

Media Processing Center

API Reference

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1 Before You Start

Overview

Media Processing Center (MPC) transcodes your media files online, inexpensively, efficiently, and at any scale. MPC combines object storage and cloud computing to convert your media into the formats you need for playback on devices like smartphones, PCs, and TVs. It also provides functions such as frame capture, video encryption, and watermarking to meet a wide range of your requirements.

This document describes how to use application programming interfaces (APIs) to perform operations on MPC, such as creating transcoding templates, transcoding tasks, and snapshot tasks. For details about all supported operations, see [API Overview](#).

If you plan to access MPC through an API, ensure that you are familiar with MPC concepts. For details, see [Service Overview](#).

API Calling

MPC provides Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details about API calling, see [Calling APIs](#).

Additionally, MPC provides software development kits (SDKs) for multiple programming languages. For details about how to use the SDKs, see [Media Processing Center SDK Reference](#).

Before calling MPC APIs, note the following points:

- MPC does not store media files. It processes media files stored in OBS buckets. Therefore, before calling the video transcoding, packaging, animated GIF, encryption, and frame capture APIs, you need to upload media files to be processed to buckets and authorize MPC to access the buckets. For details, see [Uploading Media Files](#).
- To learn about the status of audio and video files processed by MPC in real time, you can configure event notifications on the MPC console before calling APIs. For details, see [Configuring Event Notifications](#).

Endpoints

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

Constraints and Limitations

API rate limiting is configured for MPC to prevent service interruption caused by repeated API calls in a short period.

The rate limiting rules are as follows:

- Rate limiting for a single tenant: 100 requests/minute
- Overall rate limiting: 1,000 requests/minute

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 [Getting Started](#).

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	Creating a Transcoding Template
DELETE /v1/{project_id}/template/transcodings{?temp_id}	Deleting a Transcoding Template
PUT /v1/{project_id}/template/transcodings	Modifying a Transcoding Template
GET /v1/{project_id}/template/transcodings{?temp_id}	Querying Transcoding Templates

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	Creating a Transcoding Template Group
PUT /v1/{project_id}/template_group/transcodings{?temp_id}	Modifying a Transcoding Template Group

API	Description
DELETE /v1/{project_id}/template_group/transcodings	Deleting a Transcoding Template Group
GET /v1/{project_id}/template_group/transcodings{?temp_id}	Querying Transcoding Template Groups

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	Creating a Watermark Template
PUT /v1/{project_id}/template/watermark	Modifying a Watermark Template
GET /v1/{project_id}/template/watermark{?template_id,page,size}	Querying Watermark Templates
DELETE /v1/{project_id}/template/watermark{?template_id}	Deleting a Watermark Template

Media Transcoding

API	Description
POST /v1/{project_id}/transcodings	Creating a Transcoding Task
DELETE /v1/{project_id}/transcodings{?task_id}	Canceling a Transcoding Task
GET /v1/{project_id}/transcodings{?task_id,start_time,end_time,status,page,size}	Querying Transcoding Tasks

Packaging

API	Description
POST /v1/{project_id}/remux	Creating a Packaging Task
DELETE /v1/{project_id}/remux{?task_id}	Canceling a Packaging Task

API	Description
GET /v1/{project_id}/remux{? task_id,start_time,end_time,status,page ,size}	Querying Packaging Tasks
PUT /v1/{project_id}/remux	Retrying a Packaging Task

GIF Converting

API	Description
POST /v1/{project_id}/animated- graphics	Creating an Animated GIF Task
DELETE /v1/{project_id}/animated- graphics{?task_id}	Canceling an Animated GIF Task
GET /v1/{project_id}/animated- graphics{? task_id,start_time,end_time,status,page ,size}	Querying Animated GIF Tasks

Video Parsing

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

Snapshot Capturing

API	Description
POST /v1/{project_id}/thumbnails	Creating a Snapshot Task
DELETE /v1/{project_id}/thumbnails{? task_id}	Canceling a Snapshot Task

API	Description
GET /v1/{project_id}/thumbnails{? task_id,start_time,end_time,status,page ,size}	Querying Snapshot Tasks

Encryption

API	Description
POST /v1/{project_id}/encryptions	Creating an Encryption Task
DELETE /v1/{project_id}/encryptions/? task_id={task_id}	Canceling an Encryption Task
GET /v1/{project_id}/encryptions{? task_id,start_time,end_time,status,page ,size}	Querying Encryption Tasks

3 Calling APIs

[Making an API Request](#)

[Authentication](#)

[Response](#)

3.1 Making an API Request

This section describes the structure of a REST API request, and uses the IAM API for **obtaining a user token** 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

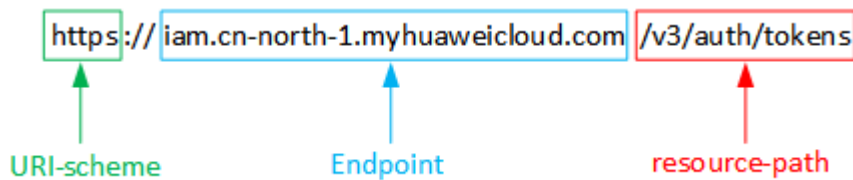
Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from Regions and Endpoints . For example, the endpoint of IAM in the CN North-Beijing1 region is iam.cn-north-1.myhuaweicloud.com .
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the resource-path of the API used to obtain a user token is /v3/auth/tokens .

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, ?limit=10 indicates that a maximum of 10 data records will be displayed.

For example, to obtain an IAM token in the **CN North-Beijing1** region, obtain the endpoint of IAM (**iam.cn-north-1.myhuaweicloud.com**) for this region and the **resource-path** (**/v3/auth/tokens**) in the URI of the API used to **obtain a user token**. Then, construct the URI as follows:

```
https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
```

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. If the resource does not exist, a new resource will be created.

For example, in the case of the API used to [obtain a user token](#), the request method is **POST**. The request is as follows:

POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens

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 https is 443 .	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Type	Specifies the type (or format) of the message body. The default value application/json 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 Obtaining a Project ID .	No 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 obtaining a user token (This is the only API that does not require authentication). After the request is processed, the value of X-Subject-Token in the response header is the token value.	No This field is mandatory for token authentication.	The following is part of an example token: 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 API used to [obtain a user token](#) does not require authentication. Therefore, only the **Content-Type** field needs to be added to requests for calling the API. An example of such requests is as follows:

```
POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

(Optional) Request Body

This part is optional. The body of a request is often sent in a structured format as specified in the **Content-Type** header field. The request body transfers content except the request header.

The request body varies between APIs. Some APIs do not require the request body, such as the APIs requested using the GET and DELETE methods.

In the case of the API used to [obtain a user token](#), the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace *username*,

domainname, ******* (login password), and *xxxxxxxxxxxxxxxxxxxx* (project name) with the actual values. Obtain a project name from [Regions and Endpoints](#).

 **NOTE**

The **scope** parameter specifies where a token takes effect. You can set **scope** to an account or a project under an account. In the following example, the token takes effect only for the resources in a specified project. For more information about this API, see [Obtaining a User Token](#).

POST https://iam.cn-north-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxxxxxxxxxxxxxxx"
      }
    }
  }
}
```

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:

- Token-based authentication: Requests are authenticated using a token.
- AK/SK-based authentication: Requests are authenticated by encrypting the request body using an AK/SK pair. AK/SK-based authentication is recommended because it is more secure than token-based authentication.

Token-based 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 User Token](#) API. When you call the API, set **auth.scope** in the request body to **project**.

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username",
          "password": "*****",
          "domain": {
            "name": "domainname"
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxx"
      }
    }
  }
}
```

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.cn-north-1.myhuaweicloud.com/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

AK/SK-based Authentication

NOTE

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

In AK/SK-based 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 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-based 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.

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 [obtain a user token](#), 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 [obtain a user token](#). The **x-subject-token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

Figure 3-2 Header fields of the response to the request for obtaining a user token

```
connection → keep-alive
content-type → application/json
date → Tue, 12 Feb 2019 06:52:13 GMT
server → Web Server
strict-transport-security → max-age=31536000; includeSubdomains;
transfer-encoding → chunked
via → proxy A
x-content-type-options → nosniff
x-download-options → noopen
x-frame-options → SAMEORIGIN
x-iam-trace-id → 218d45ab-d674-4995-af3a-2d0255ba41b5
x-subject-token
→ MIIVXQYJKoZIhvcNAQcCoIIYJCCEoCAQExDTALBglghkgBZQMEAgEwgharBgkqhkiG9w0BBwGgghacBIIWmHsidG9rZW4iOnsiZXhwaXJlc19hdCI6ijlwMTktMDItMTNUMC
fj3KJs6YgKnpVNRbW2eZ5eb78SZOkqjACgkklQ01wi4JlGzrpd18LGXK5tdfq4lqHCYb8P4NaY0NYejcAgzJVeFYtLWT1.GSO0zxKZmlQHQj82HBqHdglZO9fuEbL5dMhdavj+33wEl
xHRC9I87o+k9-
j+CMZSEB7bUGd5Uj6eRASXI1jipPEGA270g1FruooL6jqglFkNPQuFSOUB+uSsttVwRtNfsC+qTp22Rkd5MCqFGQ8LcuUx3a+9CMBnOintWW7oeRUVhVpxk8pxiX1wTEboX-
RzT6MUUpvGw-oPNFYxJECKnoH3HRozv0vN--n5d6Nbxg==
x-xss-protection → 1; mode=block;
```

(Optional) Response Body

The body of a response is often returned in structured format as specified in the **Content-Type** header field. The response body transfers content except the response header.

The following is part of the response body for the API used to [obtain a user token](#).

```
{
  "token": {
```

```
"expires_at": "2019-02-13T06:52:13.855000Z",  
"methods": [  
  "password"  
],  
"catalog": [  
  {  
    "endpoints": [  
      {  
        "region_id": "az-01",  
.....
```

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 format of message is error",  
  "error_code": "AS.0001"  
}
```

In the response body, **error_code** is an error code, and **error_msg** provides information about the error.

4 Application Examples

[Example 1: Create a Transcoding Template](#)

[Example 2: Submit a Video Transcoding Task](#)

[Example 3: Submit a Video Snapshot Task](#)

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 [Regions and Endpoints](#).

Overall Process

- [Obtain a User Token](#)
- [Create 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", //Username
          "password": "password", //Login password
          "domain": {
            "name": "domainname" //Name of the account to which the user belongs
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "projectname" //Project name
      }
    }
  }
}
```

As shown in **Figure 4-1**, information in the red box indicates the user token.

Figure 4-1 Obtaining the 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-iam-trace-id → token_global_null_2fed19b42067d0b94ae73d8e0b6b7841
x-request-id → fd8e4d01ae9ca9f58af20cbb2e88e2
x-subject-token → MlYdWVJkaZlhcNAQcCclYadCCGGQCAQExDTALBglghkgBQzQMFAgEwghbFBgkqhkiG9w0BBwGgggha28llWnsrdG9rZW4iOnsiZXRwaXkiOiJ19hdCI6ImVMTktMDUuMzBUMDg6MDI6MzBzbnVNTgpmMDAwWlslIm1ldGhvZHMlOiScGFzc3dvcmQXSwYyZFYWVwZy5l-yN0Wp5SwyR3Y3UupffOauVL-EZ75QpmECPG4qCSPv8FesZH8ZDFpB5A2L-RGdnoWLe9SlreggR0P0K0ggbuR0WYA1aQ3L3vGxVcK1Um8XJADmwQ2TWgltmzPwFbvhP3F20TK4v9XhwWHLUxH2yfo+KScgpXHAzv6VURCVMwV+UeE5wZo7vR2C77p289d8Bsyb3cQzZmTylawpZf6UAPX2l+rw4qplwEszdhrRQLLYOzxirGG3AF
x-xss-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.10091",
  "error_msg": "The template name already exists."
}
```

----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 [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](#) to create 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", //Username
          "password": "password", //Login password
          "domain": {
            "name": "domainname" //Name of the account to which the user belongs
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "projectname" //Project name
      }
    }
  }
}
```



```
    "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 task to be created is located and obtained the endpoint of MPC for this region from [Regions and Endpoints](#).
- You have stored the video file to 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](#) to create 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", //Username
          "password": "password", //Login password
          "domain": {
            "name": "domainname" //Name of the account to which the user belongs
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "projectname" //Project name
      }
    }
  }
}
```

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

Figure 4-3 Obtaining the 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-iam-trace-id → token_global_null_2fed19b42067d0b94ae73dbe0b8b7841
x-request-id → fd8e4d01ae9ca9f5af20cbdb2c88e2
x-subject-token → MllydWY/KoZllvcNAQc:CoIlYaDCCGGQCAQExDTALBglghkqBZQMEAgEwghbFbgkqkhiG9v08BwGggha28llWnsrdG9:ZW4:OnsiZxhwaXlc:19hdCl6jwMTktMDUHmzBUMDg6MDl6MzguNTgxMDAwWlslm1ldGhvZHMlOlsicGfzc3dvcnQXSwYzF0YWVwZy:
wN-yN0wpSwyRGY3upfYOauVL-E27SQpmEOPG4qKzPvWYeo2Hr8Zdfpt86AZt:
RGdroWLe95InegpR0PGKzgbuRWYA1qQL3vGxVvC1Um8XlADmwOZ1WigbmzPfwFbVhP3f20TK4v9XhwWHUxh2yfo+KScgsXHAzv6VURCWMdV+Ue5swZo7v8ZC77p289d8l8yb3oQzZmTylauPZf6U4PX2J+rW4aplwEszdvrRQLLYOzsinGG3AF
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

[Creating a Transcoding Template](#)

[Modifying a Transcoding Template](#)

[Deleting a Transcoding Template](#)

[Querying Transcoding Templates](#)

5.1 Creating a Transcoding Template

Function

This API is used to create a transcoding template.

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 a project ID, see Obtaining a Project ID .

Request Parameters

Table 5-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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	Video object	Video parameters
audio	No	Audio object	Audio parameters
common	Yes	Common object	Common parameters

Table 5-4 Video

Parameter	Mandatory	Type	Description
output_policy	No	String	Output policy. Possible values are: <ul style="list-style-type: none">• discard• transcode NOTE <ul style="list-style-type: none">• If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded.• If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded.• If both are discard, the settings are invalid.• If both are transcode, audio and video are transcoded.
codec	No	Integer	Video codec. Possible values are: <ul style="list-style-type: none">• 1: H.264• 2: H.265
bitrate	No	Integer	Average output bitrate. Its value is 0 or an integer ranging from 40 to 30,000. Unit: kbit/s If this parameter is set to 0 , the average output bitrate is an adaptive value.

Parameter	Mandatory	Type	Description
profile	No	Integer	Encoding profile. The recommended value is 3 . Possible values are: <ul style="list-style-type: none">• 1: VIDEO_PROFILE_H264_BAS E• 2: VIDEO_PROFILE_H264_MAI N• 3: VIDEO_PROFILE_H264_HIG H• 4: VIDEO_PROFILE_H265_MAI N
level	No	Integer	Encoding level. Possible values are: <ul style="list-style-type: none">• 1: VIDEO_LEVEL_1_0• 2: VIDEO_LEVEL_1_1• 3: VIDEO_LEVEL_1_2• 4: VIDEO_LEVEL_1_3• 5: VIDEO_LEVEL_2_0• 6: VIDEO_LEVEL_2_1• 7: VIDEO_LEVEL_2_2• 8: VIDEO_LEVEL_3_0• 9: VIDEO_LEVEL_3_1• 10: VIDEO_LEVEL_3_2• 11: VIDEO_LEVEL_4_0• 12: VIDEO_LEVEL_4_1• 13: VIDEO_LEVEL_4_2• 14: VIDEO_LEVEL_5_0• 15: VIDEO_LEVEL_5_1 Default value: 15

Parameter	Mandatory	Type	Description
preset	No	Integer	<p>Encoding quality.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: VIDEO_PRESET_HSPPEED2 • 2: VIDEO_PRESET_HSPEED • 3: VIDEO_PRESET_NORMAL <p>NOTE A larger value indicates higher encoding quality and longer transcoding time.</p>
ref_frames_count	No	Integer	<p>Maximum reference frames.</p> <p>Value range:</p> <ul style="list-style-type: none"> • H.264: 1 to 8. • H.265: The value is fixed at 4. <p>Unit: frame</p>
max_iframes_interval	No	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>
bframes_count	No	Integer	<p>Maximum number of B-frames.</p> <p>Value range:</p> <ul style="list-style-type: none"> • H.264: 0 to 7. The default value is 4. • H.265: 0 to 7. The default value is 7. <p>Unit: frame</p>
frame_rate	No	Integer	<p>Frame rate.</p> <p>Its value is 0 or an integer ranging from 5 to 30.</p> <p>Unit: FPS</p> <p>NOTE 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.</p>

Parameter	Mandatory	Type	Description
width	No	Integer	<p>Video width.</p> <p>The value can be:</p> <ul style="list-style-type: none"> • 0 or a multiple of 2 from 32 to 4,096 for H.264. • 0 or a multiple of 4 from 160 to 4,096 for H.265. <p>Unit: pixel</p> <p>Note: If this parameter is set to 0, the video width is an adaptive value.</p>
height	No	Integer	<p>Video height.</p> <ul style="list-style-type: none"> • The value is 0 or a multiple of 2 from 32 to 2,880 for H.264. • The value is 0 or a multiple of 4 from 96 to 2,880 for H.265. <p>Unit: pixel</p> <p>Note: If this parameter is set to 0, the video height is an adaptive value.</p>
black_cut	No	Integer	<p>Whether to enable black bar removal.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 0: Disable black bar removal. • 1: Enable black bar removal and low-complexity algorithms for long videos (>5 minutes). • 2: Enable black bar removal and high-complexity algorithms for short videos (≤ 5 minutes).

Table 5-5 Audio

Parameter	Mandatory	Type	Description
output_policy	No	String	Output policy. Possible values are: <ul style="list-style-type: none"> • discard • transcode NOTE <ul style="list-style-type: none"> • If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded. • If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded. • If both are discard, the settings are invalid. • If both are transcode, audio and video are transcoded.
codec	Yes	Integer	Audio codec. Possible values are: <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3
sample_rate	Yes	Integer	Audio sampling rate. Possible values are: <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz)
bitrate	No	Integer	Audio bitrate. The value is 0 or ranges from 8 to 1,000. Unit: kbit/s

Parameter	Mandatory	Type	Description
channels	Yes	Integer	Number of audio channels. Possible values are: <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 • 2: AUDIO_CHANNELS_2 • 6: AUDIO_CHANNELS_5_1

Table 5-6 Common

Parameter	Mandatory	Type	Description
PVC	Yes	Boolean	Whether to enable low bitrate HD. Possible values are: <ul style="list-style-type: none"> • false: disabled. • true: enabled. Default value: false
hls_interval	Yes	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s
dash_interval	Yes	Integer	Dash segment duration. This parameter is used only when pack_type is set to 2 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s
pack_type	Yes	Integer	Packaging type. Possible values are: <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS NOTE If pack_type is set to 5 or 6, do not set 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

```
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,
    "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
  }
}
```

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.

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 a project ID, see Obtaining a Project ID .

Request Parameters

Table 5-10 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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	Video object	Video information
audio	No	Audio object	Audio information
common	Yes	Common object	Common information

Table 5-12 Video

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • discard • transcode <p>NOTE</p> <ul style="list-style-type: none"> • If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded. • If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded. • If both are discard, the settings are invalid. • If both are transcode, audio and video are transcoded.
codec	No	Integer	<p>Video codec.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: H.264 • 2: H.265
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 0, the average output bitrate is an adaptive value.</p>

Parameter	Mandatory	Type	Description
profile	No	Integer	<p>Encoding profile. The recommended value is 3.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BAS E • 2: VIDEO_PROFILE_H264_MAI N • 3: VIDEO_PROFILE_H264_HIG H • 4: VIDEO_PROFILE_H265_MAI N
level	No	Integer	<p>Encoding level.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: VIDEO_LEVEL_1_0 • 2: VIDEO_LEVEL_1_1 • 3: VIDEO_LEVEL_1_2 • 4: VIDEO_LEVEL_1_3 • 5: VIDEO_LEVEL_2_0 • 6: VIDEO_LEVEL_2_1 • 7: VIDEO_LEVEL_2_2 • 8: VIDEO_LEVEL_3_0 • 9: VIDEO_LEVEL_3_1 • 10: VIDEO_LEVEL_3_2 • 11: VIDEO_LEVEL_4_0 • 12: VIDEO_LEVEL_4_1 • 13: VIDEO_LEVEL_4_2 • 14: VIDEO_LEVEL_5_0 • 15: VIDEO_LEVEL_5_1 <p>Default value: 15</p>

Parameter	Mandatory	Type	Description
preset	No	Integer	<p>Encoding quality.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: VIDEO_PRESET_HSPPEED2 • 2: VIDEO_PRESET_HSPEED • 3: VIDEO_PRESET_NORMAL <p>NOTE A larger value indicates higher encoding quality and longer transcoding time.</p>
ref_frames_count	No	Integer	<p>Maximum reference frames.</p> <p>Value range:</p> <ul style="list-style-type: none"> • H.264: 1 to 8. • H.265: The value is fixed at 4. <p>Unit: frame</p>
max_iframes_interval	No	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>
bframes_count	No	Integer	<p>Maximum number of B-frames.</p> <p>Value range:</p> <ul style="list-style-type: none"> • H.264: 0 to 7. The default value is 4. • H.265: 0 to 7. The default value is 7. <p>Unit: frame</p>
frame_rate	No	Integer	<p>Frame rate.</p> <p>Its value is 0 or an integer ranging from 5 to 30.</p> <p>Unit: FPS</p> <p>NOTE 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.</p>

Parameter	Mandatory	Type	Description
width	No	Integer	<p>Video width.</p> <p>The value can be:</p> <ul style="list-style-type: none"> • 0 or a multiple of 2 from 32 to 4,096 for H.264. • 0 or a multiple of 4 from 160 to 4,096 for H.265. <p>Unit: pixel</p> <p>Note: If this parameter is set to 0, the video width is an adaptive value.</p>
height	No	Integer	<p>Video height.</p> <ul style="list-style-type: none"> • The value is 0 or a multiple of 2 from 32 to 2,880 for H.264. • The value is 0 or a multiple of 4 from 96 to 2,880 for H.265. <p>Unit: pixel</p> <p>Note: If this parameter is set to 0, the video height is an adaptive value.</p>
black_cut	No	Integer	<p>Whether to enable black bar removal.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 0: Disable black bar removal. • 1: Enable black bar removal and low-complexity algorithms for long videos (>5 minutes). • 2: Enable black bar removal and high-complexity algorithms for short videos (≤ 5 minutes).

Table 5-13 Audio

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • discard • transcode <p>NOTE</p> <ul style="list-style-type: none"> • If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded. • If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded. • If both are discard, the settings are invalid. • If both are transcode, audio and video are transcoded.
codec	Yes	Integer	<p>Audio codec.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3
sample_rate	Yes	Integer	<p>Audio sampling rate.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz)
bitrate	No	Integer	<p>Audio bitrate.</p> <p>The value is 0 or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>

Parameter	Mandatory	Type	Description
channels	Yes	Integer	Number of audio channels. Possible values are: <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 • 2: AUDIO_CHANNELS_2 • 6: AUDIO_CHANNELS_5_1

Table 5-14 Common

Parameter	Mandatory	Type	Description
PVC	Yes	Boolean	Whether to enable low bitrate HD. Possible values are: <ul style="list-style-type: none"> • false: disabled. • true: enabled. Default value: false
hls_interval	Yes	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s
dash_interval	Yes	Integer	Dash segment duration. This parameter is used only when pack_type is set to 2 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s
pack_type	Yes	Integer	Packaging type. Possible values are: <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS NOTE If pack_type is set to 5 or 6, do not set 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

```
PUT https://{endpoint}/v1/{project_id}/template/transcodings/
{
  "templated_id":1001,
  "template_name":"MP4_H.264_1920x1080_6000_HEAAC_PVC",
  "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":1,
    "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.
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.

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 a project ID, see Obtaining a Project ID .

Table 5-17 Query parameters

Parameter	Mandatory	Type	Description
template_id	Yes	Long	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. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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

This API is used to query one or more custom transcoding templates. You can query one or more templates by ID or page number.

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 a project ID, see Obtaining a Project ID .

Table 5-21 Query parameters

Parameter	Mandatory	Type	Description
template_id	No	Array	ID of a transcoding template. A maximum of 10 transcoding template IDs can be queried at a time.
page	No	Integer	Page number. If task_id is specified, this parameter is invalid. Default value: 0 .

Parameter	Mandatory	Type	Description
size	No	Integer	Number of records on each page. If template_id 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. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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 TemplateInfo objects	Details about the transcoding templates

Parameter	Type	Description
total	Integer	Total number of transcoding templates

Table 5-24 TemplateInfo

Parameter	Type	Description
template_id	Integer	ID of each queried transcoding template
template	QueryTransTemplate object	Configurations built in the transcoding templates

Table 5-25 QueryTransTemplate

Parameter	Type	Description
template_name	String	Name of a transcoding template
video	Video object	Video information
audio	Audio object	Audio information
common	Common object	Common information

Table 5-26 Video

Parameter	Type	Description
output_policy	String	Output policy. Possible values are: <ul style="list-style-type: none"> • discard • transcode NOTE <ul style="list-style-type: none"> • If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded. • If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded. • If both are discard, the settings are invalid. • If both are transcode, audio and video are transcoded.

Parameter	Type	Description
codec	Integer	Video codec. Possible values are: <ul style="list-style-type: none"> • 1: H.264 • 2: H.265
bitrate	Integer	Average output bitrate. Its value is 0 or an integer ranging from 40 to 30,000. Unit: kbit/s If this parameter is set to 0 , the average output bitrate is an adaptive value.
profile	Integer	Encoding profile. The recommended value is 3 . Possible values are: <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BASE • 2: VIDEO_PROFILE_H264_MAIN • 3: VIDEO_PROFILE_H264_HIGH • 4: VIDEO_PROFILE_H265_MAIN
level	Integer	Encoding level. Possible values are: <ul style="list-style-type: none"> • 1: VIDEO_LEVEL_1_0 • 2: VIDEO_LEVEL_1_1 • 3: VIDEO_LEVEL_1_2 • 4: VIDEO_LEVEL_1_3 • 5: VIDEO_LEVEL_2_0 • 6: VIDEO_LEVEL_2_1 • 7: VIDEO_LEVEL_2_2 • 8: VIDEO_LEVEL_3_0 • 9: VIDEO_LEVEL_3_1 • 10: VIDEO_LEVEL_3_2 • 11: VIDEO_LEVEL_4_0 • 12: VIDEO_LEVEL_4_1 • 13: VIDEO_LEVEL_4_2 • 14: VIDEO_LEVEL_5_0 • 15: VIDEO_LEVEL_5_1 Default value: 15

Parameter	Type	Description
preset	Integer	<p>Encoding quality.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> ● 1: VIDEO_PRESET_HSPPEED2 ● 2: VIDEO_PRESET_HSPPEED ● 3: VIDEO_PRESET_NORMAL <p>NOTE A larger value indicates higher encoding quality and longer transcoding time.</p>
ref_frames_count	Integer	<p>Maximum reference frames.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● H.264: 1 to 8. ● H.265: The value is fixed at 4. <p>Unit: frame</p>
max_iframes_interval	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>
bframes_count	Integer	<p>Maximum number of B-frames.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● H.264: 0 to 7. The default value is 4. ● H.265: 0 to 7. The default value is 7. <p>Unit: frame</p>
frame_rate	Integer	<p>Frame rate.</p> <p>Its value is 0 or an integer ranging from 5 to 30.</p> <p>Unit: FPS</p> <p>NOTE 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.</p>
width	Integer	<p>Video width.</p> <p>The value can be:</p> <ul style="list-style-type: none"> ● 0 or a multiple of 2 from 32 to 4,096 for H.264. ● 0 or a multiple of 4 from 160 to 4,096 for H.265. <p>Unit: pixel</p> <p>Note: If this parameter is set to 0, the video width is an adaptive value.</p>

Parameter	Type	Description
height	Integer	<p>Video height.</p> <ul style="list-style-type: none"> The value is 0 or a multiple of 2 from 32 to 2,880 for H.264. The value is 0 or a multiple of 4 from 96 to 2,880 for H.265. <p>Unit: pixel</p> <p>Note: If this parameter is set to 0, the video height is an adaptive value.</p>
black_cut	Integer	<p>Whether to enable black bar removal.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> 0: Disable black bar removal. 1: Enable black bar removal and low-complexity algorithms for long videos (>5 minutes). 2: Enable black bar removal and high-complexity algorithms for short videos (≤5 minutes).

Table 5-27 Audio

Parameter	Type	Description
output_policy	String	<p>Output policy.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> discard transcode <p>NOTE</p> <ul style="list-style-type: none"> If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded. If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded. If both are discard, the settings are invalid. If both are transcode, audio and video are transcoded.

Parameter	Type	Description
codec	Integer	Audio codec. Possible values are: <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3
sample_rate	Integer	Audio sampling rate. Possible values are: <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz)
bitrate	Integer	Audio bitrate. The value is 0 or ranges from 8 to 1,000. Unit: kbit/s
channels	Integer	Number of audio channels. Possible values are: <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 • 2: AUDIO_CHANNELS_2 • 6: AUDIO_CHANNELS_5_1

Table 5-28 Common

Parameter	Type	Description
PVC	Boolean	Whether to enable low bitrate HD. Possible values are: <ul style="list-style-type: none"> • false: disabled. • true: enabled. Default value: false
hls_interval	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s

Parameter	Type	Description
dash_interval	Integer	Dash segment duration. This parameter is used only when pack_type is set to 2 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s
pack_type	Integer	Packaging type. Possible values are: <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS NOTE If pack_type is set to 5 or 6, do not set 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",
      "tenant_id": "05aad1833a000f042fd6c001abb9824b",
      "video": {
        "output_policy": "transcode",
        "codec": 1,
        "bitrate": 0,
        "profile": 3,

```

```
"level" : 15,
"preset" : 3,
"ref_frames_count" : 4,
"max_iframes_interval" : 5,
"bframes_count" : 4,
"frame_rate" : 0,
"sync_timestamp" : false,
"width" : 0,
"height" : 0,
"aspect_ratio" : 0,
"black_cut" : 0,
"GOP_structure" : false,
"sr_factor" : null
},
"audio" : {
"output_policy" : "transcode",
"codec" : 1,
"bitrate" : 0,
"sample_rate" : 1,
"channels" : 2
},
"common" : {
"QDS" : false,
"PVC" : false,
"PVC_version" : null,
"PVC_strength" : 100,
"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

[Creating a Transcoding Template Group](#)

[Querying Transcoding Template Groups](#)

[Modifying a Transcoding Template Group](#)

[Deleting a Transcoding Template Group](#)

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.

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 a project ID, see Obtaining a Project ID .

Request Parameters

Table 6-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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	No	String	Name of each queried template group
videos	No	Array of VideoObj objects	List of output video configurations
audio	No	Audio object	Audio parameters
video_common	No	VideoCommon object	Common video parameters
common	No	Common object	Common parameters

Table 6-4 VideoObj

Parameter	Mandatory	Type	Description
width	Yes	Integer	Video width (unit: px). The value can be: <ul style="list-style-type: none"> • A multiple of 2 from 32 to 2880 for H.264. • A multiple of 4 from 240 to 2880 for H.265.
height	Yes	Integer	Video height (unit: px). The value can be: <ul style="list-style-type: none"> • A multiple of 2 from 32 to 2880 for H.264. • A multiple of 4 from 240 to 2880 for H.265.
bitrate	Yes	Integer	Average output bitrate. Its value is 0 or an integer ranging from 40 to 30,000. Unit: kbit/s If this parameter is set to 0 , the average output bitrate is an adaptive value.

Table 6-5 Audio

Parameter	Mandatory	Type	Description
output_policy	No	String	Output policy. Possible values are: <ul style="list-style-type: none"> • discard • transcode NOTE <ul style="list-style-type: none"> • If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded. • If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded. • If both are discard, the settings are invalid. • If both are transcode, audio and video are transcoded.

Parameter	Mandatory	Type	Description
codec	Yes	Integer	Audio codec. Possible values are: <ul style="list-style-type: none">• 1: AAC• 2: HEAAC1• 3: HEAAC2• 4: MP3
sample_rate	Yes	Integer	Audio sampling rate. Possible values are: <ul style="list-style-type: none">• 1: AUDIO_SAMPLE_AUTO• 2: AUDIO_SAMPLE_22050 (22,050 Hz)• 3: AUDIO_SAMPLE_32000 (32,000 Hz)• 4: AUDIO_SAMPLE_44100 (44,100 Hz)• 5: AUDIO_SAMPLE_48000 (48,000 Hz)• 6: AUDIO_SAMPLE_96000 (96,000 Hz)
bitrate	No	Integer	Audio bitrate. The value is 0 or ranges from 8 to 1,000. Unit: kbit/s
channels	Yes	Integer	Number of audio channels. Possible values are: <ul style="list-style-type: none">• 1: AUDIO_CHANNELS_1• 2: AUDIO_CHANNELS_2• 6: AUDIO_CHANNELS_5_1

Table 6-6 VideoCommon

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • discard • transcode <p>NOTE</p> <ul style="list-style-type: none"> • If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded. • If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded. • If both are discard, the settings are invalid. • If both are transcode, audio and video are transcoded.
codec	No	Integer	<p>Video codec.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: VIDEO_CODEC_H264 • 2: VIDEO_CODEC_H265
profile	No	Integer	<p>Encoding profile. The recommended value is 3.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BASE • 2: VIDEO_PROFILE_H264_MAIN • 3: VIDEO_PROFILE_H264_HIGH • 4: VIDEO_PROFILE_H265_MAIN

Parameter	Mandatory	Type	Description
level	No	Integer	<p>Encoding level.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> ● 1: VIDEO_LEVEL_1_0 ● 2: VIDEO_LEVEL_1_1 ● 3: VIDEO_LEVEL_1_2 ● 4: VIDEO_LEVEL_1_3 ● 5: VIDEO_LEVEL_2_0 ● 6: VIDEO_LEVEL_2_1 ● 7: VIDEO_LEVEL_2_2 ● 8: VIDEO_LEVEL_3_0 ● 9: VIDEO_LEVEL_3_1 ● 10: VIDEO_LEVEL_3_2 ● 11: VIDEO_LEVEL_4_0 ● 12: VIDEO_LEVEL_4_1 ● 13: VIDEO_LEVEL_4_2 ● 14: VIDEO_LEVEL_5_0 ● 15: VIDEO_LEVEL_5_1
preset	No	Integer	<p>Encoding quality.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> ● 1: VIDEO_PRESET_HSPPEED2 ● 2: VIDEO_PRESET_HSPPEED ● 3: VIDEO_PRESET_NORMAL <p>NOTE A larger value indicates higher encoding quality and longer transcoding time.</p>
ref_frames_count	No	Integer	<p>Maximum reference frames.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● H.264: 1 to 8. The default value is 4. ● H.265: The value is fixed at 4. <p>Unit: frame</p>
max_iframes_interval	No	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>

Parameter	Mandatory	Type	Description
bframes_count	No	Integer	Maximum number of B-frames. Value range: <ul style="list-style-type: none"> • H.264: 0 to 7. The default value is 4. • H.265: 0 to 7. The default value is 7. Unit: frame
frame_rate	No	Integer	Frame rate. Its value is 0 or an integer ranging from 5 to 30.
aspect_ratio	No	Integer	Aspect ratio.
black_cut	No	Integer	Whether to enable black bar removal. Possible values are: <ul style="list-style-type: none"> • 0: Disable black bar removal. • 1: Enable black bar removal and low-complexity algorithms for long videos (>5 minutes). • 2: Enable black bar removal and high-complexity algorithms for short videos (≤5 minutes).

Table 6-7 Common

Parameter	Mandatory	Type	Description
PVC	Yes	Boolean	Whether to enable low bitrate HD. Possible values are: <ul style="list-style-type: none"> • false: disabled. • true: enabled. Default value: false
hls_interval	Yes	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s

Parameter	Mandatory	Type	Description
dash_interval	Yes	Integer	Dash segment duration. This parameter is used only when pack_type is set to 2 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s
pack_type	Yes	Integer	Packaging type. Possible values are: <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS NOTE If pack_type is set to 5 or 6, do not set video parameters.

Response Parameters

Status code: 201

Table 6-8 Response body parameters

Parameter	Type	Description
template_group	TemplateGroup 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 VideoAndTemplate objects	List of output video configurations

Parameter	Type	Description
audio	Audio object	Audio information
video_common	VideoCommon object	Common video information
common	Common object	Common information

Table 6-10 VideoAndTemplate

Parameter	Type	Description
template_id	Integer	Template ID
width	Integer	Video width (unit: px). The value can be: <ul style="list-style-type: none"> • A multiple of 2 from 32 to 4,096 for H.264. • A multiple of 4 from 320 to 4,096 for H.265.
height	Integer	Video height (unit: px). The value can be: <ul style="list-style-type: none"> • A multiple of 2 from 32 to 2,880 for H.264. • A multiple of 4 from 240 to 2,880 for H.265.
bitrate	Integer	Average output bitrate. Its value is 0 or an integer ranging from 40 to 30,000. Unit: kbit/s If this parameter is set to 0 , the average output bitrate is an adaptive value.

Table 6-11 Audio

Parameter	Type	Description
output_policy	String	<p>Output policy.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> ● discard ● transcode <p>NOTE</p> <ul style="list-style-type: none"> ● If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded. ● If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded. ● If both are discard, the settings are invalid. ● If both are transcode, audio and video are transcoded.
codec	Integer	<p>Audio codec.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> ● 1: AAC ● 2: HEAAC1 ● 3: HEAAC2 ● 4: MP3
sample_rate	Integer	<p>Audio sampling rate.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> ● 1: AUDIO_SAMPLE_AUTO ● 2: AUDIO_SAMPLE_22050 (22,050 Hz) ● 3: AUDIO_SAMPLE_32000 (32,000 Hz) ● 4: AUDIO_SAMPLE_44100 (44,100 Hz) ● 5: AUDIO_SAMPLE_48000 (48,000 Hz) ● 6: AUDIO_SAMPLE_96000 (96,000 Hz)
bitrate	Integer	<p>Audio bitrate.</p> <p>The value is 0 or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>
channels	Integer	<p>Number of audio channels.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> ● 1: AUDIO_CHANNELS_1 ● 2: AUDIO_CHANNELS_2 ● 6: AUDIO_CHANNELS_5_1

Table 6-12 VideoCommon

Parameter	Type	Description
output_policy	String	Output policy. Possible values are: <ul style="list-style-type: none">• discard• transcode NOTE <ul style="list-style-type: none">• If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded.• If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded.• If both are discard, the settings are invalid.• If both are transcode, audio and video are transcoded.
codec	Integer	Video codec. Possible values are: <ul style="list-style-type: none">• 1: VIDEO_CODEC_H264• 2: VIDEO_CODEC_H265
profile	Integer	Encoding profile. The recommended value is 3. Possible values are: <ul style="list-style-type: none">• 1: VIDEO_PROFILE_H264_BASE• 2: VIDEO_PROFILE_H264_MAIN• 3: VIDEO_PROFILE_H264_HIGH• 4: VIDEO_PROFILE_H265_MAIN

Parameter	Type	Description
level	Integer	<p>Encoding level.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> ● 1: VIDEO_LEVEL_1_0 ● 2: VIDEO_LEVEL_1_1 ● 3: VIDEO_LEVEL_1_2 ● 4: VIDEO_LEVEL_1_3 ● 5: VIDEO_LEVEL_2_0 ● 6: VIDEO_LEVEL_2_1 ● 7: VIDEO_LEVEL_2_2 ● 8: VIDEO_LEVEL_3_0 ● 9: VIDEO_LEVEL_3_1 ● 10: VIDEO_LEVEL_3_2 ● 11: VIDEO_LEVEL_4_0 ● 12: VIDEO_LEVEL_4_1 ● 13: VIDEO_LEVEL_4_2 ● 14: VIDEO_LEVEL_5_0 ● 15: VIDEO_LEVEL_5_1
preset	Integer	<p>Encoding quality.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> ● 1: VIDEO_PRESET_HSPPEED2 ● 2: VIDEO_PRESET_HSPPEED ● 3: VIDEO_PRESET_NORMAL <p>NOTE A larger value indicates higher encoding quality and longer transcoding time.</p>
ref_frames_count	Integer	<p>Maximum reference frames.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● H.264: 1 to 8. The default value is 4. ● H.265: The value is fixed at 4. <p>Unit: frame</p>
max_iframes_interval	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>

Parameter	Type	Description
bframes_count	Integer	Maximum number of B-frames. Value range: <ul style="list-style-type: none"> • H.264: 0 to 7. The default value is 4. • H.265: 0 to 7. The default value is 7. Unit: frame
frame_rate	Integer	Frame rate. Its value is 0 or an integer ranging from 5 to 30.
aspect_ratio	Integer	Aspect ratio.
black_cut	Integer	Whether to enable black bar removal. Possible values are: <ul style="list-style-type: none"> • 0: Disable black bar removal. • 1: Enable black bar removal and low-complexity algorithms for long videos (>5 minutes). • 2: Enable black bar removal and high-complexity algorithms for short videos (≤5 minutes).

Table 6-13 Common

Parameter	Type	Description
PVC	Boolean	Whether to enable low bitrate HD. Possible values are: <ul style="list-style-type: none"> • false: disabled. • true: enabled. Default value: false
hls_interval	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s
dash_interval	Integer	Dash segment duration. This parameter is used only when pack_type is set to 2 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s

Parameter	Type	Description
pack_type	Integer	Packaging type. Possible values are: <ul style="list-style-type: none"> ● 1: HLS ● 2: DASH ● 3: HLS+DASH ● 4: MP4 ● 5: MP3 ● 6: ADTS NOTE If pack_type is set to 5 or 6, do not set 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

```

...
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,
    "aspect_ratio": 0,
    "profile": 3,
    "level": 15,
    "preset": 3,
    "ref_frames_count": 4,
    "max_iframes_interval": 5,
    "bframes_count": 4,
    "frame_rate": 0
  },
  "common": {

```

```
"PVC" : 0,  
"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,  
      "ref_frames_count" : 4,  
      "max_iframes_interval" : 5,  
      "bframes_count" : 4,  
      "frame_rate" : 0,  
      "sync_timestamp" : false,  
      "aspect_ratio" : 0,  
      "black_cut" : 0,  
      "GOP_structure" : false,  
      "sr_factor" : null  
    },  
    "common" : {  
      "QDS" : false,  
      "PVC" : false,  
      "PVC_version" : null,  
      "PVC_strength" : 100,  
      "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.

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 a project ID, see Obtaining a Project ID .

Table 6-16 Query parameters

Parameter	Mandatory	Type	Description
group_id	No	Array	ID of a transcoding template group. A maximum of 10 transcoding template group IDs can be queried at a time.
group_name	No	Array	Name of a transcoding template group. A maximum of 10 transcoding template group names can be queried at a time.

Parameter	Mandatory	Type	Description
page	No	Integer	Page number. This parameter is unavailable if group_id is specified. The default value is 0.
size	No	Integer	Number of records on each page. This parameter is unavailable if group_id is specified. The default value is 10. 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. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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 TemplateGroup 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 VideoAndTemplate objects	List of output video configurations
audio	Audio object	Audio information
video_common	VideoCommon object	Common video information
common	Common object	Common information

Table 6-20 VideoAndTemplate

Parameter	Type	Description
template_id	Integer	Template ID
width	Integer	Video width (unit: px). The value can be: <ul style="list-style-type: none"> • A multiple of 2 from 32 to 4,096 for H.264. • A multiple of 4 from 320 to 4,096 for H.265.
height	Integer	Video height (unit: px). The value can be: <ul style="list-style-type: none"> • A multiple of 2 from 32 to 2,880 for H.264. • A multiple of 4 from 240 to 2,880 for H.265.

Parameter	Type	Description
bitrate	Integer	Average output bitrate. Its value is 0 or an integer ranging from 40 to 30,000. Unit: kbit/s If this parameter is set to 0 , the average output bitrate is an adaptive value.

Table 6-21 Audio

Parameter	Type	Description
output_policy	String	Output policy. Possible values are: <ul style="list-style-type: none"> • discard • transcode NOTE <ul style="list-style-type: none"> • If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded. • If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded. • If both are discard, the settings are invalid. • If both are transcode, audio and video are transcoded.
codec	Integer	Audio codec. Possible values are: <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3
sample_rate	Integer	Audio sampling rate. Possible values are: <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz)

Parameter	Type	Description
bitrate	Integer	Audio bitrate. The value is 0 or ranges from 8 to 1,000. Unit: kbit/s
channels	Integer	Number of audio channels. Possible values are: <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 • 2: AUDIO_CHANNELS_2 • 6: AUDIO_CHANNELS_5_1

Table 6-22 VideoCommon

Parameter	Type	Description
output_policy	String	Output policy. Possible values are: <ul style="list-style-type: none"> • discard • transcode NOTE <ul style="list-style-type: none"> • If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded. • If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded. • If both are discard, the settings are invalid. • If both are transcode, audio and video are transcoded.
codec	Integer	Video codec. Possible values are: <ul style="list-style-type: none"> • 1: VIDEO_CODEC_H264 • 2: VIDEO_CODEC_H265
profile	Integer	Encoding profile. The recommended value is 3. Possible values are: <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BASE • 2: VIDEO_PROFILE_H264_MAIN • 3: VIDEO_PROFILE_H264_HIGH • 4: VIDEO_PROFILE_H265_MAIN

Parameter	Type	Description
level	Integer	<p>Encoding level.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> ● 1: VIDEO_LEVEL_1_0 ● 2: VIDEO_LEVEL_1_1 ● 3: VIDEO_LEVEL_1_2 ● 4: VIDEO_LEVEL_1_3 ● 5: VIDEO_LEVEL_2_0 ● 6: VIDEO_LEVEL_2_1 ● 7: VIDEO_LEVEL_2_2 ● 8: VIDEO_LEVEL_3_0 ● 9: VIDEO_LEVEL_3_1 ● 10: VIDEO_LEVEL_3_2 ● 11: VIDEO_LEVEL_4_0 ● 12: VIDEO_LEVEL_4_1 ● 13: VIDEO_LEVEL_4_2 ● 14: VIDEO_LEVEL_5_0 ● 15: VIDEO_LEVEL_5_1
preset	Integer	<p>Encoding quality.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> ● 1: VIDEO_PRESET_HSPPEED2 ● 2: VIDEO_PRESET_HSPPEED ● 3: VIDEO_PRESET_NORMAL <p>NOTE A larger value indicates higher encoding quality and longer transcoding time.</p>
ref_frames_count	Integer	<p>Maximum reference frames.</p> <p>Value range:</p> <ul style="list-style-type: none"> ● H.264: 1 to 8. The default value is 4. ● H.265: The value is fixed at 4. <p>Unit: frame</p>
max_iframes_interval	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>

Parameter	Type	Description
bframes_count	Integer	Maximum number of B-frames. Value range: <ul style="list-style-type: none"> • H.264: 0 to 7. The default value is 4. • H.265: 0 to 7. The default value is 7. Unit: frame
frame_rate	Integer	Frame rate. Its value is 0 or an integer ranging from 5 to 30.
aspect_ratio	Integer	Aspect ratio.
black_cut	Integer	Whether to enable black bar removal. Possible values are: <ul style="list-style-type: none"> • 0: Disable black bar removal. • 1: Enable black bar removal and low-complexity algorithms for long videos (>5 minutes). • 2: Enable black bar removal and high-complexity algorithms for short videos (≤5 minutes).

Table 6-23 Common

Parameter	Type	Description
PVC	Boolean	Whether to enable low bitrate HD. Possible values are: <ul style="list-style-type: none"> • false: disabled. • true: enabled. Default value: false
hls_interval	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s
dash_interval	Integer	Dash segment duration. This parameter is used only when pack_type is set to 2 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s

Parameter	Type	Description
pack_type	Integer	Packaging type. Possible values are: <ul style="list-style-type: none"> ● 1: HLS ● 2: DASH ● 3: HLS+DASH ● 4: MP4 ● 5: MP3 ● 6: ADTS NOTE If pack_type is set to 5 or 6, do not set 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,
"ref_frames_count" : 4,
"max_iframes_interval" : 5,
"bframes_count" : 4,
"frame_rate" : 0,
"sync_timestamp" : false,
"aspect_ratio" : 0,
"black_cut" : 0,
"GOP_structure" : false,
"sr_factor" : null
},
"common" : {
  "QDS" : false,
  "PVC" : false,
  "PVC_version" : null,
  "PVC_strength" : 100,
  "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.

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 a project ID, see Obtaining a Project ID .

Request Parameters

Table 6-26 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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	No	String	ID of a template group
name	No	String	Name of the template group
videos	No	Array of VideoObj objects	List of output video configurations
audio	No	Audio object	Audio information

Parameter	Mandatory	Type	Description
video_common	No	VideoCommon object	Common video information
common	No	Common object	Common information

Table 6-28 VideoObj

Parameter	Mandatory	Type	Description
width	Yes	Integer	Video width (unit: px). The value can be: <ul style="list-style-type: none"> • A multiple of 2 from 32 to 2880 for H.264. • A multiple of 4 from 240 to 2880 for H.265.
height	Yes	Integer	Video height (unit: px). The value can be: <ul style="list-style-type: none"> • A multiple of 2 from 32 to 2880 for H.264. • A multiple of 4 from 240 to 2880 for H.265.
bitrate	Yes	Integer	Average output bitrate. Its value is 0 or an integer ranging from 40 to 30,000. Unit: kbit/s If this parameter is set to 0 , the average output bitrate is an adaptive value.

Table 6-29 Audio

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • discard • transcode <p>NOTE</p> <ul style="list-style-type: none"> • If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded. • If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded. • If both are discard, the settings are invalid. • If both are transcode, audio and video are transcoded.
codec	Yes	Integer	<p>Audio codec.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3
sample_rate	Yes	Integer	<p>Audio sampling rate.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz)
bitrate	No	Integer	<p>Audio bitrate.</p> <p>The value is 0 or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>

Parameter	Mandatory	Type	Description
channels	Yes	Integer	Number of audio channels. Possible values are: <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 • 2: AUDIO_CHANNELS_2 • 6: AUDIO_CHANNELS_5_1

Table 6-30 VideoCommon

Parameter	Mandatory	Type	Description
output_policy	No	String	Output policy. Possible values are: <ul style="list-style-type: none"> • discard • transcode <p>NOTE</p> <ul style="list-style-type: none"> • If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded. • If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded. • If both are discard, the settings are invalid. • If both are transcode, audio and video are transcoded.
codec	No	Integer	Video codec. Possible values are: <ul style="list-style-type: none"> • 1: VIDEO_CODEC_H264 • 2: VIDEO_CODEC_H265

Parameter	Mandatory	Type	Description
profile	No	Integer	<p>Encoding profile. The recommended value is 3.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: VIDEO_PROFILE_H264_BAS E • 2: VIDEO_PROFILE_H264_MAI N • 3: VIDEO_PROFILE_H264_HIG H • 4: VIDEO_PROFILE_H265_MAI N
level	No	Integer	<p>Encoding level.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: VIDEO_LEVEL_1_0 • 2: VIDEO_LEVEL_1_1 • 3: VIDEO_LEVEL_1_2 • 4: VIDEO_LEVEL_1_3 • 5: VIDEO_LEVEL_2_0 • 6: VIDEO_LEVEL_2_1 • 7: VIDEO_LEVEL_2_2 • 8: VIDEO_LEVEL_3_0 • 9: VIDEO_LEVEL_3_1 • 10: VIDEO_LEVEL_3_2 • 11: VIDEO_LEVEL_4_0 • 12: VIDEO_LEVEL_4_1 • 13: VIDEO_LEVEL_4_2 • 14: VIDEO_LEVEL_5_0 • 15: VIDEO_LEVEL_5_1
preset	No	Integer	<p>Encoding quality.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: VIDEO_PRESET_HSPEED2 • 2: VIDEO_PRESET_HSPEED • 3: VIDEO_PRESET_NORMAL <p>NOTE A larger value indicates higher encoding quality and longer transcoding time.</p>

Parameter	Mandatory	Type	Description
ref_frames_count	No	Integer	Maximum reference frames. Value range: <ul style="list-style-type: none"> • H.264: 1 to 8. The default value is 4. • H.265: The value is fixed at 4. Unit: frame
max_iframes_interval	No	Integer	Maximum I-frame interval. The value ranges from 2 to 10. Default value: 5 Unit: second
bframes_count	No	Integer	Maximum number of B-frames. Value range: <ul style="list-style-type: none"> • H.264: 0 to 7. The default value is 4. • H.265: 0 to 7. The default value is 7. Unit: frame
frame_rate	No	Integer	Frame rate. Its value is 0 or an integer ranging from 5 to 30.
aspect_ratio	No	Integer	Aspect ratio.
black_cut	No	Integer	Whether to enable black bar removal. Possible values are: <ul style="list-style-type: none"> • 0: Disable black bar removal. • 1: Enable black bar removal and low-complexity algorithms for long videos (>5 minutes). • 2: Enable black bar removal and high-complexity algorithms for short videos (≤5 minutes).

Table 6-31 Common

Parameter	Mandatory	Type	Description
PVC	Yes	Boolean	Whether to enable low bitrate HD. Possible values are: <ul style="list-style-type: none"> • false: disabled. • true: enabled. Default value: false
hls_interval	Yes	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s
dash_interval	Yes	Integer	Dash segment duration. This parameter is used only when pack_type is set to 2 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s
pack_type	Yes	Integer	Packaging type. Possible values are: <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS NOTE If pack_type is set to 5 or 6, do not set 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

```
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,
    "aspect_ratio": 0,
    "profile": 3,
    "level": 15,
    "preset": 3,
    "ref_frames_count": 4,
    "max_iframes_interval": 5,
    "bframes_count": 4,
    "frame_rate": 0
  },
  "common": {
    "PVC": 0,
    "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.

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 a project ID, see Obtaining a Project ID .

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. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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: 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

- [Creating a Watermark Template](#)
- [Modifying a Watermark Template](#)
- [Deleting a Watermark Template](#)
- [Querying Watermark Templates](#)

7.1 Creating a Watermark Template

Function

This API is used to create a watermark template.

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 a project ID, see Obtaining a Project ID .

Request Parameters

Table 7-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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> <ul style="list-style-type: none">• Integer: horizontal offset between the image start point and the video vertex, in pixelsThe value ranges from 0 to 4,096.• Decimal: horizontal offset ratio of the image start point relative to the video widthA maximum of four decimal places are supported, for example, 0.9999. <p>For example, if the output video width is 1,920 pixels, dx is 0.1, and referpos is TopRight, 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">• Integer: vertical offset between the image start point and the video vertex, in pixels. The value ranges from 0 to 4,096.• Decimal: vertical offset ratio of the image start point relative to the video height. A maximum of four decimal places are supported, for example, 0.9999. <p>For example, if the output video height is 1,080 pixels, dy is 0.1, and referpos is TopRight, 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 are:</p> <ul style="list-style-type: none">• TopRight: upper right corner• TopLeft: upper left corner• Right: lower right corner• BottomLeft: lower left corner
timeline_start	No	String	<p>Watermark start time, which is used together with timeline_duration.</p> <p>Its value is a digit.</p> <p>Unit: s</p>

Parameter	Mandatory	Type	Description
timeline_duration	No	String	<p>How long the watermark lasts, which is used together with timeline_start.</p> <p>Its value is a digit greater than or equal to 0.</p> <p>Default value: ToEND</p> <p>ToEND indicates that the watermark lasts until the end of the video.</p>
image_processing	No	String	<p>How the image watermark is processed. This parameter is used only when type is set to Image.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • Original: simple scaling • Grayed: Turn the color image to gray. • Transparent: transparent
width	No	String	<p>Watermark width.</p> <p>The value can either be a positive integer or a decimal between 0.0 and 1.0.</p> <ul style="list-style-type: none"> • Integer: pixel value of the watermark width (unit: px)The value ranges from 8 to 4,096. • Decimal: ratio between the video width and watermark widthA maximum of four decimal places are supported, for example, 0.9999.

Parameter	Mandatory	Type	Description
height	No	String	Watermark height. The value can either be a positive integer or a decimal between 0.0 and 1.0. <ul style="list-style-type: none"> Integer: pixel value of the watermark height (unit: px)The value ranges from 8 to 4,096. Decimal: ratio between the video height and watermark heightA maximum of four decimal places are supported, for example, 0.9999.
base	No	String	Video which the watermark is overlaid on. Possible values are: <ul style="list-style-type: none"> input: The watermark is overlaid on the input video. The actual size of the output video is scaled proportionally based on the watermark size. output: The watermark is overlaid on the output file.
template_name	No	String	Name of each queried watermark template
type	No	String	Watermark type. Its value is: Image: image watermark

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
error_msg	String	Error description

Example Requests

```
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.

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 a project ID, see Obtaining a Project ID .

Request Parameters

Table 7-7 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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 7-8 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> <ul style="list-style-type: none"> • Integer: horizontal offset between the image start point and the video vertex, in pixelsThe value ranges from 0 to 4,096. • Decimal: horizontal offset ratio of the image start point relative to the video widthA maximum of four decimal places are supported, for example, 0.9999. <p>For example, if the output video width is 1,920 pixels, dx is 0.1, and referpos is TopRight, 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">• Integer: vertical offset between the image start point and the video vertex, in pixels. The value ranges from 0 to 4,096.• Decimal: vertical offset ratio of the image start point relative to the video height. A maximum of four decimal places are supported, for example, 0.9999. <p>For example, if the output video height is 1,080 pixels, dy is 0.1, and referpos is TopRight, 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 are:</p> <ul style="list-style-type: none">• TopRight: upper right corner• TopLeft: upper left corner• Right: lower right corner• BottomLeft: lower left corner
timeline_start	No	String	<p>Watermark start time, which is used together with timeline_duration.</p> <p>Its value is a digit.</p> <p>Unit: s</p>

Parameter	Mandatory	Type	Description
timeline_duration	No	String	<p>How long the watermark lasts, which is used together with timeline_start.</p> <p>Its value is a digit greater than or equal to 0.</p> <p>Default value: ToEND</p> <p>ToEND indicates that the watermark lasts until the end of the video.</p>
image_processing	No	String	<p>How the image watermark is processed. This parameter is used only when type is set to Image.</p> <p>Possible values are:</p> <ul style="list-style-type: none">• Original: simple scaling• Grayed: Turn the color image to gray.• Transparent: transparent
width	No	String	<p>Watermark width.</p> <p>The value can either be a positive integer or a decimal between 0.0 and 1.0.</p> <ul style="list-style-type: none">• Integer: pixel value of the watermark width (unit: px)The value ranges from 8 to 4,096.• Decimal: ratio between the video width and watermark widthA maximum of four decimal places are supported, for example, 0.9999.

Parameter	Mandatory	Type	Description
height	No	String	Watermark height. The value can either be a positive integer or a decimal between 0.0 and 1.0. <ul style="list-style-type: none"> Integer: pixel value of the watermark height (unit: px)The value ranges from 8 to 4,096. Decimal: ratio between the video height and watermark heightA maximum of four decimal places are supported, for example, 0.9999.
base	No	String	Video which the watermark is overlaid on. Possible values are: <ul style="list-style-type: none"> input: The watermark is overlaid on the input video. The actual size of the output video is scaled proportionally based on the watermark size. output: The watermark is overlaid on the output file.
template_name	No	String	Name of each queried watermark template
type	No	String	Watermark type. Its value is: Image: image watermark

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

```
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.

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 a project ID, see Obtaining a Project ID .

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. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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.

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 a project ID, see Obtaining a Project ID .

Table 7-15 Query parameters

Parameter	Mandatory	Type	Description
template_id	No	Array	Watermark template ID. A maximum of 10 template IDs can be queried at a time.
page	No	Integer	Page number. If task_id is specified, this parameter is invalid. Default value: 0 .
size	No	Integer	Number of records on each page. If template_id 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. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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 7-17 Response body parameters

Parameter	Type	Description
total	Integer	Total number of queried watermark templates
templates	Array of WatermarkTemplate 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> <ul style="list-style-type: none"> Integer: horizontal offset between the image start point and the video vertex, in pixels. The value ranges from 0 to 4,096. Decimal: horizontal offset ratio of the image start point relative to the video width. A maximum of four decimal places are supported, for example, 0.9999. <p>For example, if the output video width is 1,920 pixels, dx is 0.1, and referpos is TopRight, the horizontal offset between the upper right corner of the watermark and the right vertex of the video is 192.</p>

Parameter	Type	Description
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">● Integer: vertical offset between the image start point and the video vertex, in pixels. The value ranges from 0 to 4,096.● Decimal: vertical offset ratio of the image start point relative to the video height. A maximum of four decimal places are supported, for example, 0.9999. <p>For example, if the output video height is 1,080 pixels, dy is 0.1, and referpos is TopRight, the vertical offset between the upper right corner of the watermark and the right vertex of the video is 108.</p>
referpos	String	<p>Watermark position.</p> <p>Possible values are:</p> <ul style="list-style-type: none">● TopRight: upper right corner● TopLeft: upper left corner● Right: lower right corner● BottomLeft: lower left corner
timeline_start	String	<p>Watermark start time, which is used together with timeline_duration.</p> <p>Its value is a digit.</p> <p>Unit: s</p>
timeline_duration	String	<p>How long the watermark lasts, which is used together with timeline_start.</p> <p>Its value is a digit greater than or equal to 0.</p> <p>Default value: ToEND</p> <p>ToEND indicates that the watermark lasts until the end of the video.</p>
image_processes	String	<p>How the image watermark is processed. This parameter is used only when type is set to Image.</p> <p>Possible values are:</p> <ul style="list-style-type: none">● Original: simple scaling● Grayed: Turn the color image to gray.● Transparent: transparent

Parameter	Type	Description
width	String	Watermark width. The value can either be a positive integer or a decimal between 0.0 and 1.0. <ul style="list-style-type: none">Integer: pixel value of the watermark width (unit: px)The value ranges from 8 to 4,096.Decimal: ratio between the video width and watermark widthA maximum of four decimal places are supported, for example, 0.9999.
height	String	Watermark height. The value can either be a positive integer or a decimal between 0.0 and 1.0. <ul style="list-style-type: none">Integer: pixel value of the watermark height (unit: px)The value ranges from 8 to 4,096.Decimal: ratio between the video height and watermark heightA maximum of four decimal places are supported, for example, 0.9999.
base	String	Video which the watermark is overlaid on. Possible values are: <ul style="list-style-type: none">input: The watermark is overlaid on the input video. The actual size of the output video is scaled proportionally based on the watermark size.output: The watermark is overlaid on the output file.
template_name	String	Name of each queried watermark template
type	String	Watermark type. Its value is: Image: image watermark

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

- [Creating a Transcoding Task](#)
- [Canceling a Transcoding Task](#)
- [Querying Transcoding Tasks](#)

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.

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 a project ID, see Obtaining a Project ID .

Request Parameters

Table 8-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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	ObsObjInfo object	Storage location of an input file. This parameter is mandatory in scenarios where audio is not added.
output	Yes	ObsObjInfo object	Storage location of an output file

Parameter	Mandatory	Type	Description
trans_template_id	No	Array of integers	<p>Transcoding template ID. If av_parameter is not specified, this parameter is mandatory. Each transcoding output corresponds to a transcoding template ID. A maximum of nine template IDs are supported.</p> <p>Only the following parameters in transcoding templates can be changed:</p> <ul style="list-style-type: none"> • Video bitrate, height, and width.
av_parameters	No	Array of AvParameters objects	<p>Transcoding parameters. If trans_template_id and this parameter are both set, transcode audio or video based on the settings defined in this parameter. If trans_template_id is not set, this parameter is mandatory.</p>
output_filenames	No	Array of strings	<p>Name of an output file.</p> <ul style="list-style-type: none"> • If this parameter is specified, the output object name is object/file_name. • If this parameter is not specified, the output object name is object/xxx, where xxx is allocated by MPC.
user_data	No	String	<p>Custom user data. You can call a query API or send a notification to transfer this field to users.</p>
watermarks	No	Array of WatermarkRequest objects	<p>A maximum of 20 image watermarks and text watermarks are supported.</p>

Parameter	Mandatory	Type	Description
thumbnail	No	Thumbnail object	Snapshot information. Snapshot files are generated only when the output resolution set in the transcoding template or av_parameters is 1920x1080, 1280x720, 854x480, or 480x270. Otherwise, no snapshot files are generated.
priority	No	Integer	Task priority. Possible values are: <ul style="list-style-type: none"> • 9: high • 6: medium
subtitle	No	Subtitle object	Subtitle parameters
encryption	No	Encryption object	Encryption parameters
crop	No	Crop object	Number of seconds cropped from a video for which transcoding is performed on.
audio_track	No	AudioTrack object	Audio track parameters
multi_audio	No	MultiAudio object	Multi-language and multi-channel audio parameters
video_process	No	VideoProcess object	Video processing parameters
audio_process	No	AudioProcess object	Audio processing parameters

Table 8-4 AvParameters

Parameter	Mandatory	Type	Description
video	No	VideoParameters object	Video parameters
audio	No	Audio object	Audio parameters
common	Yes	Common object	Common parameters

Table 8-5 VideoParameters

Parameter	Mandatory	Type	Description
output_policy	No	String	Output policy. Possible values are: <ul style="list-style-type: none">• discard• transcode NOTE <ul style="list-style-type: none">• If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded.• If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded.• If both are discard, the settings are invalid.• If both are transcode, audio and video are transcoded.
codec	No	Integer	Video codec. Possible values are: <ul style="list-style-type: none">• 1: VIDEO_CODEC_H264• 2: VIDEO_CODEC_H265
bitrate	No	Integer	Average output bitrate. Its value is 0 or an integer ranging from 40 to 30,000. Unit: kbit/s If this parameter is set to 0, the average output bitrate is an adaptive value.

Parameter	Mandatory	Type	Description
profile	No	Integer	Encoding profile. Possible values are: <ul style="list-style-type: none">• 1: VIDEO_PROFILE_H264_BASE• 2: VIDEO_PROFILE_H264_MAIN• 3: VIDEO_PROFILE_H264_HIGH• 4: VIDEO_PROFILE_H265_MAIN
level	No	Integer	Encoding level. Possible values are: <ul style="list-style-type: none">• 1: VIDEO_LEVEL_1_0• 2: VIDEO_LEVEL_1_1• 3: VIDEO_LEVEL_1_2• 4: VIDEO_LEVEL_1_3• 5: VIDEO_LEVEL_2_0• 6: VIDEO_LEVEL_2_1• 7: VIDEO_LEVEL_2_2• 8: VIDEO_LEVEL_3_0• 9: VIDEO_LEVEL_3_1• 10: VIDEO_LEVEL_3_2• 11: VIDEO_LEVEL_4_0• 12: VIDEO_LEVEL_4_1• 13: VIDEO_LEVEL_4_2• 14: VIDEO_LEVEL_5_0• 15: VIDEO_LEVEL_5_1• 16: VIDEO_LEVEL_x_x

Parameter	Mandatory	Type	Description
preset	No	Integer	<p>Encoding quality.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: VIDEO_PRESET_HSPPEED2 (only used for H.265) • 2: VIDEO_PRESET_HSPEED (only used for H.265) • 3: VIDEO_PRESET_NORMAL (available for H.264 and H.265, default option for H.265)
ref_frames_count	No	Integer	<p>Maximum reference frames.</p> <p>Value range:</p> <ul style="list-style-type: none"> • H.264: 1 to 8. The default value is 4. • H.265: The value is fixed at 4. <p>Unit: frame</p>
max_iframes_interval	No	Integer	<p>Maximum I-frame interval.</p> <p>The value ranges from 2 to 10.</p> <p>Default value: 5</p> <p>Unit: second</p>
bframes_count	No	Integer	<p>Maximum number of B-frames.</p> <p>Value range:</p> <ul style="list-style-type: none"> • H.264: 0 to 7. The default value is 4. • H.265: 0 to 7. The default value is 7. <p>Unit: frame</p>
frame_rate	No	Integer	<p>Frame rate.</p> <p>The value is 0 or ranges from 5 to 60. The value 0 indicates adaptive frame rate.</p> <p>Unit: FPS</p> <p>NOTE</p> <p>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.</p>

Parameter	Mandatory	Type	Description
width	No	Integer	Video width (unit: px). The value can be: <ul style="list-style-type: none">• A multiple of 2 from 32 to 4,096 for H.264.• A multiple of 4 from 320 to 4,096 for H.265.
height	No	Integer	Video height (unit: px). The value can be: <ul style="list-style-type: none">• A multiple of 2 from 32 to 2,880 for H.264.• A multiple of 4 from 240 to 2,880 for H.265.
black_cut	No	Integer	Whether to enable black bar removal. Possible values are: <ul style="list-style-type: none">• 0: Disable black bar removal.• 1: Enable black bar removal and low-complexity algorithms for long videos (>5 minutes).• 2: Enable black bar removal and high-complexity algorithms for short videos (≤5 minutes).

Table 8-6 Audio

Parameter	Mandatory	Type	Description
output_policy	No	String	<p>Output policy.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • discard • transcode <p>NOTE</p> <ul style="list-style-type: none"> • If output_policy in the video parameters is discard and output_policy in the audio parameters is transcode, only audio is transcoded. • If output_policy in the video parameters is transcode and output_policy in the audio parameters is discard, only video is transcoded. • If both are discard, the settings are invalid. • If both are transcode, audio and video are transcoded.
codec	Yes	Integer	<p>Audio codec.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: AAC • 2: HEAAC1 • 3: HEAAC2 • 4: MP3
sample_rate	Yes	Integer	<p>Audio sampling rate.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 1: AUDIO_SAMPLE_AUTO • 2: AUDIO_SAMPLE_22050 (22,050 Hz) • 3: AUDIO_SAMPLE_32000 (32,000 Hz) • 4: AUDIO_SAMPLE_44100 (44,100 Hz) • 5: AUDIO_SAMPLE_48000 (48,000 Hz) • 6: AUDIO_SAMPLE_96000 (96,000 Hz)
bitrate	No	Integer	<p>Audio bitrate.</p> <p>The value is 0 or ranges from 8 to 1,000.</p> <p>Unit: kbit/s</p>

Parameter	Mandatory	Type	Description
channels	Yes	Integer	Number of audio channels. Possible values are: <ul style="list-style-type: none"> • 1: AUDIO_CHANNELS_1 • 2: AUDIO_CHANNELS_2 • 6: AUDIO_CHANNELS_5_1

Table 8-7 Common

Parameter	Mandatory	Type	Description
PVC	Yes	Boolean	Whether to enable low bitrate HD. Possible values are: <ul style="list-style-type: none"> • false: disabled. • true: enabled. Default value: false
hls_interval	Yes	Integer	HLS segment duration. This parameter is used only when pack_type is set to 1 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s
dash_interval	Yes	Integer	Dash segment duration. This parameter is used only when pack_type is set to 2 or 3. The value ranges from 2 to 10. Default value: 5 Unit: s
pack_type	Yes	Integer	Packaging type. Possible values are: <ul style="list-style-type: none"> • 1: HLS • 2: DASH • 3: HLS+DASH • 4: MP4 • 5: MP3 • 6: ADTS NOTE If pack_type is set to 5 or 6, do not set video parameters.

Table 8-8 WatermarkRequest

Parameter	Mandatory	Type	Description
input	No	ObsObjInfo 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. For example, if the text watermark to be added is "Test Text Watermark", the value is 5rWL6K+V5paH5a2X5rC05Y2w.
image_watermark	No	ImageWatermark object	Watermark parameters used for overwriting the parameters with the same names in the watermark template
text_watermark	No	TextWatermark object	Text watermark configurations. If text_context is set, this field cannot be left blank.

Table 8-9 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> <ul style="list-style-type: none">• Integer: horizontal offset between the image start point and the video vertex, in pixelsThe value ranges from 0 to 4,096.• Decimal: horizontal offset ratio of the image start point relative to the video widthA maximum of four decimal places are supported, for example, 0.9999. <p>For example, if the output video width is 1,920 pixels, dx is 0.1, and referpos is TopRight, 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">• Integer: vertical offset between the image start point and the video vertex, in pixels. The value ranges from 0 to 4,096.• Decimal: vertical offset ratio of the image start point relative to the video height. A maximum of four decimal places are supported, for example, 0.9999. <p>For example, if the output video height is 1,080 pixels, dy is 0.1, and referpos is TopRight, 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 are:</p> <ul style="list-style-type: none">• TopRight: upper right corner• TopLeft: upper left corner• Right: lower right corner• BottomLeft: lower left corner
timeline_start	No	String	<p>Watermark start time, which is used together with timeline_duration.</p> <p>Its value is a digit.</p> <p>Unit: s</p>

Parameter	Mandatory	Type	Description
timeline_duration	No	String	How long the watermark lasts, which is used together with timeline_start. Its value is a digit greater than or equal to 0. Default value: ToEND ToEND indicates that the watermark lasts until the end of the video.
image_processing	No	String	How the image watermark is processed. This parameter is used only when type is set to Image. Possible values are: <ul style="list-style-type: none">• Original: simple scaling• Grayed: Turn the color image to gray.• Transparent: transparent
width	No	String	Watermark width. The value can either be a positive integer or a decimal between 0.0 and 1.0. <ul style="list-style-type: none">• Integer: pixel value of the watermark width (unit: px)The value ranges from 8 to 4,096.• Decimal: ratio between the video width and watermark widthA maximum of four decimal places are supported, for example, 0.9999.

Parameter	Mandatory	Type	Description
height	No	String	Watermark height. The value can either be a positive integer or a decimal between 0.0 and 1.0. <ul style="list-style-type: none">• Integer: pixel value of the watermark height (unit: px)The value ranges from 8 to 4,096.• Decimal: ratio between the video height and watermark heightA maximum of four decimal places are supported, for example, 0.9999.
base	No	String	Video which the watermark is overlaid on. Possible values are: <ul style="list-style-type: none">• input: The watermark is overlaid on the input video. The actual size of the output video is scaled proportionally based on the watermark size.• output: The watermark is overlaid on the output file.

Table 8-10 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> <ul style="list-style-type: none">• Integer: horizontal offset between the image start point and the video vertex, in pixelsThe value ranges from 0 to 4,096.• Decimal: horizontal offset ratio of the image start point relative to the video widthA maximum of four decimal places are supported, for example, 0.9999. <p>For example, if the output video width is 1,920 pixels, dx is 0.1, and referpos is TopRight, 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"> • Integer: vertical offset between the image start point and the video vertex, in pixels. The value ranges from 0 to 4,096. • Decimal: vertical offset ratio of the image start point relative to the video height. A maximum of four decimal places are supported, for example, 0.9999. <p>For example, if the output video height is 1,080 pixels, dy is 0.1, and referpos is TopRight, 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 are:</p> <ul style="list-style-type: none"> • TopRight: upper right corner • TopLeft: upper left corner • Right: lower right corner • BottomLeft: lower left corner
timeline_start	No	String	<p>Watermark start time, which is used together with timeline_duration.</p> <p>Its value is a digit.</p> <p>Unit: s</p>

Parameter	Mandatory	Type	Description
timeline_duration	No	String	How long the watermark lasts, which is used together with timeline_start. Its value is a digit greater than or equal to 0. Default value: ToEND ToEND indicates that the watermark lasts until the end of the video.
font_name	No	String	Text watermark font. Possible values are: <ul style="list-style-type: none"> • fzyouh • msyh
font_size	No	Integer	Font size. Value range: 4 to 120
font_color	No	String	Font color. Possible values are: <ul style="list-style-type: none"> • black • blue • white • green • red • yellow • brown • gold • pink • orange • purple
base	No	String	Video which the watermark is overlaid on. Possible values: <ul style="list-style-type: none"> • input: 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. • output: The watermark is overlaid on the output file. Default value: input.

Table 8-11 Thumbnail

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

Table 8-12 ThumbnailPara

Parameter	Mandatory	Type	Description
type	No	String	Sampling type. Possible values are: <ul style="list-style-type: none"> • PERCENT: Snapshots are captured based on the percentage of the video duration. • TIME: Snapshots are captured at certain intervals. • DOTS: Snapshots are captured a fixed time point. Default value: TIME
time	No	Integer	Interval for taking snapshots. Default value: 12 Unit: second
start_time	No	Integer	Start time if the sampling type is TIME. This parameter is used together with time. Default value: 0 Unit: second

Parameter	Mandatory	Type	Description
duration	No	Integer	Duration if the sampling type is TIME. This parameter is used together with time and start_time. Snapshots are captured every time. ToEND indicates that sampling lasts until the end of the video. Default value: ToEND Unit: second It must be greater than or equal to 0. If this is 0, snapshots are captured from start_time to the video end time.
dots	No	Array of integers	Array of time points when a snapshot is taken. A maximum of 10 time points are supported.
output_filename	No	String	Name of a snapshot file. <ul style="list-style-type: none"> • If only one image is extracted (the sampling type is DOTS), the image is output based on the specified file name. • If multiple images are extracted (the sampling type is DOTS or TIME), the time point is added to the name of the output image file, for example, output_filename_10.jpg. • If extracted images are going to be compressed into a TAR package, the TAR package is generated based on the specified file name.
format	No	Integer	Snapshot file format. The value is: 1: jpg
aspect_ratio	No	Integer	Aspect ratio.
width	No	Integer	Snapshot width

Parameter	Mandatory	Type	Description
height	No	Integer	Snapshot height
max_length	No	Integer	<p>The longest side of a snapshot. The other side of the snapshot is scaled proportionally with the longest side and input video pixel.</p> <p>Value range: 240 to 3,840</p> <p>Default value: 480</p> <p>Unit: pixel</p> <p>NOTE</p> <p>If this parameter and width/height are both set, the width/height is used. If both the width and height are not 0, the longest side is the width/height. Otherwise, the longest side is the value of max_length. If this parameter and width/height are not set, max_length is 480 by default.</p>

Table 8-13 Subtitle

Parameter	Mandatory	Type	Description
input	No	ObsObjInfo object	Storage location of an SRT file
inputs	No	Array of MulInputFileInfo objects	Storage location of SRT files
subtitle_type	No	Integer	<p>Subtitle file type. Possible values:</p> <ul style="list-style-type: none"> • 0: No subtitle file is generated. • 1: external subtitle file. • 2: WebVTT file.

Table 8-14 MulInputFileInfo

Parameter	Mandatory	Type	Description
language	No	String	Language label

Parameter	Mandatory	Type	Description
input	No	ObsObjInfo object	Storage location of a subtitle file

Table 8-15 Encryption

Parameter	Mandatory	Type	Description
hls_encrypt	No	HlsEncrypt object	Encryption parameters for HLS videos

Table 8-16 HlsEncrypt

Parameter	Mandatory	Type	Description
key	Yes	String	Content encryption key, which is in base64Binary format
url	Yes	String	Address of Key Management Service (KMS) used by the tenant
iv	No	String	Initial vector, which is a random number in base64Binary format
algorithm	No	String	Encryption algorithm. Possible values are: <ul style="list-style-type: none"> • AES-128-CTR • AES-128-CBC • SM4CBC Default value: AES-128-CTR

Table 8-17 Crop

Parameter	Mandatory	Type	Description
duration	No	Integer	Duration of a captured video, starting from 0 seconds. Default value: 10 Unit: s

Table 8-18 AudioTrack

Parameter	Mandatory	Type	Description
type	No	Integer	Audio track selection method. Possible values are: <ul style="list-style-type: none"> • 0: default selection • 1: manual selection
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 8-19 MultiAudio

Parameter	Mandatory	Type	Description
tracks_info	No	Array of TracksInfo objects	Audio track information
audio_files	No	Array of AudioFile objects	Parameters about a single audio file
default_language	No	String	Default track language.

Table 8-20 AudioFile

Parameter	Mandatory	Type	Description
tracks_info	No	Array of TracksInfo objects	Audio track information
input	No	ObsObjInfo object	Storage location of an input file

Table 8-21 TracksInfo

Parameter	Mandatory	Type	Description
channel_layout	No	String	Audio channel layout of the audio track

Parameter	Mandatory	Type	Description
language	No	String	Language description of the audio track

Table 8-22 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	File path. <ul style="list-style-type: none"> • If this parameter is used for an input, a specific path must be specified. • If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	No	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none"> • If this parameter is specified, the output object name is <i>object/file_name</i>. • If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Table 8-23 VideoProcess

Parameter	Mandatory	Type	Description
rotate	No	Integer	Clockwise rotation angle of a video. Possible values are: <ul style="list-style-type: none"> • 0: Do not rotate. • 1: Rotate a video by 90 degrees clockwise. • 2: Rotate a video by 180 degrees clockwise. • 3: Rotate a video by 270 degrees clockwise.
adaptation	No	String	Adaptive resolution. Possible values are: <ul style="list-style-type: none"> • SHORT: adaptive width • LONG: adaptive height • NONE: Do not adapt.
upsample	No	Integer	Whether to enable low resolution-to-high resolution, for example, 480p to 720p. Possible values are: <ul style="list-style-type: none"> • 0: disabled. • 1: enabled.

Table 8-24 AudioProcess

Parameter	Mandatory	Type	Description
volume	No	String	Volume adjustment method. In this case, the volume adjustment amplitude needs to set. Possible values are: <ul style="list-style-type: none"> • auto: Adjust the volume automatically. • dynamic: Adjust the volume manually.

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

Response Parameters

Status code: 202

Table 8-25 Response body parameters

Parameter	Type	Description
task_id	Integer	Task ID. If the returned status code is 200 OK, the value is the task ID generated after the task is accepted.

Status code: 403

Table 8-26 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
POST https://{endpoint}/v1/{project_id}/transcodings
{
  "input": {
    "bucket": "example-bucket",
    "location": "region1",
    "object": "/VOD/input/sample.MP4"
  },
  "output": {
    "bucket": "example-bucket",
    "location": "region1",
    "object": "/VOD/output/"
  },
  "trans_template_id": [1002, 1003, 1004, 1005],
  "priority": "9",
  "subtitle": {
    "subtitle_type": 1,
    "input": {
      "bucket": "bucket",
```

```
        "location": "region1",
        "object": "subtitle.srt"
    }
},
"encryption": {
    "multidrm": {
        "content_id": "123456789",
        "streaming_mode": "HLS ",
        "encrypt_audio": 0,
        "emi": 16420,
        "drm_list": ["PLAYREADY"]
    }
},
"thumbnail": {
    "out": {
        "bucket": "example-bucket",
        "location": "region1",
        "object": "/VOD/output/"
    },
    "tar": 1,
    "params": {
        "time": 2,
        "format": 1,
        "aspect_ratio": 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.

URI

DELETE /v1/{project_id}/transcodings

Table 8-27 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see Obtaining a Project ID .

Table 8-28 Query parameters

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

Request Parameters

Table 8-29 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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: 400

Table 8-30 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
DELETE https://{endpoint}/v1/{project_id}/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.

URI

GET /v1/{project_id}/transcodings

Table 8-31 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see Obtaining a Project ID .

Table 8-32 Query parameters

Parameter	Mandatory	Type	Description
task_id	No	Array	Task ID. A maximum of 10 transcoding task IDs can be queried at a time.
status	No	String	Task status. Possible values are: <ul style="list-style-type: none">• WAITING: queuing• TRANSCODING: running• SUCCEEDED: completed• FAILED: failed• CANCELED: deleted• NEED_TO_BE_AUDIT: pending review
start_time	No	String	Start time. If task_id is specified, this parameter is invalid. Its format is <code>yyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.

Parameter	Mandatory	Type	Description
end_time	No	String	End time. If task_id 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 task_id is specified, this parameter is invalid. Default value: 0 .
size	No	Integer	Number of records on each page. If task_id is specified, this parameter is invalid. The value ranges from 1 to 100. Default value: 10

Request Parameters

Table 8-33 Request header parameters

Parameter	Mandatory	Type	Description
x-language	No	String	Client language.
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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 8-34 Response body parameters

Parameter	Type	Description
task_array	Array of QueryTranscodingsTaskResponse objects	List of transcoding tasks
is_truncated	Integer	Whether the query results are truncated. Possible values are: <ul style="list-style-type: none"> • 1: Query results are truncated. Some results are not returned. You can set the page and size parameters to continue the query. • 0: Query results are not truncated. All results are returned.
total	Integer	Number of records

Table 8-35 QueryTranscodingsTaskResponse

Parameter	Type	Description
task_id	String	Task ID
status	String	Task status
create_time	String	Task start time
end_time	String	Task end time
trans_template_id	Array of integers	ID of transcoding templates
input	ObsObjInfo object	Storage location of an input file. The information includes the location, bucket name, and path.
output	ObsObjInfo 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.

Parameter	Type	Description
user_data	String	Custom user data
error_code	String	Status code of a transcoding task
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	TranscodeDetail object	Output information of snapshots
thumbnail_output	ObsObjInfo object	Output information of snapshots. The information includes the location, bucket name, and path.
thumbnail_outputname	String	Name of the snapshot package
pic_info	Array of PicInfo objects	Snapshot file information

Table 8-36 TranscodeDetail

Parameter	Type	Description
multitask_info	Array of MultiTaskInfo objects	Details about failed transcoding in the case of one-in and multiple-out
input_file	SourceInfo object	Input file information

Table 8-37 MultiTaskInfo

Parameter	Type	Description
template_id	Integer	Template ID
error	ErrorResponse object	Error message about failed transcoding
output_file	SourceInfo object	Information about a single output

Table 8-38 ErrorResponse

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Table 8-39 SourceInfo

Parameter	Type	Description
duration	Integer	File duration, in seconds
duration_ms	Long	File duration, in milliseconds
format	String	File format
size	Long	File size
video_info	VideoInfo object	Video information
audio_info	Array of AudioInfo objects	Audio information

Table 8-40 VideoInfo

Parameter	Type	Description
width	Integer	Video width
height	Integer	Video height
bitrate	Integer	Video bitrate, in kbit/s
bitrate_bps	Long	Video bitrate, in bit/s
frame_rate	Integer	<p>Frame rate.</p> <p>The value is 0 or ranges from 5 to 60. The value 0 indicates adaptive frame rate.</p> <p>Unit: FPS</p> <p>NOTE</p> <p>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.</p>
codec	String	Video codec

Table 8-41 AudioInfo

Parameter	Type	Description
codec	String	Audio codec
sample	Integer	Audio sampling rate
channels	Integer	Number of audio channels
bitrate	Integer	Audio bitrate, in kbit/s
bitrate_bps	Long	Audio bitrate, in bit/s

Table 8-42 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	File path. <ul style="list-style-type: none">• If this parameter is used for an input, a specific path must be specified.• If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none">• If this parameter is specified, the output object name is <i>object/file_name</i>.• If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Table 8-43 PicInfo

Parameter	Type	Description
pic_name	String	Snapshot file name

Status code: 400

Table 8-44 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" : "zitest",
      "location" : "cn-north-7",
      "object" : "ziquantest.mp4"
    },
    "output" : {
      "bucket" : "zitest",
      "location" : "cn-north-7",
      "object" : "test"
    },
    "output_file_name" : [ "ziquantest_1_480X270_199_0.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](#).

9 Packaging APIs

- [Creating a Packaging Task](#)
- [Retrying a Packaging Task](#)
- [Querying Packaging Tasks](#)
- [Canceling a Packaging Task](#)

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 to access the OBS bucket has been granted.

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 a project ID, see Obtaining a Project ID .

Request Parameters

Table 9-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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	ObsObjInfo object	Input file information
output	No	ObsObjInfo object	Output file information
user_data	No	String	Custom user data
output_param	No	RemuxOutputParam object	Animated GIF parameters

Table 9-4 ObsObjInfo

Parameter	Mandatory	Type	Description
bucket	Yes	String	OBS bucket name

Parameter	Mandatory	Type	Description
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	File path. <ul style="list-style-type: none"> If this parameter is used for an input, a specific path must be specified. If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	No	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none"> If this parameter is specified, the output object name is <i>object/file_name</i>. If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Table 9-5 RemuxOutputParam

Parameter	Mandatory	Type	Description
format	No	String	Output format. Possible values: <ul style="list-style-type: none"> HLS MP4
segment_duration	No	Integer	Segment duration. This parameter is used only when format is HLS. The value ranges from 2 to 10. Default value: 5 Unit: second

Response Parameters

Status code: 200

Table 9-6 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	ObsObjInfo object	Output file information
output_file_name	String	Name of an output file.
description	String	Task description. If a task is abnormal, this field indicates error details.
metadata	MetaData object	Metadata of a video file

Table 9-7 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	File path. <ul style="list-style-type: none">• If this parameter is used for an input, a specific path must be specified.• If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none">• If this parameter is specified, the output object name is <i>object/file_name</i>.• If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Table 9-8 MetaData

Parameter	Type	Description
size	Long	File size
duration_ms	Double	Video duration (unit: second), with decimal places.
duration	Long	Video duration Unit: s
format	String	File container format
bitrate	Long	Total bitrate. Unit: bit/s.
video	Array of VideoInfo objects	Video metadata
audio	Array of AudiInfo objects	Audio metadata

Table 9-9 VideoInfo

Parameter	Type	Description
width	Integer	Video width
height	Integer	Video height
bitrate	Integer	Video bitrate, in kbit/s
bitrate_bps	Long	Video bitrate, in bit/s
frame_rate	Integer	Frame rate. The value is 0 or ranges from 5 to 60. The value 0 indicates adaptive frame rate. Unit: FPS NOTE 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.
codec	String	Video codec

Table 9-10 AudiInfo

Parameter	Type	Description
codec	String	Audio codec
sample	Integer	Audio sampling rate
channels	Integer	Number of audio channels
bitrate	Integer	Audio bitrate, in kbit/s
bitrate_bps	Long	Audio bitrate, in bit/s

Status code: 400

Table 9-11 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
POST https://{endpoint}/v1/{project_id}/remux
{
  "input": {
    "bucket": "zitest",
    "location": "region1",
    "object": "input/flv_1.flv"
  },
  "output": {
    "bucket": "zitest",
    "location": "region1",
    "object": "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.

URI

PUT /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 a project ID, see Obtaining a Project ID .

Request Parameters

Table 9-13 Request header parameters

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

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.

Table 9-14 Request body parameters

Parameter	Mandatory	Type	Description
task_id	No	String	Task ID

Response Parameters

Status code: 403

Table 9-15 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
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.

URI

GET /v1/{project_id}/remux

Table 9-16 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see Obtaining a Project ID .

Table 9-17 Query parameters

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

Parameter	Mandatory	Type	Description
status	No	String	Task status. Possible values are: <ul style="list-style-type: none"> • INIT: initialization • WAITING: pending • PROCESSING: running • SUCCEED: completed • FAILED: failed • CANCELED: canceled
start_time	No	String	Start time. If task_id 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 task_id 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 task_id is specified, this parameter is invalid. Default value: 0 .
size	No	Integer	Number of records on each page. If task_id is specified, this parameter is invalid. The value ranges from 1 to 100. Default value: 10

Request Parameters

Table 9-18 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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 9-19 Response body parameters

Parameter	Type	Description
total	Integer	Total number of tasks
tasks	Array of RemuxTask objects	Task list

Table 9-20 RemuxTask

Parameter	Type	Description
task_id	String	Task ID

Parameter	Type	Description
status	String	Task status. Possible values are: <ul style="list-style-type: none"> • INIT: initialization • WAITING: pending • PROCESSING: running • SUCCEED: completed • FAILED: failed • CANCELED: canceled
create_time	String	Time when a task is created
start_time	String	Task start time
end_time	String	Task end time
description	String	Error description
input	ObsObjInfo object	Input file information
output	ObsObjInfo object	Output file information
user_data	String	User data
output_param	RemuxOutputParam object	Animated GIF parameters
complete_ratio	Integer	Task completion progress, in percentage
output_metadata	MetaData object	Metadata of the output file.

Table 9-21 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	File path. <ul style="list-style-type: none"> • If this parameter is used for an input, a specific path must be specified. • If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none"> • If this parameter is specified, the output object name is <i>object/file_name</i>. • If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Table 9-22 RemuxOutputParam

Parameter	Type	Description
format	String	Output format. Possible values: <ul style="list-style-type: none"> • HLS • MP4
segment_duration	Integer	Segment duration. This parameter is used only when format is HLS. The value ranges from 2 to 10. Default value: 5 Unit: second

Table 9-23 MetaData

Parameter	Type	Description
size	Long	File size
duration_ms	Double	Video duration (unit: second), with decimal places.
duration	Long	Video duration Unit: s
format	String	File container format
bitrate	Long	Total bitrate. Unit: bit/s.

Parameter	Type	Description
video	Array of VideoInfo objects	Video metadata
audio	Array of AudioInfo objects	Audio metadata

Table 9-24 VideoInfo

Parameter	Type	Description
width	Integer	Video width
height	Integer	Video height
bitrate	Integer	Video bitrate, in kbit/s
bitrate_bps	Long	Video bitrate, in bit/s
frame_rate	Integer	<p>Frame rate.</p> <p>The value is 0 or ranges from 5 to 60. The value 0 indicates adaptive frame rate.</p> <p>Unit: FPS</p> <p>NOTE</p> <p>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.</p>
codec	String	Video codec

Table 9-25 AudioInfo

Parameter	Type	Description
codec	String	Audio codec
sample	Integer	Audio sampling rate
channels	Integer	Number of audio channels
bitrate	Integer	Audio bitrate, in kbit/s
bitrate_bps	Long	Audio bitrate, in bit/s

Status code: 400

Table 9-26 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,
    "status": "SUCCEED",
    "create_time": 20201117021558,
    "start_time": 20201117021558,
    "end_time": 20201117021559,
    "description": "The task has completed.",
    "input": {
      "bucket": "obs-apitest-01",
      "location": "cn-north-5",
      "object": "flv/flv.flv"
    },
    "output": {
      "bucket": "obs-apitest-01",
      "location": "cn-north-5",
      "object": "out_gamma/remux/ucAMb.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.

URI

DELETE /v1/{project_id}/remux

Table 9-27 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see Obtaining a Project ID .

Table 9-28 Query parameters

Parameter	Mandatory	Type	Description
task_id	Yes	String	Task ID

Request Parameters

Table 9-29 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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 9-30 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_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](#).

10 Animated GIF APIs

[Creating an Animated GIF Task](#)

[Querying Animated GIF Tasks](#)

[Canceling an Animated GIF Task](#)

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 to access the OBS bucket has been granted.

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 a project ID, see Obtaining a Project ID .

Request Parameters

Table 10-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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	ObsObjInfo object	Input file information
output	No	ObsObjInfo object	Output file information
user_data	No	String	Custom user data
output_param	No	AnimatedGraphicsOutputParam object	Animated GIF parameters

Table 10-4 ObsObjInfo

Parameter	Mandatory	Type	Description
bucket	Yes	String	OBS bucket name

Parameter	Mandatory	Type	Description
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	File path. <ul style="list-style-type: none"> If this parameter is used for an input, a specific path must be specified. If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	No	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none"> If this parameter is specified, the output object name is <i>object/file_name</i>. If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Table 10-5 AnimatedGraphicsOutputParam

Parameter	Mandatory	Type	Description
format	No	String	Format of an output file. Currently, only GIF format is supported.
width	Yes	Integer	Width of an output file. The value is -1, 0, or a multiple of 2 from 32 to 3,840. NOTE <ul style="list-style-type: none"> If this parameter is set to -1, the width is adjusted based on the height. In this case, height cannot be -1 or 0. If this parameter is set to 0, the width of the input video is used. In this case, height can only be 0.

Parameter	Mandatory	Type	Description
height	Yes	Integer	Height of an output file. The value is -1, 0, or a multiple of 2 from 32 to 2,160. NOTE <ul style="list-style-type: none"> If this parameter is set to -1, the height is adjusted based on the width. In this case, width cannot be -1 or 0. If this parameter is set to 0, the height of the input video is used. In this case, width can only be 0.
start	Yes	Integer	Start time Unit: millisecond
end	Yes	Integer	End time Unit: millisecond The difference between end and start cannot exceed 60 seconds.
frame_rate	No	Integer	Frame rate of the output file. 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	String	Task status.
create_time	String	Time when a task is created
output	ObsObjInfo object	Output file information
output_file_name	String	Name of an output file.
description	String	Task description. If a task is abnormal, this field indicates error details.
metadata	MetaData object	Metadata of a video file

Table 10-7 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	File path. <ul style="list-style-type: none"> • If this parameter is used for an input, a specific path must be specified. • If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none"> • If this parameter is specified, the output object name is <i>object/file_name</i>. • If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Table 10-8 MetaData

Parameter	Type	Description
size	Long	File size
duration_ms	Double	Video duration (unit: second), with decimal places.
duration	Long	Video duration Unit: s
format	String	File container format
bitrate	Long	Total bitrate. Unit: bit/s.
video	Array of VideoInfo objects	Video metadata
audio	Array of AudioInfo objects	Audio metadata

Table 10-9 VideoInfo

Parameter	Type	Description
width	Integer	Video width
height	Integer	Video height
bitrate	Integer	Video bitrate, in kbit/s
bitrate_bps	Long	Video bitrate, in bit/s
frame_rate	Integer	<p>Frame rate.</p> <p>The value is 0 or ranges from 5 to 60. The value 0 indicates adaptive frame rate.</p> <p>Unit: FPS</p> <p>NOTE</p> <p>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.</p>
codec	String	Video codec

Table 10-10 AudioInfo

Parameter	Type	Description
codec	String	Audio codec
sample	Integer	Audio sampling rate
channels	Integer	Number of audio channels
bitrate	Integer	Audio bitrate, in kbit/s
bitrate_bps	Long	Audio bitrate, in bit/s

Status code: 400

Table 10-11 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
POST https://{endpoint}/v1/{project_id}/animated-graphics
{
```

```
"input": {
  "bucket": "obs-63bc",
  "location": "region1",
  "object": "thumb.mp4"
},
"output": {
  "bucket": "obs-63bc",
  "location": "region1",
  "object": "/b",
  "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.

URI

GET /v1/{project_id}/animated-graphics

Table 10-12 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see Obtaining a Project ID .

Table 10-13 Query parameters

Parameter	Mandatory	Type	Description
task_id	No	Array	Task ID. A maximum of 10 task IDs can be queried at a time.
status	No	String	Task status. Possible values are: <ul style="list-style-type: none"> • INIT: initialization • WAITING: pending • PROCESSING: running • SUCCEED: completed • FAILED: failed • CANCELED: canceled
start_time	No	String	Start time. If task_id 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 task_id 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 task_id is specified, this parameter is invalid. Default value: 0 .

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

Request Parameters

Table 10-14 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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 10-15 Response body parameters

Parameter	Type	Description
total	Integer	Total number of tasks

Parameter	Type	Description
tasks	Array of AnimatedGraphicsTask objects	Task list

Table 10-16 AnimatedGraphicsTask

Parameter	Type	Description
task_id	String	Task ID
status	String	Task status. Possible values are: <ul style="list-style-type: none"> • INIT: initialization • WAITING: pending • PROCESSING: running • SUCCEED: completed • FAILED: failed • CANCELED: canceled
create_time	String	Time when a task is created
start_time	String	Task start time
end_time	String	Task end time
description	String	Error description
input	ObsObjInfo object	Input file information
output	ObsObjInfo object	Output file information
user_data	String	User data
output_param	AnimatedGraphicsOutputParam object	Animated GIF parameters

Table 10-17 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	File path. <ul style="list-style-type: none"> • If this parameter is used for an input, a specific path must be specified. • If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none"> • If this parameter is specified, the output object name is <i>object/file_name</i>. • If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Table 10-18 AnimatedGraphicsOutputParam

Parameter	Type	Description
format	String	Format of an output file. Currently, only GIF format is supported.
width	Integer	Width of an output file. The value is -1, 0, or a multiple of 2 from 32 to 3,840. NOTE <ul style="list-style-type: none"> • If this parameter is set to -1, the width is adjusted based on the height. In this case, height cannot be -1 or 0. • If this parameter is set to 0, the width of the input video is used. In this case, height can only be 0.
height	Integer	Height of an output file. The value is -1, 0, or a multiple of 2 from 32 to 2,160. NOTE <ul style="list-style-type: none"> • If this parameter is set to -1, the height is adjusted based on the width. In this case, width cannot be -1 or 0. • If this parameter is set to 0, the height of the input video is used. In this case, width can only be 0.

Parameter	Type	Description
start	Integer	Start time Unit: millisecond
end	Integer	End time Unit: millisecond The difference between end and start cannot exceed 60 seconds.
frame_rate	Integer	Frame rate of the output file. Value range: 1 to 75

Status code: 400

Table 10-19 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

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

Example Responses

Status code: 200

Animated GIF task queried successfully.

```
{
  "total" : 1,
  "tasks" : [ {
    "task_id" : 30647,
    "status" : "SUCCEED",
    "create_time" : 20201119103652,
    "start_time" : 20201119103653,
    "end_time" : 20201119103708,
    "description" : "The task has completed.",
    "input" : {
      "bucket" : "obs-apitest-01",
      "location" : "cn-north-5",
      "object" : "mp4/4k.mp4"
    },
    "output" : {
      "bucket" : "obs-apitest-01",
      "location" : "cn-north-5",
      "object" : "out_gamma/gif_file/",
      "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.

URI

DELETE /v1/{project_id}/animated-graphics

Table 10-20 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see Obtaining a Project ID .

Table 10-21 Query parameters

Parameter	Mandatory	Type	Description
task_id	Yes	String	Task ID

Request Parameters

Table 10-22 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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 10-23 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 APIs for Video Metadata Extraction

[Creating a Video Parsing Task](#)

[Querying Video Parsing Tasks](#)

[Canceling a Video Parsing Task](#)

11.1 Creating a Video Parsing Task

Function

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

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 a project ID, see Obtaining a Project ID .

Request Parameters

Table 11-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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	ObsObjInfo object	Input file information
output	No	ObsObjInfo object	Output file information
user_data	No	String	Custom user data
sync	No	Integer	Whether to enable synchronous processing. <ul style="list-style-type: none"> 0: Synchronous processing is not enabled. Video metadata is not synchronized. It is queued for processing. 1: Synchronous processing is enabled. Video metadata is synchronized. Default value: 0 .

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	File path. <ul style="list-style-type: none"> If this parameter is used for an input, a specific path must be specified. If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	No	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none"> If this parameter is specified, the output object name is <i>object/file_name</i>. If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Response Parameters

Status code: 200

Table 11-5 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	ObsObjInfo object	Output file information

Parameter	Type	Description
output_file_name	String	Name of an output file.
description	String	Task description. If a task is abnormal, this field indicates error details.
metadata	MetaData object	Metadata of a video file

Table 11-6 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	File path. <ul style="list-style-type: none"> • If this parameter is used for an input, a specific path must be specified. • If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none"> • If this parameter is specified, the output object name is <i>object/file_name</i>. • If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Table 11-7 MetaData

Parameter	Type	Description
size	Long	File size
duration_ms	Double	Video duration (unit: second), with decimal places.
duration	Long	Video duration Unit: s
format	String	File container format

Parameter	Type	Description
bitrate	Long	Total bitrate. Unit: bit/s.
video	Array of Videoinfo objects	Video metadata
audio	Array of Audiainfo objects	Audio metadata

Table 11-8 Videoinfo

Parameter	Type	Description
width	Integer	Video width
height	Integer	Video height
bitrate	Integer	Video bitrate, in kbit/s
bitrate_bps	Long	Video bitrate, in bit/s
frame_rate	Integer	<p>Frame rate.</p> <p>The value is 0 or ranges from 5 to 60. The value 0 indicates adaptive frame rate.</p> <p>Unit: FPS</p> <p>NOTE</p> <p>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.</p>
codec	String	Video codec

Table 11-9 Audiainfo

Parameter	Type	Description
codec	String	Audio codec
sample	Integer	Audio sampling rate
channels	Integer	Number of audio channels
bitrate	Integer	Audio bitrate, in kbit/s
bitrate_bps	Long	Audio bitrate, in bit/s

Status code: 400

Table 11-10 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
POST https://{endpoint}/v1/{project_id}/extract-metadata
{
  "input": {
    "bucket": "obs-gxh",
    "location": "region1",
    "object": "1/okFLV.flv"
  },
  "output": {
    "bucket": "obs-gxh",
    "location": "region1",
    "object": "1/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.

URI

GET /v1/{project_id}/extract-metadata

Table 11-11 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see Obtaining a Project ID .

Table 11-12 Query parameters

Parameter	Mandatory	Type	Description
task_id	No	Array	Task ID. A maximum of 10 task IDs can be queried at a time.
status	No	String	Task status. Possible values are: <ul style="list-style-type: none"> • INIT: initialization • WAITING: pending • PROCESSING: running • SUCCEED: completed • FAILED: failed • CANCELED: canceled
start_time	No	String	Start time. If task_id 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 task_id 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 task_id is specified, this parameter is invalid. Default value: 0 .

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

Request Parameters

Table 11-13 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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 11-14 Response body parameters

Parameter	Type	Description
total	Integer	Total number of tasks

Parameter	Type	Description
tasks	Array of ExtractTask objects	Task list

Table 11-15 ExtractTask

Parameter	Type	Description
task_id	String	Task ID
status	String	Task status. Possible values are: <ul style="list-style-type: none"> • INIT: initialization • WAITING: pending • PROCESSING: running • SUCCEED: completed • FAILED: failed • CANCELED: canceled
create_time	String	Time when a task is created
start_time	String	Task start time
end_time	String	Task end time
description	String	Error description
input	ObsObjInfo object	Input file information
output	ObsObjInfo object	Output file information
user_data	String	User data
metadata	MetaData object	Output parameters

Table 11-16 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	File path. <ul style="list-style-type: none"> If this parameter is used for an input, a specific path must be specified. If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none"> If this parameter is specified, the output object name is <i>object/file_name</i>. If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Table 11-17 MetaData

Parameter	Type	Description
size	Long	File size
duration_ms	Double	Video duration (unit: second), with decimal places.
duration	Long	Video duration Unit: s
format	String	File container format
bitrate	Long	Total bitrate. Unit: bit/s.
video	Array of Videoinfo objects	Video metadata
audio	Array of Audiainfo objects	Audio metadata

Table 11-18 Videoinfo

Parameter	Type	Description
width	Integer	Video width
height	Integer	Video height
bitrate	Integer	Video bitrate, in kbit/s

Parameter	Type	Description
bitrate_bps	Long	Video bitrate, in bit/s
frame_rate	Integer	<p>Frame rate.</p> <p>The value is 0 or ranges from 5 to 60. The value 0 indicates adaptive frame rate.</p> <p>Unit: FPS</p> <p>NOTE</p> <p>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.</p>
codec	String	Video codec

Table 11-19 AudioInfo

Parameter	Type	Description
codec	String	Audio codec
sample	Integer	Audio sampling rate
channels	Integer	Number of audio channels
bitrate	Integer	Audio bitrate, in kbit/s
bitrate_bps	Long	Audio bitrate, in bit/s

Status code: 400

Table 11-20 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": "SUCCEEDED",
    "create_time": 20201119103821,
    "start_time": 20201119103822,
    "end_time": 20201119103827,
    "description": "The task has completed.",
    "input": {
      "bucket": "obs-apitest-01",
      "location": "cn-north-5",
      "object": "mp4/4k.mp4"
    },
    "output": {
      "bucket": "obs-apitest-01",
      "location": "cn-north-5",
      "object": "out_gamma/extract/",
      "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.

URI

DELETE /v1/{project_id}/extract-metadata

Table 11-21 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see Obtaining a Project ID .

Table 11-22 Query parameters

Parameter	Mandatory	Type	Description
task_id	Yes	String	Task ID

Request Parameters

Table 11-23 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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: 400

Table 11-24 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

[Creating a Snapshot Task](#)

[Querying Snapshot Tasks](#)

[Canceling a Snapshot Task](#)

12.1 Creating a Snapshot Task

Function

This API is used to create a snapshot task to capture snapshots from a video 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 to access the OBS bucket has been granted. Constraints: Currently, only animated GIF files can be generated.

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 a project ID, see Obtaining a Project ID .

Request Parameters

Table 12-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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	ObsObjInfo object	Storage location of an input file
output	Yes	ObsObjInfo object	Storage location of an output file
user_data	No	String	Custom user data
thumbnail_parameters	Yes	ThumbnailParameters object	Snapshot parameters

Parameter	Mandatory	Type	Description
tar	No	Integer	<p>Whether to enable synchronous processing. Synchronous processing quickly locates the snapshot position to take a snapshot.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 0: Synchronous processing is not enabled. Video metadata is not synchronized. It is queued for processing. • 1: Synchronous processing is enabled. Currently, only one snapshot can be captured at each interval. Default value: 0.
sync	No	Integer	<p>Whether to use the original output directory.</p> <p>Possible values:</p> <ul style="list-style-type: none"> • 0: The original output directory is not used. A random directory is added to the end of the delivered output directory to prevent the snapshots with the same output URI from being overwritten. • 1: The original output directory is used. Default value: 0.
original_dir	No	Integer	<p>Whether to use the original output directory.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> • 0: 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. • 1: The original output directory is used.

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	File path. <ul style="list-style-type: none"> • If this parameter is used for an input, a specific path must be specified. • If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	No	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none"> • If this parameter is specified, the output object name is <i>object/file_name</i>. • If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Table 12-5 ThumbnailPara

Parameter	Mandatory	Type	Description
type	No	String	Sampling type. Possible values are: <ul style="list-style-type: none"> • PERCENT: Snapshots are captured based on the percentage of the video duration. • TIME: Snapshots are captured at certain intervals. • DOTS: Snapshots are captured a fixed time point. Default value: TIME

Parameter	Mandatory	Type	Description
time	No	Integer	Interval for taking snapshots. Default value: 12 Unit: second
start_time	No	Integer	Start time if the sampling type is TIME. This parameter is used together with time. Default value: 0 Unit: second
duration	No	Integer	Duration if the sampling type is TIME. This parameter is used together with time and start_time. Snapshots are captured every time. ToEND indicates that sampling lasts until the end of the video. Default value: ToEND Unit: second It must be greater than or equal to 0. If this is 0, snapshots are captured from start_time to the video end time.
dots	No	Array of integers	Array of time points when a snapshot is taken. A maximum of 10 time points are supported.

Parameter	Mandatory	Type	Description
output_filename	No	String	<p>Name of a snapshot file.</p> <ul style="list-style-type: none"> • If only one image is extracted (the sampling type is DOTS), the image is output based on the specified file name. • If multiple images are extracted (the sampling type is DOTS or TIME), the time point is added to the name of the output image file, for example, output_filename_10.jpg. • If extracted images are going to be compressed into a TAR package, the TAR package is generated based on the specified file name.
format	No	Integer	<p>Snapshot file format.</p> <p>The value is: 1: jpg</p>
aspect_ratio	No	Integer	Aspect ratio.
width	No	Integer	Snapshot width
height	No	Integer	Snapshot height
max_length	No	Integer	<p>The longest side of a snapshot. The other side of the snapshot is scaled proportionally with the longest side and input video pixel.</p> <p>Value range: 240 to 3,840 Default value: 480 Unit: pixel</p> <p>NOTE If this parameter and width/height are both set, the width/height is used. If both the width and height are not 0, the longest side is the width/height. Otherwise, the longest side is the value of max_length. If this parameter and width/height are not set, max_length is 480 by default.</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	ObsObjInfo 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
location	String	Region where an OBS bucket is located. It must be the same as the region where MPC is deployed.
object	String	File path. <ul style="list-style-type: none">• If this parameter is used for an input, a specific path must be specified.• If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none">• If this parameter is specified, the output object name is <i>object/file_name</i>.• If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Status code: 400

Table 12-8 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
POST https://{endpoint}/v1/{project_id}/thumbnails
{
  "input": {
    "bucket": "example-bucket",
    "location": "region1",
    "object": "/VOD/input/sample.MP4"
  },
  "output": {
    "bucket": "example-bucket",
    "location": "region1",
    "object": "/VOD/output/"
  },
  "tar" : 1,
  "thumbnail_para": {
    "time":2,
    "format":1,
    "aspect_ratio":1,
    "max_length":480
  }
}
```

Example Responses

Status code: 202

Snapshot task created successfully.

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

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.

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 a project ID, see Obtaining a Project ID .

Table 12-10 Query parameters

Parameter	Mandatory	Type	Description
task_id	No	Array	Task ID. A maximum of 10 task IDs can be queried at a time.
status	No	String	Task status. Possible values are: <ul style="list-style-type: none">● WAITING: pending● PROCESSING: running● SUCCEEDED: completed● FAILED: failed● CANCELED: deleted

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

Request Parameters

Table 12-11 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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.
x-language	No	String	Client language.

Response Parameters

Status code: 200

Table 12-12 Response body parameters

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

Table 12-13 ThumbTask

Parameter	Type	Description
task_id	String	Task ID. A maximum of 10 task IDs can be queried at a time.
status	String	Task status
create_time	String	Start time. If task_id is specified, this parameter is invalid. Its format is <code>yyyymmddhhmmss</code> . The value must be a UTC time irrelevant to the time zone.

Parameter	Type	Description
end_time	String	End time. If task_id 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	ObsObjInfo object	Storage location of an input file
output	ObsObjInfo 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.
thumbnail_info	Array of PicInfo 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	File path. <ul style="list-style-type: none"> • If this parameter is used for an input, a specific path must be specified. • If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none"> • If this parameter is specified, the output object name is <i>object/file_name</i>. • If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

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": "obs-apitest-01",
      "location": "cn-north-5",
      "object": "ts/22.ts"
    },
    "output": {
      "bucket": "obs-apitest-01",
      "location": "cn-north-5",
      "object": "out_gamma/thumbnails/query_02"
    },
    "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.

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 a project ID, see Obtaining a Project ID .

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. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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 Encryption APIs

[Creating an Encryption Task](#)

[Canceling an Encryption Task](#)

[Querying Encryption Tasks](#)

13.1 Creating an Encryption Task

Function

This API is used to create an encryption task.

Constraints:

- Only transcoded files are encrypted.
- A file to be encrypted must be an .m3u8 or .mpd file.

URI

POST /v1/{project_id}/encryptions

Table 13-1 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see Obtaining a Project ID .

Request Parameters

Table 13-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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
input	No	ObsObjInfo object	Storage location of an input file
output	No	ObsObjInfo object	Storage location of an output file
encryption	No	Encryption object	Encryption information
user_data	No	String	Custom user data

Table 13-4 ObsObjInfo

Parameter	Mandatory	Type	Description
bucket	Yes	String	OBS bucket name

Parameter	Mandatory	Type	Description
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	File path. <ul style="list-style-type: none"> If this parameter is used for an input, a specific path must be specified. If this parameter is used for an output, only the directory for storing the outputs needs to be specified.
file_name	No	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none"> If this parameter is specified, the output object name is <i>object/file_name</i>. If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Table 13-5 Encryption

Parameter	Mandatory	Type	Description
hls_encrypt	No	HlsEncrypt object	Encryption parameters for HLS videos

Table 13-6 HlsEncrypt

Parameter	Mandatory	Type	Description
key	Yes	String	Content encryption key, which is in base64Binary format
url	Yes	String	Address of Key Management Service (KMS) used by the tenant
iv	No	String	Initial vector, which is a random number in base64Binary format

Parameter	Mandatory	Type	Description
algorithm	No	String	Encryption algorithm. Possible values are: <ul style="list-style-type: none"> • AES-128-CTR • AES-128-CBC • SM4CBC Default value: AES-128-CTR

Response Parameters

Status code: 202

Table 13-7 Response body parameters

Parameter	Type	Description
task_id	String	Task ID

Status code: 400

Table 13-8 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

```
POST https://{endpoint}/v1/{project_id}/encryptions
{
  "output": {
    "bucket": "obs-bucket06",
    "location": "region1",
    "object": "sswoutput"
  },
  "input": {
    "bucket": "vostest",
    "location": "region1",
    "object": "vos_video/hls/index.m3u8"
  },
  "encryption": {
    "hls_encrypt": {
      "iv": "kadGyMP9MbMkB1IfIKCNaA==",
      "key": "NqdGyMP9MbMiB1IfIKCNeQ==",
      "url": "xxxxxxx",
      "algorithm": "AES-128-CBC"
    },
    "preview_duration": 2,
    "multidrm": {
```

```
"emi": 16420,  
"content_id": "jjJr6K",  
"streaming_mode": "HLS",  
"drm_list": [  
  "PLAYREADY"  
],  
"encrypt_audio": 0  
}  
}
```

Example Responses

Status code: 202

Encryption task created successfully.

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

Status code: 400

Failed to create an encryption task.

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

Status Codes

Status Code	Description
202	Encryption task created successfully.
400	Failed to create an encryption task.

Error Codes

See [Error Codes](#).

13.2 Canceling an Encryption Task

Function

This API is used to cancel an encryption task.

Constraints:

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

URI

DELETE /v1/{project_id}/encryptions

Table 13-9 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see Obtaining a Project ID .

Table 13-10 Query parameters

Parameter	Mandatory	Type	Description
task_id	Yes	String	Task ID

Request Parameters

Table 13-11 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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 13-12 Response body parameters

Parameter	Type	Description
error_code	String	Error code
error_msg	String	Error description

Example Requests

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

Example Responses

Status code: 400

Failed to cancel the encryption task.

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

Status Codes

Status Code	Description
204	Encryption task canceled successfully.
400	Failed to cancel the encryption task.

Error Codes

See [Error Codes](#).

13.3 Querying Encryption Tasks

Function

This API is used to query one or encryption tasks.

URI

GET /v1/{project_id}/encryptions

Table 13-13 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see Obtaining a Project ID .

Table 13-14 Query parameters

Parameter	Mandatory	Type	Description
task_id	No	Array	Task ID. A maximum of 10 task IDs are supported.
status	No	String	Task status. Possible values are: <ul style="list-style-type: none">● WAITING: pending● PROCESSING: running● SUCCEEDED: completed● FAILED: failed● CANCELED: canceled
start_time	No	String	Start time. If task_id 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 task_id 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 task_id is specified, this parameter is invalid. Default value: 0 .
size	No	Integer	Number of records on each page. If task_id is specified, this parameter is invalid. The value ranges from 1 to 100. Default value: 10

Request Parameters

Table 13-15 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	User token. The token is obtained by calling the IAM API used to obtain a user token. The token is the value of X-Subject-Token in the response header.
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 13-16 Response body parameters

Parameter	Type	Description
task_array	Array of EachEncryptRsp objects	Task list
is_truncated	Integer	Whether the query results are truncated
total	Integer	Total number of queried encryption tasks

Table 13-17 EachEncryptRsp

Parameter	Type	Description
task_id	String	Task ID

Parameter	Type	Description
status	String	Task status. Possible values are: <ul style="list-style-type: none"> ● NO_TASK: No tasks exist. ● WAITING: pending ● PROCESSING: running ● SUCCEEDED: completed ● FAILED: failed ● CANCELED: canceled
create_time	String	Task start time
end_time	String	Task end time
input	ObsObjInfo object	Storage location of an input file
output	ObsObjInfo object	Storage location of an output file
output_file_name	Array of strings	Name of the output file. The value is of the array type and may contain multiple names.
user_data	String	User data
description	String	Task description. If an error occurs in a transcoding task, this field indicates the error cause.

Table 13-18 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	File path. <ul style="list-style-type: none"> ● If this parameter is used for an input, a specific path must be specified. ● If this parameter is used for an output, only the directory for storing the outputs needs to be specified.

Parameter	Type	Description
file_name	String	Name of an output file. This parameter is valid only for packaging tasks. <ul style="list-style-type: none"> If this parameter is specified, the output object name is <i>object/file_name</i>. If this parameter is not specified, the output object name is <i>object/xxx</i>, where <i>xxx</i> is allocated by MPC.

Status code: 400

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}/encryptions?task_id=31207
```

Example Responses

Status code: 200

Encryption task queried successfully.

```
{
  "task_array": [ {
    "task_id": 31207,
    "status": "SUCCEEDED",
    "create_time": 20201119103952,
    "end_time": 20201119104051,
    "input": {
      "bucket": "obs-apitest-01",
      "location": "cn-north-5",
      "object": "encrypt/m3u8/index.m3u8"
    },
    "output": {
      "bucket": "obs-apitest-01",
      "location": "cn-north-5",
      "object": "out_gamma/encrypt/001"
    },
    "output_file_name": [ "index.m3u8" ]
  } ],
  "is_truncated": 0,
  "total": 1
}
```

Status code: 400

Failed to query the encryption task.

```
{
  "error_code": "MPC.10202",
```

```
"error_msg" : "Invalid request parameter."  
}
```

Status Codes

Status Code	Description
200	Encryption task queried successfully.
400	Failed to query the encryption task.

Error Codes

See [Error Codes](#).

14 Appendix

[Status Codes](#)

[Error Codes](#)

[Obtaining a Project ID](#)

[Obtaining an Account ID](#)

14.1 Status Codes

Table 14-1 lists the status codes that may be returned when you call MPC APIs.

Table 14-1 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. The client should not repeat the request without modifications.
401 Unauthorized	The authentication information provided by the client is incorrect or invalid.

Status Code	Description
403 Forbidden	<p>The server understood the request, but is refusing to fulfill it.</p> <p>The client should not repeat the request without modifications.</p>
404 Not Found	<p>The requested resource could not be found.</p> <p>The client should not repeat the request without modifications.</p>
405 Method Not Allowed	<p>The method specified in the request is not supported for the requested resource.</p> <p>The client should not repeat the request without modifications.</p>
406 Not Acceptable	<p>The server could not fulfill the request according to the content characteristics of the request.</p>
407 Proxy Authentication Required	<p>This code is similar to 401 (Unauthorized), but indicates that the client must first authenticate itself with the proxy.</p>
408 Request Timeout	<p>The client did not produce a request within the time that the server was prepared to wait.</p> <p>The client may repeat the request without modifications at any later time.</p>
409 Conflict	<p>The request could not be completed due to a conflict with the current state of the resource.</p> <p>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.</p>
500 Internal Server Error	<p>The server is able to receive the request but unable to understand it.</p>
501 Not Implemented	<p>The server does not support the functionality required to fulfill the request.</p>
502 Bad Gateway	<p>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.</p>
503 Service Unavailable	<p>The server is currently unable to handle the request.</p> <p>The client should not repeat the request without modifications.</p>

Status Code	Description
504 Gateway Timeout	A gateway timeout error occurred.

14.2 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.10089	The template does not exist.	The template does not exist.	Check whether the template exists.
400	MPC.10090	The template file does not exist.	The template file does not exist.	The template file does not exist. Please check.
400	MPC.10091	The template name already exists.	The template name already exists.	Enter another template name.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.

Status Code	Error Codes	Error Message	Description	Solution
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.
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.

14.3 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:

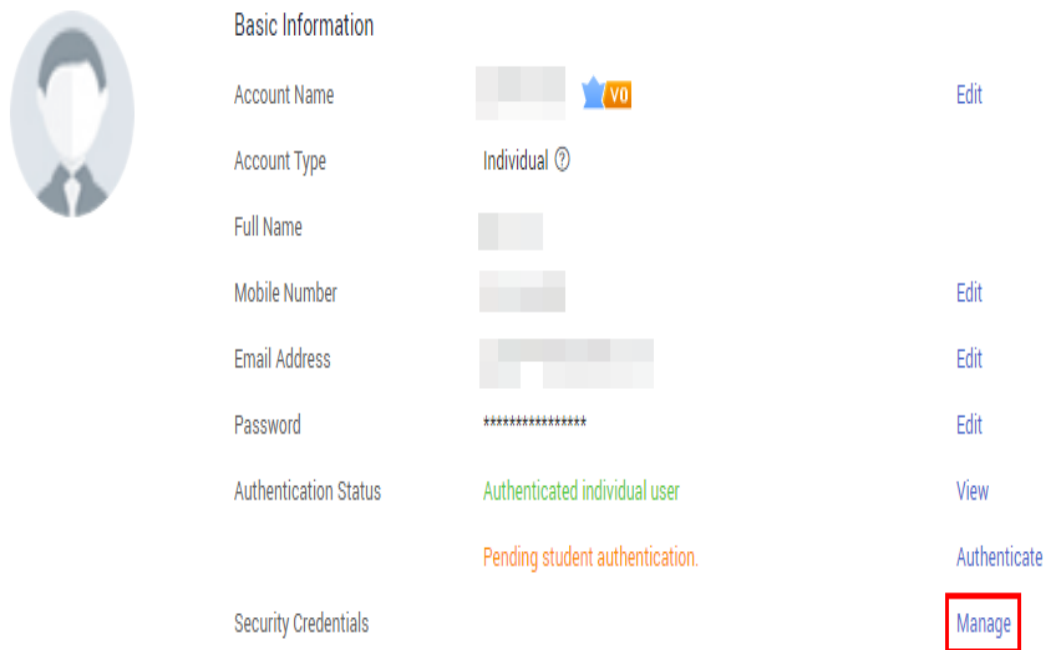
- [Obtaining a Project ID from the Management Console](#)
- [Obtaining a Project ID by Calling an API](#)

Obtaining a Project ID from the Management Console

Step 1 Log in to the [HUAWEI CLOUD website](#), hover the mouse cursor over the username in the upper right corner, and choose **My Account**.

Step 2 On the **Basic Information** page, click **Manage** beside **Security Credentials**.

Figure 14-1 Basic information



Step 3 On the displayed **API Credentials** page, view the **Project ID**.

Figure 14-2 Obtaining a Project ID

The screenshot shows the 'API Credentials' page. It has a search bar at the top with the text 'about HUAWEI CLOUD accounts, IAM users, and projects. Learn more'. Below the search bar are four input fields: 'IAM Username', 'Account Name', 'IAM User ID', and 'Account ID'. The 'IAM Username' and 'Account ID' fields are highlighted with red boxes. Below the input fields is a 'Projects' section with a search bar 'Enter a project name' and a magnifying glass icon. The 'Projects' section contains a table with three columns: 'Project ID', 'Project Name', and 'Region'. The 'Project ID' and 'Project Name' columns are highlighted with red boxes. The table lists four projects:

Project ID	Project Name	Region
[Redacted]	cn-north-1	CN North-Beijing1
[Redacted]	cn-north-4	CN North-Beijing4
[Redacted]	cn-east-3	CN East-Shanghai1
[Redacted]	cn-east-2	CN East-Shanghai2

----End

Obtaining a Project ID by Calling an API

You can obtain a project ID by calling an API used to [query 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"
  }
}
```

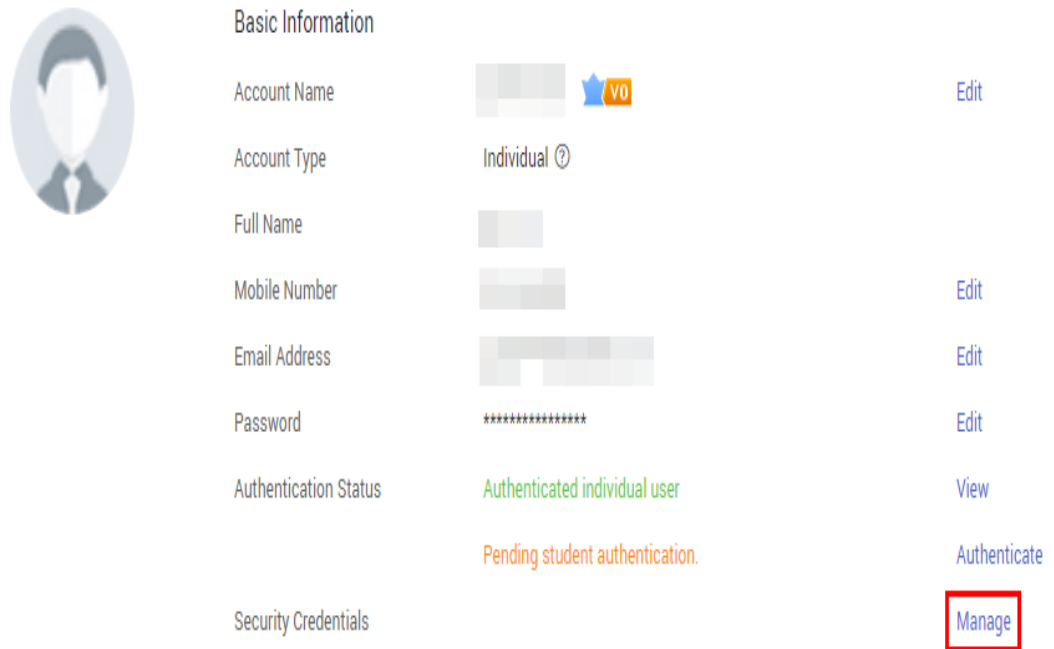
14.4 Obtaining an Account ID

An account ID is required for some URLs when an API is called. To obtain an account ID, perform the following operations:

Step 1 Log in to the [HUAWEI CLOUD website](#), hover the mouse cursor over the username in the upper right corner, and choose **My Account**.

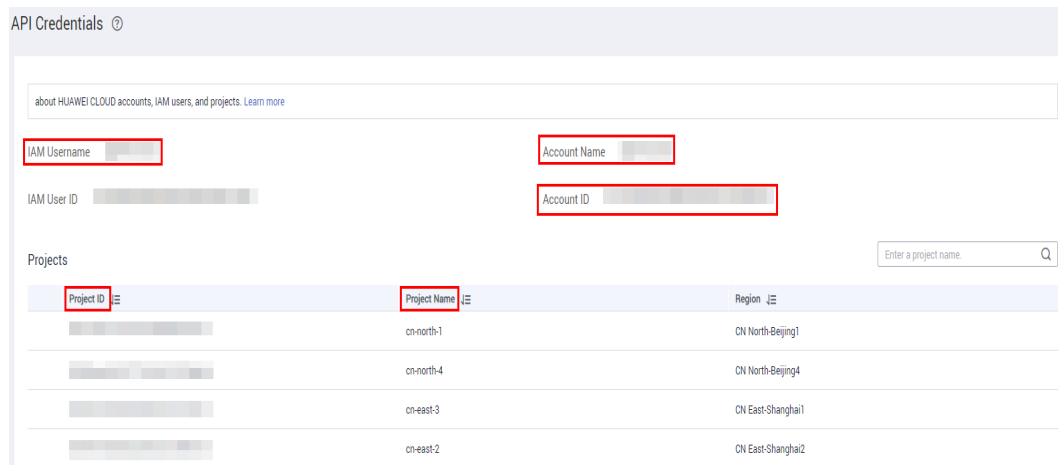
Step 2 On the **Basic Information** page, click **Manage** beside **Security Credentials**.

Figure 14-3 Basic Information page



Step 3 On the displayed **API Credentials** page, view the **Account ID**.

Figure 14-4 Obtaining an Account ID



----End

15 Change History

Table 15-1 Change history

Release Date	Description
2020-12-10	This issue is the eighteenth official release, which incorporates the following change: Added error code description.
2020-10-14	This issue is the seventeenth official release, which incorporates the following changes: <ul style="list-style-type: none">• Optimized field description. In the ObsObjInfo structure, file_name is used only in packaging APIs to specify the name of the output file.• Added the user_data parameter to the media transcoding APIs, packaging APIs, and animated GIF APIs, indicating user-defined data.• Added the duration_ms field to MetaData and SourceInfo, indicating that how long an input file lasts.• Added dynamic_range to the VideoInfo structure, indicating the dynamic range type of an input file.
2020-06-20	This issue is the sixteenth official release, which incorporates the following changes: <ul style="list-style-type: none">• Added an application example: Submitting a Video Transcoding Task.• Added an application example: Submitting a Video Snapshot Task.
2020-01-21	This issue is the fifteenth official release, which incorporates the following change: Added transcoding template group APIs.

Release Date	Description
2019-07-02	This issue is the fourteenth official release, which incorporates the following change: Added an application example: Creating a Transcoding Template.
2019-06-28	This issue is the thirteen official release, which incorporates the following changes: <ul style="list-style-type: none"> • Added snapshot management APIs. • Added APIs for video metadata extraction.
2019-6-26	This issue is the twelfth official release, which incorporates the following change: Added packaging APIs.
2019-04-29	This issue is the eleventh official release, which incorporates the following change: Added input and output information to transcoding task APIs.
2019-03-21	This issue is the tenth official release, which incorporates the following change: Modified the description of pack_type in the API for creating a transcoding template.
2019-03-21	This issue is the ninth official release, which incorporates the following change: Adjusted the document structure and optimized related descriptions.
2018-10-25	This issue is the eighth official release, which incorporates the following change: Changed the type of template_id to Long .
2018-10-16	This issue is the seventh official release, which incorporates the following change: Added the description field to the TaskInfo parameter returned from calling an API for querying transcoding tasks.
2018-09-30	This issue is the sixth official release, which incorporates the following change: Deleted the template ID from the APIs for creating a transcoding task and creating a snapshot task, and used the snapshot information structure instead.
2018-09-21	This issue is the fifth official release, which incorporates the following change: Replaced the detail_error field in the API for querying transcoding tasks with transcode_detail . transcode_detail includes Multitask_info .

Release Date	Description
2018-05-16	This issue is the fourth official release, which incorporates the following changes: <ul style="list-style-type: none">• Added watermark-related parameters to the API for creating a transcoding task.• Added watermark template APIs.
2019-04-26	This issue is the third official release, which incorporates the following change: Modified the transcoding template parameters and their value ranges.
2018-04-24	This issue is the second official release, which incorporates the following change: Added the HLS_DASH type to the format field in the API for creating a stitching task.
2018-03-31	This issue is the first official release.