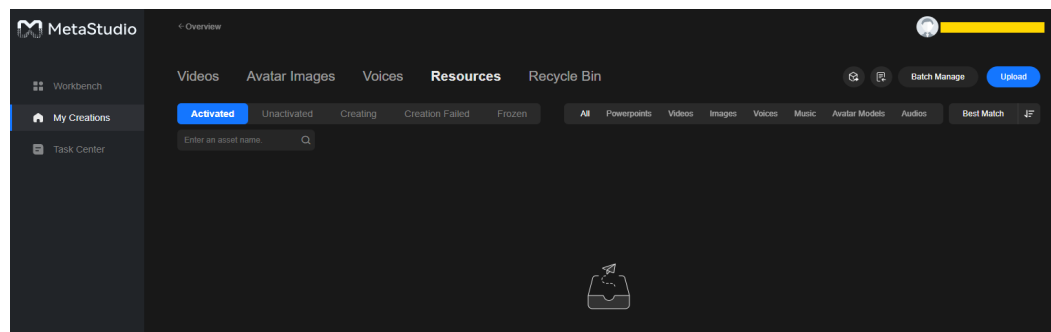
The asset receiving and activation operations are the same for both voice and avatar model assets. This section uses avatar model asset receiving and activation as an example.

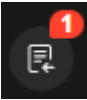
**Step 1** Log in to the [MetaStudio console](#).

**Step 2** In the navigation pane, choose **My Creations**.

**Step 3** Click the **Resources** tab, as shown in [Figure 8-4](#).

**Figure 8-4** Resources



**Step 4** Click  in the upper right corner of the page. The **Received Assets** page is displayed.

**Figure 8-5** Received assets

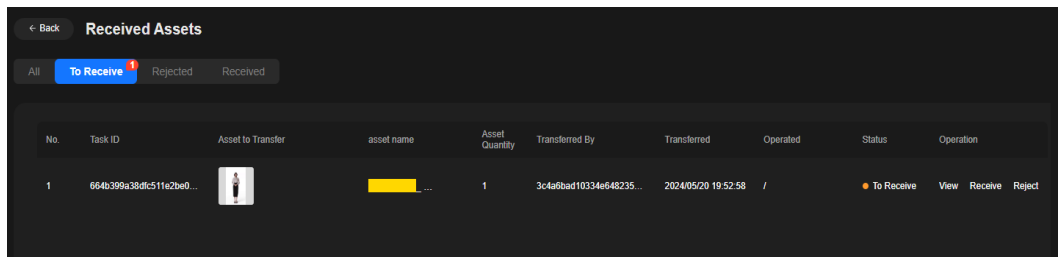
The screenshot shows the 'Received Assets' page. At the top, there are tabs for 'All', 'To Receive' (with a red notification badge), 'Rejected', and 'Received'. Below the tabs is a table with the following columns: No., Task ID, Asset to Transfer, asset name, Asset Quantity, Transferred By, Transferred, Operated, Status, and Operation.

No.	Task ID	Asset to Transfer	asset name	Asset Quantity	Transferred By	Transferred	Operated	Status	Operation
1	664b399a38dfc511e2be0...		[Redacted]	1	3c4e6bad1034e648235...	2024/05/20 19:52:58	/	To Receive	View Receive Reject

**Step 5** Click the **To Receive** tab and click **Receive** in the **Operation** column of the asset, as shown in [Figure 8-6](#).

If the message **Asset received.** is displayed, the asset has been received.

**Figure 8-6** Assets to receive

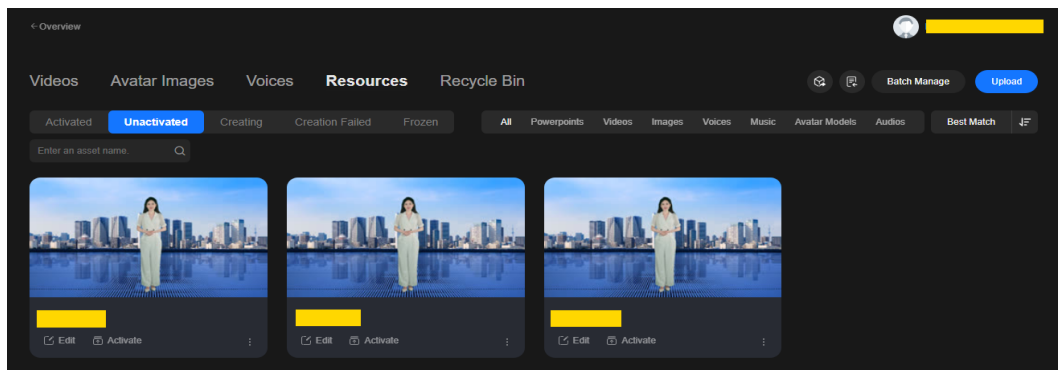


**Step 6** Click **Back** in the upper left corner of the page to return to the **Resources > Activated** page.

**Step 7** Click the **Unactivated** tab and click **Activate** in the desired received asset card. In the dialog box displayed, click **OK**.

If the message **Asset activated.** is displayed, the asset has been activated. You can click the **Activated** tab to view activated avatar model assets.

**Figure 8-7** Activating an asset



**Step 8** After the preceding operations are complete, the voice and avatar model assets of the account have taken effect. You can use the activated assets for video production or livestreaming.

----End