

**Media Processing Center**

# **API Reference**

|              |            |
|--------------|------------|
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# 1 Before You Start

---

An endpoint is the request address for calling an API. Obtain the service endpoint from [Regions and Endpoints](#).

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. For the endpoints of all services, see regions and endpoints.

# 2 API Overview

The following tables list the MPC APIs. Before calling an MPC API, you need to obtain a user token. The obtained token can then be used to authenticate the calling of other APIs. For details about how to call an MPC API, see [Application Examples](#).

## Custom Transcoding Templates

A transcoding template is used to define transcoded video information. Before transcoding a video, you need to create a transcoding template.

| API                                                     | Description                                      |
|---------------------------------------------------------|--------------------------------------------------|
| POST /v1/{project_id}/template/transcodings             | <a href="#">Creating a Transcoding Template</a>  |
| DELETE /v1/{project_id}/template/transcodings{?temp_id} | <a href="#">Deleting a Transcoding Template</a>  |
| PUT /v1/{project_id}/template/transcodings              | <a href="#">Modifying a Transcoding Template</a> |
| GET /v1/{project_id}/template/transcodings{?temp_id}    | <a href="#">Querying Transcoding Templates</a>   |

## Custom Transcoding Template Groups

A transcoding template group defines the output file information. A custom template group can contain a maximum of six output configurations.

| API                                                        | Description                                           |
|------------------------------------------------------------|-------------------------------------------------------|
| POST /v1/{project_id}/template_group/transcodings          | <a href="#">Creating a Transcoding Template Group</a> |
| GET /v1/{project_id}/template_group/transcodings{?temp_id} | <a href="#">Querying Transcoding Template Groups</a>  |

| API                                                        | Description                                           |
|------------------------------------------------------------|-------------------------------------------------------|
| PUT /v1/{project_id}/template_group/transcodings{?temp_id} | <a href="#">Updating a Transcoding Template Group</a> |
| DELETE /v1/{project_id}/template_group/transcodings        | <a href="#">Deleting a Transcoding Template Group</a> |

## Watermarking

Call the watermark template APIs to deliver the watermark template and add watermarks to videos during transcoding.

| API                                                             | Description                                    |
|-----------------------------------------------------------------|------------------------------------------------|
| POST /v1/{project_id}/template/watermark                        | <a href="#">Creating a Watermark Template</a>  |
| PUT /v1/{project_id}/template/watermark                         | <a href="#">Modifying a Watermark Template</a> |
| DELETE /v1/{project_id}/template/watermark{?template_id}        | <a href="#">Deleting a Watermark Template</a>  |
| GET /v1/{project_id}/template/watermark{?template_id,page,size} | <a href="#">Querying Watermark Templates</a>   |

## Media Transcoding

| API                                                                              | Description                                       |
|----------------------------------------------------------------------------------|---------------------------------------------------|
| POST /v1/{project_id}/transcodings                                               | <a href="#">Creating a Transcoding Task</a>       |
| DELETE /v1/{project_id}/transcodings{?task_id}                                   | <a href="#">Canceling a Transcoding Task</a>      |
| GET /v1/{project_id}/transcodings{?task_id,start_time,end_time,status,page,size} | <a href="#">Querying Transcoding Tasks</a>        |
| DELETE /v1/{project_id}/transcodings/task                                        | <a href="#">Deleting Transcoding Task Records</a> |
| GET /v1/{project_id}/transcodings/summaries                                      | <a href="#">Querying VOD Overview</a>             |

## Packaging

| API                                                                       | Description                                     |
|---------------------------------------------------------------------------|-------------------------------------------------|
| POST /v1/{project_id}/remux                                               | <a href="#">Creating a Packaging Task</a>       |
| PUT /v1/{project_id}/remux                                                | <a href="#">Retrying a Packaging Task</a>       |
| GET /v1/{project_id}/remux{?task_id,start_time,end_time,status,page,size} | <a href="#">Querying Packaging Tasks</a>        |
| DELETE /v1/{project_id}/remux{?task_id}                                   | <a href="#">Canceling a Packaging Task</a>      |
| DELETE /v1/{project_id}/remux/task                                        | <a href="#">Deleting Packaging Task Records</a> |

## GIF Converting

| API                                                                                   | Description                                    |
|---------------------------------------------------------------------------------------|------------------------------------------------|
| POST /v1/{project_id}/animated-graphics                                               | <a href="#">Creating an Animated GIF Task</a>  |
| GET /v1/{project_id}/animated-graphics{?task_id,start_time,end_time,status,page,size} | <a href="#">Querying Animated GIF Tasks</a>    |
| DELETE /v1/{project_id}/animated-graphics{?task_id}                                   | <a href="#">Canceling an Animated GIF Task</a> |

## Video Parsing

| API                                                                                           | Description                                    |
|-----------------------------------------------------------------------------------------------|------------------------------------------------|
| POST /v1/{project_id}/extract-metadata                                                        | <a href="#">Creating a Video Parsing Task</a>  |
| GET /v1/{project_id}/template/extract-metadata{?task_id,start_time,end_time,status,page,size} | <a href="#">Querying Video Parsing Tasks</a>   |
| DELETE /v1/{project_id}/extract-metadata{?task_id}                                            | <a href="#">Canceling a Video Parsing Task</a> |

## Snapshot Capturing

| API                                                                            | Description                               |
|--------------------------------------------------------------------------------|-------------------------------------------|
| POST /v1/{project_id}/thumbnails                                               | <a href="#">Creating a Snapshot Task</a>  |
| GET /v1/{project_id}/thumbnails{?task_id,start_time,end_time,status,page,size} | <a href="#">Querying Snapshot Tasks</a>   |
| DELETE /v1/{project_id}/thumbnails{?task_id}                                   | <a href="#">Canceling a Snapshot Task</a> |

## Authorization and Configuration

| API                                     | Description                                                               |
|-----------------------------------------|---------------------------------------------------------------------------|
| PUT /v1/{project_id}/notification       | <a href="#">Configuring Event Notifications on the Transcoding Server</a> |
| GET /v1/{project_id}/notification       | <a href="#">Querying Event Notifications on the Transcoding Server</a>    |
| GET /v1/{project_id}/notification/event | <a href="#">Querying All Events on the Transcoding Server</a>             |
| GET /v1/{project_id}/buckets            | <a href="#">Querying the Bucket List</a>                                  |
| PUT /v1/{project_id}/authority          | <a href="#">Granting or Canceling Bucket Authorization</a>                |
| GET /v1.0-ext/{project_id}/objects      | <a href="#">Querying Objects in a Bucket</a>                              |
| POST /v1/{project_id}/agencies          | <a href="#">Requesting an OBS Authorization Task</a>                      |
| GET /v1/{project_id}/agencies           | <a href="#">Querying the OBS Authorization Task Status</a>                |

# 3 Calling APIs

## 3.1 Making an API Request

This section describes the structure of a REST API request, and uses the IAM API for [creating an IAM User](#) as an example to demonstrate how to call an API. The obtained token can then be used to authenticate the calling of other APIs.

### Request URI

A request URI is in the following format:

**{URI-scheme}://{Endpoint}/{resource-path}?{query-string}**

Although a request URI is included in the request header, most programming languages or frameworks require the request URI to be transmitted separately.

**Table 3-1** URI parameter description

| Parameter     | Description                                                                                                                                                                                                                                                                                                     |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| URI-scheme    | Protocol used to transmit requests. All APIs use HTTPS.                                                                                                                                                                                                                                                         |
| Endpoint      | Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from <a href="#">Regions and Endpoints</a> .<br>For example, the endpoint of IAM in region <b>CN-Hong Kong</b> is <b>iam.ap-southeast-1.myhuaweicloud.com</b> . |
| resource-path | Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the <b>resource-path</b> of the API used to obtain a user token is <b>/v3/auth/tokens</b> .                                                                                                    |

| Parameter    | Description                                                                                                                                                                                                                                                               |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| query-string | Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of <i>Parameter name=Parameter value</i> . For example, <b>?limit=10</b> indicates that a maximum of 10 data records will be displayed. |

IAM is a global service. You can create an IAM user using the endpoint of IAM in any region. For example, to create an IAM user in the **CN-Hong Kong** region, obtain the endpoint of IAM (**iam.ap-southeast-1.myhuaweicloud.com**) for this region and the **resource-path** (**/v3.0/OS-USER/users**) in the URI of the API for **creating an IAM user**. Then construct the URI as follows:

```
https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
```

**Figure 3-1** Example URI



#### NOTE

To simplify the URI display in this document, each API is provided only with a **resource-path** and a request method. The **URI-scheme** of all APIs is **HTTPS**, and the endpoints of all APIs in the same region are identical.

## Request Methods

The HTTP protocol defines the following request methods that can be used to send a request to the server.

**Table 3-2** HTTP methods

| Method | Description                                                                |
|--------|----------------------------------------------------------------------------|
| GET    | Requests the server to return specified resources.                         |
| PUT    | Requests the server to update specified resources.                         |
| POST   | Requests the server to add resources or perform special operations.        |
| DELETE | Requests the server to delete specified resources, for example, an object. |
| HEAD   | Same as GET except that the server must return only the response header.   |

| Method | Description                                                                                                                               |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------|
| PATCH  | Requests the server to update partial content of a specified resource.<br>If the resource does not exist, a new resource will be created. |

For example, in the case of the API for [creating an IAM user](#), the request method is **POST**. An example request is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
```

## Request Header

You can also add additional header fields to a request, such as the fields required by a specified URI or HTTP method. For example, to request for the authentication information, add **Content-Type**, which specifies the request body type.

Common request header fields are as follows.

**Table 3-3** Common request header fields

| Parameter      | Description                                                                                                                                                                                                                                                                                                                       | Mandatory                                               | Example Value                            |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------------------------------|
| Host           | Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of <i>Hostname:Port number</i> . If the port number is not specified, the default port is used. The default port number for <b>https</b> is <b>443</b> . | No<br>This field is mandatory for AK/SK authentication. | code.test.com<br>or<br>code.test.com:443 |
| Content-Type   | Specifies the type (or format) of the message body. The default value <b>application/json</b> is recommended. Other values of this field will be provided for specific APIs if any.                                                                                                                                               | Yes                                                     | application/json                         |
| Content-Length | Specifies the length of the request body. The unit is byte.                                                                                                                                                                                                                                                                       | No                                                      | 3495                                     |

| Parameter    | Description                                                                                                                                                                                                                                                                  | Mandatory                                                                                                                                 | Example Value                                                                            |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| X-Project-Id | Specifies the project ID. Obtain the project ID by following the instructions in <a href="#">Obtaining a Project ID</a> .                                                                                                                                                    | No<br>This field is mandatory for requests that use AK/SK authentication in the Dedicated Cloud (DeC) scenario or multi-project scenario. | e9993fc787d94b6c886cbaa340f9c0f4                                                         |
| X-Auth-Token | Specifies the user token. It is a response to the API for <a href="#">obtaining a user token</a> (This is the only API that does not require authentication). After the request is processed, the value of <b>X-Subject-Token</b> in the response header is the token value. | No<br>This field is mandatory for token authentication.                                                                                   | The following is part of an example token:<br>MIIPAgYJKoZlhvcNAQcCo...ggg1BBIINPXsidG9rZ |

#### NOTE

In addition to supporting authentication using tokens, APIs support authentication using AK/SK, which uses SDKs to sign a request. During the signature, the **Authorization** (signature authentication) and **X-Sdk-Date** (time when a request is sent) headers are automatically added in the request.

For more details, see "Authentication Using AK/SK" in [Authentication](#).

The following shows an example request of the API for [creating an IAM user](#) when AK/SK authentication is used:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=*****, SignedHeaders=content-type;host;x-sdk-date,
Signature=*****
```

## (Optional) Request Body

This part is optional. A request body is generally sent in a structured format (for example, JSON or XML), which is specified by **Content-Type** in the request header. It is used to transfer content other than the request header. If the request body contains full-width characters, these characters must be coded in UTF-8.

The request body varies depending on APIs. Certain APIs do not require the request body, such as the APIs requested using the GET and DELETE methods.

The following shows an example request (a request body included) of the API for [creating an IAM user](#). You can learn about request parameters and related

description from this example. The bold parameters need to be replaced for a real request.

- **accountid**: account ID of an IAM user
- **username**: name of an IAM user
- **email**: email of an IAM user
- **password**: login password of an IAM user

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=*****, SignedHeaders=content-type;host;x-sdk-date,
Signature=*****
```

```
{
  "user": {
    "domain_id": "accountid",
    "name": "username",
    "password": "password",
    "email": "email",
    "description": "IAM User Description"
  }
}
```

If all data required for the API request is available, you can send the request to call the API through [curl](#), [Postman](#), or coding. In the response to the API used to obtain a user token, **X-Subject-Token** is the desired user token. This token can then be used to authenticate the calling of other APIs.

## 3.2 Authentication

Requests for calling an API can be authenticated using either of the following methods:

- AK/SK authentication: Requests are encrypted using AK/SK pairs. AK/SK authentication is recommended because it is more secure than token authentication.
- Token authentication: Requests are authenticated using tokens.

### AK/SK Authentication

#### NOTE

AK/SK authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token authentication is recommended.

In AK/SK authentication, AK/SK is used to sign requests and the signature is then added to the requests for authentication.

- AK: access key ID, which is a unique identifier used in conjunction with a secret access key to sign requests cryptographically.
- SK: secret access key, which is used in conjunction with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

In AK/SK authentication, you can use an AK/SK to sign requests based on the signature algorithm or using the signing SDK. For details about how to sign requests and use the signing SDK, see [API Request Signing Guide](#).

 NOTE

The signing SDK is only used for signing requests and is different from the SDKs provided by services.

## Token Authentication

 NOTE

The validity period of a token is 24 hours. When using a token for authentication, cache it to prevent frequently calling the IAM API used to obtain a user token.

A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to requests to get permissions for calling the API. You can obtain a token by calling the [Obtaining a User Token](#) API.

IMS is a project-level service. When you call the API, set **auth.scope** in the request body to **project**.

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username", // IAM user name
          "password": SADMIN_PASS, //IAM user password. You are advised to store it in ciphertext in
the configuration file or an environment variable and decrypt it when needed to ensure security.
          "domain": {
            "name": "domainname" // Name of the account that the IAM user belongs to
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxxx" // Project name
      }
    }
  }
}
```

After a token is obtained, the **X-Auth-Token** header field must be added to requests to specify the token when calling other APIs. For example, if the token is **ABCDEFJ....**, **X-Auth-Token: ABCDEFJ....** can be added to a request as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

## 3.3 Response

### Status Code

After sending a request, you will receive a response, including a status code, response header, and response body.

A status code is a group of digits, ranging from 1xx to 5xx. It indicates the status of a request. For more information, see [Status Codes](#).

For example, if status code **201** is returned for calling the API used to [create an IAM user](#), the request is successful.

## Response Header

Similar to a request, a response also has a header, for example, **Content-Type**.

**Figure 3-2** shows the response header fields for the API used to [create an IAM user](#). The **X-Subject-Token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

### NOTE

For security purposes, you are advised to set the token in ciphertext in configuration files or environment variables and decrypt it when using it.

**Figure 3-2** Header fields of the response to the request for creating an IAM user

```
"X-Frame-Options": "SAMEORIGIN",
"X-IAM-ETag-id": "2562365939-d8f6f12921974cb097338ac11fcec8a",
"Transfer-Encoding": "chunked",
"Strict-Transport-Security": "max-age=31536000; includeSubdomains;",
"Server": "api-gateway",
"X-Request-Id": "af2953f2bcc67a42325a69a19e6c32a2",
"X-Content-Type-Options": "nosniff",
"Connection": "keep-alive",
"X-Download-Options": "noopen",
"X-XSS-Protection": "1; mode=block;",
"X-IAM-Trace-Id": "token_ null_af2953f2bcc67a42325a69a19e6c32a2",
"Date": "Tue, 21 May 2024 09:03:40 GMT",
"Content-Type": "application/json; charset=utf8"
```

## (Optional) Response Body

The body of a response is often returned in a structured format (for example, JSON or XML) as specified in the **Content-Type** header field. The response body transfers content except the response header.

The following shows part of the response body for the API used to [create an IAM user](#).

```
{
  "user": {
    "id": "c131886aec...",
    "name": "IAMUser",
    "description": "IAM User Description",
    "areacode": "",
    "phone": "",
    "email": "***@***.com",
    "status": null,
    "enabled": true,
    "pwd_status": false,
    "access_mode": "default",
    "is_domain_owner": false,
    "xuser_id": "",
    "xuser_type": "",
    "password_expires_at": null,
  }
}
```

```
"create_time": "2024-05-21T09:03:41.000000",  
"domain_id": "d78cbac1.....",  
"xdomain_id": "30086000.....",  
"xdomain_type": "",  
"default_project_id": null  
}  
}
```

If an error occurs during API calling, an error code and a message will be displayed. The following shows an error response body.

```
{  
  "error_msg": "The request message format is invalid.",  
  "error_code": "IMG.0001"  
}
```

In the response body, **error\_code** is an error code, and **error\_msg** provides information about the error.

# 4 Application Examples

---

## 4.1 Example 1: Create a Transcoding Template

### Scenario

If you need to use a custom transcoding template for audio and video transcoding, create a transcoding template before submitting a transcoding task.

### Prerequisites

- You have obtained the project ID of the region where the transcoding template is to be created. For details, see [Obtaining a Project ID](#).
- You have determined the region where the transcoding template to be created is located and obtained the endpoint of MPC for this region from the [Regions and Endpoints](#).

### Overall Process

- [Obtaining a User Token](#)
- [Creating a Transcoding Template](#)

### Involved APIs

To use token-based authentication, [obtain a user token](#) and add **X-Auth-Token** to the request header of the service API when making an API request.

### Procedure

**Step 1** [Obtain a user token](#) and use it to authenticate the calling of MPC APIs.

Obtain the *username*, *password*, *domainname*, and *projectname* from the **My Credentials** page. Call the following API to obtain the token. For details, see [Making an API Request](#).

```
POST https://iam.cn-north-4.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
{
  "auth": {
```

```
"identity": {
  "methods": [
    "password"
  ],
  "password": {
    "user": {
      "name": "*****", //Username
      "password": "*****", //Login password
      "domain": {
        "name": "domainname" //Name of the account to which the user belongs
      }
    }
  }
},
"scope": {
  "project": {
    "name": "*****" //Project name
  }
}
}
```

As shown in [Figure 4-1](#), information in the red box indicates the user token.

**Figure 4-1** Obtaining a user token

```
cache-control → no-cache, no-store, must-revalidate
connection → keep-alive
content-length → 15185
content-type → application/json; charset=UTF-8
date → Wed, 29 May 2019 08:02:38 GMT
expires → Thu, 01 Jan 1970 00:00:00 GMT
pragma → no-cache
server → api-gateway
strict-transport-security → max-age=31536000; includeSubdomains;
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-lam-trace-id → to:
x-request-id → fc:
x-subject-token
x-ssr-protection → 1; mode=block;
```

**Step 2** Select the POST request method and enter the request URI.

```
https://{endpoint}/v1/{project_id}/template/transcodings
```

**mpc.cn-north-4.myhuaweicloud.com** is the endpoint of MPC. You can obtain the endpoint from [Regions and Endpoints](#).

#### NOTE

The region where an IAM API is called must be the same as the region where an MPC API is called. For example, the user token obtained when you call an IAM API in the **CN North-Beijing4** region can only be used to authenticate the requests for calling MPC APIs in the **CN North-Beijing4** region.

**Step 3** In the request header, add **X-Auth-Token** and set its value to be the token obtained in [Step 1](#).

**Step 4** Pass the following parameters to the request body:

```
{
  "template_name": "MP4_H.264_1920x1080_6000_HEAAC",
  "video": {
```

```
{
  "codec":1,
  "bitrate":6000,
  "profile":3,
  "level":15,
  "preset":3,
  "ref_frames_count":4,
  "max_iframes_interval":5,
  "bframes_count":4,
  "frame_rate":1,
  "width":1920,
  "height":1080,
  "aspect_ratio":0
},
"audio":{
  "codec":1,
  "sample_rate":4,
  "bitrate":128,
  "channels":2
},
"common":{
  "PVC":0,
  "hls_interval":5,
  "dash_interval":5,
  "pack_type":1
}
}
```

If the request succeeds, the transcoding template ID is returned. The status code is 201 Created.

```
{
  "template_id":1001
}
```

If the request fails, the following error code and error description are returned:

```
{
  "error_code": "MPC.100101",
  "error_msg": "template error, it's name MP4_H.264_1920x1080_6000_HEAAC is same with template 274764."
}
```

----End

## 4.2 Example 2: Submit a Video Transcoding Task

### Scenario

If you need to transcode a video file stored in an OBS bucket and add an image watermark, you can call an MPC API to transcode the video file.

This section describes how to submit a video transcoding task by invoking an API.

### Constraints

Cross-region transcoding is not supported. For example, MPC in the **CN North-Beijing1** region cannot transcode video files stored in an OBS bucket in the **CN North-Beijing4** region.

### Prerequisites

- You have obtained the project ID of the region where the transcoding task is to be created. For details, see [Obtaining a Project ID](#).

- You have determined the region where the transcoding task to be created is located and obtained the endpoint of MPC for this region from the [Regions and Endpoints](#).
- You have stored the video file to be transcoded in an OBS bucket. If you have not, call the API for [uploading an object](#) to upload the file.
- You have created an OBS bucket where transcoding outputs will be stored. If you have not, call the API for [creating a bucket](#).

## Overall Process

- [Obtain a User Token](#)
- [Create a Transcoding Template](#)
- [Create a Watermark Template](#)
- [Submit the Transcoding Task](#)
- [Query the Task Status](#)

## Procedure

**Step 1** [Obtain a user token](#) and use it to authenticate the calling of MPC APIs.

Obtain the *username*, *password*, *domainname*, and *projectname* from the **My Credentials** page. Call the following API to obtain the token. For details, see [Making an API Request](#).

```
POST https://iam.cn-north-4.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "*****", //Username
          "password": "*****", //Login password
          "domain": {
            "name": "domainname" //Name of the account to which the user belongs
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "*****" //Project name
      }
    }
  }
}
```

As shown in [Figure 4-2](#), information in the red box indicates the user token.

**Figure 4-2** Obtaining a user token

```
cache-control → no-cache, no-store, must-revalidate
connection → keep-alive
content-length → 15185
content-type → application/json; charset=UTF-8
date → Wed, 29 May 2019 08:02:38 GMT
expires → Thu, 01 Jan 1970 00:00:00 GMT
pragma → no-cache
server → api-gateway
strict-transport-security → max-age=31536000; includeSubdomains
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-lam-trace-id → to [redacted]
x-request-id → [redacted]
x-subject-token → [redacted]
x-xss-protection → 1; mode=block
```

**Step 2** Create a video transcoding template and obtain the transcoding template ID. For details about how to call the API for creating a transcoding template, see [Example 1: Create a Transcoding Template](#).

**Step 3** Create a watermark template.

1. Select the POST request method and enter the request URI.  
`https://{endpoint}/v1/{project_id}/template/watermark`
2. In the request header, add **X-Auth-Token** and set its value to be the token obtained in 1.
3. Specify the following parameters in the request body:

```
{
  "template_name": "watermark_1920*1080_10*10_ BottomLeft",
  "type": "Image",
  "image_process": "Grayed",
  "width": "1920",
  "height": "1080",
  "dx": "10",
  "dy": "10",
  "referpos": "BottomLeft",
  "timeline_start": "6",
  "timeline_duration": "8"
}
```

4. If the request succeeds, the watermark template ID is returned.

```
{
  "template_id": 242
}
```

**Step 4** Submit the transcoding task.

1. Select the POST request method and enter the request URI.  
`https://{endpoint}/v1/{project_id}/transcodings`
2. In the request header, add **X-Auth-Token** and set its value to be the token obtained in 1.
3. Specify the following parameters in the request body:

```
{
  "input": {
    "bucket": "example-bucket",
    "location": "region01",
    "object": "/mpc/input/sample.MP4"
  },
  "output": {
```

```
{
  "bucket": "example-bucket",
  "location": "region01",
  "object": "/mpc/output/"
},
"trans_template_id": [1002],
"watermarks": [{
  "input": {
    "bucket": "example-bucket",
    "location": "region01",
    "object": "meipai.jpg"
  },
  "template_id": 242
}],
"priority": "9",
"audit": {
  "position": 2,
  "index": 2
}
}
```

4. If the request succeeds, the transcoding task ID is returned.

```
{
  "task_id": 100211
}
```

#### Step 5 Query the task status.

1. Select the GET request method and enter the request URI.  
`https://{endpoint}/v1/{project_id}/transcodings?task_id=100211`
2. In the request header, add **X-Auth-Token** and set its value to be the token obtained in [1](#).
3. If the request succeeds, details about the transcoding task are returned.

----End

## 4.3 Example 3: Submit a Video Snapshot Task

### Scenario

You can set snapshot parameters when submitting a video transcoding task for taking snapshots during transcoding. If you only want to take snapshots from a video file without transcoding, you can call the API for taking snapshots.

This section describes how to submit a video snapshot task by invoking an API.

### Constraints

Cross-region transcoding is not supported. For example, MPC in the **CN North-Beijing1** region cannot transcode video files stored in an OBS bucket in the **CN North-Beijing4** region.

### Prerequisites

- You have obtained the project ID of the region where the snapshot task is to be created. For details, see [Obtaining a Project ID](#).
- You have determined the region where the snapshot capturing task to be created is located and obtained the endpoint of MPC for this region from the [Regions and Endpoints](#).

- You have stored the video file for which snapshots will be captured in an OBS bucket. If you have not, call the API for [uploading an object](#) to upload the file.
- You have created an OBS bucket where snapshots will be stored. If you have not, call the API for [creating a bucket](#).

## Overall Process

- [Obtain a User Token](#)
- [Create a Snapshot Task](#)
- [Query the Task Status](#)

## Procedure

**Step 1** [Obtain a user token](#) and use it to authenticate the calling of MPC APIs.

Obtain the *username*, *password*, *domainname*, and *projectname* from the **My Credentials** page. Call the following API to obtain the token. For details, see [Making an API Request](#).

```
POST https://iam.cn-north-4.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "*****", //Username
          "password": "*****", //Login password
          "domain": {
            "name": "domainname" //Name of the account to which the user belongs
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "*****" //Project name
      }
    }
  }
}
```

As shown in [Figure 4-3](#), information in the red box indicates the user token.

**Figure 4-3** Obtaining a user token

```
cache-control → no-cache, no-store, must-revalidate
connection → keep-alive
content-length → 15185
content-type → application/json; charset=UTF-8
date → Wed, 29 May 2019 08:02:38 GMT
expires → Thu, 01 Jan 1970 00:00:00 GMT
pragma → no-cache
server → api-gateway
strict-transport-security → max-age=31536000; includeSubdomains;
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-lam-trace-id → to:
x-request-id → f:
x-subject-token →
x-ssr-protection → 1; mode=block;
```

**Step 2** Create a snapshot task.

1. Select the POST request method and enter the request URI.  
`https://{endpoint}/v1/{project_id}/thumbnails`
2. In the request header, add **X-Auth-Token** and set its value to be the token obtained in **1**.
3. Specify the following parameters in the request body:

```
{
  "input": {
    "bucket": "example-bucket",
    "location": "region01",
    "object": "/mpc/input/sample.MP4"
  },
  "output": {
    "bucket": "example-bucket",
    "location": "region01",
    "object": "/mpc/output/"
  },
  "tar": 1,
  "thumbnail_para": {
    "type": "DOTS",
    "dots": [2, 4, 6, 8, 10],
    "format": 0,
    "aspect_ratio": 1,
    "max_length": 480
  }
}
```

4. If the request succeeds, the snapshot task ID is returned.

```
{
  "task_id": "2081"
}
```

**Step 3** Query the task status.

1. Select the GET request method and enter the request URI.  
`https://{endpoint}/v1/{project_id}/thumbnails?task_id=2081`
2. In the request header, add **X-Auth-Token** and set its value to be the token obtained in **1**.
3. If the request succeeds, details about the snapshot task are returned.

----End

# 5 Transcoding Template APIs

## 5.1 Creating a Transcoding Template

### Function

This API is used to create a transcoding template.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v1/{project\_id}/template/transcodings

**Table 5-1** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                           |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

## Request Parameters

**Table 5-2** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

**Table 5-3** Request body parameters

| Parameter     | Mandatory | Type                 | Description                    |
|---------------|-----------|----------------------|--------------------------------|
| template_name | Yes       | String               | Name of a transcoding template |
| video         | No        | <b>Video</b> object  | Video parameters               |
| audio         | No        | <b>Audio</b> object  | Audio parameters               |
| common        | Yes       | <b>Common</b> object | Common parameters              |

Table 5-4 Video

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | No        | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | No        | Integer | <p>Video codec.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• <b>1</b>: H.264</li><li>• <b>2</b>: H.265</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| bitrate       | No        | Integer | <p>Average output bitrate</p> <p>Its value is 0 or an integer ranging from 40 to 30,000.</p> <p>Unit: kbit/s</p> <p>If this parameter is set to <b>0</b>, the average output bitrate is an adaptive value.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Parameter | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| profile   | No        | Integer | <p>Encoding profile. The recommended value is <b>3</b>. The default value is <b>0</b>, indicating that the average output bitrate is adaptive to codec.</p> <ul style="list-style-type: none"><li>• When <b>codec</b> is set to 1, <b>profile</b> is set to 3.</li><li>• When <b>codec</b> is set to 2, <b>profile</b> is set to 4.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• 1: VIDEO_PROFILE_H264_BASE</li><li>• 2: VIDEO_PROFILE_H264_MAIN</li><li>• 3: VIDEO_PROFILE_H264_HIGH</li><li>• 4: VIDEO_PROFILE_H265_MAIN</li></ul> |
| level     | No        | Integer | <p>Encoding level</p> <p>Options:</p> <ul style="list-style-type: none"><li>• 0: AUTO</li><li>• 1: VIDEO_LEVEL_1_0</li><li>• 2: VIDEO_LEVEL_1_1</li><li>• 3: VIDEO_LEVEL_1_2</li><li>• 4: VIDEO_LEVEL_1_3</li><li>• 5: VIDEO_LEVEL_2_0</li><li>• 6: VIDEO_LEVEL_2_1</li><li>• 7: VIDEO_LEVEL_2_2</li><li>• 8: VIDEO_LEVEL_3_0</li><li>• 9: VIDEO_LEVEL_3_1</li><li>• 10: VIDEO_LEVEL_3_2</li><li>• 11: VIDEO_LEVEL_4_0</li><li>• 12: VIDEO_LEVEL_4_1</li><li>• 13: VIDEO_LEVEL_4_2</li><li>• 14: VIDEO_LEVEL_5_0</li><li>• 15: VIDEO_LEVEL_5_1</li></ul>                     |

| Parameter            | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                 |
|----------------------|-----------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| preset               | No        | Integer | Encoding quality.<br>Possible options: <ul style="list-style-type: none"><li>• 1: VIDEO_PRESET_SPEED (fast encoding)</li><li>• 2: VIDEO_PRESET_NORMAL (common encoding), which is not recommended</li><li>• 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding)</li></ul> Default value: 1                                                                  |
| max_iframes_interval | No        | Integer | Maximum I-frame interval.<br>The value ranges from 2 to 10.<br>Default value: 5<br>Unit: second                                                                                                                                                                                                                                                             |
| bframes_count        | No        | Integer | Maximum B-frame interval<br>The options are as follows: <ul style="list-style-type: none"><li>• H264: The value ranges from 0 to 8 and defaults to 4.</li><li>• H.265: The value ranges from 0 to 8 and defaults to 7.</li></ul> Unit: frame                                                                                                                |
| frame_rate           | No        | Integer | Frame rate.<br>Its value is 0 or an integer ranging from 5 to 60.<br>Unit: FPS<br><b>NOTE</b><br>If the configured frame rate is not within the value range, the value is automatically changed to 0. If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file. |

| Parameter   | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                   |
|-------------|-----------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| width       | No        | Integer | Video width<br>The options are as follows: <ul style="list-style-type: none"><li>• H.264: The value is 0 or a multiple of 2 from 32 to 4,096.</li><li>• H.265: The value is 0 or a multiple of 2 from 320 to 4,096.</li></ul> Unit: pixel<br>Note: If this parameter is set to <b>0</b> , the video width is an adaptive value.                                               |
| height      | No        | Integer | Video height <ul style="list-style-type: none"><li>• H.264: The value is 0 or a multiple of 2 from 32 to 2,880.</li><li>• H.265: The value is 0 or a multiple of 2 from 96 to 2,880.</li></ul> Unit: pixel<br>Note: If this parameter is set to <b>0</b> , the video height is an adaptive value.                                                                             |
| black_cut   | No        | Integer | Whether to enable black bar removal.<br>Possible values: <ul style="list-style-type: none"><li>• <b>0</b>: disables black bar removal</li><li>• <b>1</b>: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes</li><li>• <b>2</b>: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes</li></ul> |
| stream_name | No        | String  | Stream name                                                                                                                                                                                                                                                                                                                                                                   |

Table 5-5 Audio

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | No        | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | No        | Integer | <p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• 1: AAC</li><li>• 2: HEAAC1</li><li>• 3: HEAAC2</li><li>• 4: MP3</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Parameter   | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| sample_rate | No        | Integer | Audio sampling rate<br>The options are as follows: <ul style="list-style-type: none"><li>• 1: AUDIO_SAMPLE_AUTO</li><li>• 2: AUDIO_SAMPLE_22050 (22,050 Hz)</li><li>• 3: AUDIO_SAMPLE_32000 (32,000 Hz)</li><li>• 4: AUDIO_SAMPLE_44100 (44,100 Hz)</li><li>• 5: AUDIO_SAMPLE_48000 (48,000 Hz)</li><li>• 6: AUDIO_SAMPLE_96000 (96,000 Hz)</li></ul> <b>NOTE</b><br>When the encoding format is MP3, the audio sampling ratio cannot be 6. |
| bitrate     | No        | Integer | Audio bitrate.<br>The value is 0 or ranges from 8 to 1,000.<br>Unit: kbit/s                                                                                                                                                                                                                                                                                                                                                                 |
| channels    | Yes       | Integer | Number of audio channels<br>Options: <ul style="list-style-type: none"><li>• 1: AUDIO_CHANNELS_1 (mono)</li><li>• 2: AUDIO_CHANNELS_2 (stereo)</li><li>• 6: AUDIO_CHANNELS_5_1 (5.1 surround sound)</li></ul> When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.                                                                                                                            |

**Table 5-6** Common

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                        |
|---------------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PVC           | No        | Boolean | Whether to enable low-bitrate HD<br>The options are as follows: <ul style="list-style-type: none"><li>• false: disabled (This function is disabled by default.)</li><li>• true: enabled</li></ul> (The value <b>0</b> indicates that the function is disabled. Other positive integers and negative values indicate <b>true</b> .) |
| hls_interval  | No        | Integer | HLS segment duration. This parameter is used only when <b>pack_type</b> is set to <b>1</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                         |
| dash_interval | No        | Integer | DASH segment duration. This parameter is used only when <b>pack_type</b> is set to <b>2</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                        |
| pack_type     | Yes       | Integer | Packaging type<br>Possible options are: <ul style="list-style-type: none"><li>• 1: HLS</li><li>• 2: DASH</li><li>• 3: HLS+DASH</li><li>• 4: MP4</li><li>• 5: MP3</li><li>• 6: ADTS</li></ul> <b>NOTE</b><br>If <b>pack_type</b> is set to <b>5</b> or <b>6</b> , do not configure video parameters.                                |

## Response Parameters

Status code: 201

**Table 5-7** Response body parameters

| Parameter   | Type    | Description                          |
|-------------|---------|--------------------------------------|
| template_id | Integer | ID of a custom transcoding template. |

**Status code: 403****Table 5-8** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

Creates a customized transcoding template.

POST https://{endpoint}/v1/{project\_id}/template/transcodings

```
{
  "template_name" : "MP4_H.264_1920x1080_6000_HEAAC",
  "video" : {
    "codec" : 1,
    "bitrate" : 6000,
    "profile" : 3,
    "level" : 15,
    "preset" : 3,
    "max_iframes_interval" : 5,
    "black_cut" : 0,
    "bframes_count" : 4,
    "frame_rate" : 1,
    "width" : 1920,
    "height" : 1080
  },
  "audio" : {
    "codec" : 1,
    "sample_rate" : 4,
    "bitrate" : 128,
    "channels" : 2
  },
  "common" : {
    "PVC" : false,
    "hls_interval" : 5,
    "dash_interval" : 5,
    "pack_type" : 1
  }
}
```

## Example Responses

**Status code: 201**

Transcoding template created successfully.

```
{
  "template_id" : 2000211
}
```

**Status code: 403**

Failed to create a transcoding template.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

## Status Codes

| Status Code | Description                                |
|-------------|--------------------------------------------|
| 201         | Transcoding template created successfully. |
| 403         | Failed to create a transcoding template.   |

## Error Codes

See [Error Codes](#).

# 5.2 Modifying a Transcoding Template

## Function

This API is used to modify a custom transcoding template.

## Calling Method

For details, see [Calling APIs](#).

## URI

PUT /v1/{project\_id}/template/transcodings

**Table 5-9** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                                            |
|------------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see <a href="#">[Obtaining a Project ID]</a> . (tag:hcco,g42,cmcc) |

## Request Parameters

**Table 5-10** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

**Table 5-11** Request body parameters

| Parameter     | Mandatory | Type                 | Description                       |
|---------------|-----------|----------------------|-----------------------------------|
| template_id   | Yes       | Long                 | ID of a transcoding template      |
| template_name | Yes       | String               | Name of the transcoding template. |
| video         | No        | <b>Video</b> object  | Video information                 |
| audio         | No        | <b>Audio</b> object  | Audio information                 |
| common        | Yes       | <b>Common</b> object | Common information                |

Table 5-12 Video

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | No        | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | No        | Integer | <p>Video codec.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• <b>1</b>: H.264</li><li>• <b>2</b>: H.265</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| bitrate       | No        | Integer | <p>Average output bitrate</p> <p>Its value is 0 or an integer ranging from 40 to 30,000.</p> <p>Unit: kbit/s</p> <p>If this parameter is set to <b>0</b>, the average output bitrate is an adaptive value.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Parameter | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| profile   | No        | Integer | <p>Encoding profile. The recommended value is <b>3</b>. The default value is <b>0</b>, indicating that the average output bitrate is adaptive to codec.</p> <ul style="list-style-type: none"><li>• When <b>codec</b> is set to 1, <b>profile</b> is set to 3.</li><li>• When <b>codec</b> is set to 2, <b>profile</b> is set to 4.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• 1: VIDEO_PROFILE_H264_BASE</li><li>• 2: VIDEO_PROFILE_H264_MAIN</li><li>• 3: VIDEO_PROFILE_H264_HIGH</li><li>• 4: VIDEO_PROFILE_H265_MAIN</li></ul> |
| level     | No        | Integer | <p>Encoding level</p> <p>Options:</p> <ul style="list-style-type: none"><li>• 0: AUTO</li><li>• 1: VIDEO_LEVEL_1_0</li><li>• 2: VIDEO_LEVEL_1_1</li><li>• 3: VIDEO_LEVEL_1_2</li><li>• 4: VIDEO_LEVEL_1_3</li><li>• 5: VIDEO_LEVEL_2_0</li><li>• 6: VIDEO_LEVEL_2_1</li><li>• 7: VIDEO_LEVEL_2_2</li><li>• 8: VIDEO_LEVEL_3_0</li><li>• 9: VIDEO_LEVEL_3_1</li><li>• 10: VIDEO_LEVEL_3_2</li><li>• 11: VIDEO_LEVEL_4_0</li><li>• 12: VIDEO_LEVEL_4_1</li><li>• 13: VIDEO_LEVEL_4_2</li><li>• 14: VIDEO_LEVEL_5_0</li><li>• 15: VIDEO_LEVEL_5_1</li></ul>                     |

| Parameter            | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                 |
|----------------------|-----------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| preset               | No        | Integer | Encoding quality.<br>Possible options: <ul style="list-style-type: none"><li>• 1: VIDEO_PRESET_SPEED (fast encoding)</li><li>• 2: VIDEO_PRESET_NORMAL (common encoding), which is not recommended</li><li>• 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding)</li></ul> Default value: 1                                                                  |
| max_iframes_interval | No        | Integer | Maximum I-frame interval.<br>The value ranges from 2 to 10.<br>Default value: 5<br>Unit: second                                                                                                                                                                                                                                                             |
| bframes_count        | No        | Integer | Maximum B-frame interval<br>The options are as follows: <ul style="list-style-type: none"><li>• H264: The value ranges from 0 to 8 and defaults to 4.</li><li>• H.265: The value ranges from 0 to 8 and defaults to 7.</li></ul> Unit: frame                                                                                                                |
| frame_rate           | No        | Integer | Frame rate.<br>Its value is 0 or an integer ranging from 5 to 60.<br>Unit: FPS<br><b>NOTE</b><br>If the configured frame rate is not within the value range, the value is automatically changed to 0. If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file. |

| Parameter   | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-------------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| width       | No        | Integer | <p>Video width</p> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• H.264: The value is 0 or a multiple of 2 from 32 to 4,096.</li><li>• H.265: The value is 0 or a multiple of 2 from 320 to 4,096.</li></ul> <p>Unit: pixel</p> <p>Note: If this parameter is set to <b>0</b>, the video width is an adaptive value.</p>                                     |
| height      | No        | Integer | <p>Video height</p> <ul style="list-style-type: none"><li>• H.264: The value is 0 or a multiple of 2 from 32 to 2,880.</li><li>• H.265: The value is 0 or a multiple of 2 from 96 to 2,880.</li></ul> <p>Unit: pixel</p> <p>Note: If this parameter is set to <b>0</b>, the video height is an adaptive value.</p>                                                                       |
| black_cut   | No        | Integer | <p>Whether to enable black bar removal.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• <b>0</b>: disables black bar removal</li><li>• <b>1</b>: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes</li><li>• <b>2</b>: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes</li></ul> |
| stream_name | No        | String  | Stream name                                                                                                                                                                                                                                                                                                                                                                              |

Table 5-13 Audio

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | No        | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | No        | Integer | <p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• 1: AAC</li><li>• 2: HEAAC1</li><li>• 3: HEAAC2</li><li>• 4: MP3</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Parameter   | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| sample_rate | No        | Integer | Audio sampling rate<br>The options are as follows: <ul style="list-style-type: none"><li>• 1: AUDIO_SAMPLE_AUTO</li><li>• 2: AUDIO_SAMPLE_22050 (22,050 Hz)</li><li>• 3: AUDIO_SAMPLE_32000 (32,000 Hz)</li><li>• 4: AUDIO_SAMPLE_44100 (44,100 Hz)</li><li>• 5: AUDIO_SAMPLE_48000 (48,000 Hz)</li><li>• 6: AUDIO_SAMPLE_96000 (96,000 Hz)</li></ul> <b>NOTE</b><br>When the encoding format is MP3, the audio sampling ratio cannot be 6. |
| bitrate     | No        | Integer | Audio bitrate.<br>The value is 0 or ranges from 8 to 1,000.<br>Unit: kbit/s                                                                                                                                                                                                                                                                                                                                                                 |
| channels    | Yes       | Integer | Number of audio channels<br>Options: <ul style="list-style-type: none"><li>• 1: AUDIO_CHANNELS_1 (mono)</li><li>• 2: AUDIO_CHANNELS_2 (stereo)</li><li>• 6: AUDIO_CHANNELS_5_1 (5.1 surround sound)</li></ul> When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.                                                                                                                            |

Table 5-14 Common

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                        |
|---------------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PVC           | No        | Boolean | Whether to enable low-bitrate HD<br>The options are as follows: <ul style="list-style-type: none"><li>• false: disabled (This function is disabled by default.)</li><li>• true: enabled</li></ul> (The value <b>0</b> indicates that the function is disabled. Other positive integers and negative values indicate <b>true</b> .) |
| hls_interval  | No        | Integer | HLS segment duration. This parameter is used only when <b>pack_type</b> is set to <b>1</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                         |
| dash_interval | No        | Integer | DASH segment duration. This parameter is used only when <b>pack_type</b> is set to <b>2</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                        |
| pack_type     | Yes       | Integer | Packaging type<br>Possible options are: <ul style="list-style-type: none"><li>• 1: HLS</li><li>• 2: DASH</li><li>• 3: HLS+DASH</li><li>• 4: MP4</li><li>• 5: MP3</li><li>• 6: ADTS</li></ul> <b>NOTE</b><br>If <b>pack_type</b> is set to <b>5</b> or <b>6</b> , do not configure video parameters.                                |

## Response Parameters

Status code: 403

**Table 5-15** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

Updates a transcoding template.

PUT https://{endpoint}/v1/{project\_id}/template/transcodings/

```
{
  "template_id" : 1001,
  "template_name" : "MP4_H.264_1920x1080_6000_HEAAC_PVC",
  "video" : {
    "codec" : 1,
    "bitrate" : 6000,
    "profile" : 3,
    "level" : 15,
    "preset" : 3,
    "max_iframes_interval" : 5,
    "black_cut" : 0,
    "bframes_count" : 4,
    "frame_rate" : 1,
    "width" : 1920,
    "height" : 1080
  },
  "audio" : {
    "codec" : 1,
    "sample_rate" : 4,
    "bitrate" : 128,
    "channels" : 2
  },
  "common" : {
    "PVC" : false,
    "hls_interval" : 5,
    "dash_interval" : 5,
    "pack_type" : 1
  }
}
```

## Example Responses

**Status code: 403**

Failed to modify the transcoding template.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

## Status Codes

| Status Code | Description                                 |
|-------------|---------------------------------------------|
| 204         | Transcoding template modified successfully. |

| Status Code | Description                                |
|-------------|--------------------------------------------|
| 403         | Failed to modify the transcoding template. |

## Error Codes

See [Error Codes](#).

## 5.3 Deleting a Transcoding Template

### Function

This API is used to delete a custom transcoding template.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /v1/{project\_id}/template/transcodings

**Table 5-16** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                                 |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .<br>(tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID].<br>(tag:hcco,g42,cmcc) |

**Table 5-17** Query Parameters

| Parameter   | Mandatory | Type    | Description                         |
|-------------|-----------|---------|-------------------------------------|
| template_id | Yes       | Integer | ID of a custom transcoding template |

## Request Parameters

**Table 5-18** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

**Status code: 403**

**Table 5-19** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/template/transcodings?template_id=1001
```

## Example Responses

**Status code: 403**

Failed to delete the transcoding template.

```
{
  "error_code" : "MPC.10212",
  "error_msg" : "Operation failed."
}
```

## Status Codes

| Status Code | Description                                |
|-------------|--------------------------------------------|
| 204         | Transcoding template deleted successfully. |
| 403         | Failed to delete the transcoding template. |

## Error Codes

See [Error Codes](#).

# 5.4 Querying Transcoding Templates

## Function

Queries one or more custom transcoding templates.

You can query up to 10 templates by ID or page number.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /v1/{project\_id}/template/transcodings

**Table 5-20** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                           |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

**Table 5-21** Query Parameters

| Parameter   | Mandatory | Type              | Description                                                                                                                    |
|-------------|-----------|-------------------|--------------------------------------------------------------------------------------------------------------------------------|
| template_id | No        | Array of integers | ID of a transcoding template. A maximum of 10 transcoding template IDs can be queried at a time.                               |
| page        | No        | Integer           | Page number. This parameter is invalid when <b>task_id</b> is specified.<br>Default value: <b>0</b>                            |
| size        | No        | Integer           | Number of records on each page. If <b>template_id</b> is specified, this parameter is invalid. The value ranges from 1 to 100. |

## Request Parameters

**Table 5-22** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

Status code: 200

**Table 5-23** Response body parameters

| Parameter      | Type                                 | Description                             |
|----------------|--------------------------------------|-----------------------------------------|
| template_array | Array of <b>TemplateInfo</b> objects | Details about the transcoding templates |
| total          | Integer                              | Total number of transcoding templates   |

**Table 5-24** TemplateInfo

| Parameter   | Type                             | Description                                       |
|-------------|----------------------------------|---------------------------------------------------|
| template_id | Integer                          | ID of each queried transcoding template           |
| template    | <b>QueryTransTemplate</b> object | Configurations built in the transcoding templates |

**Table 5-25** QueryTransTemplate

| Parameter     | Type                 | Description                    |
|---------------|----------------------|--------------------------------|
| template_name | String               | Name of a transcoding template |
| video         | <b>Video</b> object  | Video information              |
| audio         | <b>Audio</b> object  | Audio information              |
| common        | <b>Common</b> object | Common information             |

Table 5-26 Video

| Parameter     | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | Integer | <p>Video codec.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• 1: H.264</li><li>• 2: H.265</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| bitrate       | Integer | <p>Average output bitrate</p> <p>Its value is 0 or an integer ranging from 40 to 30,000.</p> <p>Unit: kbit/s</p> <p>If this parameter is set to 0, the average output bitrate is an adaptive value.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| Parameter | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| profile   | Integer | <p>Encoding profile. The recommended value is <b>3</b>.</p> <p>The default value is <b>0</b>, indicating that the average output bitrate is adaptive to codec.</p> <ul style="list-style-type: none"><li>• When <b>codec</b> is set to 1, <b>profile</b> is set to 3.</li><li>• When <b>codec</b> is set to 2, <b>profile</b> is set to 4.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• 1: VIDEO_PROFILE_H264_BASE</li><li>• 2: VIDEO_PROFILE_H264_MAIN</li><li>• 3: VIDEO_PROFILE_H264_HIGH</li><li>• 4: VIDEO_PROFILE_H265_MAIN</li></ul> |
| level     | Integer | <p>Encoding level</p> <p>Options:</p> <ul style="list-style-type: none"><li>• 0: AUTO</li><li>• 1: VIDEO_LEVEL_1_0</li><li>• 2: VIDEO_LEVEL_1_1</li><li>• 3: VIDEO_LEVEL_1_2</li><li>• 4: VIDEO_LEVEL_1_3</li><li>• 5: VIDEO_LEVEL_2_0</li><li>• 6: VIDEO_LEVEL_2_1</li><li>• 7: VIDEO_LEVEL_2_2</li><li>• 8: VIDEO_LEVEL_3_0</li><li>• 9: VIDEO_LEVEL_3_1</li><li>• 10: VIDEO_LEVEL_3_2</li><li>• 11: VIDEO_LEVEL_4_0</li><li>• 12: VIDEO_LEVEL_4_1</li><li>• 13: VIDEO_LEVEL_4_2</li><li>• 14: VIDEO_LEVEL_5_0</li><li>• 15: VIDEO_LEVEL_5_1</li></ul>                            |

| Parameter            | Type    | Description                                                                                                                                                                                                                                                                                                                                                         |
|----------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| preset               | Integer | Encoding quality.<br>Possible options: <ul style="list-style-type: none"><li>• 1: VIDEO_PRESET_SPEED (fast encoding)</li><li>• 2: VIDEO_PRESET_NORMAL (common encoding), which is not recommended</li><li>• 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding)</li></ul> Default value: 1                                                                          |
| max_iframes_interval | Integer | Maximum I-frame interval.<br>The value ranges from 2 to 10.<br>Default value: <b>5</b><br>Unit: second                                                                                                                                                                                                                                                              |
| bframes_count        | Integer | Maximum B-frame interval<br>The options are as follows: <ul style="list-style-type: none"><li>• H264: The value ranges from 0 to 8 and defaults to <b>4</b>.</li><li>• H.265: The value ranges from 0 to 8 and defaults to <b>7</b>.</li></ul> Unit: frame                                                                                                          |
| frame_rate           | Integer | Frame rate.<br>Its value is 0 or an integer ranging from 5 to 60.<br>Unit: FPS<br><b>NOTE</b><br>If the configured frame rate is not within the value range, the value is automatically changed to <b>0</b> . If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file. |
| width                | Integer | Video width<br>The options are as follows: <ul style="list-style-type: none"><li>• H.264: The value is 0 or a multiple of 2 from 32 to 4,096.</li><li>• H.265: The value is 0 or a multiple of 2 from 320 to 4,096.</li></ul> Unit: pixel<br>Note: If this parameter is set to <b>0</b> , the video width is an adaptive value.                                     |

| Parameter   | Type    | Description                                                                                                                                                                                                                                                                                                                                                             |
|-------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| height      | Integer | Video height <ul style="list-style-type: none"><li>H.264: The value is 0 or a multiple of 2 from 32 to 2,880.</li><li>H.265: The value is 0 or a multiple of 2 from 96 to 2,880.</li></ul> Unit: pixel<br>Note: If this parameter is set to <b>0</b> , the video height is an adaptive value.                                                                           |
| black_cut   | Integer | Whether to enable black bar removal.<br>Possible values: <ul style="list-style-type: none"><li><b>0</b>: disables black bar removal</li><li><b>1</b>: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes</li><li><b>2</b>: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes</li></ul> |
| stream_name | String  | Stream name                                                                                                                                                                                                                                                                                                                                                             |

Table 5-27 Audio

| Parameter     | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | Integer | <p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• 1: AAC</li><li>• 2: HEAAC1</li><li>• 3: HEAAC2</li><li>• 4: MP3</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Parameter   | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| sample_rate | Integer | <p>Audio sampling rate</p> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• 1: AUDIO_SAMPLE_AUTO</li><li>• 2: AUDIO_SAMPLE_22050 (22,050 Hz)</li><li>• 3: AUDIO_SAMPLE_32000 (32,000 Hz)</li><li>• 4: AUDIO_SAMPLE_44100 (44,100 Hz)</li><li>• 5: AUDIO_SAMPLE_48000 (48,000 Hz)</li><li>• 6: AUDIO_SAMPLE_96000 (96,000 Hz)</li></ul> <p><b>NOTE</b><br/>When the encoding format is MP3, the audio sampling ratio cannot be 6.</p> |
| bitrate     | Integer | <p>Audio bitrate.</p> <p>The value is <b>0</b> or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>                                                                                                                                                                                                                                                                                                                                                              |
| channels    | Integer | <p>Number of audio channels</p> <p>Options:</p> <ul style="list-style-type: none"><li>• 1: AUDIO_CHANNELS_1 (mono)</li><li>• 2: AUDIO_CHANNELS_2 (stereo)</li><li>• 6: AUDIO_CHANNELS_5_1 (5.1 surround sound)</li></ul> <p>When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.</p>                                                                                                                             |

**Table 5-28** Common

| Parameter     | Type    | Description                                                                                                                                                                                                                                                                                                                    |
|---------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PVC           | Boolean | Whether to enable low-bitrate HD<br>The options are as follows: <ul style="list-style-type: none"><li>false: disabled (This function is disabled by default.)</li><li>true: enabled</li></ul> (The value <b>0</b> indicates that the function is disabled. Other positive integers and negative values indicate <b>true</b> .) |
| hls_interval  | Integer | HLS segment duration. This parameter is used only when <b>pack_type</b> is set to <b>1</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                     |
| dash_interval | Integer | DASH segment duration. This parameter is used only when <b>pack_type</b> is set to <b>2</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                    |
| pack_type     | Integer | Packaging type<br>Possible options are: <ul style="list-style-type: none"><li>1: HLS</li><li>2: DASH</li><li>3: HLS+DASH</li><li>4: MP4</li><li>5: MP3</li><li>6: ADTS</li></ul> <b>NOTE</b><br>If <b>pack_type</b> is set to <b>5</b> or <b>6</b> , do not configure video parameters.                                        |

**Status code: 403****Table 5-29** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

### Example Requests

GET https://{endpoint}/v1/{project\_id}/templates/transcoding?template\_id=80985

### Example Responses

**Status code: 200**  
Transcoding template queried successfully.

```
{
  "template_array": [ {
    "template_id": 80985,
    "template": {
      "template_name": "test_template",
      "video": {
        "output_policy": "transcode",
        "codec": 1,
        "bitrate": 0,
        "profile": 3,
        "level": 15,
        "preset": 3,
        "max_iframes_interval": 5,
        "bframes_count": 4,
        "frame_rate": 0,
        "width": 0,
        "height": 0,
        "black_cut": 0
      },
      "audio": {
        "output_policy": "transcode",
        "codec": 1,
        "bitrate": 0,
        "sample_rate": 1,
        "channels": 2
      },
      "common": {
        "PVC": false,
        "hls_interval": 5,
        "dash_interval": 5,
        "pack_type": 1
      }
    }
  } ],
  "total": 1
}
```

**Status code: 403**  
Failed to query the transcoding template.

```
{
  "error_code": "MPC.10212",
  "error_msg": "Operation failed."
}
```

### Status Codes

| Status Code | Description                                |
|-------------|--------------------------------------------|
| 200         | Transcoding template queried successfully. |
| 403         | Failed to query the transcoding template.  |

## Error Codes

See [Error Codes](#).

# 6 Transcoding Template Group APIs

## 6.1 Creating a Transcoding Template Group

### Function

This API is used to create a transcoding template group. In a custom transcoding template group, a maximum of six output configurations can be defined.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v1/{project\_id}/template\_group/transcodings

**Table 6-1** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                           |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

## Request Parameters

**Table 6-2** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

**Table 6-3** Request body parameters

| Parameter    | Mandatory | Type                             | Description                         |
|--------------|-----------|----------------------------------|-------------------------------------|
| name         | Yes       | String                           | Name of each queried template group |
| videos       | No        | Array of <b>VideoObj</b> objects | List of output video configurations |
| audio        | No        | <b>Audio</b> object              | Audio parameters                    |
| video_common | No        | <b>VideoCommon</b> object        | Common video parameters             |
| common       | No        | <b>Common</b> object             | Common parameters                   |

**Table 6-4** VideoObj

| Parameter   | Mandatory | Type    | Description                                                                                                                                                                                  |
|-------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| width       | Yes       | Integer | Video width, in pixels <ul style="list-style-type: none"><li>H.264: The value is a multiple of 2 from 32 to 4,096.</li><li>H.265: The value is a multiple of 2 from 320 to 4,096.</li></ul>  |
| height      | Yes       | Integer | Video height, in pixels <ul style="list-style-type: none"><li>H.264: The value is a multiple of 2 from 32 to 2,880.</li><li>H.265: The value is a multiple of 2 from 240 to 2,880.</li></ul> |
| bitrate     | Yes       | Integer | Average output bitrate<br>Its value is 0 or an integer ranging from 40 to 30,000.<br>Unit: kbit/s<br>If this parameter is set to <b>0</b> , the average output bitrate is an adaptive value. |
| stream_name | No        | String  | Stream name                                                                                                                                                                                  |

Table 6-5 Audio

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | No        | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | No        | Integer | <p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• 1: AAC</li><li>• 2: HEAAC1</li><li>• 3: HEAAC2</li><li>• 4: MP3</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Parameter   | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| sample_rate | No        | Integer | Audio sampling rate<br>The options are as follows: <ul style="list-style-type: none"><li>• 1: AUDIO_SAMPLE_AUTO</li><li>• 2: AUDIO_SAMPLE_22050 (22,050 Hz)</li><li>• 3: AUDIO_SAMPLE_32000 (32,000 Hz)</li><li>• 4: AUDIO_SAMPLE_44100 (44,100 Hz)</li><li>• 5: AUDIO_SAMPLE_48000 (48,000 Hz)</li><li>• 6: AUDIO_SAMPLE_96000 (96,000 Hz)</li></ul> <b>NOTE</b><br>When the encoding format is MP3, the audio sampling ratio cannot be 6. |
| bitrate     | No        | Integer | Audio bitrate.<br>The value is 0 or ranges from 8 to 1,000.<br>Unit: kbit/s                                                                                                                                                                                                                                                                                                                                                                 |
| channels    | Yes       | Integer | Number of audio channels<br>Options: <ul style="list-style-type: none"><li>• 1: AUDIO_CHANNELS_1 (mono)</li><li>• 2: AUDIO_CHANNELS_2 (stereo)</li><li>• 6: AUDIO_CHANNELS_5_1 (5.1 surround sound)</li></ul> When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.                                                                                                                            |

**Table 6-6** VideoCommon

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | No        | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | No        | Integer | <p>Video codec</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• 1: H.264</li><li>• 2: H.265</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Parameter | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------|-----------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| profile   | No        | Integer | Encoding profile. The recommended value is 3.<br>Possible options are: <ul style="list-style-type: none"><li>• 1: VIDEO_PROFILE_H264_BASE</li><li>• 2: VIDEO_PROFILE_H264_MAIN</li><li>• 3: VIDEO_PROFILE_H264_HIGH</li><li>• 4: VIDEO_PROFILE_H265_MAIN</li></ul>                                                                                                                                                                                                                                                                            |
| level     | No        | Integer | Encoding level<br>Options: <ul style="list-style-type: none"><li>• 0: AUTO</li><li>• 1: VIDEO_LEVEL_1_0</li><li>• 2: VIDEO_LEVEL_1_1</li><li>• 3: VIDEO_LEVEL_1_2</li><li>• 4: VIDEO_LEVEL_1_3</li><li>• 5: VIDEO_LEVEL_2_0</li><li>• 6: VIDEO_LEVEL_2_1</li><li>• 7: VIDEO_LEVEL_2_2</li><li>• 8: VIDEO_LEVEL_3_0</li><li>• 9: VIDEO_LEVEL_3_1</li><li>• 10: VIDEO_LEVEL_3_2</li><li>• 11: VIDEO_LEVEL_4_0</li><li>• 12: VIDEO_LEVEL_4_1</li><li>• 13: VIDEO_LEVEL_4_2</li><li>• 14: VIDEO_LEVEL_5_0</li><li>• 15: VIDEO_LEVEL_5_1</li></ul> |

| Parameter            | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                               |
|----------------------|-----------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| preset               | No        | Integer | Encoding quality.<br>Possible options: <ul style="list-style-type: none"><li>• 1: VIDEO_PRESET_SPEED (fast encoding)</li><li>• 2: VIDEO_PRESET_NORMAL (common encoding), which is not recommended</li><li>• 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding)</li></ul> Default value: 1                                                                |
| max_iframes_interval | No        | Integer | Maximum I-frame interval.<br>The value ranges from 2 to 10.<br>Default value: <b>5</b><br>Unit: second                                                                                                                                                                                                                                                    |
| bframes_count        | No        | Integer | Maximum B-frame interval<br>The options are as follows: <ul style="list-style-type: none"><li>• H264: The value ranges from 0 to 8 and defaults to <b>4</b>.</li><li>• H.265: The value ranges from 0 to 8 and defaults to <b>7</b>.</li></ul> Unit: frame                                                                                                |
| frame_rate           | No        | Integer | Frame rate.<br>The value is <b>0</b> (adaptive) or an integer ranging from 5 to 60.<br>Unit: FPS                                                                                                                                                                                                                                                          |
| black_cut            | No        | Integer | Whether to enable black bar removal. <ul style="list-style-type: none"><li>• <b>0</b>: disables black bar removal</li><li>• <b>1</b>: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes</li><li>• <b>2</b>: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes</li></ul> |

**Table 6-7** Common

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                        |
|---------------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PVC           | No        | Boolean | Whether to enable low-bitrate HD<br>The options are as follows: <ul style="list-style-type: none"><li>• false: disabled (This function is disabled by default.)</li><li>• true: enabled</li></ul> (The value <b>0</b> indicates that the function is disabled. Other positive integers and negative values indicate <b>true</b> .) |
| hls_interval  | No        | Integer | HLS segment duration. This parameter is used only when <b>pack_type</b> is set to <b>1</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                         |
| dash_interval | No        | Integer | DASH segment duration. This parameter is used only when <b>pack_type</b> is set to <b>2</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                        |
| pack_type     | Yes       | Integer | Packaging type<br>Possible options are: <ul style="list-style-type: none"><li>• 1: HLS</li><li>• 2: DASH</li><li>• 3: HLS+DASH</li><li>• 4: MP4</li><li>• 5: MP3</li><li>• 6: ADTS</li></ul> <b>NOTE</b><br>If <b>pack_type</b> is set to <b>5</b> or <b>6</b> , do not configure video parameters.                                |

## Response Parameters

Status code: 201

**Table 6-8** Response body parameters

| Parameter      | Type                                 | Description                             |
|----------------|--------------------------------------|-----------------------------------------|
| template_group | <a href="#">TemplateGroup</a> object | Details about the custom template group |

**Table 6-9** TemplateGroup

| Parameter    | Type                                              | Description                                     |
|--------------|---------------------------------------------------|-------------------------------------------------|
| group_id     | String                                            | ID of each queried template group               |
| name         | String                                            | Name of each queried template group             |
| template_ids | Array of integers                                 | IDs of templates in each queried template group |
| videos       | Array of <a href="#">VideoAndTemplate</a> objects | List of output video configurations             |
| audio        | <a href="#">Audio</a> object                      | Audio information                               |
| video_common | <a href="#">VideoCommon</a> object                | Common video information                        |
| common       | <a href="#">Common</a> object                     | Common information                              |

**Table 6-10** VideoAndTemplate

| Parameter   | Type    | Description                                                                                                                                                                                  |
|-------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| template_id | Integer | Template ID                                                                                                                                                                                  |
| width       | Integer | Video width, in pixels <ul style="list-style-type: none"><li>H.264: The value is a multiple of 2 from 32 to 4,096.</li><li>H.265: The value is a multiple of 2 from 320 to 4,096.</li></ul>  |
| height      | Integer | Video height, in pixels <ul style="list-style-type: none"><li>H.264: The value is a multiple of 2 from 32 to 2,880.</li><li>H.265: The value is a multiple of 2 from 240 to 2,880.</li></ul> |

| Parameter   | Type    | Description                                                                                                                                                                                          |
|-------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| bitrate     | Integer | Average output bitrate.<br>Its value is <b>0</b> or an integer ranging from 40 to 30,000.<br>Unit: kbit/s<br>If this parameter is set to <b>0</b> , the average output bitrate is an adaptive value. |
| stream_name | String  | Stream name                                                                                                                                                                                          |

**Table 6-11** Audio

| Parameter     | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | String | Output policy: <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> The options are as follows: <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |

| Parameter   | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| codec       | Integer | Audio codec<br>Possible options are: <ul style="list-style-type: none"><li>• 1: AAC</li><li>• 2: HEAAC1</li><li>• 3: HEAAC2</li><li>• 4: MP3</li></ul>                                                                                                                                                                                                                                                                                      |
| sample_rate | Integer | Audio sampling rate<br>The options are as follows: <ul style="list-style-type: none"><li>• 1: AUDIO_SAMPLE_AUTO</li><li>• 2: AUDIO_SAMPLE_22050 (22,050 Hz)</li><li>• 3: AUDIO_SAMPLE_32000 (32,000 Hz)</li><li>• 4: AUDIO_SAMPLE_44100 (44,100 Hz)</li><li>• 5: AUDIO_SAMPLE_48000 (48,000 Hz)</li><li>• 6: AUDIO_SAMPLE_96000 (96,000 Hz)</li></ul> <b>NOTE</b><br>When the encoding format is MP3, the audio sampling ratio cannot be 6. |
| bitrate     | Integer | Audio bitrate.<br>The value is <b>0</b> or ranges from 8 to 1,000.<br>Unit: kbit/s                                                                                                                                                                                                                                                                                                                                                          |
| channels    | Integer | Number of audio channels<br>Options: <ul style="list-style-type: none"><li>• 1: AUDIO_CHANNELS_1 (mono)</li><li>• 2: AUDIO_CHANNELS_2 (stereo)</li><li>• 6: AUDIO_CHANNELS_5_1 (5.1 surround sound)</li></ul> When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.                                                                                                                            |

**Table 6-12** VideoCommon

| Parameter     | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | Integer | <p>Video codec</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• 1: H.264</li><li>• 2: H.265</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| profile       | Integer | <p>Encoding profile. The recommended value is 3.</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• 1: VIDEO_PROFILE_H264_BASE</li><li>• 2: VIDEO_PROFILE_H264_MAIN</li><li>• 3: VIDEO_PROFILE_H264_HIGH</li><li>• 4: VIDEO_PROFILE_H265_MAIN</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| Parameter            | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| level                | Integer | Encoding level<br>Options: <ul style="list-style-type: none"><li>• 0: AUTO</li><li>• 1: VIDEO_LEVEL_1_0</li><li>• 2: VIDEO_LEVEL_1_1</li><li>• 3: VIDEO_LEVEL_1_2</li><li>• 4: VIDEO_LEVEL_1_3</li><li>• 5: VIDEO_LEVEL_2_0</li><li>• 6: VIDEO_LEVEL_2_1</li><li>• 7: VIDEO_LEVEL_2_2</li><li>• 8: VIDEO_LEVEL_3_0</li><li>• 9: VIDEO_LEVEL_3_1</li><li>• 10: VIDEO_LEVEL_3_2</li><li>• 11: VIDEO_LEVEL_4_0</li><li>• 12: VIDEO_LEVEL_4_1</li><li>• 13: VIDEO_LEVEL_4_2</li><li>• 14: VIDEO_LEVEL_5_0</li><li>• 15: VIDEO_LEVEL_5_1</li></ul> |
| preset               | Integer | Encoding quality.<br>Possible options: <ul style="list-style-type: none"><li>• 1: VIDEO_PRESET_SPEED (fast encoding)</li><li>• 2: VIDEO_PRESET_NORMAL (common encoding), which is not recommended</li><li>• 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding)</li></ul> Default value: 1                                                                                                                                                                                                                                                    |
| max_iframes_interval | Integer | Maximum I-frame interval.<br>The value ranges from 2 to 10.<br>Default value: <b>5</b><br>Unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| bframes_count        | Integer | Maximum B-frame interval<br>The options are as follows: <ul style="list-style-type: none"><li>• H264: The value ranges from 0 to 8 and defaults to <b>4</b>.</li><li>• H.265: The value ranges from 0 to 8 and defaults to <b>7</b>.</li></ul> Unit: frame                                                                                                                                                                                                                                                                                    |

| Parameter  | Type    | Description                                                                                                                                                                                                                                                                                                                                               |
|------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| frame_rate | Integer | Frame rate.<br>The value is <b>0</b> (adaptive) or an integer ranging from 5 to 60.<br>Unit: FPS                                                                                                                                                                                                                                                          |
| black_cut  | Integer | Whether to enable black bar removal. <ul style="list-style-type: none"><li>• <b>0</b>: disables black bar removal</li><li>• <b>1</b>: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes</li><li>• <b>2</b>: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes</li></ul> |

**Table 6-13** Common

| Parameter     | Type    | Description                                                                                                                                                                                                                                                                                                                        |
|---------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PVC           | Boolean | Whether to enable low-bitrate HD<br>The options are as follows: <ul style="list-style-type: none"><li>• false: disabled (This function is disabled by default.)</li><li>• true: enabled</li></ul> (The value <b>0</b> indicates that the function is disabled. Other positive integers and negative values indicate <b>true</b> .) |
| hls_interval  | Integer | HLS segment duration. This parameter is used only when <b>pack_type</b> is set to <b>1</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                         |
| dash_interval | Integer | DASH segment duration. This parameter is used only when <b>pack_type</b> is set to <b>2</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                        |

| Parameter | Type    | Description                                                                                                                                                                                                                                                                                         |
|-----------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| pack_type | Integer | Packaging type<br>Possible options are: <ul style="list-style-type: none"><li>• 1: HLS</li><li>• 2: DASH</li><li>• 3: HLS+DASH</li><li>• 4: MP4</li><li>• 5: MP3</li><li>• 6: ADTS</li></ul> <b>NOTE</b><br>If <b>pack_type</b> is set to <b>5</b> or <b>6</b> , do not configure video parameters. |

**Status code: 400**

**Table 6-14** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

Creates a transcoding template group of a maximum of one input and six output streams.

POST https://{endpoint}/v1/{project\_id}/template\_group/transcodings

```
{
  "name" : "my_templateGroup",
  "videos" : [ {
    "width" : "480",
    "height" : "270",
    "bitrate" : "200"
  } ],
  "audio" : {
    "codec" : 1,
    "sample_rate" : 1,
    "channels" : 2,
    "bitrate" : 0
  },
  "video_common" : {
    "codec" : 1,
    "black_cut" : 0,
    "profile" : 3,
    "level" : 15,
    "preset" : 3,
    "max_iframes_interval" : 5,
    "bframes_count" : 4,
    "frame_rate" : 0
  },
}
```

```
"common" : {  
  "PVC" : false,  
  "pack_type" : 1,  
  "hls_interval" : 5,  
  "dash_interval" : 5  
}
```

## Example Responses

### Status code: 201

Transcoding template group created successfully.

```
{  
  "template_group" : {  
    "group_id" : "f7fc420b17db414fb11652671581bb6d",  
    "name" : "my_templateGroup",  
    "template_ids" : [ 286548 ],  
    "videos" : [ {  
      "template_id" : 286548,  
      "width" : 480,  
      "height" : 270,  
      "bitrate" : 200  
    } ],  
    "audio" : {  
      "output_policy" : "transcode",  
      "codec" : 1,  
      "bitrate" : 0,  
      "sample_rate" : 1,  
      "channels" : 2  
    },  
    "video_common" : {  
      "output_policy" : "transcode",  
      "codec" : 1,  
      "profile" : 3,  
      "level" : 15,  
      "preset" : 1,  
      "max_iframes_interval" : 5,  
      "bframes_count" : 4,  
      "frame_rate" : 0,  
      "black_cut" : 0  
    },  
    "common" : {  
      "PVC" : false,  
      "hls_interval" : 5,  
      "dash_interval" : 5,  
      "pack_type" : 1  
    }  
  }  
}
```

### Status code: 400

Failed to create a transcoding template group.

```
{  
  "error_code" : "MPC.10202",  
  "error_msg" : "Invalid request parameter."  
}
```

## Status Codes

| Status Code | Description                                      |
|-------------|--------------------------------------------------|
| 201         | Transcoding template group created successfully. |
| 400         | Failed to create a transcoding template group.   |

## Error Codes

See [Error Codes](#).

# 6.2 Querying Transcoding Template Groups

## Function

This API is used to query one or more custom transcoding template groups.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /v1/{project\_id}/template\_group/transcodings

**Table 6-15** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                               |
|------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br><br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

**Table 6-16** Query Parameters

| Parameter | Mandatory | Type             | Description                                                                                                  |
|-----------|-----------|------------------|--------------------------------------------------------------------------------------------------------------|
| group_id  | No        | Array of strings | ID of a transcoding template group. A maximum of 10 transcoding template group IDs can be queried at a time. |

| Parameter  | Mandatory | Type             | Description                                                                                                                                            |
|------------|-----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| group_name | No        | Array of strings | Name of a transcoding template group. A maximum of 10 transcoding template group names can be queried at a time.                                       |
| page       | No        | Integer          | Page number. If <b>group_id</b> is specified, this parameter is invalid.<br>Default value: <b>0</b>                                                    |
| size       | No        | Integer          | Number of records on each page. This parameter is unavailable if group_id is specified.<br>The default value is 10.<br>The value ranges from 1 to 100. |

## Request Parameters

**Table 6-17** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

Status code: 200

**Table 6-18** Response body parameters

| Parameter           | Type                                           | Description                                 |
|---------------------|------------------------------------------------|---------------------------------------------|
| template_group_list | Array of <a href="#">TemplateGroup</a> objects | Details about the template groups           |
| total               | Integer                                        | Total number of transcoding template groups |

**Table 6-19** TemplateGroup

| Parameter    | Type                                              | Description                                     |
|--------------|---------------------------------------------------|-------------------------------------------------|
| group_id     | String                                            | ID of each queried template group               |
| name         | String                                            | Name of each queried template group             |
| template_ids | Array of integers                                 | IDs of templates in each queried template group |
| videos       | Array of <a href="#">VideoAndTemplate</a> objects | List of output video configurations             |
| audio        | <a href="#">Audio</a> object                      | Audio information                               |
| video_common | <a href="#">VideoCommon</a> object                | Common video information                        |
| common       | <a href="#">Common</a> object                     | Common information                              |

**Table 6-20** VideoAndTemplate

| Parameter   | Type    | Description                                                                                                                                                                                 |
|-------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| template_id | Integer | Template ID                                                                                                                                                                                 |
| width       | Integer | Video width, in pixels <ul style="list-style-type: none"><li>H.264: The value is a multiple of 2 from 32 to 4,096.</li><li>H.265: The value is a multiple of 2 from 320 to 4,096.</li></ul> |

| Parameter   | Type    | Description                                                                                                                                                                                          |
|-------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| height      | Integer | Video height, in pixels <ul style="list-style-type: none"><li>H.264: The value is a multiple of 2 from 32 to 2,880.</li><li>H.265: The value is a multiple of 2 from 240 to 2,880.</li></ul>         |
| bitrate     | Integer | Average output bitrate.<br>Its value is <b>0</b> or an integer ranging from 40 to 30,000.<br>Unit: kbit/s<br>If this parameter is set to <b>0</b> , the average output bitrate is an adaptive value. |
| stream_name | String  | Stream name                                                                                                                                                                                          |

**Table 6-21** Audio

| Parameter     | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | Integer | <p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• 1: AAC</li><li>• 2: HEAAC1</li><li>• 3: HEAAC2</li><li>• 4: MP3</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Parameter   | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| sample_rate | Integer | <p>Audio sampling rate</p> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• 1: AUDIO_SAMPLE_AUTO</li><li>• 2: AUDIO_SAMPLE_22050 (22,050 Hz)</li><li>• 3: AUDIO_SAMPLE_32000 (32,000 Hz)</li><li>• 4: AUDIO_SAMPLE_44100 (44,100 Hz)</li><li>• 5: AUDIO_SAMPLE_48000 (48,000 Hz)</li><li>• 6: AUDIO_SAMPLE_96000 (96,000 Hz)</li></ul> <p><b>NOTE</b><br/>When the encoding format is MP3, the audio sampling ratio cannot be 6.</p> |
| bitrate     | Integer | <p>Audio bitrate.</p> <p>The value is <b>0</b> or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>                                                                                                                                                                                                                                                                                                                                                              |
| channels    | Integer | <p>Number of audio channels</p> <p>Options:</p> <ul style="list-style-type: none"><li>• 1: AUDIO_CHANNELS_1 (mono)</li><li>• 2: AUDIO_CHANNELS_2 (stereo)</li><li>• 6: AUDIO_CHANNELS_5_1 (5.1 surround sound)</li></ul> <p>When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.</p>                                                                                                                             |

**Table 6-22** VideoCommon

| Parameter     | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | Integer | <p>Video codec</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• 1: H.264</li><li>• 2: H.265</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| profile       | Integer | <p>Encoding profile. The recommended value is 3.</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• 1: VIDEO_PROFILE_H264_BASE</li><li>• 2: VIDEO_PROFILE_H264_MAIN</li><li>• 3: VIDEO_PROFILE_H264_HIGH</li><li>• 4: VIDEO_PROFILE_H265_MAIN</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| Parameter            | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| level                | Integer | Encoding level<br>Options: <ul style="list-style-type: none"><li>• 0: AUTO</li><li>• 1: VIDEO_LEVEL_1_0</li><li>• 2: VIDEO_LEVEL_1_1</li><li>• 3: VIDEO_LEVEL_1_2</li><li>• 4: VIDEO_LEVEL_1_3</li><li>• 5: VIDEO_LEVEL_2_0</li><li>• 6: VIDEO_LEVEL_2_1</li><li>• 7: VIDEO_LEVEL_2_2</li><li>• 8: VIDEO_LEVEL_3_0</li><li>• 9: VIDEO_LEVEL_3_1</li><li>• 10: VIDEO_LEVEL_3_2</li><li>• 11: VIDEO_LEVEL_4_0</li><li>• 12: VIDEO_LEVEL_4_1</li><li>• 13: VIDEO_LEVEL_4_2</li><li>• 14: VIDEO_LEVEL_5_0</li><li>• 15: VIDEO_LEVEL_5_1</li></ul> |
| preset               | Integer | Encoding quality.<br>Possible options: <ul style="list-style-type: none"><li>• 1: VIDEO_PRESET_SPEED (fast encoding)</li><li>• 2: VIDEO_PRESET_NORMAL (common encoding), which is not recommended</li><li>• 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding)</li></ul> Default value: 1                                                                                                                                                                                                                                                    |
| max_iframes_interval | Integer | Maximum I-frame interval.<br>The value ranges from 2 to 10.<br>Default value: <b>5</b><br>Unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| bframes_count        | Integer | Maximum B-frame interval<br>The options are as follows: <ul style="list-style-type: none"><li>• H264: The value ranges from 0 to 8 and defaults to <b>4</b>.</li><li>• H.265: The value ranges from 0 to 8 and defaults to <b>7</b>.</li></ul> Unit: frame                                                                                                                                                                                                                                                                                    |

| Parameter  | Type    | Description                                                                                                                                                                                                                                                                                                                                               |
|------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| frame_rate | Integer | Frame rate.<br>The value is <b>0</b> (adaptive) or an integer ranging from 5 to 60.<br>Unit: FPS                                                                                                                                                                                                                                                          |
| black_cut  | Integer | Whether to enable black bar removal. <ul style="list-style-type: none"><li>• <b>0</b>: disables black bar removal</li><li>• <b>1</b>: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes</li><li>• <b>2</b>: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes</li></ul> |

**Table 6-23** Common

| Parameter     | Type    | Description                                                                                                                                                                                                                                                                                                                        |
|---------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PVC           | Boolean | Whether to enable low-bitrate HD<br>The options are as follows: <ul style="list-style-type: none"><li>• false: disabled (This function is disabled by default.)</li><li>• true: enabled</li></ul> (The value <b>0</b> indicates that the function is disabled. Other positive integers and negative values indicate <b>true</b> .) |
| hls_interval  | Integer | HLS segment duration. This parameter is used only when <b>pack_type</b> is set to <b>1</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                         |
| dash_interval | Integer | DASH segment duration. This parameter is used only when <b>pack_type</b> is set to <b>2</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                        |

| Parameter | Type    | Description                                                                                                                                                                                                                                                                                         |
|-----------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| pack_type | Integer | Packaging type<br>Possible options are: <ul style="list-style-type: none"><li>• 1: HLS</li><li>• 2: DASH</li><li>• 3: HLS+DASH</li><li>• 4: MP4</li><li>• 5: MP3</li><li>• 6: ADTS</li></ul> <b>NOTE</b><br>If <b>pack_type</b> is set to <b>5</b> or <b>6</b> , do not configure video parameters. |

**Status code: 403**

**Table 6-24** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
GET https://{endpoint}/v1/{project_id}/template_group/transcodings?page=0&size=10
```

## Example Responses

**Status code: 200**

Transcoding template group queried successfully.

```
{
  "total": 1,
  "template_group_list": [ {
    "group_id": "397565a34913415c91955254add0461a",
    "name": "test_templageGroup",
    "template_ids": [ 276195 ],
    "videos": [ {
      "template_id": 276195,
      "width": 854,
      "height": 480,
      "bitrate": 500
    } ],
    "audio": {
      "output_policy": "transcode",
      "codec": 1,
      "bitrate": 0,
      "sample_rate": 1,
      "channels": 2
    },
    "video_common": {
```

```
{
  "output_policy" : "transcode",
  "codec" : 1,
  "profile" : 3,
  "level" : 15,
  "preset" : 3,
  "max_iframes_interval" : 5,
  "bframes_count" : 4,
  "frame_rate" : 0,
  "black_cut" : 0
},
"common" : {
  "PVC" : false,
  "hls_interval" : 5,
  "dash_interval" : 5,
  "pack_type" : 4
}
}]
}
```

**Status code: 403**

Failed to query the transcoding template group.

```
{
  "error_code" : "MPC.10212",
  "error_msg" : "Operation failed."
}
```

## Status Codes

| Status Code | Description                                      |
|-------------|--------------------------------------------------|
| 200         | Transcoding template group queried successfully. |
| 403         | Failed to query the transcoding template group.  |

## Error Codes

See [Error Codes](#).

## 6.3 Modifying a Transcoding Template Group

### Function

This API is used to modify a custom transcoding template group.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /v1/{project\_id}/template\_group/transcodings

**Table 6-25** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                                |
|------------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br><br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hccso,g42,cmcc) |

## Request Parameters

**Table 6-26** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                                   |
|---------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br><br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                              |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                             |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                           |

**Table 6-27** Request body parameters

| Parameter | Mandatory | Type   | Description                |
|-----------|-----------|--------|----------------------------|
| group_id  | Yes       | String | ID of a template group     |
| name      | No        | String | Name of the template group |

| Parameter    | Mandatory | Type                             | Description                         |
|--------------|-----------|----------------------------------|-------------------------------------|
| videos       | No        | Array of <b>VideoObj</b> objects | List of output video configurations |
| audio        | No        | <b>Audio</b> object              | Audio information                   |
| video_common | No        | <b>VideoCommon</b> object        | Common video information            |
| common       | No        | <b>Common</b> object             | Common information                  |

**Table 6-28** VideoObj

| Parameter   | Mandatory | Type    | Description                                                                                                                                                                                  |
|-------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| width       | Yes       | Integer | Video width, in pixels <ul style="list-style-type: none"><li>H.264: The value is a multiple of 2 from 32 to 4,096.</li><li>H.265: The value is a multiple of 2 from 320 to 4,096.</li></ul>  |
| height      | Yes       | Integer | Video height, in pixels <ul style="list-style-type: none"><li>H.264: The value is a multiple of 2 from 32 to 2,880.</li><li>H.265: The value is a multiple of 2 from 240 to 2,880.</li></ul> |
| bitrate     | Yes       | Integer | Average output bitrate<br>Its value is 0 or an integer ranging from 40 to 30,000.<br>Unit: kbit/s<br>If this parameter is set to <b>0</b> , the average output bitrate is an adaptive value. |
| stream_name | No        | String  | Stream name                                                                                                                                                                                  |

Table 6-29 Audio

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | No        | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | No        | Integer | <p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• 1: AAC</li><li>• 2: HEAAC1</li><li>• 3: HEAAC2</li><li>• 4: MP3</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Parameter   | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| sample_rate | No        | Integer | Audio sampling rate<br>The options are as follows: <ul style="list-style-type: none"><li>• 1: AUDIO_SAMPLE_AUTO</li><li>• 2: AUDIO_SAMPLE_22050 (22,050 Hz)</li><li>• 3: AUDIO_SAMPLE_32000 (32,000 Hz)</li><li>• 4: AUDIO_SAMPLE_44100 (44,100 Hz)</li><li>• 5: AUDIO_SAMPLE_48000 (48,000 Hz)</li><li>• 6: AUDIO_SAMPLE_96000 (96,000 Hz)</li></ul> <b>NOTE</b><br>When the encoding format is MP3, the audio sampling ratio cannot be 6. |
| bitrate     | No        | Integer | Audio bitrate.<br>The value is 0 or ranges from 8 to 1,000.<br>Unit: kbit/s                                                                                                                                                                                                                                                                                                                                                                 |
| channels    | Yes       | Integer | Number of audio channels<br>Options: <ul style="list-style-type: none"><li>• 1: AUDIO_CHANNELS_1 (mono)</li><li>• 2: AUDIO_CHANNELS_2 (stereo)</li><li>• 6: AUDIO_CHANNELS_5_1 (5.1 surround sound)</li></ul> When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.                                                                                                                            |

**Table 6-30** VideoCommon

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | No        | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | No        | Integer | <p>Video codec</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• 1: H.264</li><li>• 2: H.265</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Parameter | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------|-----------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| profile   | No        | Integer | Encoding profile. The recommended value is 3.<br>Possible options are: <ul style="list-style-type: none"><li>• 1: VIDEO_PROFILE_H264_BASE</li><li>• 2: VIDEO_PROFILE_H264_MAIN</li><li>• 3: VIDEO_PROFILE_H264_HIGH</li><li>• 4: VIDEO_PROFILE_H265_MAIN</li></ul>                                                                                                                                                                                                                                                                            |
| level     | No        | Integer | Encoding level<br>Options: <ul style="list-style-type: none"><li>• 0: AUTO</li><li>• 1: VIDEO_LEVEL_1_0</li><li>• 2: VIDEO_LEVEL_1_1</li><li>• 3: VIDEO_LEVEL_1_2</li><li>• 4: VIDEO_LEVEL_1_3</li><li>• 5: VIDEO_LEVEL_2_0</li><li>• 6: VIDEO_LEVEL_2_1</li><li>• 7: VIDEO_LEVEL_2_2</li><li>• 8: VIDEO_LEVEL_3_0</li><li>• 9: VIDEO_LEVEL_3_1</li><li>• 10: VIDEO_LEVEL_3_2</li><li>• 11: VIDEO_LEVEL_4_0</li><li>• 12: VIDEO_LEVEL_4_1</li><li>• 13: VIDEO_LEVEL_4_2</li><li>• 14: VIDEO_LEVEL_5_0</li><li>• 15: VIDEO_LEVEL_5_1</li></ul> |

| Parameter            | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                          |
|----------------------|-----------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| preset               | No        | Integer | Encoding quality.<br>Possible options: <ul style="list-style-type: none"><li>• 1: VIDEO_PRESET_SPEED (fast encoding)</li><li>• 2: VIDEO_PRESET_NORMAL (common encoding), which is not recommended</li><li>• 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding)</li></ul> Default value: 1                                           |
| max_iframes_interval | No        | Integer | Maximum I-frame interval.<br>The value ranges from 2 to 10.<br>Default value: 5<br>Unit: second                                                                                                                                                                                                                                      |
| bframes_count        | No        | Integer | Maximum B-frame interval<br>The options are as follows: <ul style="list-style-type: none"><li>• H264: The value ranges from 0 to 8 and defaults to 4.</li><li>• H.265: The value ranges from 0 to 8 and defaults to 7.</li></ul> Unit: frame                                                                                         |
| frame_rate           | No        | Integer | Frame rate.<br>The value is 0 (adaptive) or an integer ranging from 5 to 60.<br>Unit: FPS                                                                                                                                                                                                                                            |
| black_cut            | No        | Integer | Whether to enable black bar removal. <ul style="list-style-type: none"><li>• 0: disables black bar removal</li><li>• 1: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes</li><li>• 2: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes</li></ul> |

**Table 6-31** Common

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                        |
|---------------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PVC           | No        | Boolean | Whether to enable low-bitrate HD<br>The options are as follows: <ul style="list-style-type: none"><li>• false: disabled (This function is disabled by default.)</li><li>• true: enabled</li></ul> (The value <b>0</b> indicates that the function is disabled. Other positive integers and negative values indicate <b>true</b> .) |
| hls_interval  | No        | Integer | HLS segment duration. This parameter is used only when <b>pack_type</b> is set to <b>1</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                         |
| dash_interval | No        | Integer | DASH segment duration. This parameter is used only when <b>pack_type</b> is set to <b>2</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                        |
| pack_type     | Yes       | Integer | Packaging type<br>Possible options are: <ul style="list-style-type: none"><li>• 1: HLS</li><li>• 2: DASH</li><li>• 3: HLS+DASH</li><li>• 4: MP4</li><li>• 5: MP3</li><li>• 6: ADTS</li></ul> <b>NOTE</b><br>If <b>pack_type</b> is set to <b>5</b> or <b>6</b> , do not configure video parameters.                                |

## Response Parameters

Status code: 400

**Table 6-32** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

Updates a transcoding template group.

PUT https://{endpoint}/v1/{project\_id}/template\_group/transcodings

```
{
  "group_id" : "bd55741ccdf04e678f800c010aa12b68",
  "name" : "test_group",
  "videos" : [ {
    "width" : 480,
    "height" : 270,
    "bitrate" : 200
  }, {
    "width" : "1280",
    "height" : "720",
    "bitrate" : "700"
  } ],
  "audio" : {
    "codec" : 1,
    "sample_rate" : 1,
    "channels" : 2,
    "bitrate" : 0
  },
  "video_common" : {
    "codec" : 1,
    "black_cut" : 0,
    "profile" : 3,
    "level" : 15,
    "preset" : 3,
    "max_iframes_interval" : 5,
    "bframes_count" : 4,
    "frame_rate" : 0
  },
  "common" : {
    "PVC" : false,
    "pack_type" : 1,
    "hls_interval" : 5,
    "dash_interval" : 5
  }
}
```

## Example Responses

**Status code: 400**

Failed to modify the transcoding template group.

```
{
  "error_code" : "MPC.10212",
  "error_msg" : "Operation failed."
}
```

## Status Codes

| Status Code | Description                                       |
|-------------|---------------------------------------------------|
| 204         | Transcoding template group modified successfully. |
| 400         | Failed to modify the transcoding template group.  |

## Error Codes

See [Error Codes](#).

# 6.4 Deleting a Transcoding Template Group

## Function

This API is used to delete a custom transcoding template group.

## Calling Method

For details, see [Calling APIs](#).

## URI

DELETE /v1/{project\_id}/template\_group/transcodings

**Table 6-33** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                                 |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .<br>(tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID].<br>(tag:hcco,g42,cmcc) |

**Table 6-34** Query Parameters

| Parameter | Mandatory | Type   | Description            |
|-----------|-----------|--------|------------------------|
| group_id  | Yes       | String | ID of a template group |

## Request Parameters

**Table 6-35** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

**Status code: 400**

**Table 6-36** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/template_group/transcodings?group_id=1001
```

## Example Responses

**Status code: 400**

Failed to delete the transcoding template group.

```
{  
  "error_code" : "MPC.10212",  
  "error_msg" : "Operation failed."  
}
```

## Status Codes

| Status Code | Description                                      |
|-------------|--------------------------------------------------|
| 204         | Transcoding template group deleted successfully. |
| 400         | Failed to delete the transcoding template group. |

## Error Codes

See [Error Codes](#).

# 7 Watermark Template APIs

---

## 7.1 Creating a Watermark Template

### Function

Creates a custom watermark template. A maximum of 100,000 watermark templates can be created by default.

Visible watermarks can be inserted into video content. These watermarks have various applications and content types, such as sponsor or partner logo, quality or certification mark.

A watermark template is a collection of preset parameters used to define key attributes such as the watermark's position and size. Watermark templates streamline the development process of watermarked applications, achieving rapid and consistent watermarking.

- A watermark template applies only to image watermarks, not text ones. To add a text watermark, specify the parameter **WaterMarks** in the API **CreateTranscodingTask**.
- A watermark template only specifies the position and size of the watermark, and does not include the watermark material. The watermark material needs to be added when submitting a media transcoding task.
- A watermark template can be created either through the console or by calling the API **CreateWatermarkTemplate**.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v1/{project\_id}/template/watermark

**Table 7-1** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                              |
|------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br><br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcs,g42,cmcc) |

## Request Parameters

**Table 7-2** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                                   |
|---------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br><br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                              |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                             |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                           |

**Table 7-3** Request body parameters

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dx        | No        | String | <p>Horizontal offset between the start point of the watermark and the vertex of the output video</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• Integer: horizontal offset between the watermark start point and the video vertex, in pixels. Value range: [0, 4096]</li><li>• Decimal: horizontal offset ratio of the watermark start point to the video width. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> <p>For example, if the output video width is 1920 pixels, <b>dx</b> is set to <b>0.1</b>, and <b>referpos</b> is set to <b>TopRight</b>, the horizontal offset between the upper right corner of the watermark and the right vertex of the video is 192.</p> |

| Parameter      | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dy             | No        | String | <p>Vertical offset between the start point of the watermark and the vertex of the output video</p> <ul style="list-style-type: none"><li>• Possible options are:<br/>Integer: vertical offset between the watermark start point and the video vertex, in pixels. The value range is [0, 4096].</li><li>• Decimal: vertical offset ratio of the watermark start point to the video height. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> <p>For example, if the output video height is 1080 pixels, <b>dy</b> is set to <b>0.1</b>, and <b>referpos</b> is set to <b>TopRight</b>, the vertical offset between the upper right corner of the watermark and the right vertex of the video is 108.</p> |
| referpos       | No        | String | <p>Watermark position.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• <b>TopRight</b>: upper right corner</li><li>• <b>TopLeft</b>: upper left corner</li><li>• <b>BottomRight</b>: lower right corner</li><li>• <b>BottomLeft</b>: lower left corner</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| timeline_start | No        | String | <p>Watermark start time, which is used together with <b>timeline_duration</b>.</p> <p>Its value is a digit.</p> <p>Unit: second</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Parameter         | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| timeline_duration | No        | String | Watermark duration, which is used together with <b>timeline_start</b> .<br>The value ranges from <i>number</i> to <b>ToEND</b> . <b>ToEND</b> indicates that the watermark lasts until the end of the video.<br>Default value: <b>ToEND</b>                                                                                                                                                                                                                                                                                                                                               |
| random_time_min   | No        | Float  | Minimum rotation interval, unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| random_time_max   | No        | Float  | Maximum rotation interval time, unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| image_processes   | No        | String | Image watermarking method. This parameter is valid only when <b>type</b> is set to <b>Image</b> .<br>Options: <ul style="list-style-type: none"><li>• <b>Original</b>: Only simple scaling is performed.</li><li>• <b>Grayed</b>: Image graying is performed.</li><li>• <b>Transparent</b>: The transparency of the source image is retained. If the source image contains transparent areas, these areas remain transparent after transcoding, allowing the underlying background or image to be displayed. This enables seamless fusion between the image and the background.</li></ul> |

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| width     | No        | String | Watermark image width. The options are as follows: <ul style="list-style-type: none"><li>• Integer: width of a watermark image, in pixels. The value ranges from 8 to 4,096.</li><li>• Decimal: ratio of the width to the width of the output video. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul>                         |
| height    | No        | String | Watermark image height. The options are as follows: <ul style="list-style-type: none"><li>• Integer: height of a watermark image, in pixels. The value ranges from 8 to 4,096.</li><li>• Decimal: ratio of the height to the height of the output video. The value is greater than 0 and less than 1, and can contain up to four decimal places, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> |

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------|-----------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| base          | No        | String  | Video on which a watermark is overlaid<br>Options: <ul style="list-style-type: none"><li>• <b>input</b>: A watermark is overlaid on the input file. The size of the watermark in the transcoded file is scaled based on the aspect ratio of the video.</li><li>• <b>output</b>: A watermark is overlaid on the transcoded file. The size of the watermark in the transcoded file is not scaled based on the aspect ratio of the video.</li></ul> |
| template_id   | No        | Integer | ID of a watermark template.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| template_name | No        | String  | Watermark template name, which contains a maximum of 64 characters                                                                                                                                                                                                                                                                                                                                                                               |
| type          | No        | String  | Watermark type, which can only be set to <b>Image</b> . Text watermark ( <b>Text</b> ) will be supported later as required.                                                                                                                                                                                                                                                                                                                      |

## Response Parameters

**Status code: 201**

**Table 7-4** Response body parameters

| Parameter   | Type    | Description                           |
|-------------|---------|---------------------------------------|
| template_id | Integer | ID of each queried watermark template |

**Status code: 403**

**Table 7-5** Response body parameters

| Parameter  | Type   | Description |
|------------|--------|-------------|
| error_code | String | Error code  |

| Parameter | Type   | Description       |
|-----------|--------|-------------------|
| error_msg | String | Error description |

## Example Requests

Creates a watermark template. A maximum of 100,000 watermark templates can be created by default.

POST https://{endpoint}/v1/{project\_id}/template/watermark

```
{
  "template_name" : "watermark_1920*1080_10*10_ BottomLeft",
  "type" : "Image",
  "image_process" : "Grayed",
  "width" : "1920",
  "height" : "1080",
  "dx" : "10",
  "dy" : "10",
  "referpos" : "BottomLeft",
  "timeline_start" : "6",
  "timeline_duration" : "8"
}
```

## Example Responses

**Status code: 201**

Watermark template created successfully.

```
{
  "template_id" : 100211
}
```

**Status code: 403**

Failed to create a watermark template.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

## Status Codes

| Status Code | Description                              |
|-------------|------------------------------------------|
| 201         | Watermark template created successfully. |
| 403         | Failed to create a watermark template.   |

## Error Codes

See [Error Codes](#).

## 7.2 Modifying a Watermark Template

### Function

This API is used to modify a watermark template.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /v1/{project\_id}/template/watermark

**Table 7-6** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                            |
|------------|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hccso,g42,cmcc) |

### Request Parameters

**Table 7-7** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |

| Parameter    | Mandatory | Type   | Description                                                                                                                       |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------|
| X-Project_Id | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters. |
| X-Sdk-Date   | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                               |

**Table 7-8** Request body parameters

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dx        | No        | String | <p>Horizontal offset between the start point of the watermark and the vertex of the output video</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• Integer: horizontal offset between the watermark start point and the video vertex, in pixels. Value range: [0, 4096]</li><li>• Decimal: horizontal offset ratio of the watermark start point to the video width. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> <p>For example, if the output video width is 1920 pixels, <b>dx</b> is set to <b>0.1</b>, and <b>referpos</b> is set to <b>TopRight</b>, the horizontal offset between the upper right corner of the watermark and the right vertex of the video is 192.</p> |

| Parameter      | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dy             | No        | String | <p>Vertical offset between the start point of the watermark and the vertex of the output video</p> <ul style="list-style-type: none"><li>• Possible options are:<br/>Integer: vertical offset between the watermark start point and the video vertex, in pixels. The value range is [0, 4096].</li><li>• Decimal: vertical offset ratio of the watermark start point to the video height. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> <p>For example, if the output video height is 1080 pixels, <b>dy</b> is set to <b>0.1</b>, and <b>referpos</b> is set to <b>TopRight</b>, the vertical offset between the upper right corner of the watermark and the right vertex of the video is 108.</p> |
| referpos       | No        | String | <p>Watermark position.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• <b>TopRight</b>: upper right corner</li><li>• <b>TopLeft</b>: upper left corner</li><li>• <b>BottomRight</b>: lower right corner</li><li>• <b>BottomLeft</b>: lower left corner</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| timeline_start | No        | String | <p>Watermark start time, which is used together with <b>timeline_duration</b>.</p> <p>Its value is a digit.</p> <p>Unit: second</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Parameter         | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| timeline_duration | No        | String | Watermark duration, which is used together with <b>timeline_start</b> .<br>The value ranges from <i>number</i> to <b>ToEND</b> . <b>ToEND</b> indicates that the watermark lasts until the end of the video.<br>Default value: <b>ToEND</b>                                                                                                                                                                                                                                                                                                                                               |
| random_time_min   | No        | Float  | Minimum rotation interval, unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| random_time_max   | No        | Float  | Maximum rotation interval time, unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| image_processes   | No        | String | Image watermarking method. This parameter is valid only when <b>type</b> is set to <b>Image</b> .<br>Options: <ul style="list-style-type: none"><li>• <b>Original</b>: Only simple scaling is performed.</li><li>• <b>Grayed</b>: Image graying is performed.</li><li>• <b>Transparent</b>: The transparency of the source image is retained. If the source image contains transparent areas, these areas remain transparent after transcoding, allowing the underlying background or image to be displayed. This enables seamless fusion between the image and the background.</li></ul> |

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| width     | No        | String | Watermark image width. The options are as follows: <ul style="list-style-type: none"><li>• Integer: width of a watermark image, in pixels. The value ranges from 8 to 4,096.</li><li>• Decimal: ratio of the width to the width of the output video. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul>                         |
| height    | No        | String | Watermark image height. The options are as follows: <ul style="list-style-type: none"><li>• Integer: height of a watermark image, in pixels. The value ranges from 8 to 4,096.</li><li>• Decimal: ratio of the height to the height of the output video. The value is greater than 0 and less than 1, and can contain up to four decimal places, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> |

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------|-----------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| base          | No        | String  | Video on which a watermark is overlaid<br>Options: <ul style="list-style-type: none"><li>• <b>input:</b> A watermark is overlaid on the input file. The size of the watermark in the transcoded file is scaled based on the aspect ratio of the video.</li><li>• <b>output:</b> A watermark is overlaid on the transcoded file. The size of the watermark in the transcoded file is not scaled based on the aspect ratio of the video.</li></ul> |
| template_id   | No        | Integer | ID of a watermark template.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| template_name | No        | String  | Watermark template name, which contains a maximum of 64 characters                                                                                                                                                                                                                                                                                                                                                                               |
| type          | No        | String  | Watermark type, which can only be set to <b>Image</b> . Text watermark ( <b>Text</b> ) will be supported later as required.                                                                                                                                                                                                                                                                                                                      |

## Response Parameters

Status code: 403

Table 7-9 Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

Updates a customized watermark template.

PUT https://{endpoint}/v1/{project\_id}/template/watermark

```
{
  "template_name": "watermark_1920*1080_10*10_BottomLeft",
  "type": "Image",
  "image_process": "Grayed",
```

```
"width" : "1920",
"height" : "1080",
"dx" : "0.1",
"dy" : "0.1",
"referpos" : "BottomLeft",
"timeline_start" : "6",
"timeline_duration" : "100"
}
```

## Example Responses

**Status code: 403**

Failed to modify the watermark template.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

## Status Codes

| Status Code | Description                               |
|-------------|-------------------------------------------|
| 204         | Watermark template modified successfully. |
| 403         | Failed to modify the watermark template.  |

## Error Codes

See [Error Codes](#).

# 7.3 Deleting a Watermark Template

## Function

This API is used to delete a watermark template.

## Calling Method

For details, see [Calling APIs](#).

## URI

DELETE /v1/{project\_id}/template/watermark

**Table 7-10** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                           |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcs0,g42,cmcc) |

**Table 7-11** Query Parameters

| Parameter   | Mandatory | Type    | Description                |
|-------------|-----------|---------|----------------------------|
| template_id | Yes       | Integer | ID of a watermark template |

## Request Parameters

**Table 7-12** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

Status code: 403

**Table 7-13** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/template/watermark?template_id=1001
```

## Example Responses

Status code: 403

Failed to delete the watermark template.

```
{
  "error_code" : "MPC.10212",
  "error_msg" : "Operation failed."
}
```

## Status Codes

| Status Code | Description                              |
|-------------|------------------------------------------|
| 204         | Watermark template deleted successfully. |
| 403         | Failed to delete the watermark template. |

## Error Codes

See [Error Codes](#).

# 7.4 Querying Watermark Templates

## Function

This API is used to query one or more custom watermark templates by template ID or page number.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /v1/{project\_id}/template/watermark

**Table 7-14** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                          |
|------------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcs,g42,cmcc) |

**Table 7-15** Query Parameters

| Parameter   | Mandatory | Type              | Description                                                                                                                    |
|-------------|-----------|-------------------|--------------------------------------------------------------------------------------------------------------------------------|
| template_id | No        | Array of integers | Watermark template ID. A maximum of 10 template IDs can be queried at a time.                                                  |
| page        | No        | Integer           | Page number. If <b>task_id</b> is specified, this parameter is invalid.<br>Default value: <b>0</b>                             |
| size        | No        | Integer           | Number of records on each page. If <b>template_id</b> is specified, this parameter is invalid. The value ranges from 1 to 100. |

## Request Parameters

**Table 7-16** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                               |
|--------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |

| Parameter     | Mandatory | Type   | Description                                                                                                                       |
|---------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------|
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                  |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters. |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                               |

## Response Parameters

Status code: 200

**Table 7-17** Response body parameters

| Parameter | Type                                               | Description                                 |
|-----------|----------------------------------------------------|---------------------------------------------|
| total     | Integer                                            | Total number of queried watermark templates |
| templates | Array of <a href="#">WatermarkTemplate</a> objects | Details about queried watermark templates   |

**Table 7-18** WatermarkTemplate

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dx        | String | <p>Horizontal offset between the start point of the watermark and the vertex of the output video</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• Integer: horizontal offset between the watermark start point and the video vertex, in pixels. Value range: [0, 4096]</li><li>• Decimal: horizontal offset ratio of the watermark start point to the video width. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> <p>For example, if the output video width is 1920 pixels, <b>dx</b> is set to <b>0.1</b>, and <b>referpos</b> is set to <b>TopRight</b>, the horizontal offset between the upper right corner of the watermark and the right vertex of the video is 192.</p> |
| dy        | String | <p>Vertical offset between the start point of the watermark and the vertex of the output video</p> <ul style="list-style-type: none"><li>• Possible options are: Integer: vertical offset between the watermark start point and the video vertex, in pixels. The value range is [0, 4096].</li><li>• Decimal: vertical offset ratio of the watermark start point to the video height. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> <p>For example, if the output video height is 1080 pixels, <b>dy</b> is set to <b>0.1</b>, and <b>referpos</b> is set to <b>TopRight</b>, the vertical offset between the upper right corner of the watermark and the right vertex of the video is 108.</p>       |

| Parameter         | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| referpos          | String | Watermark position.<br>Possible values: <ul style="list-style-type: none"><li>• <b>TopRight</b>: upper right corner</li><li>• <b>TopLeft</b>: upper left corner</li><li>• <b>BottomRight</b>: lower right corner</li><li>• <b>BottomLeft</b>: lower left corner</li></ul>                                                                                                                                                                                                                                                                                                                 |
| timeline_start    | String | Watermark start time, which is used together with <b>timeline_duration</b> .<br>Its value is a digit.<br>Unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| timeline_duration | String | Watermark duration, which is used together with <b>timeline_start</b> .<br>The value ranges from <i>number</i> to <b>ToEND</b> . <b>ToEND</b> indicates that the watermark lasts until the end of the video.<br>Default value: <b>ToEND</b>                                                                                                                                                                                                                                                                                                                                               |
| random_time_min   | Float  | Minimum rotation interval, unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| random_time_max   | Float  | Maximum rotation interval time, unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| image_process     | String | Image watermarking method. This parameter is valid only when <b>type</b> is set to <b>Image</b> .<br>Options: <ul style="list-style-type: none"><li>• <b>Original</b>: Only simple scaling is performed.</li><li>• <b>Grayed</b>: Image graying is performed.</li><li>• <b>Transparent</b>: The transparency of the source image is retained. If the source image contains transparent areas, these areas remain transparent after transcoding, allowing the underlying background or image to be displayed. This enables seamless fusion between the image and the background.</li></ul> |

| Parameter     | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| width         | String  | Watermark image width. The options are as follows: <ul style="list-style-type: none"><li>• Integer: width of a watermark image, in pixels. The value ranges from 8 to 4,096.</li><li>• Decimal: ratio of the width to the width of the output video. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul>                         |
| height        | String  | Watermark image height. The options are as follows: <ul style="list-style-type: none"><li>• Integer: height of a watermark image, in pixels. The value ranges from 8 to 4,096.</li><li>• Decimal: ratio of the height to the height of the output video. The value is greater than 0 and less than 1, and can contain up to four decimal places, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> |
| base          | String  | Video on which a watermark is overlaid<br>Options: <ul style="list-style-type: none"><li>• <b>input</b>: A watermark is overlaid on the input file. The size of the watermark in the transcoded file is scaled based on the aspect ratio of the video.</li><li>• <b>output</b>: A watermark is overlaid on the transcoded file. The size of the watermark in the transcoded file is not scaled based on the aspect ratio of the video.</li></ul>                                                          |
| template_id   | Integer | ID of a watermark template.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| template_name | String  | Watermark template name, which contains a maximum of 64 characters                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Parameter | Type   | Description                                                                                                                 |
|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------|
| type      | String | Watermark type, which can only be set to <b>Image</b> . Text watermark ( <b>Text</b> ) will be supported later as required. |

**Status code: 403**

**Table 7-19** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
GET https://{endpoint}/v1/{project_id}/templates/watermark?template_id =2743
```

## Example Responses

**Status code: 200**

Watermark template queried successfully.

```
{
  "total" : 1,
  "templates" : [ {
    "dx" : 0.1,
    "dy" : 0.1,
    "referpos" : "TopRight",
    "timeline_start" : 0,
    "timeline_duration" : "ToEND",
    "image_process" : "Original",
    "width" : 0.1,
    "height" : 0.1,
    "base" : "input",
    "template_id" : 2743,
    "template_name" : "createWatermarkTemplate1xYcdyUz",
    "type" : "Image"
  } ]
}
```

**Status code: 403**

Failed to query the watermark template.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

## Status Codes

| Status Code | Description                              |
|-------------|------------------------------------------|
| 200         | Watermark template queried successfully. |
| 403         | Failed to query the watermark template.  |

## Error Codes

See [Error Codes](#).

# 8 Transcoding APIs

## 8.1 Creating a Transcoding Task

### Function

This API is used to create a transcoding task to transcode media files, and add watermarks and capture snapshots during transcoding. A transcoding template must be configured before video transcoding.

Ensure that an input media file is stored in an OBS bucket in the same region as MPC and the permission for accessing the OBS bucket has been granted to MPC.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v1/{project\_id}/transcodings

**Table 8-1** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                           |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

## Request Parameters

**Table 8-2** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

**Table 8-3** Request body parameters

| Parameter | Mandatory | Type                              | Description                                                                                           |
|-----------|-----------|-----------------------------------|-------------------------------------------------------------------------------------------------------|
| input     | No        | <a href="#">ObsObjInfo</a> object | Storage location of an input file. This parameter is mandatory in scenarios where audio is not added. |
| output    | Yes       | <a href="#">ObsObjInfo</a> object | Storage location of an output file                                                                    |

| Parameter            | Mandatory | Type                                        | Description                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------|-----------|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| trans_template_id    | No        | Array of integers                           | Transcoding template ID. If the <b>av_parameter</b> parameter is not contained, this parameter must be carried and its value is an array. Each transcoding output corresponds to a transcoding template ID. A maximum of nine template IDs are supported.<br><br>Only the following parameters in transcoding templates can be changed:<br><br>Video bitrate, height, and width                      |
| trans_template_list  | No        | Array of <b>TransIdTemplate</b> objects     | Transcoding template array                                                                                                                                                                                                                                                                                                                                                                           |
| av_parameters        | No        | Array of <b>AvParameters</b> objects        | Transcoding parameter<br><br>If both <b>trans_template_id</b> and this parameter are specified, this parameter is preferentially used for transcoding. If <b>trans_template_id</b> is not specified, this parameter is mandatory.                                                                                                                                                                    |
| additional_manifests | No        | Array of <b>AdditionalManifests</b> objects | Customized parameter for the primary index.                                                                                                                                                                                                                                                                                                                                                          |
| output_filenames     | No        | Array of strings                            | Name of an output file. Each transcoded file has a name that corresponds to the sequence of the transcoding template ID array. <ul style="list-style-type: none"><li>• If this parameter is specified, the output object name is <i>object/file_name</i>.</li><li>• If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.</li></ul> |
| user_data            | No        | String                                      | Custom user data. You can call a query API or send a notification to transfer this field to users.                                                                                                                                                                                                                                                                                                   |

| Parameter     | Mandatory | Type                                     | Description                                                                                                                                                                                                                                             |
|---------------|-----------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| watermarks    | No        | Array of <b>WatermarkRequest</b> objects | Array of image watermarks. Up to 10 watermarks are supported.                                                                                                                                                                                           |
| thumbnail     | No        | <b>Thumbnail</b> object                  | Snapshot information<br><b>NOTE</b><br>Snapshots are generated only when the transcoding template specified by <b>trans_template_id</b> or the output resolution specified by <b>av_parameters</b> is 1920 x 1080, 1280 x 720, 854 x 480, or 480 x 270. |
| thumbnails    | No        | Array of <b>Thumbnail</b> objects        | Multiple screenshot task, array, supports up to 20 members.                                                                                                                                                                                             |
| priority      | No        | Integer                                  | Task priority. Possible values: <ul style="list-style-type: none"><li>• 9: high</li><li>• 6: medium (default)</li></ul>                                                                                                                                 |
| subtitle      | No        | <b>Subtitle</b> object                   | Subtitle parameters                                                                                                                                                                                                                                     |
| encryption    | No        | <b>Encryption</b> object                 | Encryption parameters                                                                                                                                                                                                                                   |
| crop          | No        | <b>Crop</b> object                       | Number of seconds cropped from a video for which transcoding is performed on.                                                                                                                                                                           |
| audio_track   | No        | <b>AudioTrack</b> object                 | Audio track parameters                                                                                                                                                                                                                                  |
| multi_audio   | No        | <b>MultiAudio</b> object                 | Multi-language and multi-channel audio parameters                                                                                                                                                                                                       |
| video_process | No        | <b>VideoProcess</b> object               | Video processing parameters                                                                                                                                                                                                                             |
| audio_process | No        | <b>AudioProcess</b> object               | Audio processing parameters                                                                                                                                                                                                                             |

**Table 8-4** TransIdTemplate

| Parameter   | Mandatory | Type    | Description              |
|-------------|-----------|---------|--------------------------|
| template_id | Yes       | Integer | Output video template ID |

| Parameter       | Mandatory | Type                              | Description                                                                                                                                                                                                                                                       |
|-----------------|-----------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output          | No        | <a href="#">ObsObjInfo</a> object | Output path, if not filled, will be combined with the outer layer transcoding output. Explanation: When multiple HLS outputs are used, if the output paths are different, index.m3u8 will not be available, and audio and video separation will not be available. |
| output_filename | No        | String                            | Output file name                                                                                                                                                                                                                                                  |

**Table 8-5** AvParameters

| Parameter       | Mandatory | Type                                   | Description                                                                                                                                                                                                                                                       |
|-----------------|-----------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| video           | No        | <a href="#">VideoParameters</a> object | Video parameters                                                                                                                                                                                                                                                  |
| audio           | No        | <a href="#">Audio</a> object           | Audio parameters                                                                                                                                                                                                                                                  |
| common          | Yes       | <a href="#">Common</a> object          | Common parameters                                                                                                                                                                                                                                                 |
| output          | No        | <a href="#">ObsObjInfo</a> object      | Output path, if not filled, will be combined with the outer layer transcoding output. Explanation: When multiple HLS outputs are used, if the output paths are different, index.m3u8 will not be available, and audio and video separation will not be available. |
| output_filename | No        | String                                 | Output file name                                                                                                                                                                                                                                                  |

**Table 8-6** VideoParameters

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | No        | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | No        | Integer | <p>Video codec.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• 1: VIDEO_CODEC_H264</li><li>• 2: VIDEO_CODEC_H265</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| crf           | No        | Object  | <p>Factor for controlling the constant video bitrate.</p> <p>The value range is [0, 51].</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Parameter   | Mandatory | Type    | Description                                                                                                                                                                                                                                                                   |
|-------------|-----------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| max_bitrate | No        | Integer | Maximum output bitrate<br>Unit: kbit/s<br>This field is used when the Constant Rate Factor (CRF) is used. The value is generally set to 1.5 times of the average bitrate of the source file.                                                                                  |
| bitrate     | No        | Integer | Average output bitrate<br>Its value is 0 or an integer ranging from 40 to 50,000.<br>Unit: kbit/s<br>If this parameter is set to <b>0</b> , the average output bitrate is an adaptive value.                                                                                  |
| profile     | No        | Integer | Encoding profile.<br>Possible values: <ul style="list-style-type: none"><li>• <b>1</b>:<br/>VIDEO_PROFILE_H264_BASE</li><li>• <b>2</b>:<br/>VIDEO_PROFILE_H264_MAIN</li><li>• <b>3</b>:<br/>VIDEO_PROFILE_H264_HIGH</li><li>• <b>4</b>:<br/>VIDEO_PROFILE_H265_MAIN</li></ul> |

| Parameter            | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|-----------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| level                | No        | Integer | Encoding level<br>Options: <ul style="list-style-type: none"><li>• 0: AUTO</li><li>• 1: VIDEO_LEVEL_1_0</li><li>• 2: VIDEO_LEVEL_1_1</li><li>• 3: VIDEO_LEVEL_1_2</li><li>• 4: VIDEO_LEVEL_1_3</li><li>• 5: VIDEO_LEVEL_2_0</li><li>• 6: VIDEO_LEVEL_2_1</li><li>• 7: VIDEO_LEVEL_2_2</li><li>• 8: VIDEO_LEVEL_3_0</li><li>• 9: VIDEO_LEVEL_3_1</li><li>• 10: VIDEO_LEVEL_3_2</li><li>• 11: VIDEO_LEVEL_4_0</li><li>• 12: VIDEO_LEVEL_4_1</li><li>• 13: VIDEO_LEVEL_4_2</li><li>• 14: VIDEO_LEVEL_5_0</li><li>• 15: VIDEO_LEVEL_5_1</li></ul> |
| preset               | No        | Integer | Encoding quality.<br>Possible options: <ul style="list-style-type: none"><li>• 1: VIDEO_PRESET_SPEED (fast encoding)</li><li>• 2: VIDEO_PRESET_NORMAL (common encoding), which is not recommended</li><li>• 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding)</li></ul> Default value: 1                                                                                                                                                                                                                                                    |
| max_iframes_interval | No        | Integer | Maximum I-frame interval.<br>The value ranges from 2 to 10.<br>Default value: 5<br>Unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                               |

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                |
|---------------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| bframes_count | No        | Integer | Maximum B-frame interval<br>The options are as follows: <ul style="list-style-type: none"><li>• H.264: The value ranges from 0 to 8 and defaults to 4.</li><li>• H.265: The value ranges from 0 to 8 and defaults to 7.</li></ul> Unit: frame                                                                                                              |
| frame_rate    | No        | Integer | Frame rate.<br>The value is 0 (adaptive) or ranges from 5 to 60.<br>Unit: FPS<br><b>NOTE</b><br>If the configured frame rate is not within the value range, the value is automatically changed to 0. If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file. |
| width         | No        | Integer | Video width, in pixels <ul style="list-style-type: none"><li>• H.264: The value is a multiple of 2 from 32 to 4,096.</li><li>• H.265: The value is a multiple of 2 from 320 to 4,096.</li></ul>                                                                                                                                                            |
| height        | No        | Integer | Video height, in pixels <ul style="list-style-type: none"><li>• H.264: The value is a multiple of 2 from 32 to 2,880.</li><li>• H.265: The value is a multiple of 2 from 240 to 2,880.</li></ul>                                                                                                                                                           |

| Parameter   | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                               |
|-------------|-----------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| black_cut   | No        | Integer | Whether to enable black bar removal. <ul style="list-style-type: none"><li>• <b>0</b>: disables black bar removal</li><li>• <b>1</b>: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes</li><li>• <b>2</b>: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes</li></ul> |
| stream_name | No        | String  | Stream name                                                                                                                                                                                                                                                                                                                                               |

Table 8-7 Audio

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | No        | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | No        | Integer | <p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• 1: AAC</li><li>• 2: HEAAC1</li><li>• 3: HEAAC2</li><li>• 4: MP3</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Parameter   | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| sample_rate | No        | Integer | Audio sampling rate<br>The options are as follows: <ul style="list-style-type: none"><li>• 1: AUDIO_SAMPLE_AUTO</li><li>• 2: AUDIO_SAMPLE_22050 (22,050 Hz)</li><li>• 3: AUDIO_SAMPLE_32000 (32,000 Hz)</li><li>• 4: AUDIO_SAMPLE_44100 (44,100 Hz)</li><li>• 5: AUDIO_SAMPLE_48000 (48,000 Hz)</li><li>• 6: AUDIO_SAMPLE_96000 (96,000 Hz)</li></ul> <b>NOTE</b><br>When the encoding format is MP3, the audio sampling ratio cannot be 6. |
| bitrate     | No        | Integer | Audio bitrate.<br>The value is 0 or ranges from 8 to 1,000.<br>Unit: kbit/s                                                                                                                                                                                                                                                                                                                                                                 |
| channels    | Yes       | Integer | Number of audio channels<br>Options: <ul style="list-style-type: none"><li>• 1: AUDIO_CHANNELS_1 (mono)</li><li>• 2: AUDIO_CHANNELS_2 (stereo)</li><li>• 6: AUDIO_CHANNELS_5_1 (5.1 surround sound)</li></ul> When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.                                                                                                                            |

**Table 8-8** Common

| Parameter     | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                        |
|---------------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PVC           | No        | Boolean | Whether to enable low-bitrate HD<br>The options are as follows: <ul style="list-style-type: none"><li>• false: disabled (This function is disabled by default.)</li><li>• true: enabled</li></ul> (The value <b>0</b> indicates that the function is disabled. Other positive integers and negative values indicate <b>true</b> .) |
| hls_interval  | No        | Integer | HLS segment duration. This parameter is used only when <b>pack_type</b> is set to <b>1</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                         |
| dash_interval | No        | Integer | DASH segment duration. This parameter is used only when <b>pack_type</b> is set to <b>2</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                        |
| pack_type     | Yes       | Integer | Packaging type<br>Possible options are: <ul style="list-style-type: none"><li>• 1: HLS</li><li>• 2: DASH</li><li>• 3: HLS+DASH</li><li>• 4: MP4</li><li>• 5: MP3</li><li>• 6: ADTS</li></ul> <b>NOTE</b><br>If <b>pack_type</b> is set to <b>5</b> or <b>6</b> , do not configure video parameters.                                |

**Table 8-9** AdditionalManifests

| Parameter              | Mandatory | Type   | Description                          |
|------------------------|-----------|--------|--------------------------------------|
| manifest_name_modifier | No        | String | Customized index file name extension |

| Parameter        | Mandatory | Type             | Description                 |
|------------------|-----------|------------------|-----------------------------|
| selected_outputs | No        | Array of strings | Name of the selected stream |

**Table 8-10** WatermarkRequest

| Parameter       | Mandatory | Type                                  | Description                                                                                                                                                                                                                                              |
|-----------------|-----------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| input           | No        | <a href="#">ObsObjInfo</a> object     | Storage location of an input file. This parameter is mandatory if an image watermark is used.                                                                                                                                                            |
| template_id     | No        | String                                | ID of a watermark template. You can call an API to create a watermark template.                                                                                                                                                                          |
| text_context    | No        | String                                | Base64-coded text watermark. This parameter must be configured when <b>type</b> is set to <b>Text</b> .<br><br>For example, if the text watermark to be added is "Test Text Watermark", the value of <b>content</b> is <b>5rWL6K+V5paH5a2X5rC05Y2w</b> . |
| image_watermark | No        | <a href="#">ImageWatermark</a> object | Watermark parameters used for overwriting the parameters with the same names in the watermark template                                                                                                                                                   |
| text_watermark  | No        | <a href="#">TextWatermark</a> object  | Text watermark configurations. If text_context is set, this field cannot be left blank.                                                                                                                                                                  |

**Table 8-11** ImageWatermark

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dx        | No        | String | <p>Horizontal offset between the start point of the watermark and the vertex of the output video</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• Integer: horizontal offset between the watermark start point and the video vertex, in pixels. Value range: [0, 4096]</li><li>• Decimal: horizontal offset ratio of the watermark start point to the video width. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> <p>For example, if the output video width is 1920 pixels, <b>dx</b> is set to <b>0.1</b>, and <b>referpos</b> is set to <b>TopRight</b>, the horizontal offset between the upper right corner of the watermark and the right vertex of the video is 192.</p> |

| Parameter      | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dy             | No        | String | <p>Vertical offset between the start point of the watermark and the vertex of the output video</p> <ul style="list-style-type: none"><li>• Possible options are:<br/>Integer: vertical offset between the watermark start point and the video vertex, in pixels. The value range is [0, 4096].</li><li>• Decimal: vertical offset ratio of the watermark start point to the video height. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> <p>For example, if the output video height is 1080 pixels, <b>dy</b> is set to <b>0.1</b>, and <b>referpos</b> is set to <b>TopRight</b>, the vertical offset between the upper right corner of the watermark and the right vertex of the video is 108.</p> |
| referpos       | No        | String | <p>Watermark position.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• <b>TopRight</b>: upper right corner</li><li>• <b>TopLeft</b>: upper left corner</li><li>• <b>BottomRight</b>: lower right corner</li><li>• <b>BottomLeft</b>: lower left corner</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| timeline_start | No        | String | <p>Watermark start time, which is used together with <b>timeline_duration</b>.</p> <p>Its value is a digit.</p> <p>Unit: second</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Parameter         | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| timeline_duration | No        | String | Watermark duration, which is used together with <b>timeline_start</b> .<br>The value ranges from <i>number</i> to <b>ToEND</b> . <b>ToEND</b> indicates that the watermark lasts until the end of the video.<br>Default value: <b>ToEND</b>                                                                                                                                                                                                                                                                                                                                               |
| random_time_min   | No        | Float  | Minimum rotation interval, unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| random_time_max   | No        | Float  | Maximum rotation interval time, unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| image_processes   | No        | String | Image watermarking method. This parameter is valid only when <b>type</b> is set to <b>Image</b> .<br>Options: <ul style="list-style-type: none"><li>• <b>Original</b>: Only simple scaling is performed.</li><li>• <b>Grayed</b>: Image graying is performed.</li><li>• <b>Transparent</b>: The transparency of the source image is retained. If the source image contains transparent areas, these areas remain transparent after transcoding, allowing the underlying background or image to be displayed. This enables seamless fusion between the image and the background.</li></ul> |

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| width     | No        | String | Watermark image width. The options are as follows: <ul style="list-style-type: none"><li>• Integer: width of a watermark image, in pixels. The value ranges from 8 to 4,096.</li><li>• Decimal: ratio of the width to the width of the output video. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul>                         |
| height    | No        | String | Watermark image height. The options are as follows: <ul style="list-style-type: none"><li>• Integer: height of a watermark image, in pixels. The value ranges from 8 to 4,096.</li><li>• Decimal: ratio of the height to the height of the output video. The value is greater than 0 and less than 1, and can contain up to four decimal places, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> |

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| base      | No        | String | <p>Video on which a watermark is overlaid</p> <p>Options:</p> <ul style="list-style-type: none"><li>• <b>input:</b> A watermark is overlaid on the input file. The size of the watermark in the transcoded file is scaled based on the aspect ratio of the video.</li><li>• <b>output:</b> A watermark is overlaid on the transcoded file. The size of the watermark in the transcoded file is not scaled based on the aspect ratio of the video.</li></ul> |

**Table 8-12** TextWatermark

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dx        | No        | String | <p>Horizontal offset between the start point of the watermark and the vertex of the output video</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• Integer: horizontal offset between the watermark start point and the video vertex, in pixels. Value range: [0, 4096]</li><li>• Decimal: horizontal offset ratio of the watermark start point to the video width. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> <p>For example, if the output video width is 1920 pixels, <b>dx</b> is set to <b>0.1</b>, and <b>referpos</b> is set to <b>TopRight</b>, the horizontal offset between the upper right corner of the watermark and the right vertex of the video is 192.</p> |

| Parameter      | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dy             | No        | String | <p>Vertical offset between the start point of the watermark and the vertex of the output video</p> <ul style="list-style-type: none"><li>• Possible options are:<br/>Integer: vertical offset between the watermark start point and the video vertex, in pixels. The value range is [0, 4096].</li><li>• Decimal: vertical offset ratio of the watermark start point to the video height. The value range is (0, 1). Up to four decimal places are displayed, for example, 0.9999. If the value contains more than four decimal places, the part behind the fourth decimal place is automatically truncated.</li></ul> <p>For example, if the output video height is 1080 pixels, <b>dy</b> is set to <b>0.1</b>, and <b>referpos</b> is set to <b>TopRight</b>, the vertical offset between the upper right corner of the watermark and the right vertex of the video is 108.</p> |
| referpos       | No        | String | <p>Watermark position.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• <b>TopRight</b>: upper right corner</li><li>• <b>TopLeft</b>: upper left corner</li><li>• <b>BottomRight</b>: lower right corner</li><li>• <b>BottomLeft</b>: lower left corner</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| timeline_start | No        | String | <p>Watermark start time, which is used together with <b>timeline_duration</b>.</p> <p>Its value is a digit.</p> <p>Unit: second</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Parameter         | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------|-----------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| timeline_duration | No        | String  | Watermark duration, which is used together with <b>timeline_start</b> .<br>The value ranges from <i>number</i> to <b>ToEND</b> . <b>ToEND</b> indicates that the watermark lasts until the end of the video.<br>Default value: <b>ToEND</b>                                                                                                                                 |
| random_time_min   | No        | Float   | Minimum rotation interval, unit: second                                                                                                                                                                                                                                                                                                                                     |
| random_time_max   | No        | Float   | Maximum rotation interval time, unit: second                                                                                                                                                                                                                                                                                                                                |
| font_name         | No        | String  | Font. Only <b>fzyouh</b> is supported.                                                                                                                                                                                                                                                                                                                                      |
| font_size         | No        | Integer | Font size<br>The value ranges from 4 to 120.                                                                                                                                                                                                                                                                                                                                |
| font_color        | No        | String  | Font color. The options are as follows: <b>black, blue, white, green, red, yellow, brown, gold, pink, orange, and purple</b>                                                                                                                                                                                                                                                |
| base              | No        | String  | Video on which the watermark is overlaid.<br>Possible values: <ul style="list-style-type: none"><li>• <b>input</b>: The watermark is overlaid on the input file. After transcoding, the size of the output file is scaled based on the aspect ratio of images.</li><li>• <b>output</b>: The watermark is overlaid on the output file.</li></ul> Default value: <b>input</b> |

**Table 8-13** Thumbnail

| Parameter | Mandatory | Type                                 | Description                                                                                                                                                                                                                                                              |
|-----------|-----------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tar       | No        | Integer                              | Whether to compress captured snapshots to a TAR package.<br>Possible values: <ul style="list-style-type: none"><li>• <b>0</b>: Captured snapshots are compressed to a TAR package.</li><li>• <b>1</b>: Captured snapshots are not compressed to a TAR package.</li></ul> |
| out       | No        | <a href="#">ObsObjInfo</a> object    | Storage location of snapshots. If this parameter is not set, snapshots are stored in the same location as the output file.                                                                                                                                               |
| params    | Yes       | <a href="#">ThumbnailPara</a> object | Snapshot parameters                                                                                                                                                                                                                                                      |

**Table 8-14** ThumbnailPara

| Parameter | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                        |
|-----------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type      | No        | String  | Sampling type<br>Possible options are: <ul style="list-style-type: none"><li>• <b>TIME</b>: Snapshots are captured at certain intervals.</li><li>• <b>DOTS</b>: Snapshots are captured at specific time points. Select this type for single snapshot capture.</li></ul> Default value: <b>TIME</b> |
| amount    | No        | Integer | If the proportion of black pixels is greater than or equal to this value, the frame is considered black.                                                                                                                                                                                           |
| threshold | No        | Integer | Pixels with values less than this value are considered black spots.                                                                                                                                                                                                                                |

| Parameter  | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| time       | No        | Integer | Interval for capturing snapshots.<br>Default value: <b>12</b><br>Unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| start_time | No        | Integer | Start time for the sampling type set to <b>TIME</b> . This parameter is used together with <b>time</b> .<br>Default value: <b>0</b><br>Unit: second<br><b>NOTE</b><br>If the value of <b>start_time</b> exceeds the media file duration, frames are not extracted.                                                                                                                                                                                                                                                                                                                                                                                |
| duration   | No        | Integer | Capture duration when the sampling type is set to <b>TIME</b> . This parameter is used together with <b>time</b> and <b>start_time</b> , indicating that the first snapshot is captured at the time specified by <b>start_time</b> and snapshots are captured at the interval specified by <b>time</b> until the duration specified by this parameter elapses.<br>Value range: [Number, ToEND]. <b>ToEND</b> indicates that snapshot capturing lasts till the end of the video.<br>Default value: <b>ToEND</b><br>Unit: second<br><b>NOTE</b><br><b>0</b> indicates that snapshot capturing lasts from <b>start_time</b> to the end of the video. |

| Parameter       | Mandatory | Type              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------|-----------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dots            | No        | Array of integers | <p>Array of time points when a snapshot is captured</p> <p>For example, if you enter [1,3,5], the image frames at the first, third, and fifth seconds of the video are captured.</p> <ul style="list-style-type: none"><li>Asynchronous snapshot capturing: A maximum of 10 time points are supported.</li><li>Synchronous snapshot capturing: Only one time point is supported.</li></ul>                                                                                                                                                                                                                                                                            |
| dots_ms         | No        | Array of integers | <p>Time point array of snapshot at a specified time in synchronous snapshot mode, in milliseconds.</p> <p>For example, enter [1000] to capture the image frame at the 1000th ms position of the video. Only one time point is allowed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                            |
| output_filename | No        | String            | <p>Snapshot file name.</p> <ul style="list-style-type: none"><li>If only one snapshot is captured (the sampling type is <b>DOTS</b> and only one time point is specified), the output file name is the specified snapshot file name.</li><li>If multiple snapshots are captured (the sampling type is <b>DOTS</b> and multiple time points are specified or the sampling type is <b>TIME</b>), an output file name contains the specified snapshot file name followed by the time point, for example, <b>output_filename_10.jpg</b>.</li><li>If you specify the snapshot to be compressed into a TAR package, the output file name is the TAR package name.</li></ul> |

| Parameter  | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| format     | No        | Integer | Snapshot file format.<br>The value is:<br><b>1</b> : JPG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| width      | No        | Integer | Image width<br>The options are as follows: <ul style="list-style-type: none"><li>• [96,3840]</li><li>• 0: adaptive (the original aspect ratio is retained)</li></ul> Unit: pixel                                                                                                                                                                                                                                                                                                                                                                                                         |
| height     | No        | Integer | Image height<br>The options are as follows: <ul style="list-style-type: none"><li>• [96,2160]</li><li>• 0: adaptive (the original aspect ratio is retained)</li></ul> Unit: pixel                                                                                                                                                                                                                                                                                                                                                                                                        |
| max_length | No        | Integer | The longest side of a snapshot. The width of the snapshot is scaled proportionally with the longest side and input video pixel.<br>The value ranges from 240 to 3,840.<br>Unit: pixel<br><b>NOTE</b><br>This parameter is used together with <b>width/height</b> . If neither <b>width</b> nor <b>height</b> is 0, the image size is calculated based on <b>width/height</b> . Otherwise, the image size is calculated based on <b>max_length</b> . If this parameter and <b>width/height</b> are not selected, snapshots are output based on the aspect ratio of the source media file. |

Table 8-15 Subtitle

| Parameter | Mandatory | Type                              | Description                     |
|-----------|-----------|-----------------------------------|---------------------------------|
| input     | No        | <a href="#">ObsObjInfo</a> object | Storage location of an SRT file |

| Parameter     | Mandatory | Type                                              | Description                                                                                                                                                                                                                                                               |
|---------------|-----------|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| inputs        | No        | Array of <a href="#">MulInputFileInfo</a> objects | Storage location of SRT files                                                                                                                                                                                                                                             |
| subtitle_type | No        | Integer                                           | Subtitle file type. Possible values: <ul style="list-style-type: none"><li>• <b>0</b>: No subtitle file is generated.</li><li>• <b>1</b>: An external subtitle file is inserted into the video stream.</li><li>• <b>2</b>: A WebVTT subtitle file is generated.</li></ul> |

**Table 8-16** MulInputFileInfo

| Parameter | Mandatory | Type                              | Description                                                                                                                                                                                        |
|-----------|-----------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| language  | No        | String                            | Subtitle language tag. The ISO 639-2 encoding format ( <a href="https://en.wikipedia.org/wiki/List_of_ISO_639-2_codes">https://en.wikipedia.org/wiki/List_of_ISO_639-2_codes</a> ) is recommended. |
| input     | No        | <a href="#">ObsObjInfo</a> object | Storage location of a subtitle file                                                                                                                                                                |

**Table 8-17** Encryption

| Parameter   | Mandatory | Type                              | Description                          |
|-------------|-----------|-----------------------------------|--------------------------------------|
| hls_encrypt | No        | <a href="#">HlsEncrypt</a> object | Encryption parameters for HLS videos |

**Table 8-18** HlsEncrypt

| Parameter | Mandatory | Type   | Description                                                                     |
|-----------|-----------|--------|---------------------------------------------------------------------------------|
| key       | Yes       | String | Base64-encoded content encryption key                                           |
| url       | Yes       | String | The key carries the service address, and can be decrypted to play HLS segments. |

| Parameter | Mandatory | Type   | Description                                                                                                                                                                   |
|-----------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| iv        | No        | String | Initial vector, which is a random number in base64Binary format                                                                                                               |
| algorithm | No        | String | Encryption algorithm.<br>Possible values: <ul style="list-style-type: none"><li>• <b>AES-128-CTR</b></li><li>• <b>AES-128-CBC</b></li></ul> Default value: <b>AES-128-CTR</b> |

**Table 8-19** Crop

| Parameter | Mandatory | Type    | Description                                                            |
|-----------|-----------|---------|------------------------------------------------------------------------|
| duration  | No        | Integer | Duration of a captured video, starting from 0 seconds.<br>Unit: second |

**Table 8-20** AudioTrack

| Parameter | Mandatory | Type    | Description                                                                                                                                                             |
|-----------|-----------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type      | No        | Integer | Audio track selection method.<br>Possible values: <ul style="list-style-type: none"><li>• <b>0</b>: selected by default</li><li>• <b>1</b>: selected manually</li></ul> |
| left      | No        | Integer | ID of the audio track where the left audio channel is                                                                                                                   |
| right     | No        | Integer | ID of the audio track where the right audio channel is                                                                                                                  |

**Table 8-21** MultiAudio

| Parameter   | Mandatory | Type                                        | Description                          |
|-------------|-----------|---------------------------------------------|--------------------------------------|
| tracks_info | No        | Array of <a href="#">TracksInfo</a> objects | Audio track information              |
| audio_files | No        | Array of <a href="#">AudioFile</a> objects  | Parameters about a single audio file |

| Parameter        | Mandatory | Type   | Description                                                                                                                                                                                       |
|------------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| default_language | No        | String | Default language tag. The ISO 639-2 encoding format ( <a href="https://en.wikipedia.org/wiki/List_of_ISO_639-2_codes">https://en.wikipedia.org/wiki/List_of_ISO_639-2_codes</a> ) is recommended. |

**Table 8-22** AudioFile

| Parameter   | Mandatory | Type                                        | Description                       |
|-------------|-----------|---------------------------------------------|-----------------------------------|
| tracks_info | No        | Array of <a href="#">TracksInfo</a> objects | Audio track information           |
| input       | No        | <a href="#">ObsObjInfo</a> object           | Storage location of an input file |

**Table 8-23** TracksInfo

| Parameter      | Mandatory | Type   | Description                                                                                                                                                                                     |
|----------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| channel_layout | No        | String | Audio channel layout of the audio track                                                                                                                                                         |
| language       | No        | String | Audio language tag. The ISO 639-2 encoding format ( <a href="https://en.wikipedia.org/wiki/List_of_ISO_639-2_codes">https://en.wikipedia.org/wiki/List_of_ISO_639-2_codes</a> ) is recommended. |

**Table 8-24** ObsObjInfo

| Parameter | Mandatory | Type   | Description                                                                                     |
|-----------|-----------|--------|-------------------------------------------------------------------------------------------------|
| bucket    | Yes       | String | OBS bucket name                                                                                 |
| location  | Yes       | String | Region where an OBS bucket is located. It must be the same as the region where MPC is deployed. |

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| object    | Yes       | String | <p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"><li>• If this parameter is used for an input, an object must be specified.</li><li>• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified.</li></ul> <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"><li>• Correct example: demo.srt</li><li>• Incorrect example: [demo.srt</li></ul> |

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| file_name | No        | String | <p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"><li>• If this parameter is specified, the output object name is <b>object/file_name</b>.</li><li>• If this parameter is not specified, the output object name is <b>object/xxx</b>, where <b>xxx</b> is specified by MPC.</li></ul> <p>When it is used as an output file name:</p> <ul style="list-style-type: none"><li>• This parameter is valid for container format conversion. The output file name must be specified.</li><li>• If the output file name needs to be specified during transcoding, use the parameter <b>output_filenames</b>.</li><li>• This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response.</li><li>• This parameter is invalid for snapshot capturing.</li><li>• This parameter is invalid for conversion into animated GIFs.</li><li>• When the output file is in HLS format, a file name containing <b>index</b>, such as <b>index.m3u8</b>, will cause playback failure.</li></ul> |

**Table 8-25** VideoProcess

| Parameter         | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                               |
|-------------------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hls_init_count    | No        | Integer | Number of HLS start segments<br>The value ranges from 0 to 10 and defaults to <b>0</b> .<br><b>NOTE</b><br>This parameter is used together with <b>hls_init_interval</b> to specify the duration of the first <b>hls_init_count</b> HLS segments. The value <b>0</b> indicates that there are no HLS start segments.      |
| hls_init_interval | No        | Integer | Duration of the first <b>hls_init_count</b> HLS segments<br>The value ranges from 2 to 10 and defaults to <b>5</b> .<br><b>NOTE</b><br>This parameter is valid only when the value of <b>hls_init_count</b> is not 0.                                                                                                     |
| hls_storage_type  | No        | String  | HLS media streams storage <ul style="list-style-type: none"><li>• <b>composite</b>: stored in the same file</li><li>• <b>separate</b>: stored in different files</li></ul>                                                                                                                                                |
| rotate            | No        | Integer | Clockwise rotation angle of a video.<br>Possible values: <ul style="list-style-type: none"><li>• <b>0</b>: Do not rotate.</li><li>• <b>1</b>: Rotate a video by 90 degrees clockwise.</li><li>• <b>2</b>: Rotate a video by 180 degrees clockwise.</li><li>• <b>3</b>: Rotate a video by 270 degrees clockwise.</li></ul> |
| adaptation        | No        | String  | Adaptive resolution.<br>Possible values: <ul style="list-style-type: none"><li>• <b>SHORT</b>: adaptive width</li><li>• <b>LONG</b>: adaptive height</li><li>• <b>NONE</b>: non-adaptive</li></ul>                                                                                                                        |

| Parameter        | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                         |
|------------------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| fill_type        | No        | String  | When adaptation is set to NONE: <ul style="list-style-type: none"><li>• stretch: Stretch, stretch each frame to fill the entire screen.</li><li>• black: Keep black, maintain the video's aspect ratio, and fill the remaining edges with black.</li><li>• white: Keep white, maintain the video's aspect ratio, and fill the remaining edges with white.</li></ul> |
| upsample         | No        | Integer | Whether to enable upsampling, for example, converting a 480p video to a 720p one. Possible values: <ul style="list-style-type: none"><li>• 0: disabled</li><li>• 1: enabled</li></ul>                                                                                                                                                                               |
| hls_segment_type | No        | String  | HLS segment type.<br>Options: <ul style="list-style-type: none"><li>• <b>mpegts</b>: TS</li><li>• <b>fmp4</b>: fMP4</li></ul> If this parameter is not specified, TS segments are used by default.                                                                                                                                                                  |

**Table 8-26** AudioProcess

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                      |
|-----------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| volume    | No        | String | Adjusts volume. The options are as follows: <ul style="list-style-type: none"><li>• <b>auto</b>: The volume is automatically adjusted.</li><li>• <b>dynamic</b>: The volume is manually adjusted. You need to set the allowed adjustment range.</li><li>• <b>original</b>: The volume is not adjusted.</li></ul> |

| Parameter   | Mandatory | Type    | Description                                                                                                                                            |
|-------------|-----------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| volume_expr | No        | Integer | Volume adjustment amplitude. This parameter is used only when <b>volume</b> is set to <b>dynamic</b> .<br>The value ranges from -15 to 15.<br>Unit: dB |

## Response Parameters

Status code: 202

Table 8-27 Response body parameters

| Parameter | Type    | Description                                   |
|-----------|---------|-----------------------------------------------|
| task_id   | Integer | Task ID generated after the task is accepted. |

Status code: 403

Table 8-28 Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

Creates a video transcoding task.

POST https://{endpoint}/v1/{project\_id}/transcodings

```
{
  "input": {
    "bucket": "example-bucket",
    "location": "region01",
    "object": "example-path/input.mp4"
  },
  "output": {
    "bucket": "example-bucket",
    "location": "region01",
    "object": "example-path/output"
  },
  "trans_template_id": [ 1002, 1003, 1004, 1005 ],
  "priority": "9",
  "subtitle": {
    "subtitle_type": 1,
```

```
{
  "input" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-subtitle.srt"
  },
  "encryption" : {
    "hls_encrypt" : {
      "iv" : "*****",
      "key" : "*****",
      "url" : "http://{your-keyserver}",
      "algorithm" : "AES-128-CBC"
    }
  },
  "thumbnail" : {
    "out" : {
      "bucket" : "example-bucket",
      "location" : "region01",
      "object" : "example/path"
    },
    "tar" : 1,
    "params" : {
      "time" : 2,
      "format" : 1,
      "max_length" : 480
    }
  }
}
```

## Example Responses

### Status code: 202

Transcoding task created successfully.

```
{
  "task_id" : 100211
}
```

### Status code: 403

Failed to create a transcoding task.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter"
}
```

## Status Codes

| Status Code | Description                            |
|-------------|----------------------------------------|
| 202         | Transcoding task created successfully. |
| 403         | Failed to create a transcoding task.   |

## Error Codes

See [Error Codes](#).

## 8.2 Canceling a Transcoding Task

### Function

This API is used to cancel a transcoding task.

You can only cancel the queuing transcoding tasks. A transcoding task that has started or completed cannot be canceled.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /v1/{project\_id}/transcodings

**Table 8-29** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                                  |
|------------|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .<br>(tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID].<br>(tag:hccso,g42,cmcc) |

**Table 8-30** Query Parameters

| Parameter | Mandatory | Type    | Description                                                      |
|-----------|-----------|---------|------------------------------------------------------------------|
| task_id   | Yes       | Integer | Task ID returned when a transcoding task is successfully created |

## Request Parameters

**Table 8-31** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

**Status code: 400****Table 8-32** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

DELETE https://{endpoint}/v1/{project\_id}/transcodings?task\_id=100211

## Example Responses

**Status code: 400**

Failed to cancel the transcoding task.

```
{
  "error_code" : "MPC.10212",
  "error_msg" : "Operation failed."
}
```

## Status Codes

| Status Code | Description                             |
|-------------|-----------------------------------------|
| 204         | Transcoding task canceled successfully. |
| 400         | Failed to cancel the transcoding task.  |

## Error Codes

See [Error Codes](#).

# 8.3 Querying Transcoding Tasks

## Function

This API is used to query one or more transcoding tasks.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /v1/{project\_id}/transcodings

**Table 8-33** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                           |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

**Table 8-34** Query Parameters

| Parameter  | Mandatory | Type           | Description                                                                                                                                                                                                                                                                           |
|------------|-----------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| task_id    | No        | Array of longs | Task ID. A maximum of 10 transcoding task IDs can be queried at a time.                                                                                                                                                                                                               |
| status     | No        | String         | Task execution status<br>Possible options are: <ul style="list-style-type: none"><li>• WAITING: pending</li><li>• TRANSCODING: executing</li><li>• SUCCEEDED: completed</li><li>• FAILED: failed</li><li>• CANCELED: deleted</li><li>• NEED_TO_BE_AUDIT: pending for review</li></ul> |
| start_time | No        | String         | Start time.<br>If <b>task_id</b> is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a time-zone agnostic UTC time.                                                                                                                |
| end_time   | No        | String         | End time.<br>If <b>task_id</b> is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a time-zone agnostic UTC time.                                                                                                                  |
| page       | No        | Integer        | Page number. If <b>task_id</b> is specified, this parameter is invalid.<br>Default value: <b>0</b>                                                                                                                                                                                    |
| size       | No        | Integer        | Number of records on each page. If <b>task_id</b> is specified, this parameter is invalid.<br>The value ranges from 1 to 100.<br>Default value: <b>10</b>                                                                                                                             |

## Request Parameters

**Table 8-35** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| x-language    | No        | String | Client language.                                                                                                                                                          |
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information.<br>This parameter is mandatory when AK/SK-based authentication is used.                                                                       |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent.<br>This parameter is mandatory when AK/SK-based authentication is used.                                                                    |

## Response Parameters

**Status code: 200**

**Table 8-36** Response body parameters

| Parameter  | Type                                                          | Description               |
|------------|---------------------------------------------------------------|---------------------------|
| task_array | Array of <a href="#">QueryTranscodingTaskResponse</a> objects | List of transcoding tasks |

| Parameter    | Type    | Description                                                                                                                                                                                                                                                                                                                                          |
|--------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| is_truncated | Integer | Whether the query results are truncated. Possible values: <ul style="list-style-type: none"><li>• <b>1</b>: Query results are truncated. Some results are not returned. You can configure the <b>page</b> and <b>size</b> parameters to continue the query.</li><li>• <b>0</b>: Query results are not truncated. All results are returned.</li></ul> |
| total        | Integer | Number of records                                                                                                                                                                                                                                                                                                                                    |

**Table 8-37** QueryTranscodingsTaskResponse

| Parameter         | Type                     | Description                                                                                                                                                                                                                                                    |
|-------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| task_id           | String                   | Task ID                                                                                                                                                                                                                                                        |
| status            | String                   | Task status                                                                                                                                                                                                                                                    |
| progress          | Integer                  | Task execution progress, in percentage. The value range is [0, 100]. <b>0</b> is returned by default for users not in the whitelist, and a valid value is returned for whitelisted users. If you need to be added to the whitelist, contact technical support. |
| create_time       | String                   | Task start time                                                                                                                                                                                                                                                |
| end_time          | String                   | Task end time                                                                                                                                                                                                                                                  |
| trans_template_id | Array of integers        | ID of transcoding templates                                                                                                                                                                                                                                    |
| input             | <b>ObsObjInfo</b> object | Storage location of an input file. The information includes the location, bucket name, and path.                                                                                                                                                               |
| output            | <b>ObsObjInfo</b> object | Storage location of an output file. The information includes the location, bucket name, and path.                                                                                                                                                              |
| output_file_name  | Array of strings         | Name of the output file. The value is of the array type and may contain multiple names, including snapshot names.                                                                                                                                              |
| user_data         | String                   | Custom user data                                                                                                                                                                                                                                               |
| error_code        | String                   | Status code of a transcoding task                                                                                                                                                                                                                              |

| Parameter             | Type                                                 | Description                                                                                                                                         |
|-----------------------|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| description           | String                                               | Task description. If an error occurs in a transcoding task, this field indicates the error cause.                                                   |
| tips                  | String                                               | Message displayed if the audio sampling rate is too low                                                                                             |
| transcode_detail      | <a href="#">TranscodeDetail</a> object               | Output information of snapshots                                                                                                                     |
| thumbnail_output      | <a href="#">ObsObjInfo</a> object                    | Output information of snapshots. The information includes the location, bucket name, and path.                                                      |
| thumbnail_output_name | String                                               | Name of the snapshot package                                                                                                                        |
| pic_info              | Array of <a href="#">PicInfo</a> objects             | Snapshot file information                                                                                                                           |
| thumbnails_info       | Array of <a href="#">ThumbnailsInfo</a> objects      | Screenshot file information.                                                                                                                        |
| av_parameters         | Array of <a href="#">AvParameters</a> objects        | Transcoding parameter<br>If both <b>trans_template_id</b> and this parameter are configured, this parameter is preferentially used for transcoding. |
| additional_manifests  | Array of <a href="#">AdditionalManifests</a> objects | Customized parameter for the primary index.                                                                                                         |

**Table 8-38** TranscodeDetail

| Parameter         | Type                                           | Description                                                             |
|-------------------|------------------------------------------------|-------------------------------------------------------------------------|
| multitask_info    | Array of <a href="#">MultiTaskInfo</a> objects | Details about failed transcoding in the case of one-in and multiple-out |
| input_file        | <a href="#">SourceInfo</a> object              | Input file information                                                  |
| replace_sub_index | Array of strings                               | Sub-index file to be replaced                                           |

**Table 8-39** MultiTaskInfo

| Parameter   | Type                                 | Description                            |
|-------------|--------------------------------------|----------------------------------------|
| template_id | Integer                              | Template ID                            |
| error       | <a href="#">ErrorResponse</a> object | Error message about failed transcoding |
| output_file | <a href="#">SourceInfo</a> object    | Information about a single output      |

**Table 8-40** ErrorResponse

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

**Table 8-41** SourceInfo

| Parameter     | Type                                       | Description                               |
|---------------|--------------------------------------------|-------------------------------------------|
| duration      | Integer                                    | Duration of an input file<br>Unit: second |
| duration_ms   | Long                                       | Duration of an input file<br>Unit: ms     |
| format        | String                                     | File format                               |
| size          | Long                                       | Size of an input file                     |
| manifest_name | String                                     | Independent MPD index file name           |
| md5           | String                                     | The MD5 value of the video.               |
| video_info    | <a href="#">VideoInfo</a> object           | Video information                         |
| audio_info    | Array of <a href="#">AudioInfo</a> objects | Audio information                         |

**Table 8-42** VideoInfo

| Parameter | Type    | Description  |
|-----------|---------|--------------|
| width     | Integer | Video width  |
| height    | Integer | Video height |

| Parameter   | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| bitrate     | Integer | Video bitrate.<br>Unit: kbit/s<br><b>NOTE</b><br>On August 7, 2024, the following modification was made on the video parsing API: <ul style="list-style-type: none"><li>Before: If <b>sync</b> in a synchronous video parsing task is set to <b>1</b>, the unit of <b>bitrate</b> in <b>VideoInfo</b> of the response is bit/s.</li><li>After: In a synchronous video parsing task, the unit of <b>bitrate</b> in <b>VideoInfo</b> of the response is changed to kbit/s.</li></ul> The preceding update may impact your transcoding workloads. Pay attention to the update and adjust your workloads accordingly. |
| bitrate_bps | Long    | Video bitrate<br>Unit: bit/s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| frame_rate  | Integer | Frame rate.<br>The value is <b>0</b> or ranges from 5 to 60. The value <b>0</b> indicates adaptive frame rate.<br>Unit: FPS<br><b>NOTE</b><br>If the configured frame rate is not within the value range, the value is automatically changed to <b>0</b> . If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file.                                                                                                                                                                                                  |
| codec       | String  | Video codec                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| duration    | String  | Video stream duration, unit: seconds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| duration_ms | String  | Video stream duration, unit: milliseconds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| rotate      | Float   | The angle of the video shot, in degrees.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

**Table 8-43** AudioInfo

| Parameter | Type    | Description         |
|-----------|---------|---------------------|
| codec     | String  | Audio codec         |
| sample    | Integer | Audio sampling rate |

| Parameter   | Type    | Description                               |
|-------------|---------|-------------------------------------------|
| channels    | Integer | Number of audio channels                  |
| bitrate     | Integer | Audio bitrate<br>Unit: kbit/s             |
| bitrate_bps | Long    | Audio bitrate<br>Unit: bit/s              |
| duration    | String  | Audio stream duration, unit: seconds      |
| duration_ms | String  | Audio stream duration, unit: milliseconds |

**Table 8-44** ThumbnailsInfo

| Parameter   | Type                            | Description                                     |
|-------------|---------------------------------|-------------------------------------------------|
| pic_info    | Array of <b>PicInfo</b> objects | Screenshot file information.                    |
| output      | <b>ObsObjInfo</b> object        | Output file information.                        |
| output_name | String                          | The name of the screenshot compression package. |

**Table 8-45** PicInfo

| Parameter | Type   | Description        |
|-----------|--------|--------------------|
| pic_name  | String | Snapshot file name |

**Table 8-46** AvParameters

| Parameter | Type                          | Description       |
|-----------|-------------------------------|-------------------|
| video     | <b>VideoParameters</b> object | Video parameters  |
| audio     | <b>Audio</b> object           | Audio parameters  |
| common    | <b>Common</b> object          | Common parameters |

| Parameter       | Type                              | Description                                                                                                                                                                                                                                                       |
|-----------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output          | <a href="#">ObsObjInfo</a> object | Output path, if not filled, will be combined with the outer layer transcoding output. Explanation: When multiple HLS outputs are used, if the output paths are different, index.m3u8 will not be available, and audio and video separation will not be available. |
| output_filename | String                            | Output file name                                                                                                                                                                                                                                                  |

**Table 8-47** VideoParameters

| Parameter     | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | Integer | <p>Video codec.</p> <p>Possible values:</p> <ul style="list-style-type: none"><li>• 1: VIDEO_CODEC_H264</li><li>• 2: VIDEO_CODEC_H265</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Parameter   | Type    | Description                                                                                                                                                                                                                       |
|-------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| crf         | Object  | Factor for controlling the constant video bitrate.<br>The value range is [0, 51].                                                                                                                                                 |
| max_bitrate | Integer | Maximum output bitrate<br>Unit: kbit/s<br>This field is used when the Constant Rate Factor (CRF) is used. The value is generally set to 1.5 times of the average bitrate of the source file.                                      |
| bitrate     | Integer | Average output bitrate<br>Its value is 0 or an integer ranging from 40 to 50,000.<br>Unit: kbit/s<br>If this parameter is set to <b>0</b> , the average output bitrate is an adaptive value.                                      |
| profile     | Integer | Encoding profile.<br>Possible values: <ul style="list-style-type: none"><li>• 1: VIDEO_PROFILE_H264_BASE</li><li>• 2: VIDEO_PROFILE_H264_MAIN</li><li>• 3: VIDEO_PROFILE_H264_HIGH</li><li>• 4: VIDEO_PROFILE_H265_MAIN</li></ul> |

| Parameter            | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| level                | Integer | Encoding level<br>Options: <ul style="list-style-type: none"><li>• 0: AUTO</li><li>• 1: VIDEO_LEVEL_1_0</li><li>• 2: VIDEO_LEVEL_1_1</li><li>• 3: VIDEO_LEVEL_1_2</li><li>• 4: VIDEO_LEVEL_1_3</li><li>• 5: VIDEO_LEVEL_2_0</li><li>• 6: VIDEO_LEVEL_2_1</li><li>• 7: VIDEO_LEVEL_2_2</li><li>• 8: VIDEO_LEVEL_3_0</li><li>• 9: VIDEO_LEVEL_3_1</li><li>• 10: VIDEO_LEVEL_3_2</li><li>• 11: VIDEO_LEVEL_4_0</li><li>• 12: VIDEO_LEVEL_4_1</li><li>• 13: VIDEO_LEVEL_4_2</li><li>• 14: VIDEO_LEVEL_5_0</li><li>• 15: VIDEO_LEVEL_5_1</li></ul> |
| preset               | Integer | Encoding quality.<br>Possible options: <ul style="list-style-type: none"><li>• 1: VIDEO_PRESET_SPEED (fast encoding)</li><li>• 2: VIDEO_PRESET_NORMAL (common encoding), which is not recommended</li><li>• 3: VIDEO_PRESET_HIGHQUALITY (high-quality encoding)</li></ul> Default value: 1                                                                                                                                                                                                                                                    |
| max_iframes_interval | Integer | Maximum I-frame interval.<br>The value ranges from 2 to 10.<br>Default value: <b>5</b><br>Unit: second                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| bframes_count        | Integer | Maximum B-frame interval<br>The options are as follows: <ul style="list-style-type: none"><li>• H264: The value ranges from 0 to 8 and defaults to <b>4</b>.</li><li>• H.265: The value ranges from 0 to 8 and defaults to <b>7</b>.</li></ul> Unit: frame                                                                                                                                                                                                                                                                                    |

| Parameter   | Type    | Description                                                                                                                                                                                                                                                                                                                                                               |
|-------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| frame_rate  | Integer | Frame rate.<br>The value is <b>0</b> (adaptive) or ranges from 5 to 60.<br>Unit: FPS<br><b>NOTE</b><br>If the configured frame rate is not within the value range, the value is automatically changed to <b>0</b> . If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file. |
| width       | Integer | Video width, in pixels <ul style="list-style-type: none"><li>H.264: The value is a multiple of 2 from 32 to 4,096.</li><li>H.265: The value is a multiple of 2 from 320 to 4,096.</li></ul>                                                                                                                                                                               |
| height      | Integer | Video height, in pixels <ul style="list-style-type: none"><li>H.264: The value is a multiple of 2 from 32 to 2,880.</li><li>H.265: The value is a multiple of 2 from 240 to 2,880.</li></ul>                                                                                                                                                                              |
| black_cut   | Integer | Whether to enable black bar removal. <ul style="list-style-type: none"><li><b>0</b>: disables black bar removal</li><li><b>1</b>: enables black bar removal and low-complexity algorithms for videos longer than 5 minutes</li><li><b>2</b>: enables black bar removal and high-complexity algorithms for videos no longer than 5 minutes</li></ul>                       |
| stream_name | String  | Stream name                                                                                                                                                                                                                                                                                                                                                               |

**Table 8-48** Audio

| Parameter     | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_policy | String  | <p>Output policy:</p> <ul style="list-style-type: none"><li>• If <b>output_policy</b> is set to <b>discard</b> in video parameters and <b>transcode</b> in audio parameters, only audio is output.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video parameters and to <b>discard</b> in audio parameters, only video is output.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in video parameters, the original video is copied without codec.</li><li>• If <b>output_policy</b> is set to <b>copy</b> in audio parameters, the original audio is copied without codec.</li><li>• <b>output_policy</b> cannot be set to <b>discard</b> in video and audio parameters at the same time.</li><li>• If <b>output_policy</b> is set to <b>transcode</b> in video and video parameters at the same time, video and audio are output.</li></ul> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• discard</li><li>• transcode</li><li>• copy</li></ul> |
| codec         | Integer | <p>Audio codec</p> <p>Possible options are:</p> <ul style="list-style-type: none"><li>• 1: AAC</li><li>• 2: HEAAC1</li><li>• 3: HEAAC2</li><li>• 4: MP3</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Parameter   | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| sample_rate | Integer | <p>Audio sampling rate</p> <p>The options are as follows:</p> <ul style="list-style-type: none"><li>• 1: AUDIO_SAMPLE_AUTO</li><li>• 2: AUDIO_SAMPLE_22050 (22,050 Hz)</li><li>• 3: AUDIO_SAMPLE_32000 (32,000 Hz)</li><li>• 4: AUDIO_SAMPLE_44100 (44,100 Hz)</li><li>• 5: AUDIO_SAMPLE_48000 (48,000 Hz)</li><li>• 6: AUDIO_SAMPLE_96000 (96,000 Hz)</li></ul> <p><b>NOTE</b><br/>When the encoding format is MP3, the audio sampling ratio cannot be 6.</p> |
| bitrate     | Integer | <p>Audio bitrate.</p> <p>The value is <b>0</b> or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>                                                                                                                                                                                                                                                                                                                                                              |
| channels    | Integer | <p>Number of audio channels</p> <p>Options:</p> <ul style="list-style-type: none"><li>• 1: AUDIO_CHANNELS_1 (mono)</li><li>• 2: AUDIO_CHANNELS_2 (stereo)</li><li>• 6: AUDIO_CHANNELS_5_1 (5.1 surround sound)</li></ul> <p>When the media packaging format is audio (MP3), the number of audio channels cannot be set to 5.1.</p>                                                                                                                             |

Table 8-49 Common

| Parameter     | Type    | Description                                                                                                                                                                                                                                                                                                                        |
|---------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PVC           | Boolean | Whether to enable low-bitrate HD<br>The options are as follows: <ul style="list-style-type: none"><li>• false: disabled (This function is disabled by default.)</li><li>• true: enabled</li></ul> (The value <b>0</b> indicates that the function is disabled. Other positive integers and negative values indicate <b>true</b> .) |
| hls_interval  | Integer | HLS segment duration. This parameter is used only when <b>pack_type</b> is set to <b>1</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                         |
| dash_interval | Integer | DASH segment duration. This parameter is used only when <b>pack_type</b> is set to <b>2</b> or <b>3</b> .<br>The value ranges from 2 to 10.<br>Unit: second                                                                                                                                                                        |
| pack_type     | Integer | Packaging type<br>Possible options are: <ul style="list-style-type: none"><li>• 1: HLS</li><li>• 2: DASH</li><li>• 3: HLS+DASH</li><li>• 4: MP4</li><li>• 5: MP3</li><li>• 6: ADTS</li></ul> <b>NOTE</b><br>If <b>pack_type</b> is set to <b>5</b> or <b>6</b> , do not configure video parameters.                                |

Table 8-50 ObsObjInfo

| Parameter | Type   | Description                                                                                     |
|-----------|--------|-------------------------------------------------------------------------------------------------|
| bucket    | String | OBS bucket name                                                                                 |
| location  | String | Region where an OBS bucket is located. It must be the same as the region where MPC is deployed. |

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| object    | String | <p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"><li>• If this parameter is used for an input, an object must be specified.</li><li>• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified.</li></ul> <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"><li>• Correct example: demo.srt</li><li>• Incorrect example: [demo.srt</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| file_name | String | <p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"><li>• If this parameter is specified, the output object name is <b>object/file_name</b>.</li><li>• If this parameter is not specified, the output object name is <b>object/xxx</b>, where <b>xxx</b> is specified by MPC.</li></ul> <p>When it is used as an output file name:</p> <ul style="list-style-type: none"><li>• This parameter is valid for container format conversion. The output file name must be specified.</li><li>• If the output file name needs to be specified during transcoding, use the parameter <b>output_filenames</b>.</li><li>• This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response.</li><li>• This parameter is invalid for snapshot capturing.</li><li>• This parameter is invalid for conversion into animated GIFs.</li><li>• When the output file is in HLS format, a file name containing <b>index</b>, such as <b>index.m3u8</b>, will cause playback failure.</li></ul> |

**Table 8-51** AdditionalManifests

| Parameter              | Type             | Description                          |
|------------------------|------------------|--------------------------------------|
| manifest_name_modifier | String           | Customized index file name extension |
| selected_outputs       | Array of strings | Name of the selected stream          |

**Status code: 400****Table 8-52** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

GET https://{endpoint}/v1/{project\_id}/transcodings?task\_id=22123973

## Example Responses

**Status code: 200**

Transcoding task queried successfully.

```
{
  "is_truncated" : 0,
  "total" : 1,
  "task_array" : [ {
    "task_id" : 22123973,
    "status" : "SUCCEEDED",
    "create_time" : 20200310031605,
    "end_time" : 20200310031623,
    "trans_template_id" : [ 4 ],
    "input" : {
      "bucket" : "example-bucket",
      "location" : "region01",
      "object" : "example-input.mp4"
    },
    "output" : {
      "bucket" : "example-bucket",
      "location" : "region01",
      "object" : "example-output.mp4"
    },
    "output_file_name" : [ "example_480X270.m3u8" ],
    "transcode_detail" : {
      "multitask_info" : [ {
        "template_id" : 4,
        "output_file" : {
          "duration" : 59,
          "duration_ms" : 0,
          "format" : "HLS",
          "size" : 2180,
          "video_info" : {
            "width" : 480,
```

```
{
  "height" : 270,
  "bitrate" : 231,
  "bitrate_bps" : 0,
  "frame_rate" : 25000,
  "codec" : "H264"
},
"audio_info" : [ {
  "codec" : "HEAAC",
  "sample" : 44100,
  "channels" : 2,
  "bitrate" : 64,
  "bitrate_bps" : 0
} ]
},
},
"input_file" : {
  "duration" : 59,
  "duration_ms" : 0,
  "format" : "MOV",
  "size" : 2494653,
  "video_info" : {
    "width" : 480,
    "height" : 270,
    "bitrate" : 199,
    "bitrate_bps" : 0,
    "frame_rate" : 25000,
    "codec" : "HEVC"
  },
  "audio_info" : [ {
    "codec" : "AAC",
    "sample" : 48000,
    "channels" : 2,
    "bitrate" : 128,
    "bitrate_bps" : 0
  } ]
}
}
}
}
```

**Status code: 400**

Failed to query the transcoding task.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter"
}
```

## Status Codes

| Status Code | Description                            |
|-------------|----------------------------------------|
| 200         | Transcoding task queried successfully. |
| 400         | Failed to query the transcoding task.  |

## Error Codes

See [Error Codes](#).

## 8.4 Deletes Transcoding Task Records

### Function

Deletes transcoding task records. Only transcoding task records in the **Canceled**, **Completed**, or **Failed** status can be deleted.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /v1/{project\_id}/transcodings/task

**Table 8-53** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                           |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

**Table 8-54** Query Parameters

| Parameter | Mandatory | Type    | Description            |
|-----------|-----------|---------|------------------------|
| task_id   | Yes       | Integer | Specifies the task ID. |

## Request Parameters

**Table 8-55** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

**Status code: 400**

**Table 8-56** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/transcodings/task?task_id=100211
```

## Example Responses

**Status code: 400**

The transcoding task record cannot be deleted.

```
{
  "error_code" : "MPC.10213",
  "error_msg" : "Operation failed. The task is not in the final state."
}
```

## Status Codes

| Status Code | Description                                    |
|-------------|------------------------------------------------|
| 204         | The transcoding task record has been deleted.  |
| 400         | The transcoding task record cannot be deleted. |

## Error Codes

See [Error Codes](#).

# 8.5 Queries Task Overview

## Function

Queries the task duration statistics of the past week, past month, or a user-defined time period.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /v1/{project\_id}/transcodings/summaries

**Table 8-57** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                           |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

**Table 8-58** Query Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                               |
|------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| start_time | Yes       | String | Start time. The format is yyyyymmdd. The value must be a UTC time irrelevant to the time zone.                                                                                                                                                                                                                                                                                            |
| end_time   | Yes       | String | End time. The format is yyyyymmdd. The value must be a UTC time irrelevant to the time zone.                                                                                                                                                                                                                                                                                              |
| stat_type  | Yes       | String | Specifies the statistics type. The options are as follows: <ul style="list-style-type: none"><li>• video_duration: duration of the transcoded media file, in minutes</li><li>• remux_file_duration: duration of the packaged media file, in minutes</li><li>• transcode_task_number: number of transcoding times</li><li>• transcode_duration: transcoding duration, in minutes</li></ul> |

## Request Parameters

**Table 8-59** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |

| Parameter    | Mandatory | Type   | Description                                                                                                                       |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------|
| X-Project_Id | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters. |
| X-Sdk-Date   | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                               |

## Response Parameters

Status code: 200

**Table 8-60** Response body parameters

| Parameter | Type                                         | Description                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| summary   | Array of <a href="#">StatSummary</a> objects | Statistics overview                                                                                                                                                                                                                                                                                                                                                               |
| total     | Float                                        | Indicates the total value of the metric. The value is accurate to two decimal places.                                                                                                                                                                                                                                                                                             |
| stat_type | String                                       | Specifies the statistics type. The options are as follows: <ul style="list-style-type: none"><li>video_duration: duration of the transcoded media file, in minutes</li><li>remux_file_duration: duration of the packaged media file, in minutes</li><li>transcode_task_number: number of transcoding times</li><li>transcode_duration: transcoding duration, in minutes</li></ul> |

**Table 8-61** StatSummary

| Parameter | Type   | Description                                        |
|-----------|--------|----------------------------------------------------|
| value     | Float  | The value is accurate to two decimal places.       |
| date      | String | Date, accurate to day. Format example: 2018/03/01. |

**Status code: 400****Table 8-62** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
GET https://{endpoint}/v1/{project_id}/transcodings/summaries?  
start_time=20221119&end_time=20221125&stat_type=transcode_task_number
```

## Example Responses

**Status code: 200**

Transcoding overview information has been queried.

```
{  
  "stat_type": "transcode_task_number",  
  "total": 5.0,  
  "summary": [ {  
    "value": "2.0",  
    "date": "2022/11/25"  
  }, {  
    "value": "3.0",  
    "date": "2022/11/25"  
  } ]  
}
```

**Status code: 400**

Transcoding overview information cannot be queried.

```
{  
  "error_code": "MPC.10202",  
  "error_msg": "Invalid request parameter, start_time cannot be greater than end_time."  
}
```

## Status Codes

| Status Code | Description                                         |
|-------------|-----------------------------------------------------|
| 200         | Transcoding overview information has been queried.  |
| 400         | Transcoding overview information cannot be queried. |

## Error Codes

See [Error Codes](#).

# 9 Packaging APIs

## 9.1 Creating a Packaging Task

### Function

This API is used to create a packaging task. Packaging is to convert the container format of audio and video files without changing the resolution and bitrate.

Ensure that an input media file is stored in an OBS bucket in the same region as MPC and the permission for accessing the OBS bucket has been granted to MPC.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v1/{project\_id}/remux

Table 9-1 Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                               |
|------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br><br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

## Request Parameters

**Table 9-2** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

**Table 9-3** Request body parameters

| Parameter    | Mandatory | Type                                    | Description                                                                                                                                              |
|--------------|-----------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| input        | No        | <a href="#">ObsObjInfo</a> object       | Input file information.<br><b>NOTE</b><br>Videos in M3U8 format cannot be converted to animated GIFs, perform synchronous parsing or snapshot capturing. |
| output       | No        | <a href="#">ObsObjInfo</a> object       | Output file information                                                                                                                                  |
| user_data    | No        | String                                  | Custom user data                                                                                                                                         |
| output_param | No        | <a href="#">RemuxOutputParam</a> object | Output parameter.                                                                                                                                        |

Table 9-4 ObsObjInfo

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| bucket    | Yes       | String | OBS bucket name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| location  | Yes       | String | Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| object    | Yes       | String | <p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"><li>• If this parameter is used for an input, an object must be specified.</li><li>• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified.</li></ul> <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"><li>• Correct example: demo.srt</li><li>• Incorrect example: [demo.srt</li></ul> |

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| file_name | No        | String | <p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"><li>• If this parameter is specified, the output object name is <b>object/file_name</b>.</li><li>• If this parameter is not specified, the output object name is <b>object/xxx</b>, where <b>xxx</b> is specified by MPC.</li></ul> <p>When it is used as an output file name:</p> <ul style="list-style-type: none"><li>• This parameter is valid for container format conversion. The output file name must be specified.</li><li>• If the output file name needs to be specified during transcoding, use the parameter <b>output_filenames</b>.</li><li>• This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response.</li><li>• This parameter is invalid for snapshot capturing.</li><li>• This parameter is invalid for conversion into animated GIFs.</li><li>• When the output file is in HLS format, a file name containing <b>index</b>, such as <b>index.m3u8</b>, will cause playback failure.</li></ul> |

**Table 9-5** RemuxOutputParam

| Parameter        | Mandatory | Type    | Description                                                                                                                                                                                                                                                                     |
|------------------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| format           | No        | String  | Output file format. Possible values: <ul style="list-style-type: none"><li>• <b>HLS</b></li><li>• <b>MP4</b></li></ul>                                                                                                                                                          |
| segment_duration | No        | Integer | Segment duration. This parameter is used only when <b>format</b> is <b>HLS</b> .<br>The value ranges from 2 to 10.<br>Default value: <b>5</b><br>Unit: second<br><b>NOTE</b><br>If the segment duration is not within the value range, the value is automatically changed to 5. |
| remove_meta      | No        | Boolean | Whether to remove the custom metadata of the input media from the output media.<br>Default value: <b>false</b> .                                                                                                                                                                |

## Response Parameters

**Status code: 200**

**Table 9-6** Response body parameters

| Parameter | Type   | Description |
|-----------|--------|-------------|
| task_id   | String | Task ID.    |

**Status code: 400**

**Table 9-7** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

Creates a packaging task to convert the format of media files without changing their resolution and bitrate.

```
POST https://{endpoint}/v1/{project_id}/remux
```

```
{
  "input" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/input.flv"
  },
  "output" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/output",
    "file_name" : "test.m3u8"
  },
  "output_param" : {
    "format" : "HLS",
    "segment_duration" : 7
  }
}
```

## Example Responses

### Status code: 200

Packaging task created successfully.

```
{
  "task_id" : 100211
}
```

### Status code: 400

Failed to create a packaging task.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

## Status Codes

| Status Code | Description                          |
|-------------|--------------------------------------|
| 200         | Packaging task created successfully. |
| 400         | Failed to create a packaging task.   |

## Error Codes

See [Error Codes](#).

## 9.2 Retrying a Packaging Task

### Function

This API is used to retry a failed packaging task.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /v1/{project\_id}/remux

**Table 9-8** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                            |
|------------|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hccso,g42,cmcc) |

### Request Parameters

**Table 9-9** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |

| Parameter    | Mandatory | Type   | Description                                                                                                                       |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------|
| X-Project_Id | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters. |
| X-Sdk-Date   | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                               |

**Table 9-10** Request body parameters

| Parameter | Mandatory | Type   | Description            |
|-----------|-----------|--------|------------------------|
| task_id   | No        | String | Specifies the task ID. |

## Response Parameters

**Status code: 403**

**Table 9-11** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

Retries a packaging task.

```
PUT https://{endpoint}/v1/{project_id}/remux
{
  "task_id" : "538526"
}
```

## Example Responses

**Status code: 403**

Failed to retry the packaging task.

```
{
  "error_code" : "MPC.10212",
  "error_msg" : "Operation failed."
}
```

## Status Codes

| Status Code | Description                          |
|-------------|--------------------------------------|
| 200         | Packaging task retried successfully. |
| 403         | Failed to retry the packaging task.  |

## Error Codes

See [Error Codes](#).

# 9.3 Querying Packaging Tasks

## Function

This API is used to query one or more packaging tasks.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /v1/{project\_id}/remux

**Table 9-12** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                               |
|------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br><br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

**Table 9-13** Query Parameters

| Parameter | Mandatory | Type             | Description                                                 |
|-----------|-----------|------------------|-------------------------------------------------------------|
| task_id   | No        | Array of strings | Task ID. A maximum of 10 task IDs can be queried at a time. |

| Parameter    | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                |
|--------------|-----------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| status       | No        | String  | Task status.<br>Possible values: <ul style="list-style-type: none"><li>• <b>INIT</b>: initialized</li><li>• <b>WAITING</b>: pending</li><li>• <b>PROCESSING</b>: running</li><li>• <b>SUCCEED</b>: completed</li><li>• <b>FAILED</b>: failed</li><li>• <b>CANCELED</b>: canceled</li></ul> |
| start_time   | No        | String  | Start time. If <b>task_id</b> is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.                                                                                                               |
| end_time     | No        | String  | End time. If <b>task_id</b> is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.                                                                                                                 |
| input_bucket | No        | String  | Input bucket                                                                                                                                                                                                                                                                               |
| input_object | No        | String  | Input object name                                                                                                                                                                                                                                                                          |
| page         | No        | Integer | Page number. If <b>task_id</b> is specified, this parameter is invalid.<br>Default value: <b>0</b>                                                                                                                                                                                         |
| size         | No        | Integer | Number of records on each page. If <b>task_id</b> is specified, this parameter is invalid.<br>The value ranges from 1 to 100.<br>Default value: <b>10</b>                                                                                                                                  |

## Request Parameters

**Table 9-14** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

**Status code: 200****Table 9-15** Response body parameters

| Parameter | Type                                       | Description           |
|-----------|--------------------------------------------|-----------------------|
| total     | Integer                                    | Total number of tasks |
| tasks     | Array of <a href="#">RemuxTask</a> objects | Tasks.                |

**Table 9-16** RemuxTask

| Parameter | Type   | Description |
|-----------|--------|-------------|
| task_id   | String | Task ID.    |

| Parameter       | Type                           | Description                                                                                                                                                                                                                                                                                 |
|-----------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| status          | String                         | Task status.<br>Possible values: <ul style="list-style-type: none"><li>• <b>INIT</b>: initialized</li><li>• <b>WAITING</b>: pending</li><li>• <b>PROCESSING</b>: running</li><li>• <b>SUCCEED</b>: successful</li><li>• <b>FAILED</b>: failed</li><li>• <b>CANCELED</b>: canceled</li></ul> |
| create_time     | String                         | Task creation time.                                                                                                                                                                                                                                                                         |
| start_time      | String                         | Task start time.                                                                                                                                                                                                                                                                            |
| end_time        | String                         | Task end time.                                                                                                                                                                                                                                                                              |
| error_code      | String                         | Return code of a task                                                                                                                                                                                                                                                                       |
| description     | String                         | Error description.                                                                                                                                                                                                                                                                          |
| user_data       | String                         | User data.                                                                                                                                                                                                                                                                                  |
| input           | <b>ObsObjInfo</b> object       | Input file information.                                                                                                                                                                                                                                                                     |
| output          | <b>ObsObjInfo</b> object       | Output file information.                                                                                                                                                                                                                                                                    |
| output_param    | <b>RemuxOutputParam</b> object | Output parameter.                                                                                                                                                                                                                                                                           |
| complete_ratio  | Integer                        | Progress of a task, in percentage.                                                                                                                                                                                                                                                          |
| output_metadata | <b>MetaData</b> object         | Metadata of the output file.                                                                                                                                                                                                                                                                |

**Table 9-17** ObsObjInfo

| Parameter | Type   | Description                                                                                     |
|-----------|--------|-------------------------------------------------------------------------------------------------|
| bucket    | String | OBS bucket name                                                                                 |
| location  | String | Region where an OBS bucket is located. It must be the same as the region where MPC is deployed. |

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| object    | String | <p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"><li>• If this parameter is used for an input, an object must be specified.</li><li>• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified.</li></ul> <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"><li>• Correct example: demo.srt</li><li>• Incorrect example: [demo.srt</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| file_name | String | <p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"><li>• If this parameter is specified, the output object name is <b>object/file_name</b>.</li><li>• If this parameter is not specified, the output object name is <b>object/xxx</b>, where <b>xxx</b> is specified by MPC.</li></ul> <p>When it is used as an output file name:</p> <ul style="list-style-type: none"><li>• This parameter is valid for container format conversion. The output file name must be specified.</li><li>• If the output file name needs to be specified during transcoding, use the parameter <b>output_filenames</b>.</li><li>• This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response.</li><li>• This parameter is invalid for snapshot capturing.</li><li>• This parameter is invalid for conversion into animated GIFs.</li><li>• When the output file is in HLS format, a file name containing <b>index</b>, such as <b>index.m3u8</b>, will cause playback failure.</li></ul> |

**Table 9-18** RemuxOutputParam

| Parameter        | Type    | Description                                                                                                                                                                                                                                                                     |
|------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| format           | String  | Output file format. Possible values: <ul style="list-style-type: none"><li>• <b>HLS</b></li><li>• <b>MP4</b></li></ul>                                                                                                                                                          |
| segment_duration | Integer | Segment duration. This parameter is used only when <b>format</b> is <b>HLS</b> .<br>The value ranges from 2 to 10.<br>Default value: <b>5</b><br>Unit: second<br><b>NOTE</b><br>If the segment duration is not within the value range, the value is automatically changed to 5. |
| remove_meta      | Boolean | Whether to remove the custom metadata of the input media from the output media. Default value: <b>false</b> .                                                                                                                                                                   |

**Table 9-19** MetaData

| Parameter   | Type                              | Description                                         |
|-------------|-----------------------------------|-----------------------------------------------------|
| size        | Long                              | File size<br>Unit: byte                             |
| duration_ms | Double                            | Video duration, with decimal places<br>Unit: second |
| duration    | Long                              | Video duration<br>Unit: second                      |
| format      | String                            | File container format                               |
| md5         | String                            | The MD5 value of the video.                         |
| bitrate     | Long                              | Total bitrate<br>Unit: bit/s                        |
| video       | Array of <b>VideoInfo</b> objects | Video metadata                                      |
| audio       | Array of <b>AudioInfo</b> objects | Audio metadata                                      |

**Table 9-20** VideoInfo

| Parameter   | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| width       | Integer | Video width                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| height      | Integer | Video height                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| bitrate     | Integer | Video bitrate.<br>Unit: kbit/s<br><b>NOTE</b><br>On August 7, 2024, the following modification was made on the video parsing API: <ul style="list-style-type: none"><li>Before: If <b>sync</b> in a synchronous video parsing task is set to <b>1</b>, the unit of <b>bitrate</b> in <b>VideoInfo</b> of the response is bit/s.</li><li>After: In a synchronous video parsing task, the unit of <b>bitrate</b> in <b>VideoInfo</b> of the response is changed to kbit/s.</li></ul> The preceding update may impact your transcoding workloads. Pay attention to the update and adjust your workloads accordingly. |
| bitrate_bps | Long    | Video bitrate<br>Unit: bit/s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| frame_rate  | Integer | Frame rate.<br>The value is <b>0</b> or ranges from 5 to 60. The value <b>0</b> indicates adaptive frame rate.<br>Unit: FPS<br><b>NOTE</b><br>If the configured frame rate is not within the value range, the value is automatically changed to <b>0</b> . If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file.                                                                                                                                                                                                  |
| codec       | String  | Video codec                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| duration    | String  | Video stream duration, unit: seconds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| duration_ms | String  | Video stream duration, unit: milliseconds                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| rotate      | Float   | The angle of the video shot, in degrees.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

**Table 9-21** AudioInfo

| Parameter   | Type    | Description                               |
|-------------|---------|-------------------------------------------|
| codec       | String  | Audio codec                               |
| sample      | Integer | Audio sampling rate                       |
| channels    | Integer | Number of audio channels                  |
| bitrate     | Integer | Audio bitrate<br>Unit: kbit/s             |
| bitrate_bps | Long    | Audio bitrate<br>Unit: bit/s              |
| duration    | String  | Audio stream duration, unit: seconds      |
| duration_ms | String  | Audio stream duration, unit: milliseconds |

**Status code: 400****Table 9-22** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
GET https://{endpoint}/v1/{project_id}/remux?task_id=10743
```

## Example Responses

**Status code: 200**

Packaging task queried successfully.

```
{
  "total": 1,
  "tasks": [ {
    "task_id": 10743,
    "error_code": "MPC.10218",
    "status": "SUCCEED",
    "create_time": 20201117021558,
    "start_time": 20201117021558,
    "end_time": 20201117021559,
    "description": "The task has completed.",
    "input": {
      "bucket": "example-bucket",
      "location": "region01",
      "object": "example-path/input.flv"
    },
    "output": {
```

```
{
  "bucket": "example-bucket",
  "location": "region01",
  "object": "example-path/output.mp4",
  "file_name": "bf00ba898a3dfb3560a292fd87f790db.mp4"
},
"user_data": 1795687,
"output_param": {
  "format": "MP4",
  "segment_duration": 5,
  "remove_meta": false
},
"complete_ratio": 100,
"output_metadata": {
  "size": 3189068,
  "duration_ms": 25.48,
  "duration": 25,
  "format": "mp4",
  "bitrate": 977,
  "video": [ {
    "width": 1920,
    "height": 1080,
    "bitrate": 977,
    "bitrate_bps": 1001277,
    "frame_rate": 25,
    "codec": "H.264"
  } ],
  "audio": [ {
    "sample": 48000,
    "channels": 2,
    "bitrate": 0,
    "bitrate_bps": 0
  } ]
}
}
```

**Status code: 400**

Failed to query the packaging task.

```
{
  "error_code": "MPC.10202",
  "error_msg": "Invalid request parameter."
}
```

## Status Codes

| Status Code | Description                          |
|-------------|--------------------------------------|
| 200         | Packaging task queried successfully. |
| 400         | Failed to query the packaging task.  |

## Error Codes

See [Error Codes](#).

## 9.4 Canceling a Packaging Task

### Function

This API is used to cancel a packaging task. Only tasks in the queue can be canceled.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /v1/{project\_id}/remux

**Table 9-23** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                            |
|------------|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hccso,g42,cmcc) |

**Table 9-24** Query Parameters

| Parameter | Mandatory | Type   | Description |
|-----------|-----------|--------|-------------|
| task_id   | Yes       | String | Task ID     |

## Request Parameters

**Table 9-25** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

**Status code: 400**

**Table 9-26** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/remux?task_id=100211
```

## Example Responses

**Status code: 400**

Failed to cancel the packaging task.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

## Status Codes

| Status Code | Description                           |
|-------------|---------------------------------------|
| 204         | Packaging task canceled successfully. |
| 400         | Failed to cancel the packaging task.  |

## Error Codes

See [Error Codes](#).

# 9.5 Deletes Packaging Task Records

## Function

Deletes packaging task records. Only packaging task records in the **Canceled**, **Completed**, or **Failed** status can be deleted.

## Calling Method

For details, see [Calling APIs](#).

## URI

DELETE /v1/{project\_id}/remux/task

**Table 9-27** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                            |
|------------|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hccso,g42,cmcc) |

**Table 9-28** Query Parameters

| Parameter | Mandatory | Type   | Description            |
|-----------|-----------|--------|------------------------|
| task_id   | Yes       | String | Specifies the task ID. |

## Request Parameters

**Table 9-29** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

**Status code: 403**

**Table 9-30** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/remux/task?task_id=100211
```

## Example Responses

**Status code: 403**

The packaging task record cannot be deleted.

```
{
  "error_code" : "MPC.10211",
  "error_msg" : "The task does not exist."
}
```

## Status Codes

| Status Code | Description                                  |
|-------------|----------------------------------------------|
| 204         | The packaging task record has been deleted.  |
| 403         | The packaging task record cannot be deleted. |

## Error Codes

See [Error Codes](#).

# 10 Animated GIF APIs

## 10.1 Creating an Animated GIF Task

### Function

This API is used to create an animated GIF task to convert a complete video file or part of a video file into an animated GIF file.

Ensure that an input media file is stored in an OBS bucket in the same region as MPC and the permission for accessing the OBS bucket has been granted to MPC.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v1/{project\_id}/animated-graphics

**Table 10-1** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                           |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

## Request Parameters

**Table 10-2** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

**Table 10-3** Request body parameters

| Parameter    | Mandatory | Type                                               | Description                                                                                                                                              |
|--------------|-----------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| input        | No        | <a href="#">ObsObjInfo</a> object                  | Input file information.<br><b>NOTE</b><br>Videos in M3U8 format cannot be converted to animated GIFs, perform synchronous parsing or snapshot capturing. |
| output       | No        | <a href="#">ObsObjInfo</a> object                  | Output file information                                                                                                                                  |
| user_data    | No        | String                                             | Custom user data                                                                                                                                         |
| output_param | No        | <a href="#">AnimatedGraphicsOutputParam</a> object | Animated GIF parameter.                                                                                                                                  |

**Table 10-4** ObsObjInfo

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| bucket    | Yes       | String | OBS bucket name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| location  | Yes       | String | Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| object    | Yes       | String | <p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"><li>• If this parameter is used for an input, an object must be specified.</li><li>• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified.</li></ul> <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"><li>• Correct example: demo.srt</li><li>• Incorrect example: [demo.srt</li></ul> |

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| file_name | No        | String | <p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"><li>• If this parameter is specified, the output object name is <b>object/file_name</b>.</li><li>• If this parameter is not specified, the output object name is <b>object/xxx</b>, where <b>xxx</b> is specified by MPC.</li></ul> <p>When it is used as an output file name:</p> <ul style="list-style-type: none"><li>• This parameter is valid for container format conversion. The output file name must be specified.</li><li>• If the output file name needs to be specified during transcoding, use the parameter <b>output_filenames</b>.</li><li>• This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response.</li><li>• This parameter is invalid for snapshot capturing.</li><li>• This parameter is invalid for conversion into animated GIFs.</li><li>• When the output file is in HLS format, a file name containing <b>index</b>, such as <b>index.m3u8</b>, will cause playback failure.</li></ul> |

**Table 10-5** AnimatedGraphicsOutputParam

| Parameter  | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| format     | Yes       | String  | Format of an output file.<br>Currently, only GIF format is supported.                                                                                                                                                                                                                                                                                                                                                      |
| width      | Yes       | Integer | Width of an output animated file<br>The value is -1, 0, or a multiple of 2 from 32 to 3,840.<br><b>NOTE</b> <ul style="list-style-type: none"><li>If this parameter is set to <b>-1</b>, width is adjusted based on height. In this case, height cannot be <b>-1</b> or <b>0</b>.</li><li>If this parameter is set to <b>0</b>, the width of the input video is used. In this case, height can only be <b>0</b>.</li></ul> |
| height     | Yes       | Integer | Height of an output animated file<br>The value is -1, 0, or a multiple of 2 from 32 to 2,160.<br><b>NOTE</b> <ul style="list-style-type: none"><li>If this parameter is set to <b>-1</b>, height is adjusted based on width. In this case, width cannot be <b>-1</b> or <b>0</b>.</li><li>If this parameter is set to <b>0</b>, the height of the input video is used. In this case, width can only be <b>0</b>.</li></ul> |
| start      | Yes       | Integer | Start time<br>Unit: ms                                                                                                                                                                                                                                                                                                                                                                                                     |
| end        | Yes       | Integer | End time<br>Unit: ms<br>The maximum difference between <b>end</b> and <b>start</b> is 60 seconds.                                                                                                                                                                                                                                                                                                                          |
| frame_rate | No        | Integer | Frame rate of the animated GIF.<br>Value range: 1 to 75                                                                                                                                                                                                                                                                                                                                                                    |

## Response Parameters

**Status code: 200**

**Table 10-6** Response body parameters

| Parameter | Type   | Description |
|-----------|--------|-------------|
| task_id   | String | Task ID.    |

**Status code: 400****Table 10-7** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

Creates an animated GIF task to convert a complete video file or part of a video file into an animated GIF file.

POST https://{endpoint}/v1/{project\_id}/animated-graphics

```
{
  "input" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/input.mp4"
  },
  "output" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/output",
    "file_name" : "test_mpc.gif"
  },
  "output_param" : {
    "format" : "gif",
    "width" : 480,
    "height" : 360,
    "frame_rate" : 15,
    "start" : 100,
    "end" : 250
  }
}
```

## Example Responses

**Status code: 200**

Animated GIF task created successfully.

```
{
  "task_id" : 100211
}
```

**Status code: 400**

Failed to create an animated GIF task.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

## Status Codes

| Status Code | Description                             |
|-------------|-----------------------------------------|
| 200         | Animated GIF task created successfully. |
| 400         | Failed to create an animated GIF task.  |

## Error Codes

See [Error Codes](#).

# 10.2 Querying Animated GIF Tasks

## Function

This API is used to query one or more animated GIF tasks.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /v1/{project\_id}/animated-graphics

**Table 10-8** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                                          |
|------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hcco,g42,cmcc) |

**Table 10-9** Query Parameters

| Parameter  | Mandatory | Type             | Description                                                                                                                                                                                                                                                                                   |
|------------|-----------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| task_id    | No        | Array of strings | Task ID. A maximum of 10 task IDs can be queried at a time.                                                                                                                                                                                                                                   |
| status     | No        | String           | Task status.<br>Possible values: <ul style="list-style-type: none"><li>• <b>INIT</b>: initialization</li><li>• <b>WAITING</b>: pending</li><li>• <b>PROCESSING</b>: running</li><li>• <b>SUCCEED</b>: completed</li><li>• <b>FAILED</b>: failed</li><li>• <b>CANCELED</b>: canceled</li></ul> |
| start_time | No        | String           | Start time. If <b>task_id</b> is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.                                                                                                                  |
| end_time   | No        | String           | End time. If <b>task_id</b> is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.                                                                                                                    |
| page       | No        | Integer          | Page number. If <b>task_id</b> is specified, this parameter is invalid.<br>Default value: <b>0</b>                                                                                                                                                                                            |
| size       | No        | Integer          | Number of records on each page. If <b>task_id</b> is specified, this parameter is invalid.<br>The value ranges from 1 to 100.<br>Default value: <b>10</b>                                                                                                                                     |

## Request Parameters

**Table 10-10** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |
| x-language    | No        | String | Client language.                                                                                                                                                          |

## Response Parameters

**Status code: 200****Table 10-11** Response body parameters

| Parameter | Type                                         | Description           |
|-----------|----------------------------------------------|-----------------------|
| total     | Integer                                      | Total number of tasks |
| tasks     | Array of <b>AnimatedGraphicsTask</b> objects | Tasks.                |

**Table 10-12** AnimatedGraphicsTask

| Parameter    | Type                                               | Description                                                                                                                                                                                                                                                                                 |
|--------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| task_id      | String                                             | Task ID.                                                                                                                                                                                                                                                                                    |
| status       | String                                             | Task status.<br>Possible values: <ul style="list-style-type: none"><li>• <b>INIT</b>: initialized</li><li>• <b>WAITING</b>: pending</li><li>• <b>PROCESSING</b>: running</li><li>• <b>SUCCEED</b>: successful</li><li>• <b>FAILED</b>: failed</li><li>• <b>CANCELED</b>: canceled</li></ul> |
| create_time  | String                                             | Task creation time.                                                                                                                                                                                                                                                                         |
| start_time   | String                                             | Task start time.                                                                                                                                                                                                                                                                            |
| end_time     | String                                             | Task end time.                                                                                                                                                                                                                                                                              |
| error_code   | String                                             | Return code of a task                                                                                                                                                                                                                                                                       |
| description  | String                                             | Error description.                                                                                                                                                                                                                                                                          |
| user_data    | String                                             | User data.                                                                                                                                                                                                                                                                                  |
| input        | <a href="#">ObsObjInfo</a> object                  | Input file information.                                                                                                                                                                                                                                                                     |
| output       | <a href="#">ObsObjInfo</a> object                  | Output file information.                                                                                                                                                                                                                                                                    |
| output_param | <a href="#">AnimatedGraphicsOutputParam</a> object | Animated GIF parameter.                                                                                                                                                                                                                                                                     |

**Table 10-13** ObsObjInfo

| Parameter | Type   | Description                                                                                     |
|-----------|--------|-------------------------------------------------------------------------------------------------|
| bucket    | String | OBS bucket name                                                                                 |
| location  | String | Region where an OBS bucket is located. It must be the same as the region where MPC is deployed. |

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| object    | String | <p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"><li>• If this parameter is used for an input, an object must be specified.</li><li>• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified.</li></ul> <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"><li>• Correct example: demo.srt</li><li>• Incorrect example: [demo.srt</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| file_name | String | <p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"><li>• If this parameter is specified, the output object name is <b>object/file_name</b>.</li><li>• If this parameter is not specified, the output object name is <b>object/xxx</b>, where <b>xxx</b> is specified by MPC.</li></ul> <p>When it is used as an output file name:</p> <ul style="list-style-type: none"><li>• This parameter is valid for container format conversion. The output file name must be specified.</li><li>• If the output file name needs to be specified during transcoding, use the parameter <b>output_filenames</b>.</li><li>• This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response.</li><li>• This parameter is invalid for snapshot capturing.</li><li>• This parameter is invalid for conversion into animated GIFs.</li><li>• When the output file is in HLS format, a file name containing <b>index</b>, such as <b>index.m3u8</b>, will cause playback failure.</li></ul> |

**Table 10-14** AnimatedGraphicsOutputParam

| Parameter  | Type    | Description                                                                                                                                                                                                                                                                                                                                                                             |
|------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| format     | String  | Format of an output file. Currently, only GIF format is supported.                                                                                                                                                                                                                                                                                                                      |
| width      | Integer | Width of an output animated file<br>The value is -1, 0, or a multiple of 2 from 32 to 3,840.<br><b>NOTE</b> <ul style="list-style-type: none"><li>If this parameter is set to -1, width is adjusted based on height. In this case, height cannot be -1 or 0.</li><li>If this parameter is set to 0, the width of the input video is used. In this case, height can only be 0.</li></ul> |
| height     | Integer | Height of an output animated file<br>The value is -1, 0, or a multiple of 2 from 32 to 2,160.<br><b>NOTE</b> <ul style="list-style-type: none"><li>If this parameter is set to -1, height is adjusted based on width. In this case, width cannot be -1 or 0.</li><li>If this parameter is set to 0, the height of the input video is used. In this case, width can only be 0.</li></ul> |
| start      | Integer | Start time<br>Unit: ms                                                                                                                                                                                                                                                                                                                                                                  |
| end        | Integer | End time<br>Unit: ms<br>The maximum difference between <b>end</b> and <b>start</b> is 60 seconds.                                                                                                                                                                                                                                                                                       |
| frame_rate | Integer | Frame rate of the animated GIF.<br>Value range: 1 to 75                                                                                                                                                                                                                                                                                                                                 |

**Status code: 400****Table 10-15** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
GET https://{endpoint}/v1/{project_id}/animated-graphics?task_id=30647
```

## Example Responses

### Status code: 200

Animated GIF task queried successfully.

```
{
  "total": 1,
  "tasks": [ {
    "task_id": 30647,
    "error_code": "MPC.10218",
    "status": "SUCCEED",
    "create_time": 20201119103652,
    "start_time": 20201119103653,
    "end_time": 20201119103708,
    "description": "The task has completed.",
    "input": {
      "bucket": "example-bucket",
      "location": "region01",
      "object": "example-path/input.mp4"
    },
    "output": {
      "bucket": "example-bucket",
      "location": "region01",
      "object": "example-path/output",
      "file_name": "file_001.gif"
    },
    "output_param": {
      "format": "gif",
      "width": 100,
      "height": 50,
      "start": 0,
      "end": 10000,
      "frame_rate": 15
    }
  }
]
```

### Status code: 400

Failed to query the animated GIF task.

```
{
  "error_code": "MPC.10202",
  "error_msg": "Invalid request parameter."
}
```

## Status Codes

| Status Code | Description                             |
|-------------|-----------------------------------------|
| 200         | Animated GIF task queried successfully. |
| 400         | Failed to query the animated GIF task.  |

## Error Codes

See [Error Codes](#).

## 10.3 Canceling an Animated GIF Task

### Function

This API is used to cancel an animated GIF task. Only tasks in the queue can be canceled.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /v1/{project\_id}/animated-graphics

**Table 10-16** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                                 |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .<br>(tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID].<br>(tag:hcco,g42,cmcc) |

**Table 10-17** Query Parameters

| Parameter | Mandatory | Type   | Description |
|-----------|-----------|--------|-------------|
| task_id   | Yes       | String | Task ID     |

## Request Parameters

**Table 10-18** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

**Status code: 400**

**Table 10-19** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/animated-graphics?task_id=100211
```

## Example Responses

**Status code: 400**

Failed to cancel the animated GIF task.

```
{  
  "error_code" : "MPC.10202",  
  "error_msg" : "Invalid request parameter."  
}
```

## Status Codes

| Status Code | Description                              |
|-------------|------------------------------------------|
| 204         | Animated GIF task canceled successfully. |
| 400         | Failed to cancel the animated GIF task.  |

## Error Codes

See [Error Codes](#).

# 11 Video Metadata Extraction APIs

## 11.1 Creating a Video Parsing Task

### Function

This API is used to create a task to parse the metadata of a video file.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v1/{project\_id}/extract-metadata

**Table 11-1** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                           |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

## Request Parameters

**Table 11-2** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

**Table 11-3** Request body parameters

| Parameter | Mandatory | Type                              | Description                                                                                                                                              |
|-----------|-----------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| input     | No        | <a href="#">ObsObjInfo</a> object | Input file information.<br><b>NOTE</b><br>Videos in M3U8 format cannot be converted to animated GIFs, perform synchronous parsing or snapshot capturing. |
| output    | No        | <a href="#">ObsObjInfo</a> object | Output file information                                                                                                                                  |
| user_data | No        | String                            | Custom user data                                                                                                                                         |

| Parameter  | Mandatory | Type              | Description                                                                                                                                                                                                                                                                                                                  |
|------------|-----------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| sync       | No        | Integer           | Whether to enable synchronous processing. <ul style="list-style-type: none"><li>• <b>0</b>: Synchronous processing is not enabled. Video metadata is not synchronized. It is queued for processing.</li><li>• <b>1</b>: Synchronous processing is enabled. Video metadata is synchronized.</li></ul> Default value: <b>0</b> |
| encryption | No        | Encryption object | Video encryption parameter.                                                                                                                                                                                                                                                                                                  |

**Table 11-4** ObsObjInfo

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| bucket    | Yes       | String | OBS bucket name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| location  | Yes       | String | Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| object    | Yes       | String | <p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"><li>• If this parameter is used for an input, an object must be specified.</li><li>• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified.</li></ul> <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"><li>• Correct example: demo.srt</li><li>• Incorrect example: [demo.srt</li></ul> |

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| file_name | No        | String | <p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"><li>• If this parameter is specified, the output object name is <b>object/file_name</b>.</li><li>• If this parameter is not specified, the output object name is <b>object/xxx</b>, where <b>xxx</b> is specified by MPC.</li></ul> <p>When it is used as an output file name:</p> <ul style="list-style-type: none"><li>• This parameter is valid for container format conversion. The output file name must be specified.</li><li>• If the output file name needs to be specified during transcoding, use the parameter <b>output_filenames</b>.</li><li>• This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response.</li><li>• This parameter is invalid for snapshot capturing.</li><li>• This parameter is invalid for conversion into animated GIFs.</li><li>• When the output file is in HLS format, a file name containing <b>index</b>, such as <b>index.m3u8</b>, will cause playback failure.</li></ul> |

**Table 11-5** Encryption

| Parameter   | Mandatory | Type                     | Description                          |
|-------------|-----------|--------------------------|--------------------------------------|
| hls_encrypt | No        | <b>HlsEncrypt</b> object | Encryption parameters for HLS videos |

**Table 11-6** HlsEncrypt

| Parameter | Mandatory | Type   | Description                                                                                                                                                                   |
|-----------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| key       | Yes       | String | Base64-encoded content encryption key                                                                                                                                         |
| url       | Yes       | String | The key carries the service address, and can be decrypted to play HLS segments.                                                                                               |
| iv        | No        | String | Initial vector, which is a random number in base64Binary format                                                                                                               |
| algorithm | No        | String | Encryption algorithm.<br>Possible values: <ul style="list-style-type: none"><li>• <b>AES-128-CTR</b></li><li>• <b>AES-128-CBC</b></li></ul> Default value: <b>AES-128-CTR</b> |

## Response Parameters

Status code: 200

**Table 11-7** Response body parameters

| Parameter        | Type                     | Description                                                                      |
|------------------|--------------------------|----------------------------------------------------------------------------------|
| task_id          | String                   | Task ID.                                                                         |
| status           | String                   | Task status.                                                                     |
| create_time      | String                   | Task creation time.                                                              |
| output           | <b>ObsObjInfo</b> object | Output file information.                                                         |
| output_file_name | String                   | Output file name.                                                                |
| description      | String                   | Task description. If a task is abnormal, this parameter indicates error details. |
| metadata         | <b>MetaData</b> object   | Metadata of a video file.                                                        |

**Table 11-8** ObsObjInfo

| Parameter | Type   | Description     |
|-----------|--------|-----------------|
| bucket    | String | OBS bucket name |

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| location  | String | Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| object    | String | <p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"><li>• If this parameter is used for an input, an object must be specified.</li><li>• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified.</li></ul> <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"><li>• Correct example: demo.srt</li><li>• Incorrect example: [demo.srt</li></ul> |

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| file_name | String | <p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"><li>If this parameter is specified, the output object name is <b>object/file_name</b>.</li><li>If this parameter is not specified, the output object name is <b>object/xxx</b>, where <b>xxx</b> is specified by MPC.</li></ul> <p>When it is used as an output file name:</p> <ul style="list-style-type: none"><li>This parameter is valid for container format conversion. The output file name must be specified.</li><li>If the output file name needs to be specified during transcoding, use the parameter <b>output_filenames</b>.</li><li>This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response.</li><li>This parameter is invalid for snapshot capturing.</li><li>This parameter is invalid for conversion into animated GIFs.</li><li>When the output file is in HLS format, a file name containing <b>index</b>, such as <b>index.m3u8</b>, will cause playback failure.</li></ul> |

**Table 11-9** MetaData

| Parameter   | Type   | Description                                         |
|-------------|--------|-----------------------------------------------------|
| size        | Long   | File size<br>Unit: byte                             |
| duration_ms | Double | Video duration, with decimal places<br>Unit: second |
| duration    | Long   | Video duration<br>Unit: second                      |
| format      | String | File container format                               |

| Parameter | Type                              | Description                  |
|-----------|-----------------------------------|------------------------------|
| md5       | String                            | The MD5 value of the video.  |
| bitrate   | Long                              | Total bitrate<br>Unit: bit/s |
| video     | Array of <b>VideoInfo</b> objects | Video metadata               |
| audio     | Array of <b>AudioInfo</b> objects | Audio metadata               |

**Table 11-10** VideoInfo

| Parameter   | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| width       | Integer | Video width                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| height      | Integer | Video height                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| bitrate     | Integer | Video bitrate.<br>Unit: kbit/s<br><b>NOTE</b><br>On August 7, 2024, the following modification was made on the video parsing API: <ul style="list-style-type: none"><li>Before: If <b>sync</b> in a synchronous video parsing task is set to <b>1</b>, the unit of <b>bitrate</b> in <b>VideoInfo</b> of the response is bit/s.</li><li>After: In a synchronous video parsing task, the unit of <b>bitrate</b> in <b>VideoInfo</b> of the response is changed to kbit/s.</li></ul> The preceding update may impact your transcoding workloads. Pay attention to the update and adjust your workloads accordingly. |
| bitrate_bps | Long    | Video bitrate<br>Unit: bit/s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Parameter   | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| frame_rate  | Integer | Frame rate.<br>The value is <b>0</b> or ranges from 5 to 60.<br>The value <b>0</b> indicates adaptive frame rate.<br>Unit: FPS<br><b>NOTE</b><br>If the configured frame rate is not within the value range, the value is automatically changed to <b>0</b> . If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file. |
| codec       | String  | Video codec                                                                                                                                                                                                                                                                                                                                                                                                         |
| duration    | String  | Video stream duration, unit: seconds                                                                                                                                                                                                                                                                                                                                                                                |
| duration_ms | String  | Video stream duration, unit: milliseconds                                                                                                                                                                                                                                                                                                                                                                           |
| rotate      | Float   | The angle of the video shot, in degrees.                                                                                                                                                                                                                                                                                                                                                                            |

**Table 11-11** AudioInfo

| Parameter   | Type    | Description                               |
|-------------|---------|-------------------------------------------|
| codec       | String  | Audio codec                               |
| sample      | Integer | Audio sampling rate                       |
| channels    | Integer | Number of audio channels                  |
| bitrate     | Integer | Audio bitrate<br>Unit: kbit/s             |
| bitrate_bps | Long    | Audio bitrate<br>Unit: bit/s              |
| duration    | String  | Audio stream duration, unit: seconds      |
| duration_ms | String  | Audio stream duration, unit: milliseconds |

**Status code: 400**

**Table 11-12** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

Creates a task to parse the metadata of a video file.

POST https://{endpoint}/v1/{project\_id}/extract-metadata

```
{
  "input" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/input.flv"
  },
  "output" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/output"
  },
  "sync" : 0
}
```

## Example Responses

**Status code: 400**

Failed to create a video parsing task.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

## Status Codes

| Status Code | Description                              |
|-------------|------------------------------------------|
| 200         | Video parsing task created successfully. |
| 400         | Failed to create a video parsing task.   |

## Error Codes

See [Error Codes](#).

## 11.2 Querying Video Parsing Tasks

### Function

This API is used to query the status and results of one or more video parsing tasks.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v1/{project\_id}/extract-metadata

**Table 11-13** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                                 |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .<br>(tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID].<br>(tag:hcs0,g42,cmcc) |

**Table 11-14** Query Parameters

| Parameter | Mandatory | Type             | Description                                                                                                                                                                                                                                                                                |
|-----------|-----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| task_id   | No        | Array of strings | Task ID. A maximum of 10 task IDs can be queried at a time.                                                                                                                                                                                                                                |
| status    | No        | String           | Task status.<br>Possible values: <ul style="list-style-type: none"><li>• <b>INIT</b>: initialized</li><li>• <b>WAITING</b>: pending</li><li>• <b>PROCESSING</b>: running</li><li>• <b>SUCCEED</b>: completed</li><li>• <b>FAILED</b>: failed</li><li>• <b>CANCELED</b>: canceled</li></ul> |

| Parameter  | Mandatory | Type    | Description                                                                                                                                                                  |
|------------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| start_time | No        | String  | Start time. If <b>task_id</b> is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone. |
| end_time   | No        | String  | End time. If <b>task_id</b> is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.   |
| page       | No        | Integer | Page number. If <b>task_id</b> is specified, this parameter is invalid.<br>Default value: <b>0</b>                                                                           |
| size       | No        | Integer | Number of records on each page. If <b>task_id</b> is specified, this parameter is invalid.<br>The value ranges from 1 to 100.<br>Default value: <b>10</b>                    |

## Request Parameters

**Table 11-15** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information.<br>This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

| Parameter    | Mandatory | Type   | Description                                                                                                                       |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------|
| X-Project_Id | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters. |
| X-Sdk-Date   | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                               |
| x-language   | No        | String | Client language.                                                                                                                  |

## Response Parameters

Status code: 200

**Table 11-16** Response body parameters

| Parameter | Type                                         | Description           |
|-----------|----------------------------------------------|-----------------------|
| total     | Integer                                      | Total number of tasks |
| tasks     | Array of <a href="#">ExtractTask</a> objects | Tasks.                |

**Table 11-17** ExtractTask

| Parameter   | Type   | Description                                                                                                                                                                                                                                                                                 |
|-------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| task_id     | String | Task ID.                                                                                                                                                                                                                                                                                    |
| status      | String | Task status.<br>Possible values: <ul style="list-style-type: none"><li>• <b>INIT</b>: initialized</li><li>• <b>WAITING</b>: pending</li><li>• <b>PROCESSING</b>: running</li><li>• <b>SUCCEED</b>: successful</li><li>• <b>FAILED</b>: failed</li><li>• <b>CANCELED</b>: canceled</li></ul> |
| create_time | String | Task creation time.                                                                                                                                                                                                                                                                         |
| start_time  | String | Task start time.                                                                                                                                                                                                                                                                            |
| end_time    | String | Task end time.                                                                                                                                                                                                                                                                              |

| Parameter   | Type                     | Description              |
|-------------|--------------------------|--------------------------|
| error_code  | String                   | Return code of a task    |
| description | String                   | Error description.       |
| user_data   | String                   | User data.               |
| input       | <b>ObsObjInfo</b> object | Input file information.  |
| output      | <b>ObsObjInfo</b> object | Output file information. |
| metadata    | <b>MetaData</b> object   | Output parameter.        |

**Table 11-18** ObsObjInfo

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| bucket    | String | OBS bucket name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| location  | String | Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| object    | String | <p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"><li>• If this parameter is used for an input, an object must be specified.</li><li>• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified.</li></ul> <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"><li>• Correct example: demo.srt</li><li>• Incorrect example: [demo.srt</li></ul> |

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| file_name | String | <p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"><li>• If this parameter is specified, the output object name is <b>object/file_name</b>.</li><li>• If this parameter is not specified, the output object name is <b>object/xxx</b>, where <b>xxx</b> is specified by MPC.</li></ul> <p>When it is used as an output file name:</p> <ul style="list-style-type: none"><li>• This parameter is valid for container format conversion. The output file name must be specified.</li><li>• If the output file name needs to be specified during transcoding, use the parameter <b>output_filenames</b>.</li><li>• This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response.</li><li>• This parameter is invalid for snapshot capturing.</li><li>• This parameter is invalid for conversion into animated GIFs.</li><li>• When the output file is in HLS format, a file name containing <b>index</b>, such as <b>index.m3u8</b>, will cause playback failure.</li></ul> |

**Table 11-19** MetaData

| Parameter   | Type   | Description                                         |
|-------------|--------|-----------------------------------------------------|
| size        | Long   | File size<br>Unit: byte                             |
| duration_ms | Double | Video duration, with decimal places<br>Unit: second |
| duration    | Long   | Video duration<br>Unit: second                      |
| format      | String | File container format                               |

| Parameter | Type                                       | Description                  |
|-----------|--------------------------------------------|------------------------------|
| md5       | String                                     | The MD5 value of the video.  |
| bitrate   | Long                                       | Total bitrate<br>Unit: bit/s |
| video     | Array of <a href="#">VideoInfo</a> objects | Video metadata               |
| audio     | Array of <a href="#">AudioInfo</a> objects | Audio metadata               |

**Table 11-20** VideoInfo

| Parameter   | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| width       | Integer | Video width                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| height      | Integer | Video height                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| bitrate     | Integer | Video bitrate.<br>Unit: kbit/s<br><b>NOTE</b><br>On August 7, 2024, the following modification was made on the video parsing API: <ul style="list-style-type: none"><li>Before: If <b>sync</b> in a synchronous video parsing task is set to <b>1</b>, the unit of <b>bitrate</b> in <b>VideoInfo</b> of the response is bit/s.</li><li>After: In a synchronous video parsing task, the unit of <b>bitrate</b> in <b>VideoInfo</b> of the response is changed to kbit/s.</li></ul> The preceding update may impact your transcoding workloads. Pay attention to the update and adjust your workloads accordingly. |
| bitrate_bps | Long    | Video bitrate<br>Unit: bit/s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Parameter   | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| frame_rate  | Integer | Frame rate.<br>The value is <b>0</b> or ranges from 5 to 60. The value <b>0</b> indicates adaptive frame rate.<br>Unit: FPS<br><b>NOTE</b><br>If the configured frame rate is not within the value range, the value is automatically changed to <b>0</b> . If the configured frame rate is higher than the frame rate of the input file, the value is automatically changed to the frame rate of the input file. |
| codec       | String  | Video codec                                                                                                                                                                                                                                                                                                                                                                                                      |
| duration    | String  | Audio stream duration, unit: seconds                                                                                                                                                                                                                                                                                                                                                                             |
| duration_ms | String  | Audio stream duration, unit: milliseconds                                                                                                                                                                                                                                                                                                                                                                        |
| rotate      | Float   | The angle of the video shot, in degrees.                                                                                                                                                                                                                                                                                                                                                                         |

**Table 11-21** AudioInfo

| Parameter   | Type    | Description                               |
|-------------|---------|-------------------------------------------|
| codec       | String  | Audio codec                               |
| sample      | Integer | Audio sampling rate                       |
| channels    | Integer | Number of audio channels                  |
| bitrate     | Integer | Audio bitrate<br>Unit: kbit/s             |
| bitrate_bps | Long    | Audio bitrate<br>Unit: bit/s              |
| duration    | String  | Audio stream duration, unit: seconds      |
| duration_ms | String  | Audio stream duration, unit: milliseconds |

**Status code: 400**

Table 11-22 Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

Example Requests

GET https://{endpoint}/v1/{project\_id}/extract-metadata?task\_id=7967

Example Responses

Status code: 200

Video parsing task queried successfully.

```
{
  "total" : 1,
  "tasks" : [ {
    "task_id" : 7967,
    "status" : "SUCCEED",
    "create_time" : 20201119103821,
    "start_time" : 20201119103822,
    "end_time" : 20201119103827,
    "description" : "The task has completed.",
    "input" : {
      "bucket" : "example-bucket",
      "location" : "region01",
      "object" : "example-path/input.mp4"
    },
    "output" : {
      "bucket" : "example-bucket",
      "location" : "region01",
      "object" : "example-path/output",
      "file_name" : "video_001.txt"
    },
    "metadata" : {
      "size" : 43231240,
      "duration_ms" : 60.186,
      "duration" : 60,
      "format" : "MP4",
      "bitrate" : 5605,
      "video" : [ {
        "width" : 3824,
        "height" : 2152,
        "bitrate" : 5481,
        "bitrate_bps" : 5613152,
        "frame_rate" : 23,
        "codec" : "H.265"
      } ],
      "audio" : [ {
        "codec" : "AAC",
        "sample" : 48000,
        "channels" : 2,
        "bitrate" : 124,
        "bitrate_bps" : 127992
      } ]
    }
  } ]
}
```

Status code: 400

Failed to query the video parsing task.

```
{
  "error_code" : "MPC.10202",
  "error_msg" : "Invalid request parameter."
}
```

## Status Codes

| Status Code | Description                              |
|-------------|------------------------------------------|
| 200         | Video parsing task queried successfully. |
| 400         | Failed to query the video parsing task.  |

## Error Codes

See [Error Codes](#).

# 11.3 Canceling a Video Parsing Task

## Function

This API is used to cancel a video parsing task. Only tasks in the queue can be canceled.

## Calling Method

For details, see [Calling APIs](#).

## URI

DELETE /v1/{project\_id}/extract-metadata

**Table 11-23** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                                |
|------------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br><br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hccso,g42,cmcc) |

**Table 11-24** Query Parameters

| Parameter | Mandatory | Type   | Description |
|-----------|-----------|--------|-------------|
| task_id   | Yes       | String | Task ID     |

## Request Parameters

**Table 11-25** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

**Status code: 400**

**Table 11-26** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/extract-metadata?task_id=100211
```

## Example Responses

**Status code: 400**

Failed to cancel the video parsing task.

```
{
  "error_code" : "MPC.10212",
  "error_msg" : "Operation failed."
}
```

## Status Codes

| Status Code | Description                               |
|-------------|-------------------------------------------|
| 204         | Video parsing task canceled successfully. |
| 400         | Failed to cancel the video parsing task.  |

## Error Codes

See [Error Codes](#).

# 12 Snapshot APIs

## 12.1 Creating a Snapshot Task

### Function

This API is used to create a task for capturing snapshots from the first to the last frame at every set interval.

Ensure that an input media file is stored in an OBS bucket in the same region as MPC and the permission for accessing the OBS bucket has been granted to MPC.

Constraints:

Currently, only JPG image files can be generated.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /v1/{project\_id}/thumbnails

Table 12-1 Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                               |
|------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br><br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

## Request Parameters

**Table 12-2** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

**Table 12-3** Request body parameters

| Parameter            | Mandatory | Type                                       | Description                        |
|----------------------|-----------|--------------------------------------------|------------------------------------|
| input                | Yes       | <a href="#">ObsObjInfo</a> object          | Storage location of an input file  |
| output               | Yes       | <a href="#">ObsObjInfo</a> object          | Storage location of an output file |
| user_data            | No        | String                                     | Custom user data                   |
| thumbnail_parameters | Yes       | <a href="#">ThumbnailParameters</a> object | Snapshot parameters                |

| Parameter    | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| tar          | No        | Integer | Whether to compress captured snapshots to a TAR package.<br>Possible values: <ul style="list-style-type: none"><li>• <b>0</b>: Captured snapshots are compressed to a TAR package.</li><li>• <b>1</b>: Captured snapshots are not compressed to a TAR package.</li></ul> Default value: <b>1</b>                                                                                                         |
| sync         | No        | Integer | Whether to enable synchronous processing. Synchronous processing quickly locates the snapshot position to capture a snapshot.<br>The options are as follows: <ul style="list-style-type: none"><li>• <b>0</b>: queuing and asynchronous snapshot capturing</li><li>• <b>1</b>: synchronous snapshot capturing. Only one snapshot can be captured at each set interval.</li></ul> Default value: <b>0</b> |
| original_dir | No        | Integer | Whether to use the original output directory.<br>Possible values: <ul style="list-style-type: none"><li>• <b>0</b>: The original output directory is not used. A random directory is added to the end of the output directory to prevent the snapshot file with the same outputUri from being overwritten.</li><li>• <b>1</b>: The original output directory is used.</li></ul> Default value: <b>0</b>  |

Table 12-4 ObsObjInfo

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| bucket    | Yes       | String | OBS bucket name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| location  | Yes       | String | Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| object    | Yes       | String | <p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"><li>• If this parameter is used for an input, an object must be specified.</li><li>• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified.</li></ul> <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"><li>• Correct example: demo.srt</li><li>• Incorrect example: [demo.srt</li></ul> |

| Parameter | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| file_name | No        | String | <p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"><li>• If this parameter is specified, the output object name is <b>object/file_name</b>.</li><li>• If this parameter is not specified, the output object name is <b>object/xxx</b>, where <b>xxx</b> is specified by MPC.</li></ul> <p>When it is used as an output file name:</p> <ul style="list-style-type: none"><li>• This parameter is valid for container format conversion. The output file name must be specified.</li><li>• If the output file name needs to be specified during transcoding, use the parameter <b>output_filenames</b>.</li><li>• This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response.</li><li>• This parameter is invalid for snapshot capturing.</li><li>• This parameter is invalid for conversion into animated GIFs.</li><li>• When the output file is in HLS format, a file name containing <b>index</b>, such as <b>index.m3u8</b>, will cause playback failure.</li></ul> |

**Table 12-5** ThumbnailPara

| Parameter  | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                        |
|------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type       | No        | String  | Sampling type<br>Possible options are: <ul style="list-style-type: none"><li>• <b>TIME</b>: Snapshots are captured at certain intervals.</li><li>• <b>DOTS</b>: Snapshots are captured at specific time points. Select this type for single snapshot capture.</li></ul> Default value: <b>TIME</b> |
| amount     | No        | Integer | If the proportion of black pixels is greater than or equal to this value, the frame is considered black.                                                                                                                                                                                           |
| threshold  | No        | Integer | Pixels with values less than this value are considered black spots.                                                                                                                                                                                                                                |
| time       | No        | Integer | Interval for capturing snapshots.<br>Default value: <b>12</b><br>Unit: second                                                                                                                                                                                                                      |
| start_time | No        | Integer | Start time for the sampling type set to <b>TIME</b> . This parameter is used together with <b>time</b> .<br>Default value: <b>0</b><br>Unit: second<br><b>NOTE</b><br>If the value of <b>start_time</b> exceeds the media file duration, frames are not extracted.                                 |

| Parameter | Mandatory | Type              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------|-----------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| duration  | No        | Integer           | <p>Capture duration when the sampling type is set to <b>TIME</b>. This parameter is used together with <b>time</b> and <b>start_time</b>, indicating that the first snapshot is captured at the time specified by <b>start_time</b> and snapshots are captured at the interval specified by <b>time</b> until the duration specified by this parameter elapses.</p> <p>Value range: [Number, ToEND]. <b>ToEND</b> indicates that snapshot capturing lasts till the end of the video.</p> <p>Default value: <b>ToEND</b></p> <p>Unit: second</p> <p><b>NOTE</b></p> <p><b>0</b> indicates that snapshot capturing lasts from <b>start_time</b> to the end of the video.</p> |
| dots      | No        | Array of integers | <p>Array of time points when a snapshot is captured</p> <p>For example, if you enter [1,3,5], the image frames at the first, third, and fifth seconds of the video are captured.</p> <ul style="list-style-type: none"><li>Asynchronous snapshot capturing: A maximum of 10 time points are supported.</li><li>Synchronous snapshot capturing: Only one time point is supported.</li></ul>                                                                                                                                                                                                                                                                                 |
| dots_ms   | No        | Array of integers | <p>Time point array of snapshot at a specified time in synchronous snapshot mode, in milliseconds.</p> <p>For example, enter [1000] to capture the image frame at the 1000th ms position of the video. Only one time point is allowed.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Parameter       | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------|-----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| output_filename | No        | String  | Snapshot file name. <ul style="list-style-type: none"><li>• If only one snapshot is captured (the sampling type is <b>DOTS</b> and only one time point is specified), the output file name is the specified snapshot file name.</li><li>• If multiple snapshots are captured (the sampling type is <b>DOTS</b> and multiple time points are specified or the sampling type is <b>TIME</b>), an output file name contains the specified snapshot file name followed by the time point, for example, <b>output_filename_10.jpg</b>.</li><li>• If you specify the snapshot to be compressed into a TAR package, the output file name is the TAR package name.</li></ul> |
| format          | No        | Integer | Snapshot file format.<br>The value is:<br><b>1</b> : JPG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| width           | No        | Integer | Image width<br>The options are as follows: <ul style="list-style-type: none"><li>• [96,3840]</li><li>• 0: adaptive (the original aspect ratio is retained)</li></ul> Unit: pixel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| height          | No        | Integer | Image height<br>The options are as follows: <ul style="list-style-type: none"><li>• [96,2160]</li><li>• 0: adaptive (the original aspect ratio is retained)</li></ul> Unit: pixel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Parameter  | Mandatory | Type    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------|-----------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| max_length | No        | Integer | <p>The longest side of a snapshot. The width of the snapshot is scaled proportionally with the longest side and input video pixel.</p> <p>The value ranges from 240 to 3,840.</p> <p>Unit: pixel</p> <p><b>NOTE</b></p> <p>This parameter is used together with <b>width/height</b>. If neither <b>width</b> nor <b>height</b> is 0, the image size is calculated based on <b>width/height</b>. Otherwise, the image size is calculated based on <b>max_length</b>. If this parameter and <b>width/height</b> are not selected, snapshots are output based on the aspect ratio of the source media file.</p> |

## Response Parameters

Status code: 202

Table 12-6 Response body parameters

| Parameter        | Type                              | Description                   |
|------------------|-----------------------------------|-------------------------------|
| task_id          | String                            | Task ID                       |
| status           | String                            | Task status                   |
| create_time      | String                            | Time when a task is created   |
| output           | <a href="#">ObsObjInfo</a> object | Storage location of snapshots |
| output_file_name | String                            | Snapshot file name            |
| thumbnail_time   | String                            | Capture time                  |
| description      | String                            | Task description              |

Table 12-7 ObsObjInfo

| Parameter | Type   | Description     |
|-----------|--------|-----------------|
| bucket    | String | OBS bucket name |

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| location  | String | Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| object    | String | <p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"><li>• If this parameter is used for an input, an object must be specified.</li><li>• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified.</li></ul> <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"><li>• Correct example: demo.srt</li><li>• Incorrect example: [demo.srt</li></ul> |

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| file_name | String | <p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"><li>If this parameter is specified, the output object name is <b>object/file_name</b>.</li><li>If this parameter is not specified, the output object name is <b>object/xxx</b>, where <b>xxx</b> is specified by MPC.</li></ul> <p>When it is used as an output file name:</p> <ul style="list-style-type: none"><li>This parameter is valid for container format conversion. The output file name must be specified.</li><li>If the output file name needs to be specified during transcoding, use the parameter <b>output_filenames</b>.</li><li>This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response.</li><li>This parameter is invalid for snapshot capturing.</li><li>This parameter is invalid for conversion into animated GIFs.</li><li>When the output file is in HLS format, a file name containing <b>index</b>, such as <b>index.m3u8</b>, will cause playback failure.</li></ul> |

**Status code: 400**

**Table 12-8** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

- Creates an asynchronous snapshot capturing task to capture snapshots from a video at every set interval.

POST https://{endpoint}/v1/{project\_id}/thumbnails

```
{
  "input" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/input.mp4"
  },
  "output" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/output"
  },
  "tar" : 1,
  "thumbnail_para" : {
    "time" : 2,
    "format" : 1,
    "max_length" : 480
  },
  "sync" : 0
}
```

- Creates a synchronous snapshot capturing task (**sync** set to **1**) to capture snapshots from a video at every set interval.

POST https://{endpoint}/v1/{project\_id}/thumbnails

```
{
  "input" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/input.mp4"
  },
  "output" : {
    "bucket" : "example-bucket",
    "location" : "region01",
    "object" : "example-path/output"
  },
  "tar" : 1,
  "thumbnail_para" : {
    "time" : 2,
    "format" : 1,
    "max_length" : 480
  },
  "sync" : 1
}
```

## Example Responses

**Status code: 202**

Snapshot task created successfully.

- Asynchronous snapshot capturing task created.

```
{
  "task_id" : "100211"
}
```

- Synchronous snapshot capturing task created.

```
{
  "task_id" : "100212",
  "status" : "FINISHED",
  "create_time" : "20231201020412",
  "output" : {
    "bucket" : "bucket-demo",
    "location" : "cn-north-4",
    "object" : "output/demo_object",
    "file_name" : ""
  }
}
```

```
}  
"output_file_name" : "H_270.png",  
"thumbnail_time" : "30",  
"description" : "Task completed."  
}
```

**Status code: 400**

Failed to create a snapshot task.

```
{  
"error_code" : "MPC.10202",  
"error_msg" : "Invalid request parameter"  
}
```

## Status Codes

| Status Code | Description                         |
|-------------|-------------------------------------|
| 202         | Snapshot task created successfully. |
| 400         | Failed to create a snapshot task.   |

## Error Codes

See [Error Codes](#).

# 12.2 Querying Snapshot Tasks

## Function

This API is used to query one or more snapshot tasks. The task results will be returned, including the status, input, and output.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /v1/{project\_id}/thumbnails

**Table 12-9** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                              |
|------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br><br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcs,g42,cmcc) |

**Table 12-10** Query Parameters

| Parameter  | Mandatory | Type             | Description                                                                                                                                                                                                                                              |
|------------|-----------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| task_id    | No        | Array of strings | Task ID. A maximum of 10 task IDs can be queried at a time.                                                                                                                                                                                              |
| status     | No        | String           | Task status.<br>Possible values: <ul style="list-style-type: none"><li>● <b>WAITING</b>: pending</li><li>● <b>PROCESSING</b>: running</li><li>● <b>SUCCEEDED</b>: completed</li><li>● <b>FAILED</b>: failed</li><li>● <b>CANCELED</b>: deleted</li></ul> |
| start_time | No        | String           | Start time. If <b>task_id</b> is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.                                                                             |
| end_time   | No        | String           | End time. If <b>task_id</b> is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.                                                                               |
| page       | No        | Integer          | Page number. If <b>task_id</b> is specified, this parameter is invalid.<br>Default value: <b>0</b>                                                                                                                                                       |

| Parameter | Mandatory | Type    | Description                                                                                                                                                       |
|-----------|-----------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| size      | No        | Integer | Number of records on each page. If <b>task_id</b> is specified, this parameter is invalid.<br><br>The value ranges from 1 to 100.<br><br>Default value: <b>10</b> |

## Request Parameters

**Table 12-11** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                                   |
|---------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br><br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                              |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                             |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                           |
| x-language    | No        | String | Client language.                                                                                                                                                              |

## Response Parameters

**Status code: 200**

**Table 12-12** Response body parameters

| Parameter    | Type                                       | Description                                                                                                                                                                                                                                                                                                                                          |
|--------------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| task_array   | Array of <a href="#">ThumbTask</a> objects | Query results                                                                                                                                                                                                                                                                                                                                        |
| is_truncated | Integer                                    | Whether the query results are truncated. Possible values: <ul style="list-style-type: none"><li>• <b>1</b>: Query results are truncated. Some results are not returned. You can configure the <b>page</b> and <b>size</b> parameters to continue the query.</li><li>• <b>0</b>: Query results are not truncated. All results are returned.</li></ul> |
| total        | Integer                                    | Total number of queried snapshot tasks                                                                                                                                                                                                                                                                                                               |

**Table 12-13** ThumbTask

| Parameter        | Type                              | Description                                                                                                                                                            |
|------------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| task_id          | String                            | Task ID.<br>A maximum of 10 task IDs can be queried at a time.                                                                                                         |
| status           | String                            | Specifies the task status.                                                                                                                                             |
| create_time      | String                            | Start time.<br>If <b>task_id</b> is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a time-zone agnostic UTC time. |
| end_time         | String                            | End time.<br>If <b>task_id</b> is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a time-zone agnostic UTC time.   |
| input            | <a href="#">ObsObjInfo</a> object | Storage location of an input file                                                                                                                                      |
| output           | <a href="#">ObsObjInfo</a> object | Storage location of an output file                                                                                                                                     |
| output_file_name | String                            | Name of the generated snapshot file.                                                                                                                                   |
| user_data        | String                            | User data                                                                                                                                                              |
| description      | String                            | Snapshot task description.                                                                                                                                             |

| Parameter      | Type                                     | Description               |
|----------------|------------------------------------------|---------------------------|
| thumbnail_info | Array of <a href="#">PicInfo</a> objects | Snapshot file information |

**Table 12-14** ObsObjInfo

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| bucket    | String | OBS bucket name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| location  | String | Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| object    | String | <p>OBS object path, which complies with the OSS Object definition.</p> <ul style="list-style-type: none"><li>• If this parameter is used for an input, an object must be specified.</li><li>• If this parameter is used for an output, only the directory where the output is to be stored needs to be specified.</li></ul> <p>A subtitle file name that contains special characters (such as []) will cause the transcoding task to fail.</p> <ul style="list-style-type: none"><li>• Correct example: demo.srt</li><li>• Incorrect example: [demo.srt</li></ul> |

| Parameter | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| file_name | String | <p>File name, which can contain a maximum of 180 characters.</p> <ul style="list-style-type: none"><li>• If this parameter is specified, the output object name is <b>object/file_name</b>.</li><li>• If this parameter is not specified, the output object name is <b>object/xxx</b>, where <b>xxx</b> is specified by MPC.</li></ul> <p>When it is used as an output file name:</p> <ul style="list-style-type: none"><li>• This parameter is valid for container format conversion. The output file name must be specified.</li><li>• If the output file name needs to be specified during transcoding, use the parameter <b>output_filenames</b>.</li><li>• This parameter is valid for parsing. If a file name is specified during parsing, the parsing parameters are written to the specified file name and the file metadata is obtained by querying JSON data in the API response.</li><li>• This parameter is invalid for snapshot capturing.</li><li>• This parameter is invalid for conversion into animated GIFs.</li><li>• When the output file is in HLS format, a file name containing <b>index</b>, such as <b>index.m3u8</b>, will cause playback failure.</li></ul> |

**Table 12-15** PicInfo

| Parameter | Type   | Description        |
|-----------|--------|--------------------|
| pic_name  | String | Snapshot file name |

**Status code: 400**

**Table 12-16** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
GET https://{endpoint}/v1/{project_id}/thumbnails?task_id=7684
```

## Example Responses

### Status code: 200

Snapshot task queried successfully.

```
{
  "task_array": [ {
    "task_id": 7684,
    "status": "SUCCEEDED",
    "create_time": 20201118121333,
    "end_time": 20201118121336,
    "input": {
      "bucket": "example-bucket",
      "location": "region01",
      "object": "example-input.ts"
    },
    "output": {
      "bucket": "example-bucket",
      "location": "region01",
      "object": "example-output/example-path"
    },
    "thumbnail_info": [ {
      "pic_name": "9.jpg"
    }, {
      "pic_name": "5.jpg"
    } ]
  } ],
  "is_truncated": 0,
  "total": 1
}
```

### Status code: 400

Failed to query the snapshot task.

```
{
  "error_code": "MPC.10212",
  "error_msg": "Operation failed."
}
```

## Status Codes

| Status Code | Description                         |
|-------------|-------------------------------------|
| 200         | Snapshot task queried successfully. |
| 400         | Failed to query the snapshot task.  |

## Error Codes

See [Error Codes](#).

# 12.3 Canceling a Snapshot Task

## Function

This API is used to cancel a snapshot task.

You can only cancel the queuing snapshot tasks. A snapshot task that has started or completed cannot be canceled.

## Calling Method

For details, see [Calling APIs](#).

## URI

DELETE /v1/{project\_id}/thumbnails

**Table 12-17** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                           |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcs0,g42,cmcc) |

**Table 12-18** Query Parameters

| Parameter | Mandatory | Type   | Description |
|-----------|-----------|--------|-------------|
| task_id   | Yes       | String | Task ID     |

## Request Parameters

**Table 12-19** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

**Status code: 400**

**Table 12-20** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/thumbnails?task_id=100211
```

## Example Responses

**Status code: 400**

Failed to cancel the snapshot task.

```
{  
  "error_code" : "MPC.10202",  
  "error_msg" : "Invalid request parameter"  
}
```

## Status Codes

| Status Code | Description                          |
|-------------|--------------------------------------|
| 204         | Snapshot task canceled successfully. |
| 400         | Failed to cancel the snapshot task.  |

## Error Codes

See [Error Codes](#).

13

Authorization and Configuration APIs

13.1 Configuring Transcoding Server Event Notifications

Function

Configures event notifications on the transcoding server.

Calling Method

For details, see [Calling APIs](#).

URI

PUT /v1/{project\_id}/notification

Table 13-1 Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                            |
|------------|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hccso,g42,cmcc) |

## Request Parameters

**Table 13-2** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

**Table 13-3** Request body parameters

| Parameter     | Mandatory | Type                                 | Description                             |
|---------------|-----------|--------------------------------------|-----------------------------------------|
| notifications | Yes       | Array of <b>Notification</b> objects | Event notification template information |

**Table 13-4** Notification

| Parameter  | Mandatory | Type   | Description                                                   |
|------------|-----------|--------|---------------------------------------------------------------|
| event_name | No        | String | Name of a message event                                       |
| status     | No        | String | Indicates whether an event notification template is selected. |
| topic      | No        | String | URN of the event notification topic                           |

| Parameter | Mandatory | Type    | Description               |
|-----------|-----------|---------|---------------------------|
| msg_type  | No        | Integer | Subscription message type |

## Response Parameters

**Status code: 400**

**Table 13-5** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
PUT https://{endpoint}/v1/{project_id}/notification
{
  "notifications": [ {
    "event_name": "TranscodeComplete",
    "topic": "test",
    "msg_type": 2,
    "status": "on"
  } ]
}
```

## Example Responses

**Status code: 400**

The message subscription configuration cannot be modified.

```
{
  "error_code": "MPC.10202",
  "error_msg": "Invalid request parameter."
}
```

## Status Codes

| Status Code | Description                                                |
|-------------|------------------------------------------------------------|
| 204         | The message subscription configuration has been modified.  |
| 400         | The message subscription configuration cannot be modified. |

## Error Codes

See [Error Codes](#).

## 13.2 Querying Transcoding Server Event Notifications

### Function

Queries the enabling statuses of subscription events of an SMN topic and subscription messages.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /v1/{project\_id}/notification

**Table 13-6** Path Parameters

| Parameter  | Mandatory | Type   | Description               |
|------------|-----------|--------|---------------------------|
| project_id | Yes       | String | Specifies the project ID. |

### Request Parameters

**Table 13-7** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information.<br>This parameter is mandatory when AK/SK-based authentication is used.                                                                       |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |

| Parameter  | Mandatory | Type   | Description                                                                                         |
|------------|-----------|--------|-----------------------------------------------------------------------------------------------------|
| X-Sdk-Date | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used. |

## Response Parameters

**Status code: 200**

**Table 13-8** Response body parameters

| Parameter     | Type                                          | Description                                  |
|---------------|-----------------------------------------------|----------------------------------------------|
| notifications | Array of <a href="#">Notification</a> objects | Event notification template information      |
| total         | Integer                                       | Total number of event notification templates |

**Table 13-9** Notification

| Parameter  | Type    | Description                                                   |
|------------|---------|---------------------------------------------------------------|
| event_name | String  | Name of a message event                                       |
| status     | String  | Indicates whether an event notification template is selected. |
| topic      | String  | URN of the event notification topic                           |
| msg_type   | Integer | Subscription message type                                     |

**Status code: 400**

**Table 13-10** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
GET https://{endpoint}/v1/{project_id}/notification
```

## Example Responses

### Status code: 200

Event notification query on the transcoding server has been configured.

```
{
  "total" : 7,
  "notifications" : [ {
    "event_name" : "RemuxComplete",
    "status" : "on",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  }, {
    "event_name" : "AnimatedGraphicsComplete",
    "status" : "on",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  }, {
    "event_name" : "TranscodeComplete",
    "status" : "on",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  }, {
    "event_name" : "ThumbnailComplete",
    "status" : "off",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  }, {
    "event_name" : "TranscodeStart",
    "status" : "on",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  }, {
    "event_name" : "ParseComplete",
    "status" : "on",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  }, {
    "event_name" : "EditingComplete",
    "status" : "on",
    "topic" : "urn: smn:region1:tenantId:topic",
    "msg_type" : 3
  } ]
}
```

### Status code: 400

Event notification query on the transcoding server cannot be configured.

```
{
  "error_code" : "MPC.10208",
  "error_msg" : "Failed to verify the tenant ID."
}
```

## Status Codes

| Status Code | Description                                                              |
|-------------|--------------------------------------------------------------------------|
| 200         | Event notification query on the transcoding server has been configured.  |
| 400         | Event notification query on the transcoding server cannot be configured. |

## Error Codes

See [Error Codes](#).

# 13.3 Querying All Events on a Transcoding Server

## Function

Queries all subscription events of an SMN topic.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /v1/{project\_id}/notification/event

**Table 13-11** Path Parameters

| Parameter  | Mandatory | Type   | Description               |
|------------|-----------|--------|---------------------------|
| project_id | Yes       | String | Specifies the project ID. |

## Request Parameters

**Table 13-12** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |

| Parameter  | Mandatory | Type   | Description                                                                                         |
|------------|-----------|--------|-----------------------------------------------------------------------------------------------------|
| X-Sdk-Date | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used. |

## Response Parameters

**Status code: 200**

**Table 13-13** Response body parameters

| Parameter  | Type             | Description                                   |
|------------|------------------|-----------------------------------------------|
| event_name | Array of strings | Event name                                    |
| total      | Integer          | Total number of events notified to the server |

**Status code: 403**

**Table 13-14** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
GET https://{endpoint}/v1/{project_id}/notification/event
```

## Example Responses

**Status code: 200**

All subscription events of an SMN topic have been queried.

```
{
  "total" : 7,
  "event_name" : [ "TranscodeComplete", "TranscodeStart", "ThumbnailComplete", "RemuxComplete",
  "AnimatedGraphicsComplete", "ParseComplete", "EditingComplete" ]
}
```

**Status code: 403**

All subscription events of an SMN topic cannot be queried.

```
{
  "error_code" : "MPC.10208",
}
```

```
"error_msg" : "Failed to verify the tenant ID."
}
```

## Status Codes

| Status Code | Description                                                |
|-------------|------------------------------------------------------------|
| 200         | All subscription events of an SMN topic have been queried. |
| 403         | All subscription events of an SMN topic cannot be queried. |

## Error Codes

See [Error Codes](#).

# 13.4 Querying Buckets

## Function

Queries the list of buckets in a specified region.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /v1/{project\_id}/buckets

**Table 13-15** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                                            |
|------------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see <a href="#">[Obtaining a Project ID]</a> . (tag:hcco,g42,cmcc) |

## Request Parameters

**Table 13-16** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

## Response Parameters

**Status code: 200**

**Table 13-17** Response body parameters

| Parameter | Type                              | Description |
|-----------|-----------------------------------|-------------|
| buckets   | Array of <b>ObsBucket</b> objects | Bucket list |

**Table 13-18** ObsBucket

| Parameter     | Type   | Description                     |
|---------------|--------|---------------------------------|
| bucket        | String | Bucket name                     |
| creation_date | String | Time when the bucket is created |

| Parameter     | Type    | Description                                                                                                                                                    |
|---------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| is_authorized | Integer | Authorization result<br>The value can be 0 or 1. <ul style="list-style-type: none"><li>0: MPC is not authorized.</li><li>1: MPC has been authorized.</li></ul> |

**Status code: 403**

**Table 13-19** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

GET https://{endpoint}/v1/{project\_id}/buckets

## Example Responses

**Status code: 200**

The bucket list has been queried.

```
{
  "buckets" : [ {
    "bucket" : "example-bucket",
    "creation_date" : 20221026152511,
    "is_authorized" : 1
  }, {
    "bucket" : "example-bucket",
    "creation_date" : 20221026104736,
    "is_authorized" : 0
  } ]
}
```

**Status code: 403**

The bucket list cannot be queried.

```
{
  "error_code" : "MPC.10208",
  "error_msg" : "Failed to verify the tenant ID."
}
```

## Status Codes

| Status Code | Description                       |
|-------------|-----------------------------------|
| 200         | The bucket list has been queried. |

| Status Code | Description                        |
|-------------|------------------------------------|
| 403         | The bucket list cannot be queried. |

## Error Codes

See [Error Codes](#).

# 13.5 Authorizing or Canceling Authorization of Access to OBS Buckets

## Function

Authorizes MPC to access OBS buckets or cancels the authorization. MPC only has the read and write permissions on authorized buckets. (MPC cannot be authorized to access buckets encrypted using KMS.)

## Calling Method

For details, see [Calling APIs](#).

## URI

PUT /v1/{project\_id}/authority

**Table 13-20** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                                |
|------------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br><br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hccso,g42,cmcc) |

## Request Parameters

**Table 13-21** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

**Table 13-22** Request body parameters

| Parameter | Mandatory | Type   | Description                                                                                                                                                              |
|-----------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| bucket    | Yes       | String | Specifies the bucket name.                                                                                                                                               |
| operation | Yes       | String | Specifies the operation tag. The value can be 0 or 1. <ul style="list-style-type: none"><li>0: Cancels the authorization.</li><li>1: Grants the authorization.</li></ul> |

## Response Parameters

Status code: 403

**Table 13-23** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

Authorizes MPC to access OBS buckets or cancels the authorization. MPC only has the read and write permissions on authorized buckets.

```
PUT https://{endpoint}/v1/{project_id}/authority
```

```
{
  "bucket": "example-bucket",
  "operation": 1
}
```

## Example Responses

**Status code: 403**

The bucket authorization status cannot be changed.

```
{
  "error_code": "MPC.10209",
  "error_msg": "Invalid input or output OBS path."
}
```

## Status Codes

| Status Code | Description                                            |
|-------------|--------------------------------------------------------|
| 204         | The information is returned when the request succeeds. |
| 403         | The bucket authorization status cannot be changed.     |

## Error Codes

See [Error Codes](#).

# 13.6 Querying Objects in a Bucket

## Function

Queries objects in a bucket.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /v1.0-ext/{project\_id}/objects

**Table 13-24** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                                      |
|------------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> .<br>(tag:hc,hk)<br><br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID].<br>(tag:hccso,g42,cmcc) |

**Table 13-25** Query Parameters

| Parameter | Mandatory | Type   | Description                         |
|-----------|-----------|--------|-------------------------------------|
| bucket    | Yes       | String | Specifies the bucket name.          |
| prefix    | No        | String | Queries the prefix of an object.    |
| type      | No        | String | Queries the file type of an object. |

## Request Parameters

**Table 13-26** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                                   |
|---------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br><br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                              |

| Parameter    | Mandatory | Type   | Description                                                                                                                       |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------|
| X-Project_Id | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters. |
| X-Sdk-Date   | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                               |

## Response Parameters

**Status code: 200**

**Table 13-27** Response body parameters

| Parameter | Type                                       | Description                   |
|-----------|--------------------------------------------|-------------------------------|
| objects   | Array of <a href="#">ObsObject</a> objects | Returns the OBS object group. |

**Table 13-28** ObsObject

| Parameter     | Type   | Description                         |
|---------------|--------|-------------------------------------|
| file_name     | String | Object key                          |
| size          | Long   | File size                           |
| last_modified | String | Time when the file is last modified |

**Status code: 400**

**Table 13-29** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
GET https://{endpoint}/v1/{project_id}/objects
```

## Example Responses

**Status code: 400**

Objects in the bucket cannot be queried.

```
{
  "error_code" : "MPC.10209",
  "error_msg" : "Invalid input or output OBS path."
}
```

## Status Codes

| Status Code | Description                              |
|-------------|------------------------------------------|
| 200         | Objects in the bucket have been queried. |
| 400         | Objects in the bucket cannot be queried. |

## Error Codes

See [Error Codes](#).

# 13.7 Requesting OBS Authorization

## Function

Enables or disables **OBS Authorization**. After this function is enabled, MPC has the read and write permissions on all your buckets. **OBS Authorization** is not available for IAM users.

## Calling Method

For details, see [Calling APIs](#).

## URI

POST /v1/{project\_id}/agencies

**Table 13-30** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                          |
|------------|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcs,g42,cmcc) |

## Request Parameters

**Table 13-31** Request header parameters

| Parameter     | Mandatory | Type   | Description                                                                                                                                                               |
|---------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token  | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                                                          |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters.                                         |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                                                                       |

**Table 13-32** Request body parameters

| Parameter  | Mandatory | Type   | Description                                        |
|------------|-----------|--------|----------------------------------------------------|
| project_id | No        | String | ID of the tenant who has an OBS authorization task |

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                   |
|--------------|-----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| operate_type | Yes       | String | Specifies the operation tag.<br>Value range: [CREATED, CANCELED] <ul style="list-style-type: none"><li>CREATED: authorized</li><li>CANCELED: authorization canceled</li></ul> |

## Response Parameters

**Status code: 403**

**Table 13-33** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

Enables or disables **OBS Authorization**. After this function is enabled, MPC has the read and write permissions on all your buckets. **OBS Authorization** is not available for IAM users.

```
POST https://{endpoint}/v1/{project_id}/agencies
{
  "operate_type": "CREATED"
}
```

## Example Responses

**Status code: 403**

The OBS authorization status cannot be changed.

```
{
  "error_code": "MPC.10223",
  "error_msg": "An agency has been created."
}
```

## Status Codes

| Status Code | Description                                            |
|-------------|--------------------------------------------------------|
| 204         | The information is returned when the request succeeds. |
| 403         | The OBS authorization status cannot be changed.        |

## Error Codes

See [Error Codes](#).

# 13.8 Querying the Status of OBS Authorization Task Creation

## Function

Queries the status of creating an OBS authorization task.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /v1/{project\_id}/agencies

**Table 13-34** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                           |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

## Request Parameters

**Table 13-35** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                               |
|--------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | No        | String | User token<br>The token can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |

| Parameter     | Mandatory | Type   | Description                                                                                                                       |
|---------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------|
| Authorization | No        | String | Authentication information. This parameter is mandatory when AK/SK-based authentication is used.                                  |
| X-Project_Id  | No        | String | Project ID. This parameter is mandatory when AK/SK-based authentication is used. It is same as the project ID in path parameters. |
| X-Sdk-Date    | No        | String | Time when the request is sent. This parameter is mandatory when AK/SK-based authentication is used.                               |

## Response Parameters

**Status code: 200**

**Table 13-36** Response body parameters

| Parameter    | Type   | Description                                                                                                                                                                   |
|--------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| operate_type | String | Specifies the operation tag.<br>Value range: [CREATED, CANCELED] <ul style="list-style-type: none"><li>CREATED: authorized</li><li>CANCELED: authorization canceled</li></ul> |

**Status code: 400**

**Table 13-37** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
GET https://{endpoint}/v1/{project_id}/agencies
```

## Example Responses

**Status code: 200**

The status of creating an OBS authorization task has been queried.

```
{  
  "operate_type" : "CREATED"  
}
```

## Status Codes

| Status Code | Description                                                         |
|-------------|---------------------------------------------------------------------|
| 200         | The status of creating an OBS authorization task has been queried.  |
| 400         | The status of creating an OBS authorization task cannot be queried. |

## Error Codes

See [Error Codes](#).

# 14 Tenant Subscription

## 14.1 Subscribing to the Media Transcoding Service as a Tenant

### Function

A tenant subscribes to the media transcoding service.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /v1/{project\_id}/tenant/access

Table 14-1 Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                              |
|------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br><br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcs,g42,cmcc) |

## Request Parameters

**Table 14-2** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                         |
|--------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | No        | String | User token.<br>It can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |

**Table 14-3** Request body parameters

| Parameter         | Mandatory | Type    | Description                                                                                                                                 |
|-------------------|-----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------|
| is_open           | No        | Boolean | Whether the service has been subscribed to<br><ul style="list-style-type: none"><li>• <b>false</b>: no</li><li>• <b>true</b>: yes</li></ul> |
| agreement_version | No        | Integer | Service agreement version.                                                                                                                  |

## Response Parameters

**Status code: 400**

**Table 14-4** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

```
{  
  "is_open" : false,  
  "agreement_version" : 1  
}
```

## Example Responses

None

## Status Codes

| Status Code | Description                                                         |
|-------------|---------------------------------------------------------------------|
| 200         | If the request is successful, <b>200 OK No Content</b> is returned. |
| 400         | The information is returned when the request failed.                |

## Error Codes

See [Error Codes](#).

# 14.2 Querying Service Subscription Status as a Tenant

## Function

This API is used by a tenant to query the subscription status of the media transcoding service.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /v1/{project\_id}/tenant/access

**Table 14-5** Path Parameters

| Parameter  | Mandatory | Type   | Description                                                                                                                                                                                                                           |
|------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| project_id | Yes       | String | Project ID. For details about how to obtain the project ID, see <a href="#">Obtaining a Project ID</a> . (tag:hc,hk)<br>Project ID. For details about how to obtain the project ID, see [Obtaining a Project ID]. (tag:hcco,g42,cmcc) |

## Request Parameters

**Table 14-6** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                         |
|--------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | No        | String | User token.<br>It can be obtained by calling the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token. |

## Response Parameters

**Status code: 200**

**Table 14-7** Response body parameters

| Parameter         | Type    | Description                                                                                                                             |
|-------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------|
| is_open           | Boolean | Whether the service has been subscribed to<br><ul style="list-style-type: none"><li><b>false</b>: no</li><li><b>true</b>: yes</li></ul> |
| agreement_version | Integer | Service agreement version.                                                                                                              |

**Status code: 400**

**Table 14-8** Response body parameters

| Parameter  | Type   | Description       |
|------------|--------|-------------------|
| error_code | String | Error code        |
| error_msg  | String | Error description |

## Example Requests

None

## Example Responses

**Status code: 200**

The information is returned when the request succeeded.

```
{  
  "is_open" : false,  
  "agreement_version" : 1  
}
```

## Status Codes

| Status Code | Description                                             |
|-------------|---------------------------------------------------------|
| 200         | The information is returned when the request succeeded. |
| 400         | The information is returned when the request failed.    |

## Error Codes

See [Error Codes](#).

# 15 Appendix

## 15.1 Status Codes

**Table 15-1** lists the status codes that may be returned when you call MPC APIs.

**Table 15-1** Status codes

| Status Code            | Description                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 200 OK                 | The request has succeeded.                                                                                                                          |
| 201 Created            | The request has been fulfilled and resulted in a new resource being created.                                                                        |
| 202 Accepted           | The request has been accepted for processing, but the processing has not been completed.                                                            |
| 204 No Content         | The request has been fulfilled, but the HTTP response does not contain a response body.                                                             |
| 400 Bad Request        | The request could not be understood by the server.<br>The client should not repeat the request without modifications.                               |
| 401 Unauthorized       | The authentication information provided by the client is incorrect or invalid.                                                                      |
| 403 Forbidden          | The server understood the request, but is refusing to fulfill it.<br>The client should not repeat the request without modifications.                |
| 404 Not Found          | The requested resource could not be found.<br>The client should not repeat the request without modifications.                                       |
| 405 Method Not Allowed | The method specified in the request is not supported for the requested resource.<br>The client should not repeat the request without modifications. |
| 406 Not Acceptable     | The server could not fulfill the request according to the content characteristics of the request.                                                   |

| Status Code                       | Description                                                                                                                                                                                                                                                                                        |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 407 Proxy Authentication Required | This code is similar to 401 (Unauthorized), but indicates that the client must first authenticate itself with the proxy.                                                                                                                                                                           |
| 408 Request Timeout               | The client did not produce a request within the time that the server was prepared to wait.<br>The client may repeat the request without modifications at any later time.                                                                                                                           |
| 409 Conflict                      | The request could not be completed due to a conflict with the current state of the resource.<br>This status code indicates that the resource that the client is attempting to create already exists, or that the request has failed to be processed because of the update of the conflict request. |
| 500 Internal Server Error         | The server is able to receive the request but unable to understand it.                                                                                                                                                                                                                             |
| 501 Not Implemented               | The server does not support the functionality required to fulfill the request.                                                                                                                                                                                                                     |
| 502 Bad Gateway                   | The server, while acting as a gateway or proxy, received an invalid response from the upstream server it accessed in attempting to fulfill the request.                                                                                                                                            |
| 503 Service Unavailable           | The server is currently unable to handle the request.<br>The client should not repeat the request without modifications.                                                                                                                                                                           |
| 504 Gateway Timeout               | A gateway timeout error occurred.                                                                                                                                                                                                                                                                  |

## 15.2 Error Codes

If an error code starting with APIGW is returned after you call an API, rectify the fault by referring to the instructions provided in [API Gateway Error Codes](#).

| Status Code | Error Codes | Error Message                     | Description                       | Solution                                        |
|-------------|-------------|-----------------------------------|-----------------------------------|-------------------------------------------------|
| 400         | MPC.10089   | The template file does not exist. | The template file does not exist. | The template file does not exist. Please check. |
| 400         | MPC.10090   | The template file does not exist. | The template file does not exist. | The template file does not exist. Please check. |

| Status Code | Error Codes | Error Message                                                                       | Description                                                                         | Solution                                                                            |
|-------------|-------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 400         | MPC.10091   | The template name already exists.                                                   | The template name already exists.                                                   | Enter another template name.                                                        |
| 400         | MPC.10155   | The subtitle file list and M3U8 file do not contain the specified default language. | The subtitle file list and M3U8 file do not contain the specified default language. | The subtitle file list and M3U8 file do not contain the specified default language. |
| 400         | MPC.10156   | File deletion failed.                                                               | File deletion failed.                                                               | File deletion failed.                                                               |
| 400         | MPC.10202   | Invalid request parameter.                                                          | Invalid request parameter.                                                          | Check whether the request parameter is correct.                                     |
| 400         | MPC.10204   | Incorrect request method.                                                           | Incorrect request method.                                                           | Check the request method.                                                           |
| 400         | MPC.10205   | Incorrect request content type.                                                     | Incorrect request content type.                                                     | Check the request content type.                                                     |
| 400         | MPC.10223   | An agency has been created.                                                         | An agency has been created.                                                         | An agency has been created. Please check.                                           |
| 400         | MPC.10224   | The agency has been deleted.                                                        | The agency has been deleted.                                                        | The agency has been deleted. Please check.                                          |
| 400         | MPC.10230   | The template group already exists.                                                  | The template group already exists.                                                  | The template group already exists. Please check.                                    |
| 400         | MPC.10231   | The template group does not exist.                                                  | The template group does not exist.                                                  | The template group does not exist. Please check.                                    |
| 401         | MPC.10203   | Identity authentication failed.                                                     | Identity authentication failed.                                                     | Check whether authentication parameters such as Token are correct.                  |

| Status Code | Error Codes | Error Message                                                    | Description                                                      | Solution                                                                                                            |
|-------------|-------------|------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| 401         | MPC.10206   | You have not completed real-name authentication.                 | You have not completed real-name authentication.                 | Check whether you have completed real-name authentication.                                                          |
| 401         | MPC.10207   | Your account is in an abnormal state.                            | Your account is in an abnormal state.                            | Check your account state.                                                                                           |
| 401         | MPC.10208   | Tenant ID verification failed, please check.                     | Tenant ID verification failed, please check.                     | Check whether the tenant ID is correct.                                                                             |
| 403         | MPC.10211   | The task does not exist.                                         | The task does not exist.                                         | The task does not exist. Please check.                                                                              |
| 403         | MPC.10212   | Operation failed. The task is in progress or has been completed. | Operation failed. The task is in progress or has been completed. | The task is in progress or has been completed. Please check.                                                        |
| 403         | MPC.10214   | The topic does not exist.                                        | The topic does not exist.                                        | The topic does not exist. Please check.                                                                             |
| 403         | MPC.10215   | The topic already exists.                                        | The topic already exists.                                        | The topic already exists. Please check.                                                                             |
| 403         | MPC.10226   | The resource does not exist.                                     | The resource does not exist.                                     | The resource does not exist.                                                                                        |
| 403         | MPC.10240   | Failed to obtain the basic information about the media file.     | Failed to obtain the basic information about the media file.     | Check whether the OBS bucket has been authorized and whether KMS encryption has been configured for the OBS bucket. |

| Status Code | Error Codes | Error Message                                                                                                                                                                                                         | Description                                                                                                                                                                                                           | Solution                                                                                                                                                                                                              |
|-------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 403         | MPC.10243   | Due to security reasons, your account has been restricted from purchasing certain pay-per-use cloud service resources according to the CLOUD Customer Agreement. If you have any questions, contact customer service. | Due to security reasons, your account has been restricted from purchasing certain pay-per-use cloud service resources according to the CLOUD Customer Agreement. If you have any questions, contact customer service. | Due to security reasons, your account has been restricted from purchasing certain pay-per-use cloud service resources according to the CLOUD Customer Agreement. If you have any questions, contact customer service. |
| 403         | MPC.10244   | Insufficient account balance. Top up your account.                                                                                                                                                                    | Insufficient account balance. Top up your account.                                                                                                                                                                    | Insufficient account balance. Top up your account.                                                                                                                                                                    |
| 406         | MPC.10051   | The selected template is a super-resolution template and is not supported.                                                                                                                                            | The selected template is a super-resolution template and is not supported.                                                                                                                                            | Select a valid template.                                                                                                                                                                                              |
| 406         | MPC.10052   | Failed to obtain the input file.                                                                                                                                                                                      | Failed to obtain the input file.                                                                                                                                                                                      | Check the file path.                                                                                                                                                                                                  |
| 406         | MPC.10053   | The input file does not exist.                                                                                                                                                                                        | The input file does not exist.                                                                                                                                                                                        | The input file does not exist. Please check.                                                                                                                                                                          |
| 406         | MPC.10054   | Failed to obtain the subtitle file.                                                                                                                                                                                   | Failed to obtain the subtitle file.                                                                                                                                                                                   | Check the file path.                                                                                                                                                                                                  |

| Status Code | Error Codes | Error Message                                                | Description                                                  | Solution                                 |
|-------------|-------------|--------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------|
| 406         | MPC.10055   | The audio sampling rate 7,350 is not supported.              | The audio sampling rate 7,350 is not supported.              | Set a valid audio sampling rate.         |
| 406         | MPC.10056   | This type of output frame rate is not supported.             | This type of output frame rate is not supported.             | Set a valid frame rate.                  |
| 406         | MPC.10057   | This type of output bitrate is not supported.                | This type of output bitrate is not supported.                | Set a valid bitrate.                     |
| 406         | MPC.10058   | This type of output video width is not supported.            | This type of output video width is not supported.            | Set a valid width.                       |
| 406         | MPC.10059   | This type of output video height is not supported.           | This type of output video height is not supported.           | Set a valid height.                      |
| 406         | MPC.10060   | This type of I-frame interval is not supported.              | This type of I-frame interval is not supported.              | Set a valid I-frame interval.            |
| 406         | MPC.10061   | Capturing snapshots at non-fixed intervals is not supported. | Capturing snapshots at non-fixed intervals is not supported. | Change the interval to a fixed interval. |
| 406         | MPC.10062   | Invalid video codec.                                         | Invalid video codec.                                         | Set a valid video codec.                 |
| 406         | MPC.10063   | Invalid video format.                                        | Invalid video format.                                        | Set a valid video format.                |
| 406         | MPC.10064   | Multiple watermarks are not supported.                       | Multiple watermarks are not supported.                       | Only two watermarks are supported.       |
| 406         | MPC.10065   | Invalid output file format.                                  | Invalid output file format.                                  | Set a valid output format.               |

| Status Code | Error Codes | Error Message                                              | Description                                                | Solution                                                                 |
|-------------|-------------|------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------|
| 406         | MPC.10066   | The input file format does not match the actual format.    | The input file format does not match the actual format.    | The input file format does not match the actual format. Please check.    |
| 406         | MPC.10067   | Failed to obtain the ID of the video codec.                | Failed to obtain the ID of the video codec.                | Failed to obtain the ID of the video codec. Please check.                |
| 406         | MPC.10068   | Failed to obtain the ID of the audio codec.                | Failed to obtain the ID of the audio codec.                | Failed to obtain the ID of the audio codec. Please check.                |
| 406         | MPC.10069   | Failed to obtain the ID of the subtitle codec.             | Failed to obtain the ID of the subtitle codec.             | Failed to obtain the ID of the subtitle codec. Please check.             |
| 406         | MPC.10070   | Failed to obtain the encoding/decoding format.             | Failed to obtain the encoding/decoding format.             | Failed to obtain the encoding/decoding format. Please check.             |
| 406         | MPC.10071   | Failed to obtain the parameters of the input video stream. | Failed to obtain the parameters of the input video stream. | Failed to obtain the parameters of the input video stream. Please check. |
| 406         | MPC.10072   | Invalid frame rate of the video stream.                    | Invalid frame rate of the video stream.                    | Invalid frame rate of the video stream. Please check.                    |
| 406         | MPC.10080   | Invalid frame rate of the input file.                      | Invalid frame rate of the input file.                      | Invalid frame rate of the input file. Please check.                      |
| 406         | MPC.10081   | The file does not contain audio streams.                   | The file does not contain audio streams.                   | Check the input file.                                                    |
| 406         | MPC.10082   | Failed to obtain the input audio or video stream.          | Failed to obtain the input audio or video stream.          | Failed to obtain the input audio or video stream. Please check.          |

| Status Code | Error Codes | Error Message                                    | Description                                      | Solution                                                       |
|-------------|-------------|--------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------|
| 406         | MPC.10083   | This type of codec is not supported.             | This type of codec is not supported.             | This type of codec is not supported. Please check.             |
| 406         | MPC.10084   | This chroma subsampling format is not supported. | This chroma subsampling format is not supported. | This chroma subsampling format is not supported. Please check. |
| 406         | MPC.10085   | The file format is not supported.                | The file format is not supported.                | The file format is not supported. Please check.                |
| 406         | MPC.10086   | Failed to obtain the input file.                 | Failed to obtain the input file.                 | Check the file path.                                           |
| 406         | MPC.10087   | Invalid task parameters.                         | Invalid task parameters.                         | Invalid task parameters. Please check.                         |
| 406         | MPC.10088   | The image file does not exist.                   | The image file does not exist.                   | The image file does not exist. Please check.                   |
| 406         | MPC.10092   | The image file does not exist.                   | The image file does not exist.                   | The image file does not exist. Please check.                   |
| 406         | MPC.10093   | The file name exceeds the maximum length.        | The file name exceeds the maximum length.        | The file name exceeds the maximum length. Please check.        |
| 406         | MPC.10094   | Invalid file format.                             | Invalid file format.                             | Invalid file format. Please check.                             |
| 406         | MPC.10095   | The watermark is placed in a wrong position.     | The watermark is placed in a wrong position.     | The watermark is placed in a wrong position. Please check.     |
| 406         | MPC.10096   | Invalid watermark size.                          | Invalid watermark size.                          | Invalid watermark size. Please check.                          |
| 406         | MPC.10097   | Invalid watermark scaling ratio.                 | Invalid watermark scaling ratio.                 | Invalid watermark scaling ratio. Please check.                 |

| Status Code | Error Codes | Error Message                                                              | Description                                                                | Solution                                                                       |
|-------------|-------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| 406         | MPC.10098   | Invalid watermark duration.                                                | Invalid watermark duration.                                                | Invalid watermark duration. Please check.                                      |
| 406         | MPC.10099   | The media stream type is not supported.                                    | The media stream type is not supported.                                    | The media stream type is not supported. Please check.                          |
| 406         | MPC.10100   | An error occurred when parsing the video frame rate information.           | An error occurred when parsing the video frame rate information.           | An error occurred when parsing the video frame rate information. Please check. |
| 406         | MPC.10101   | Invalid input parameters.                                                  | Invalid input parameters.                                                  | Invalid input parameters. Please check.                                        |
| 406         | MPC.10102   | Failed to open the input file.                                             | Failed to open the input file.                                             | Failed to open the input file. Please check.                                   |
| 406         | MPC.10103   | Open GOP is not supported.                                                 | Open GOP is not supported.                                                 | Open GOP is not supported. Please check.                                       |
| 406         | MPC.10104   | Internal error.                                                            | Internal error.                                                            | Try again or contact technical support.                                        |
| 406         | MPC.10105   | An error occurred during transcoding.                                      | An error occurred during transcoding.                                      | Try again or contact technical support.                                        |
| 406         | MPC.10106   | The audio sampling rate is lower than 12,000. The audio will be discarded. | The audio sampling rate is lower than 12,000. The audio will be discarded. | The audio sampling rate is lower than 12,000. The audio will be discarded.     |
| 406         | MPC.10107   | Invalid input video resolution.                                            | Invalid input video resolution.                                            | Invalid input video resolution. Please check.                                  |

| Status Code | Error Codes | Error Message                                                 | Description                                                   | Solution                                                               |
|-------------|-------------|---------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------|
| 406         | MPC.10108   | The audio sampling rate of the input video is incorrect.      | The audio sampling rate of the input video is incorrect.      | The audio sampling rate of the input video is incorrect. Please check. |
| 406         | MPC.10109   | Invalid resolution in the template.                           | Invalid resolution in the template.                           | Invalid resolution in the template. Please check.                      |
| 406         | MPC.10110   | The video encoding format of the input file is not supported. | The video encoding format of the input file is not supported. | The video encoding format of the input file is not supported.          |
| 406         | MPC.10111   | Failed to obtain the file from OBS.                           | Failed to obtain the file from OBS.                           | Failed to obtain the file from OBS.                                    |
| 406         | MPC.10112   | The video or audio format of the input file is not supported. | The video or audio format of the input file is not supported. | The video or audio format of the input file is not supported.          |
| 406         | MPC.10113   | The DTS of the input file is not supported.                   | The DTS of the input file is not supported.                   | The DTS of the input file is not supported.                            |
| 406         | MPC.10114   | The header information of the input file is incorrect.        | The header information of the input file is incorrect.        | The header information of the input file is incorrect. Please check.   |
| 406         | MPC.10115   | The watermark cannot be scaled down by more than 256 times.   | The watermark cannot be scaled down by more than 256 times.   | The watermark cannot be scaled down by more than 256 times.            |
| 406         | MPC.10116   | The audio encoding format of the input file is not supported. | The audio encoding format of the input file is not supported. | The audio encoding format of the input file is not supported.          |

| Status Code | Error Codes | Error Message                                                              | Description                                                                | Solution                                                                                 |
|-------------|-------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| 406         | MPC.10117   | The audio and video in the input file are not synchronized.                | The audio and video in the input file are not synchronized.                | The audio and video in the input file are not synchronized.                              |
| 406         | MPC.10118   | Failed to upload files to the OBS path.                                    | Failed to upload files to the OBS path.                                    | Try again or contact technical support.                                                  |
| 406         | MPC.10119   | Invalid input data.                                                        | Invalid input data.                                                        | Invalid input data. Please check.                                                        |
| 406         | MPC.10120   | The task does not exist.                                                   | The task does not exist.                                                   | The task does not exist. Please check.                                                   |
| 406         | MPC.10121   | The subtitle file does not exist.                                          | The subtitle file does not exist.                                          | The subtitle file does not exist. Please check.                                          |
| 406         | MPC.10122   | The resolution in the template is greater than the input video resolution. | The resolution in the template is greater than the input video resolution. | The resolution in the template is greater than the input video resolution. Please check. |
| 406         | MPC.10123   | The header information of the input file is incorrect.                     | The header information of the input file is incorrect.                     | The header information of the input file is incorrect. Please check.                     |
| 406         | MPC.10124   | Some data in the input file are missing.                                   | Some data in the input file are missing.                                   | Check the input file for its completeness.                                               |
| 406         | MPC.10125   | Input data error.                                                          | Input data error.                                                          | Check whether the input file can be played.                                              |
| 406         | MPC.10126   | Input data error.                                                          | Input data error.                                                          | Check whether the input file can be played.                                              |

| Status Code | Error Codes | Error Message                                                                   | Description                                                                     | Solution                                                                                      |
|-------------|-------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 406         | MPC.10127   | Failed to obtain the level-1 m3u8 when an HLS media file is encrypted with DRM. | Failed to obtain the level-1 m3u8 when an HLS media file is encrypted with DRM. | Failed to obtain the level-1 m3u8 when an HLS media file is encrypted with DRM. Please check. |
| 406         | MPC.10128   | Failed to obtain the level-2 m3u8 when an HLS media file is encrypted with DRM. | Failed to obtain the level-2 m3u8 when an HLS media file is encrypted with DRM. | Failed to obtain the level-2 m3u8 when an HLS media file is encrypted with DRM. Please check. |
| 406         | MPC.10129   | Failed to obtain the index file when a DASH media file is encrypted with DRM.   | Failed to obtain the index file when a DASH media file is encrypted with DRM.   | Failed to obtain the index file when a DASH media file is encrypted with DRM. Please check.   |
| 406         | MPC.10130   | The HLS content fails to be encrypted using DRM.                                | The HLS content fails to be encrypted using DRM.                                | The HLS content fails to be encrypted using DRM. Please check.                                |
| 406         | MPC.10131   | Failed to modify the index file when an HLS media file is encrypted with DRM.   | Failed to modify the index file when an HLS media file is encrypted with DRM.   | Failed to modify the index file when an HLS media file is encrypted with DRM. Please check.   |
| 406         | MPC.10132   | Failed to obtain the IV during DRM encryption.                                  | Failed to obtain the IV during DRM encryption.                                  | Failed to obtain the IV during DRM encryption. Please check.                                  |
| 406         | MPC.10133   | The DASH content fails to be encrypted using DRM.                               | The DASH content fails to be encrypted using DRM.                               | The DASH content fails to be encrypted using DRM. Please check.                               |

| Status Code | Error Codes | Error Message                                                                       | Description                                                                         | Solution                                                                                          |
|-------------|-------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| 406         | MPC.10134   | Failed to modify the index file when a DASH media file is encrypted with DRM.       | Failed to modify the index file when a DASH media file is encrypted with DRM.       | Failed to modify the index file when a DASH media file is encrypted with DRM. Please check.       |
| 406         | MPC.10135   | Failed to package the digital watermark due to the incorrect xformat configuration. | Failed to package the digital watermark due to the incorrect xformat configuration. | Failed to package the digital watermark due to the incorrect xformat configuration. Please check. |
| 406         | MPC.10136   | Failed to package the digital watermark because xformat fails to be started.        | Failed to package the digital watermark because xformat fails to be started.        | Failed to package the digital watermark because xformat fails to be started. Please check.        |
| 406         | MPC.10137   | Failed to package the digital watermark because xformat fails to create a task.     | Failed to package the digital watermark because xformat fails to create a task.     | Failed to package the digital watermark because xformat fails to create a task. Please check.     |
| 406         | MPC.10138   | Failed to package the digital watermark because xformat fails to query the task.    | Failed to package the digital watermark because xformat fails to query the task.    | Failed to package the digital watermark because xformat fails to query the task. Please check.    |
| 406         | MPC.10139   | Failed to package the digital watermark because the xformat task timed out.         | Failed to package the digital watermark because the xformat task timed out.         | Try again or contact technical support.                                                           |

| Status Code | Error Codes | Error Message                                                                                                              | Description                                                                                                                | Solution                                 |
|-------------|-------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 406         | MPC.10140   | The I-frame interval exceeds 500.                                                                                          | The I-frame interval exceeds 500.                                                                                          | Set the I-frame interval to 500 or less. |
| 406         | MPC.10141   | The input file is an audio file. The selected template contains video parameters.                                          | The input file is an audio file. The selected template contains video parameters.                                          | Select a valid template.                 |
| 406         | MPC.10143   | Invalid index file content.                                                                                                | Invalid index file content.                                                                                                | Invalid index file content.              |
| 406         | MPC.10144   | Black bars seem to be on the input video.                                                                                  | Black bars seem to be on the input video.                                                                                  | Review the input video.                  |
| 406         | MPC.10145   | Data frames imported to the detection module seem to be not enough for identifying the specific position of the black bar. | Data frames imported to the detection module seem to be not enough for identifying the specific position of the black bar. | Review the input video.                  |
| 406         | MPC.10146   | The black bar seems to overlap with subtitles.                                                                             | The black bar seems to overlap with subtitles.                                                                             | Review the input video.                  |
| 406         | MPC.10147   | The black bar seems to overlap with the watermark.                                                                         | The black bar seems to overlap with the watermark.                                                                         | Review the input video.                  |
| 406         | MPC.10148   | The black bars seem to be asymmetric.                                                                                      | The black bars seem to be asymmetric.                                                                                      | Review the input video.                  |
| 406         | MPC.10149   | The specific position of the black bar cannot be identified.                                                               | The specific position of the black bar cannot be identified.                                                               | Review the input video.                  |

| Status Code | Error Codes | Error Message                                                 | Description                                                   | Solution                                                                    |
|-------------|-------------|---------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------|
| 406         | MPC.10150   | The cropped black bar size exceeds the input video size.      | The cropped black bar size exceeds the input video size.      | Review the input video.                                                     |
| 406         | MPC.10151   | Failed to download the subtitle file in the slicing phase.    | Failed to download the subtitle file in the slicing phase.    | Failed to download the subtitle file in the slicing phase. Please check.    |
| 406         | MPC.10152   | The video encoding format of the input file is not supported. | The video encoding format of the input file is not supported. | The video encoding format of the input file is not supported. Please check. |
| 406         | MPC.10153   | Input file error.                                             | Input file error.                                             | Check whether the input file can be played.                                 |
| 406         | MPC.10154   | Failed to open the input file.                                | Failed to open the input file.                                | Check whether the input file can be played.                                 |
| 406         | MPC.10200   | System error.                                                 | System error.                                                 | Contact technical support.                                                  |
| 406         | MPC.10201   | Internal communication error.                                 | Internal communication error.                                 | Contact technical support.                                                  |
| 406         | MPC.10209   | Invalid input or output OBS path.                             | Invalid input or output OBS path.                             | Check whether the input or output OBS path is correct.                      |
| 406         | MPC.10210   | Failed to obtain the input file from OBS.                     | Failed to obtain the input file from OBS.                     | Failed to obtain the input file from OBS. Please check.                     |
| 406         | MPC.10213   | Operation failed. The task is not in the final state.         | Operation failed. The task is not in the final state.         | The task is not in the final state. Please check.                           |

| Status Code | Error Codes | Error Message                                                                                       | Description                                                                                         | Solution                                                                       |
|-------------|-------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| 406         | MPC.10216   | Failed to set event notifications. You do not have the permission to publish messages to the topic. | Failed to set event notifications. You do not have the permission to publish messages to the topic. | You do not have the permission to publish messages to the topic. Please check. |
| 406         | MPC.10217   | The usage exceeds the OBT quota.                                                                    | The usage exceeds the OBT quota.                                                                    | The usage exceeds the threshold. Please check.                                 |
| 406         | MPC.10218   | The task has completed.                                                                             | The task has completed.                                                                             | The task has completed. Please check.                                          |
| 406         | MPC.10219   | Invalid request parameter.                                                                          | Invalid request parameter.                                                                          | Invalid request parameter. Please check.                                       |
| 406         | MPC.10220   | The task has expired.                                                                               | The task has expired.                                                                               | The task has expired. Please check.                                            |
| 406         | MPC.10221   | Internal service error.                                                                             | Internal service error.                                                                             | Check the template and try again.                                              |
| 406         | MPC.10222   | Key parameters in the template are inconsistent.                                                    | Key parameters in the template are inconsistent.                                                    | The obtained input file is not correct. Please check.                          |
| 406         | MPC.10225   | KMS service error.                                                                                  | KMS service error.                                                                                  | Contact technical support.                                                     |
| 406         | MPC.10227   | You do not have the permission to access the requested resource.                                    | You do not have the permission to access the requested resource.                                    | You do not have the access permission. Please check.                           |
| 406         | MPC.10228   | Your account is in arrears. Top up your account.                                                    | Your account is in arrears. Top up your account.                                                    | Top up your account as soon as possible.                                       |

| Status Code | Error Codes | Error Message                                             | Description                                               | Solution                                                                                                                   |
|-------------|-------------|-----------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 406         | MPC.10229   | You do not have the permission to perform this operation. | You do not have the permission to perform this operation. | You do not have the permission to perform this operation. Please check.                                                    |
| 406         | MPC.10232   | GIF task failed.                                          | GIF task failed.                                          | GIF task failed. Please check.                                                                                             |
| 406         | MPC.10233   | Packaging task failed.                                    | Packaging task failed.                                    | Packaging task failed. Please check.                                                                                       |
| 406         | MPC.10234   | The function is temporarily brought offline.              | The function is temporarily brought offline.              | The function is offline. Please check.                                                                                     |
| 406         | MPC.10235   | Identity authentication failed due to an invalid token.   | Identity authentication failed due to an invalid token.   | Check whether the token is correct.                                                                                        |
| 406         | MPC.10236   | You do not have permission to access the OBS bucket.      | You do not have the permission to access the OBS bucket.  | Contact the tenant administrator to perform bucket authorization or to grant member accounts the permission to access OBS. |
| 406         | MPC.10237   | API Gateway rate limiting                                 | API Gateway rate limiting                                 | API Gateway is implementing rate limiting. Please check.                                                                   |
| 500         | MPC.10001   | IAM service exception.                                    | IAM service exception.                                    | Contact technical support.                                                                                                 |
| 500         | MPC.10002   | OBS service exception.                                    | OBS service exception.                                    | Contact technical support.                                                                                                 |
| 500         | MPC.10003   | SMN service exception.                                    | SMN service exception.                                    | Contact technical support.                                                                                                 |
| 500         | MPC.10004   | CBC service exception.                                    | CBC service exception.                                    | Contact technical support.                                                                                                 |
| 500         | MPC.10005   | SDR service exception.                                    | SDR service exception.                                    | Contact technical support.                                                                                                 |

| Status Code | Error Codes | Error Message            | Description              | Solution                   |
|-------------|-------------|--------------------------|--------------------------|----------------------------|
| 500         | MPC.10006   | ZK service exception.    | ZK service exception.    | Contact technical support. |
| 500         | MPC.10007   | MONGO service exception. | MONGO service exception. | Contact technical support. |
| 500         | MPC.10008   | MPE service exception.   | MPE service exception.   | Contact technical support. |
| 500         | MPC.10050   | XCODE service exception. | XCODE service exception. | Contact technical support. |

## 15.3 Obtaining a Project ID

A project ID is required for some URLs when an API is called. You can obtain a project ID using either of the following methods:

- [Obtaining a Project ID from the Management Console](#)
- [Obtaining a Project ID by Calling an API](#)

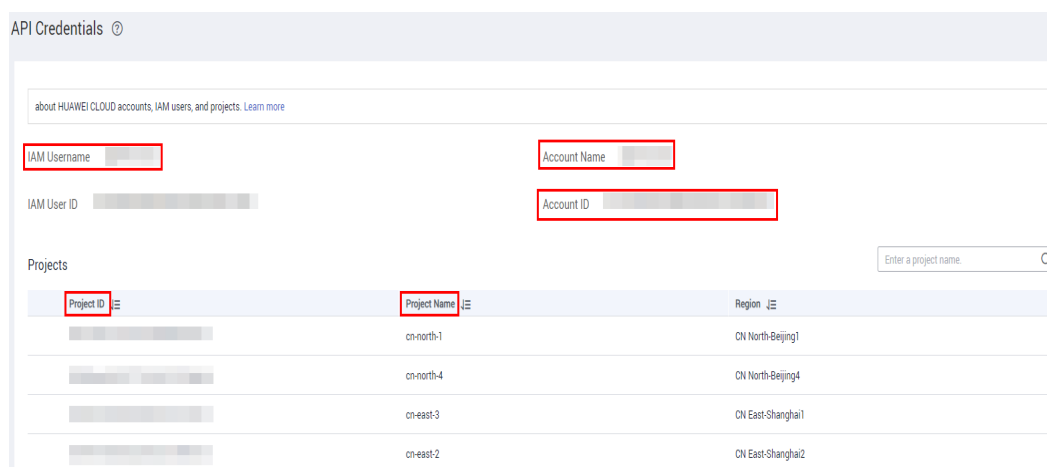
### Obtaining a Project ID from the Management Console

**Step 1** Log in to the console.

**Step 2** Hover over the username in the upper right corner and select **My Credentials** from the drop-down list.

On the **API Credentials** page, view project IDs in the project list.

**Figure 15-1** Obtaining a project ID



----End

## Obtaining a Project ID by Calling an API

You can obtain a project ID by calling the API for [querying project information](#).

The API for obtaining a project ID is **GET** <https://{Endpoint}/v3/projects/>.  
*{Endpoint}* indicates the endpoint of IAM, which can be obtained from [Endpoints](#).  
For details about API authentication, see [Authentication](#).

The following is an example response. The value of **id** under **projects** is the project ID.

```
{
  "projects": [
    {
      "domain_id": "65382450e8f64ac0870cd180d14e684b",
      "is_domain": false,
      "parent_id": "65382450e8f64ac0870cd180d14e684b",
      "name": "region01",
      "description": "",
      "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
      },
      "id": "a4a5d4098fb4474fa22cd05f897d6b99",
      "enabled": true
    }
  ],
  "links": {
    "next": null,
    "previous": null,
    "self": "https://www.example.com/v3/projects"
  }
}
```

## 15.4 Obtaining an Account ID

An account ID is required for some URLs when an API is called. To obtain an account ID, perform the following steps:

- Step 1** Log in to the console.
- Step 2** Hover over the username in the upper right corner and select **My Credentials** from the drop-down list.

On the **API Credentials** page, obtain the account ID.

Figure 15-2 Obtaining an account ID

API Credentials ⓘ

Learn more about HUAWEI CLOUD accounts, IAM users, and projects.

IAM User Name

Account Name

IAM User ID

Account ID

Projects

| Project ID | Project Name | Region             |
|------------|--------------|--------------------|
|            | cn-north-1   | CN North-Beijing1  |
|            | cn-north-4   | CN North-Beijing4  |
|            | cn-east-3    | CN East-Shanghai1  |
|            | cn-east-2    | CN East-Shanghai2  |
|            | cn-south-1   | CN South-Guangzhou |

----End

# 16 Change History

**Table 16-1** Change history

| Released On | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2023-05-04  | This issue is the sixteenth official release.<br>Modified the sample code of the API for creating a transcoding template group.                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2023-02-02  | This issue is the fifteenth official release. <ul style="list-style-type: none"><li>Deleted the <b>asset_id</b> and <b>dynamic_range</b> parameters from the API for creating a transcoding task.</li><li>Added the description of the source file format to the API for creating an animated GIF conversion task. Animated GIF conversion, synchronous parsing, and snapshot capturing cannot be performed for M3U8 videos.</li></ul>                                                                                                             |
| 2023-01-03  | This issue is the fourteenth official release. <ul style="list-style-type: none"><li>Added the <b>language</b> parameter to the API for creating a transcoding task.</li><li>Modified the <b>level</b> and <b>channels</b> parameters in the APIs for creating a transcoding task, querying transcoding tasks, creating a transcoding template, updating a transcoding template, querying transcoding templates, creating a transcoding template group, updating a transcoding template group, and querying transcoding template groups.</li></ul> |

| Released On | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2022-12-09  | <p>This issue is the thirteenth official release.</p> <ul style="list-style-type: none"><li>Deleted the <b>black_cut</b> parameter from the APIs for creating, updating, and querying transcoding templates.</li><li>Deleted the <b>ref_frames_count</b> and <b>aspect_ratio</b> parameters from the APIs for creating, updating, and querying transcoding templates.</li><li>Deleted the <b>audio_track</b>, <b>multi_audio</b>, and <b>video_process</b> parameters from the API for creating a transcoding task.</li></ul> |
| 2022-11-30  | <p>This issue is the twelfth official release.</p> <ul style="list-style-type: none"><li>Added the APIs for deleting transcoding task records and querying VOD overview to the media file transcoding API group.</li><li>Added the API for deleting packaging task records to the packaging API group.</li><li>Added the authorization and configuration API group.</li></ul>                                                                                                                                                 |
| 2022-08-26  | <p>This issue is the eleventh official release.</p> <ul style="list-style-type: none"><li>Corrected the format of the APIs for creating a snapshot capturing task, creating a transcoding template group, and updating a watermark template.</li><li>Corrected the response parameters of the APIs for creating a transcoding task, creating a transcoding template, updating a transcoding template, querying a transcoding template, and querying transcoding template groups.</li></ul>                                    |
| 2022-06-21  | <p>This issue is the tenth official release.</p> <p>Modified the <b>preset</b> encoding quality level in the API for creating a transcoding task.</p>                                                                                                                                                                                                                                                                                                                                                                         |
| 2022-03-17  | <p>This issue is the ninth official release.</p> <p>Modified the sample code of the API for creating a transcoding task.</p>                                                                                                                                                                                                                                                                                                                                                                                                  |
| 2021-12-27  | <p>This issue is the eighth official release.</p> <ul style="list-style-type: none"><li>Added the unit byte to the description of the <b>size</b> parameter in the API for querying packaging tasks.</li><li>Added the <b>template_id</b> parameter indicating the watermark template ID to the watermark template APIs.</li></ul>                                                                                                                                                                                            |

| Released On | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2021-11-24  | This issue is the seventh official release.<br>Added the description about the maximum number of watermark templates that can be created. By default, 100,000 watermark templates can be created.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 2021-11-10  | This issue is the sixth official release. <ul style="list-style-type: none"><li>Deleted the <b>msyh</b> font from the <b>font_name</b> parameter in the API for creating a transcoding task. Currently, only the <b>fzyouh</b> font is supported.</li><li>Added the <b>hls_init_count</b> parameter to the <b>VideoProcess</b> structure. <b>hls_init_count</b> indicates the number of HLS start segments for which the duration needs to be set.</li><li>Added the <b>hls_init_interval</b> parameter to the <b>VideoProcess</b> structure. <b>hls_init_interval</b> indicates the HLS segment duration.</li><li>Deleted the <b>font_name</b> parameter from the API for querying video parsing tasks.</li><li>Deleted duplicate error codes.</li></ul> |
| 2021-10-29  | This issue is the fifth official release.<br>Added regional constraints of calling APIs to section "Before You Start".                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2020-12-10  | This issue is the fourth official release.<br>Added error code description.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 2020-10-14  | This issue is the third official release. <ul style="list-style-type: none"><li>Revised the description of the <b>file_name</b> parameter in the <b>ObsObjInfo</b> structure. This parameter is used only in packaging APIs and specifies the name of the output file.</li><li>Added the <b>user_data</b> parameter indicating user-defined data to the media transcoding APIs, packaging APIs, and GIF converting APIs.</li><li>Added the <b>duration_ms</b> parameter indicating the input file duration to the <b>MetaData</b> and <b>SourceInfo</b> structures.</li><li>Added the <b>dynamic_range</b> parameter indicating the dynamic range type of an input file to the <b>VideoInfo</b> structure.</li></ul>                                      |
| 2020-06-20  | This issue is the second official release. <ul style="list-style-type: none"><li>Added an application example: Submitting a Video Transcoding Task.</li><li>Added an application example: Submitting a Video Snapshot Task.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Released On | Description                               |
|-------------|-------------------------------------------|
| 2020-04-01  | This issue is the first official release. |