Amazon Elastic Transcoder

Developer Guide

API Version 2012-09-25

Amazon Web Services

Amazon Elastic Transcoder: Developer Guide

Amazon Web Services

What is Amazon Elastic Transcoder?

Topics

Amazon Elastic Transcoder lets you convert media files that you have stored in Amazon Simple Storage Service (Amazon S3) into media files in the formats required by consumer playback devices. For example, you can convert large, high-quality digital media files into formats that users can play back on mobile devices, tablets, web browsers, and connected televisions.

Elastic Transcoder has three components:

- **Jobs** do the work of transcoding. Each job converts one file into one format. For example, if you want to convert a media file into six different formats, you create six jobs.

  When you create a job, you specify the name of the file that you want to transcode, the name that you want Elastic Transcoder to give to the transcoded file, and several other settings. You also specify a template, known as a *preset* (see below), that contains the audio and video settings that you want to use for the transcoded file.
- **Pipelines** are queues that manage your transcoding jobs. When you create a job, you specify which pipeline you want to add the job to. Elastic Transcoder starts processing the jobs in a pipeline in the order in which you added them.

  Typically, you'll create at least two pipelines—one for standard-priority jobs, and one for high-priority jobs. Most jobs go into the standard-priority pipeline; you use the high-priority pipeline only when you need to transcode a file immediately.

  If there are other jobs in a pipeline when you create a job, Elastic Transcoder begins processing the new job when resources are available. A pipeline can process more than one job simultaneously, and the time required to complete a job varies significantly based on the size of the file you're converting and the job specifications. Accordingly, jobs don't necessarily complete in the order in which you create them.

  You can temporarily stop processing jobs by pausing the pipeline.
- **Presets** are templates that contain most of the settings for transcoding media files from one format to another. Elastic Transcoder includes some default presets for common formats, for example, several

iPod and iPhone versions. You can also create your own presets for formats that aren't included among the default presets. You specify which preset you want to use when you create a job.

Accessing Elastic Transcoder

Elastic Transcoder is a RESTful web service that uses HTTPS as the protocol and JavaScript Object Notation (JSON) as the message format. Your application code can make requests directly to the Elastic Transcoder API. When using the REST API directly, you must write the necessary code to sign and authenticate your requests. For more information about the API and about signing requests, see API Reference (p. 37).

Elastic Transcoder also provides a management console. You can use the console to perform all of the same operations that you can perform using the Elastic Transcoder API. For information about using the console to create and manage pipelines, presets, and jobs, see the applicable topic:

- Working with Jobs (p. 15)
- Working with Pipelines (p. 8)
- Working with Presets (p. 21)

Regions and Endpoints

You create pipelines in a specific AWS region. You always send your Elastic Transcoder requests to a region-specific endpoint. For a list of supported AWS regions, go to the Regions and Endpoints section in the *Amazon Web Services General Reference*.

Limits on the Number of Elastic Transcoder Entities

Elastic Transcoder entities are subject to the following limitations:

- **Pipelines:** 4 per AWS account
- **Active jobs:** 1,000 per pipeline
- **Presets:** 50 user-defined presets per AWS account (Elastic Transcoder also includes predefined presets that don't count against the limit.)

You can request higher limits at http://aws.amazon.com/contact-us/elastictranscoder-request/.

Getting Started with Elastic Transcoder

The example in this topic gives you a quick overview of how to use Elastic Transcoder to transcode media files from one media format into another. You only need to perform a few basic steps to start transcoding your media files using Elastic Transcoder. The first step is signing up for AWS. After that, you create an Amazon S3 bucket and upload a media file that you want to transcode. You then create a pipeline to process your jobs, and create a job to transcode a specific file into a specific format. If you want to transcode to a format for which we don't provide a preset (a template), you can create a custom preset before you create the job.

> **Note**
> If you aren't already acquainted with jobs, pipelines, and presets—the basic concepts behind Elastic Transcoder—take a quick look at the short overview topic: What is Amazon Elastic Transcoder? (p. 1)

Topics

Step 1: Sign Up for AWS

To use Elastic Transcoder, you need an AWS account. If you don't already have an account, you'll be prompted to create one when you sign up. You're not charged for any AWS services that you sign up for unless you use them.

To sign up for AWS

1. Go to http://aws.amazon.com, and then click **Sign Up Now**.
2. Follow the on-screen instructions.

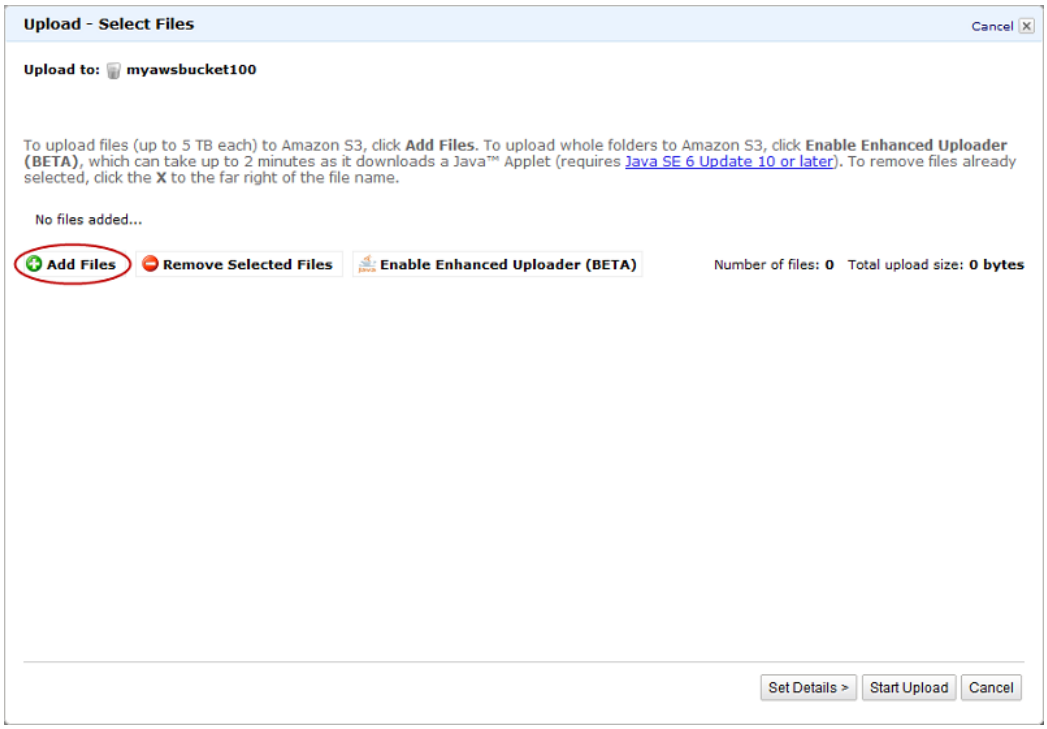
Part of the sign-up procedure involves receiving a phone call and entering a PIN using the phone keypad.

Step 2: Create an Amazon S3 Bucket or Two, and Upload a Media File

Create an Amazon S3 bucket for the files that you want to transcode (the input bucket) and another bucket for the transcoded files (the output bucket). You can also use the same bucket for the input bucket and the output bucket.

To create Amazon S3 buckets and upload a media file

1. Sign in to the AWS Management Console and open the Amazon S3 console at https://console.aws.amazon.com/s3/.
2. In the Amazon S3 console, click **Create Bucket**.
3. In the **Create Bucket** dialog, enter a bucket name. If you want to create separate input and output buckets, give the bucket an appropriate name.
4. Select a region for your bucket. By default, Amazon S3 creates buckets in the US Standard region. We recommend that you choose a region close to you to optimize latency, minimize costs, or to address regulatory requirements. This is also the region in which you want Elastic Transcoder to do the transcoding.
5. Click **Create**.
6. If you want to create separate buckets for the files that you are transcoding and the files that Elastic Transcoder has finished transcoding, repeat Step 2 through Step 5.
7. In the **Buckets** pane, click the name of your input bucket.
8. Click **Actions** and click **Upload**.
9. On the **Upload - Select Files** page, click **Add Files**, and upload a media file that you want to transcode.



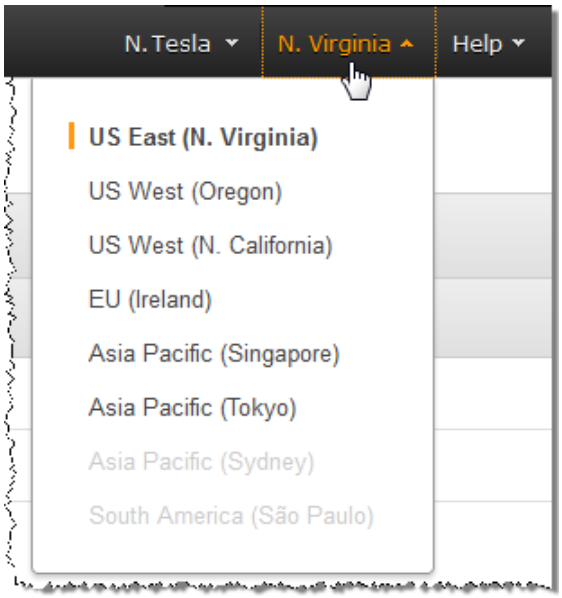
10. Click **Start Upload**.

Step 3: Create a Pipeline

A pipeline manages the jobs that transcode your files. Typically, you'll create two or more pipelines, for example, to manage standard-priority jobs and high-priority jobs. In this example, you'll create a single pipeline. For more information about pipelines, see Working with Pipelines (p. 8).

To create a pipeline using the Elastic Transcoder console

1. Open the AWS Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.
2. In the navigation bar of the Elastic Transcoder console, select the region in which you want to create the pipeline.



3. In the left pane of the console, click **Pipelines**.
4. On the **Pipelines** page, click **Create New Pipeline**.
5. Enter the applicable values. For more information about each field, see Settings that You Specify When You Create an Elastic Transcoder Pipeline (p. 13).

   Note
   If you want to monitor the progress of your job, specify the Amazon Simple Notification Service (Amazon SNS) topic that you want to notify when Elastic Transcoder begins processing a job and when Elastic Transcoder has completed the job.

6. Click **Create Pipeline**.

Step 4: Create a Preset (Optional)

A preset is a template that contains the settings that you want Elastic Transcoder to apply during the transcoding process, for example, the codec and the resolution that you want in the transcoded file. When you create a job, you specify which preset you want to use. We provide system presets that create media files that play on any device and system presets that target specific devices. For maximum compatibility, choose a preset that creates output that plays on a wide range of devices. For optimum quality and file size, choose a preset that creates output for a specific device or class of devices. For the current list of system presets, see the list of presets on the Elastic Transcoder detail page.

If none of the system presets contain the settings that you need, you can create your own presets. For more information, see Creating a Preset in Elastic Transcoder (p. 21).

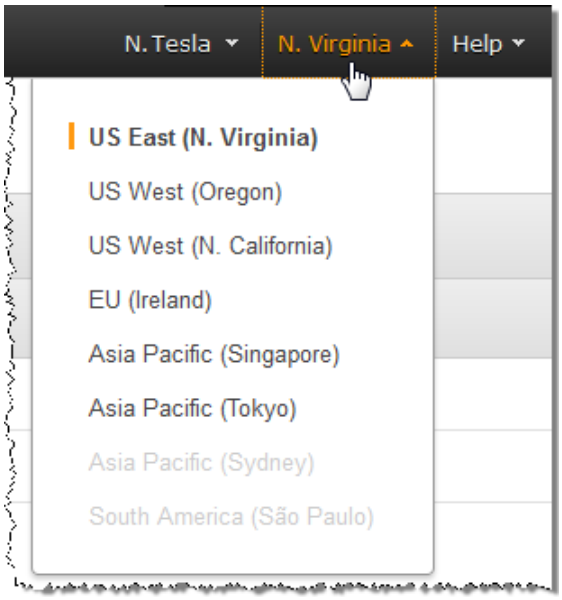
Step 5: Create a Job

A job does the work of transcoding. You specify the name of the file that you want to transcode (the input file), the name that you want Elastic Transcoder to give the transcoded file, the preset that you want Elastic Transcoder to use, and a few other settings. Elastic Transcoder gets the input file from the Amazon S3 input bucket that you specified in your pipeline, transcodes the file, and saves the transcoded file in the Amazon S3 output bucket that you specified in the pipeline.

For more information about jobs, see Working with Jobs (p. 15).

To create a job using the Elastic Transcoder console

1. Open the AWS Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.
2. In the navigation bar of the Elastic Transcoder console, select the region in which you want to create the job.



3. In the left pane of the console, click **Pipelines**. (You create the job in the pipeline—the queue—that you want to use to transcode the file.)
4. On the **Pipelines** page, click **Create New Job**.
5. Enter the applicable values. For more information about each field, see Settings that You Specify When You Create an Elastic Transcoder Job (p. 19).
6. Click **Create Job**.

Step 6: Monitor the Progress of Your Job

If you specified that you want Elastic Transcoder to send a message to an Amazon Simple Notification Service (Amazon SNS) topic when Elastic Transcoder begins processing a job and finishes processing a job, and if you subscribed to that topic, you'll receive an Amazon SNS notification, you'll be able to monitor the progress of your job.

Working with Pipelines

Topics

Pipelines are queues that manage your transcoding jobs. When you create a job, you specify the pipeline to which you want to add the job. Elastic Transcoder starts processing the jobs in a pipeline in the order in which you added them.

Typically, you'll create at least two pipelines—one for standard-priority jobs, and one for high-priority jobs. Most jobs go into the standard-priority pipeline; you use the high-priority pipeline only when you need to transcode a file immediately.

If there are other jobs in a pipeline when you create a job, Elastic Transcoder begins processing the new job when resources are available. A pipeline can process more than one job simultaneously, and the time required to complete a job varies significantly based on the size of the file you're converting and the job specifications. As a result, jobs don't necessarily complete in the order in which you create them.

You can temporarily pause a pipeline so it stops processing jobs. This is useful if you want to cancel one or more jobs, which you can do only until Elastic Transcoder starts processing the jobs.

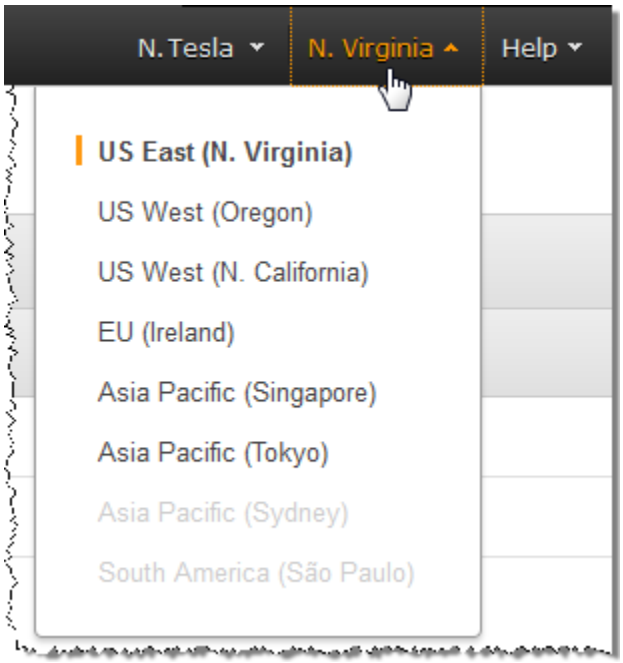
Creating a Pipeline in Elastic Transcoder

You can create a pipeline using the AWS Management Console or using the Elastic Transcoder Create Pipeline API action. The following procedure explains how to create a pipeline using the console. For information about how to create a pipeline using the API, see Create Pipeline (p. 51).

To create a pipeline using the Elastic Transcoder console

1. Sign in to the AWS Management Console and open the Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.

2. In the navigation bar of the Elastic Transcoder console, select the region in which you want to create the pipeline.



3. In the navigation (left) pane of the console, click **Pipelines**.
4. On the **Pipelines** page, click **Create New Pipeline**.
5. Enter the applicable values. For more information about each field, see Settings that You Specify When You Create an Elastic Transcoder Pipeline (p. 13).
6. Click **Create Pipeline**.

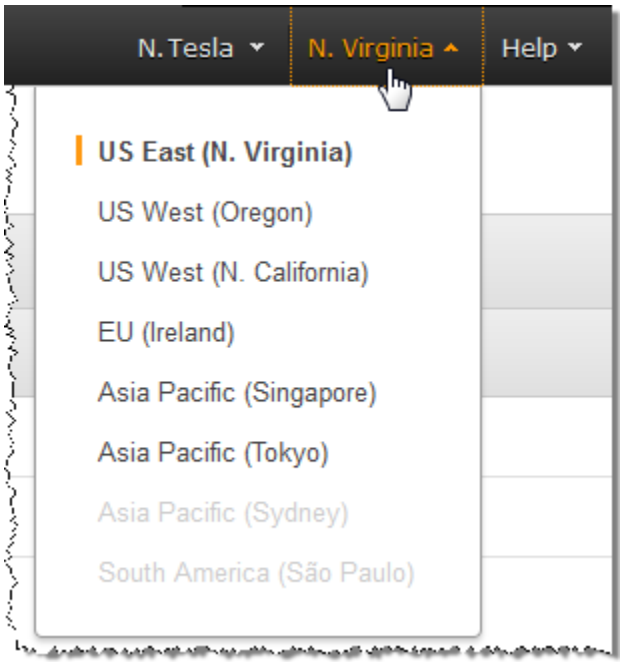
Pausing and Reactivating Pipelines in Elastic Transcoder

If you want to cancel a job, we recommend that you first pause the corresponding pipeline so Elastic Transcoder doesn't start processing the job. After the status of a job changes from **Submitted** to **Progressing**, you can't cancel it.

The following procedure explains how to pause and reactivate a pipeline by using the console. For information about how to pause and reactivate a pipeline by using the API, see Update Pipeline Status (p. 62).

To pause or reactivate a pipeline using the Elastic Transcoder console

1. Sign in to the AWS Management Console and open the Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.
2. In the navigation bar of the Elastic Transcoder console, select the region in which you want to pause or reactivate a pipeline.



3. In the navigation (left) pane, click **Pipelines**.
4. Select the check box next to the pipeline that you want to pause or reactivate.
5. Click **Pause** or **Activate** as applicable.

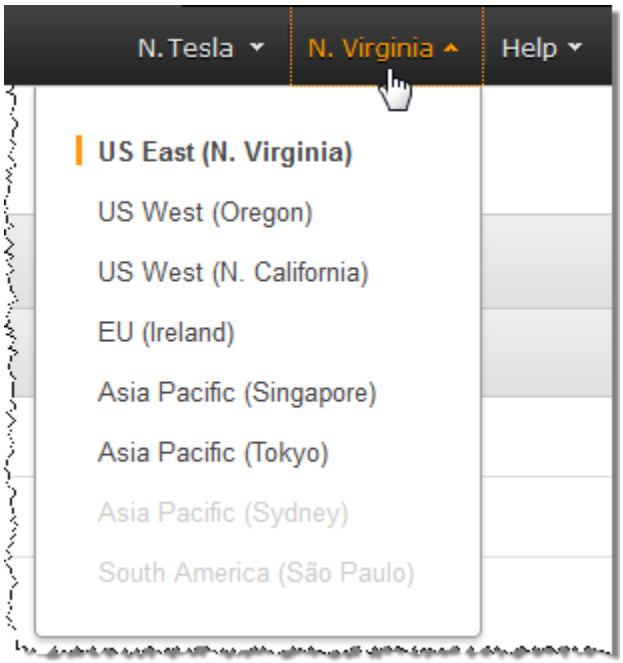
Updating Pipeline Notifications in Elastic Transcoder

When you create a pipeline, you have the option to specify whether you want Elastic Transcoder to send a message to an Amazon Simple Notification Service (Amazon SNS) topic when Elastic Transcoder begins processing a job, finishes processing a job, returns a warning while processing a job, or returns an error while processing a job. You can change whether you want Elastic Transcoder to send a message, and, if so, you can change which SNS topic to send the message to.

The following procedure explains how to update notifications using the console. For information about how to update notifications using the API, see Update Pipeline Notifications (p. 65).

To update pipeline notifications using the Elastic Transcoder console

1. Sign in to the AWS Management Console and open the Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.
2. In the navigation bar of the Elastic Transcoder console, select the region in which you want to pause or reactivate a pipeline.



3. In the navigation (left) pane, click **Pipelines**.
4. Select the check box next to the pipeline for which you want to change notifications.
5. Click **Edit**.
6. Change values as applicable.
7. Click **Save** to save your changes.

Listing and Viewing Pipelines in Elastic Transcoder

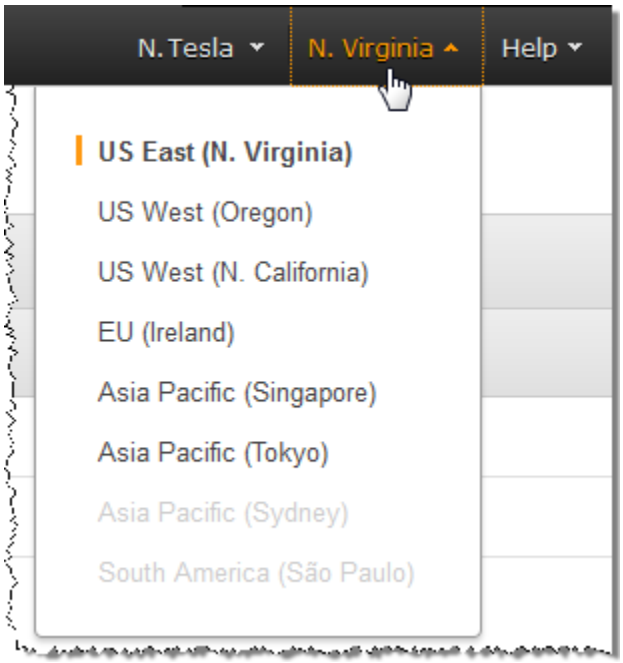
You can list the pipelines associated with the current AWS account, and you can also view the settings for a specified pipeline. The following procedure explains how to list pipelines and how to view settings for a pipeline by using the console.

For information about how to use the API to:

- List pipelines for the current AWS account, see List Pipelines (p. 55).
- Get settings for a specified pipeline, see Get Pipeline (p. 59).

To list pipelines and view pipeline settings using the Elastic Transcoder console

1. Sign in to the AWS Management Console and open the Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.
2. In the navigation bar of the Elastic Transcoder console, select the region in which you want to list jobs.



3. In the navigation (left) pane of the console, click **Pipelines**. The right pane lists the pipelines that are associated with the current account.
4. To display detailed information about a pipeline, click the ▶ icon next to the pipeline.

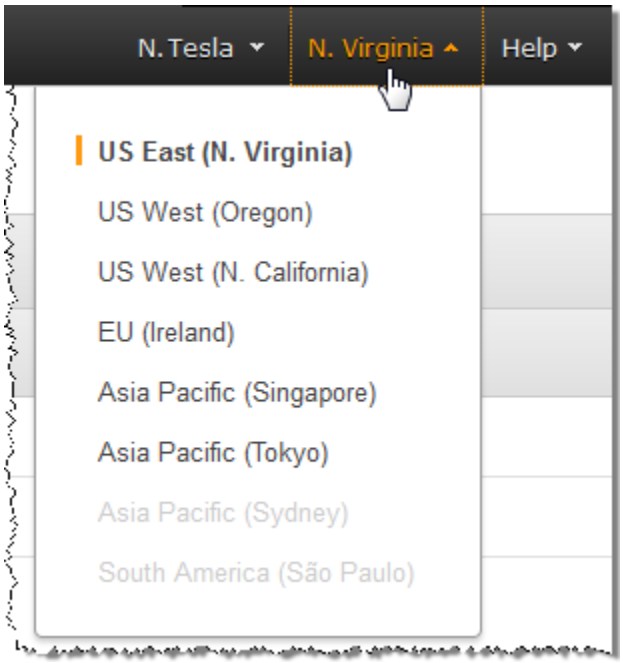
Deleting an Elastic Transcoder Pipeline

You can delete a pipeline by using the AWS Management Console or by using the Elastic Transcoder Delete Pipeline API. The following procedure explains how to delete pipelines using the console. For information about how to delete pipelines using the API, see Delete Preset (p. 119).

Note
You can't delete a pipeline that contains unprocessed jobs.

To delete a pipeline using the Elastic Transcoder console

1. Sign in to the AWS Management Console and open the Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.
2. In the navigation bar of the Elastic Transcoder console, select the region that contains the preset that you want to delete.



3. In the navigation (left) pane of the console, click **Pipelines**.
4. Select the check box for the pipeline that you want to delete.
5. Click **Remove**.

Settings that You Specify When You Create an Elastic Transcoder Pipeline

Pipeline Name
The name of the pipeline. We recommend that the name be unique within the AWS account, but uniqueness is not enforced. The maximum length of a pipeline name is 40 characters.

Input Bucket
The Amazon S3 bucket in which you saved the media files that you want to transcode.

Output Bucket
The Amazon S3 bucket in which you want Elastic Transcoder to save the transcoded files.

Role
The IAM Amazon Resource name (ARN) for the role that you want Elastic Transcoder to use to transcode jobs for this pipeline.

Notifications: On Progressing Event
The Amazon Simple Notification Service (Amazon SNS) topic that you want to notify when Elastic Transcoder has started to process the job.

> **Important**
> To receive notifications, you must also subscribe to the new topic in the Amazon SNS console.

Notifications: On Completed Event
The Amazon SNS topic that you want to notify when Elastic Transcoder has finished processing the job.

Notifications: On Warning Event
The Amazon SNS topic that you want to notify when Elastic Transcoder encounters a warning condition.

Notifications: On Error Event

The Amazon SNS topic that you want to notify when Elastic Transcoder encounters an error condition.

Working with Jobs

Topics

A job does the work of transcoding a media file from one format into another format. When you create a job, you specify the information that Elastic Transcoder needs to perform the transcoding: which file to transcode, what to name the transcoded file, which preset to use (a preset is a template that contains the settings that you want Elastic Transcoder to apply), and so on.

Creating a Job in Elastic Transcoder

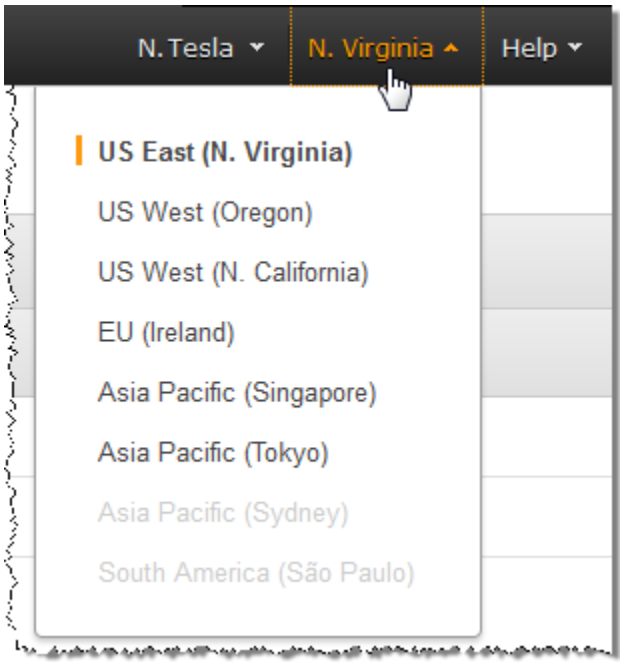
You can create a job using the AWS Management Console or using the Elastic Transcoder Create Job API action. The following procedure explains how to create a job by using the console. For information about how to create a job using the API, see Create Job (p. 75).

You cannot update a job after you have created it. If you need to change settings in a job, cancel it, create a new job based on the one that you canceled, update the applicable values, and create the new job.

> **Note**
> Before you can create a job, you must create the pipeline (the queue) that will manage the job. For more information about creating a pipeline, see Creating a Pipeline in Elastic Transcoder (p. 8). In addition, if you want to transcode a file using settings other than those provided in the Elastic Transcoder default presets, you must create a new preset. For more information about creating a preset, see Creating a Preset in Elastic Transcoder (p. 21).

To create a job using the Elastic Transcoder console

1. Sign in to the AWS Management Console and open the Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.
2. In the navigation bar of the Elastic Transcoder console, select the region in which you want to create the job.



3. In the navigation (left) pane of the console, click **Pipelines**. (You create the job in the pipeline—the queue—that you want to use to transcode the file.)
4. On the **Pipelines** page, click **Create New Job**.
5. Enter the applicable values. For more information about each field, see Settings that You Specify When You Create an Elastic Transcoder Job (p. 19).
6. Click **Create Job**.

   Note
   If a job fails with an `Access Denied` error, we recommend that you run the `Test Role` API action to determine what is causing the error. For more information, see Test Role (p. 71).

Listing Jobs and Viewing Job Settings in Elastic Transcoder

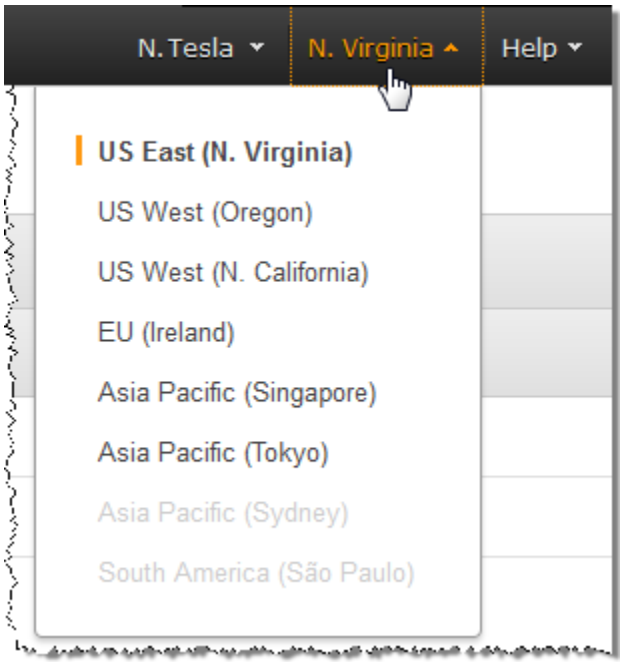
You can list the jobs in a specified pipeline or with a specified status either by using the Elastic Transcoder console or by using the applicable API action. You can also view the settings for an individual job. The following procedure explains how to list jobs and how to view settings for a job by using the console.

For information about how to use the API to:

- List jobs in a specified pipeline, see List Jobs by Pipeline (p. 81).
- List jobs that have a specified status, see List Jobs by Status (p. 86).
- Get settings for a specified job, see Get Job (p. 91).

To list jobs and view job settings using the Elastic Transcoder console

1. Sign in to the AWS Management Console and open the Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.
2. In the navigation bar of the Elastic Transcoder console, select the region in which you want to list jobs.



3. In the navigation (left) pane of the console, click **Jobs**.
4. On the **Jobs** page, specify the applicable values. For more information about a field, click the icon next to the field.
5. Click **Search**.
6. To display detailed information about a job that is listed in the search results, click the icon next to the job.

Canceling an Elastic Transcoder Job

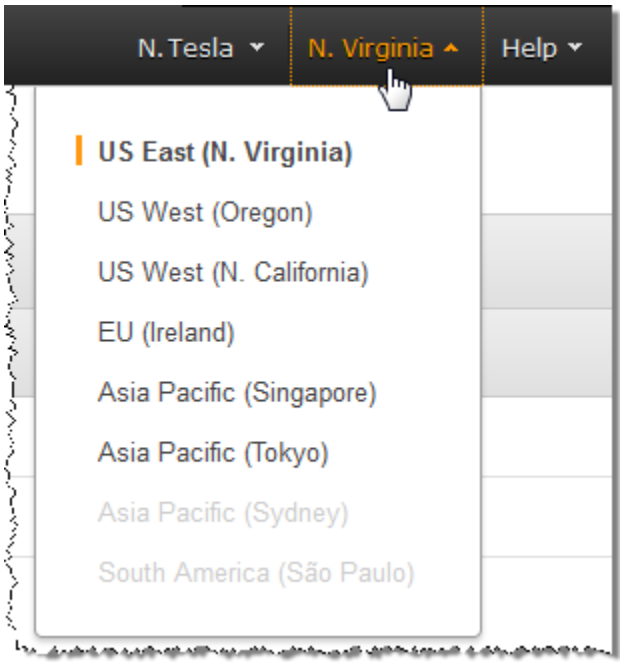
You can cancel a job that still has a status of **Submitted**, which means that Elastic Transcoder hasn't started to transcode your file. The following procedure explains how to cancel a job using the Elastic Transcoder console.

To cancel a job using the API, pause the corresponding pipeline so Elastic Transcoder doesn't start processing the job, list jobs that have a status of **Submitted** to get the applicable job ID, then cancel the job using the job ID to identify which job you want to cancel. For information about how to cancel a job using the API, see:

- Update Pipeline Status (p. 62)
- List Jobs by Status (p. 86)
- Delete Job (p. 95)

To cancel a job using the Elastic Transcoder console

1. Sign in to the AWS Management Console and open the Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.
2. In the navigation bar of the Elastic Transcoder console, select the region in which you want to cancel a job.



3. **Optional but recommended:** Pause the pipeline to which you submitted the job, so Elastic Transcoder doesn't begin to process the job. You can't cancel a job after Elastic Transcoder begins to process it.

   a. In the navigation (left) pane, click **Pipelines**.
   b. Select the check box next to the pipeline that you want to pause.
   c. Click **Pause**.

4. In the navigation pane of the console, click **Jobs**.
5. On the **Jobs** page, specify the following values:

   Search By
   Click **Status**.

   Job Status
   Select **Submitted**.

   > **Note**
   > You can only cancel a job that has a status of **Submitted**.

   For **Order** and **Number of Jobs**, enter the applicable values.
6. Click **Search**.
7. In the search results, if you need to view more details about a job to determine whether it's the one you want to cancel, click the ▶ icon next to the job.
8. To cancel a job, select the check box next to the job, and click **Cancel**.
9. If you paused the pipeline in Step 3, reactivate it so it resumes processing jobs.

   a. In the navigation pane, click **Pipelines**.
   b. Select the check box next to the pipeline that you want to reactivate.
   c. Click **Activate**.

Settings that You Specify When You Create an Elastic Transcoder Job

Pipeline
The name of the pipeline that you want Elastic Transcoder to use for transcoding. The pipeline determines several settings, including the Amazon S3 bucket from which Elastic Transcoder gets the files to transcode and the bucket into which Elastic Transcoder puts the transcoded files.

Preset
The preset that you want to use for this job. The preset determines the audio, video, and thumbnail settings that Elastic Transcoder uses for transcoding.

Input Key
The name of the file that you want to transcode. To determine from which Amazon S3 bucket to get the file, Elastic Transcoder refers to the **Input Bucket** field in the pipeline that you specified for this job.

If the file name includes a prefix—for example, `cooking/lasagna.mpg`—include the prefix in the key. If the file isn't in the specified bucket, Elastic Transcoder returns an error.

Output Key
The name that you want Elastic Transcoder to assign to the transcoded file. To determine in which Amazon S3 bucket to save the transcoded file, Elastic Transcoder refers to the **Output Bucket** field in the pipeline that you specified for this job. If a file with the specified name already exists in the output bucket, the job fails.

Create Thumbnails
If you want Elastic Transcoder to create thumbnails for your videos, select **Yes**, and specify the format for the file names in the **Thumbnail Filename Pattern** field.

Thumbnail Filename Pattern
If you selected **Yes** for **Thumbnail Filename Pattern**, specify the format for the file names. You can specify the following values in any sequence:

- **{count} (Required):** A five-digit number beginning with **00001** that indicates where a given thumbnail appears in the sequence of thumbnails for a transcoded file. You must include **{count}** somewhere in the field. If you omit it, Elastic Transcoder automatically appends the count to the end of the file name, immediately before the file name extension (.png).
- **Literal values (Optional):** You can specify literal values anywhere in the field, for example, as a file name prefix or as a delimiter between `{resolution}` and `{count}`.
- **{resolution} (Optional):** If you want Elastic Transcoder to include the resolution in the file name, include `{resolution}` in the field.

The **Thumbnail Filename Preview** field displays a sample of file names for thumbnails based on the value that you entered in **Thumbnail Filename Pattern**.

When creating thumbnails, Elastic Transcoder automatically saves the files in the format (currently .png only) that appears in the preset that you specified in Preset (p. 19). Elastic Transcoder also appends the applicable file name extension.

Input Frame Rate
The frame rate of the input file. If you want Elastic Transcoder to automatically detect the frame rate of the input file, select **auto**. If you want to specify the frame rate for the input file, select the applicable value.

Input Resolution
The resolution, in pixels, of the input file. This value must be **auto**, which causes Elastic Transcoder to automatically detect the resolution of the input file.

Input Aspect Ratio

The aspect ratio of the input file. If you want Elastic Transcoder to automatically detect the aspect ratio of the input file, select **auto**. If you want to specify the aspect ratio for the output file, select the applicable value.

Input Interlacing

Whether the input file is interlaced. If you want Elastic Transcoder to automatically detect whether the input file is interlaced, select **auto**. If you want to specify whether the input file is interlaced, select the applicable value.

Input Container

The container type for the input file. If you want Elastic Transcoder to automatically detect the container type of the input file, select **auto**. If you want to specify the container type for the input file, select the applicable value.

Output Rotation (Clockwise)

The number of degrees clockwise by which you want Elastic Transcoder to rotate the output relative to the input. If you want Elastic Transcoder to automatically detect whether the input file is rotated, select **auto**. Note, however, that Elastic Transcoder generally can only detect whether the output needs to be rotated if the file that you're transcoding contains rotation metadata.

Working with Presets

Topics

A preset is a template that contains the settings that you want Elastic Transcoder to apply during the transcoding process, for example, the number of audio channels and the video resolution that you want in the transcoded file. When you create a job, you specify which preset you want to use. Elastic Transcoder includes default presets for a number of common output formats. You can also add presets for other output formats.

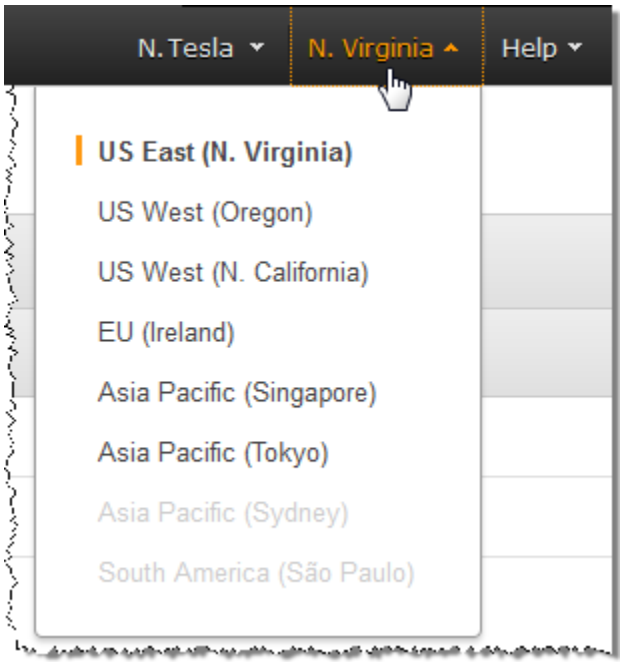
Creating a Preset in Elastic Transcoder

You can create a preset using the AWS Management Console or using the Elastic Transcoder Create Preset API action. The following procedure explains how to create a preset using the console. For information about how to create a preset using the API, see Create Preset (p. 99).

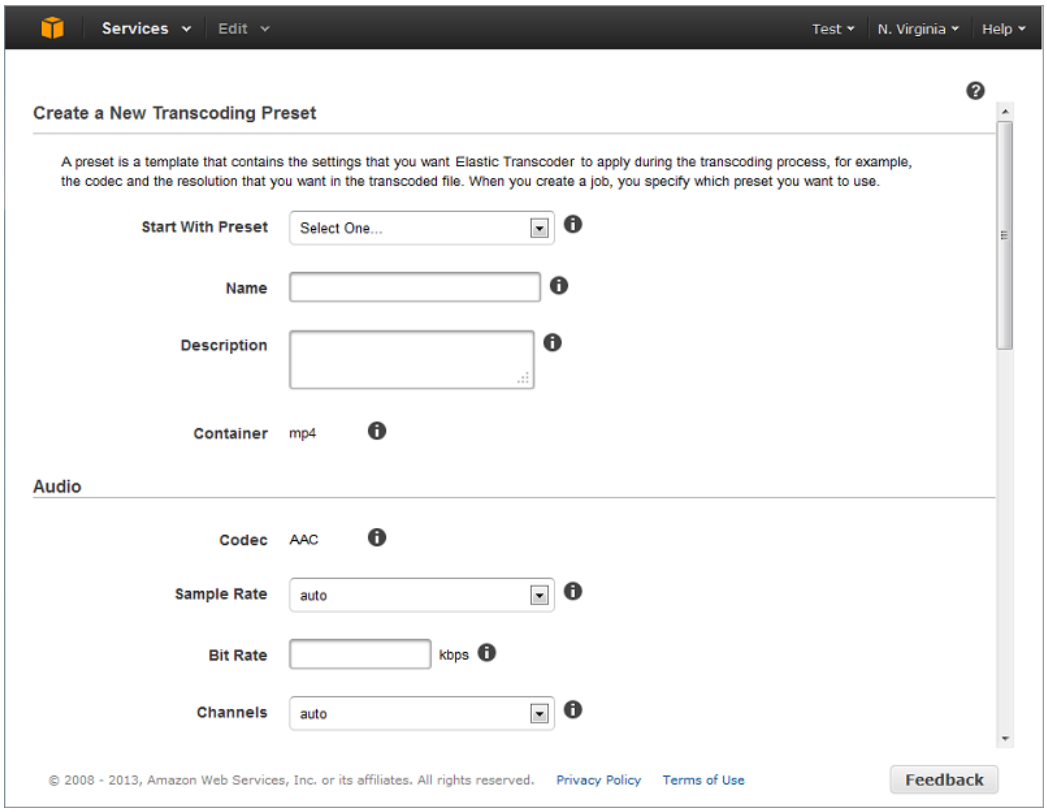
> **Note**
> You cannot update an existing preset. If you need to change settings in a preset, create a new preset based on the preset that you want to change, update the applicable values, and save the new preset.

To create a preset using the Elastic Transcoder console

1. Sign in to the AWS Management Console and open the Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.
2. In the navigation bar of the Elastic Transcoder console, select the region in which you want to create the preset.



3. In the left pane of the console, click **Presets**.
4. On the **Presets** page, click **Create New Preset**.



5. Enter the applicable values. For more information about each field, see Settings that You Specify When You Create an Elastic Transcoder Preset (p. 25).
6. Click **Create Preset**.

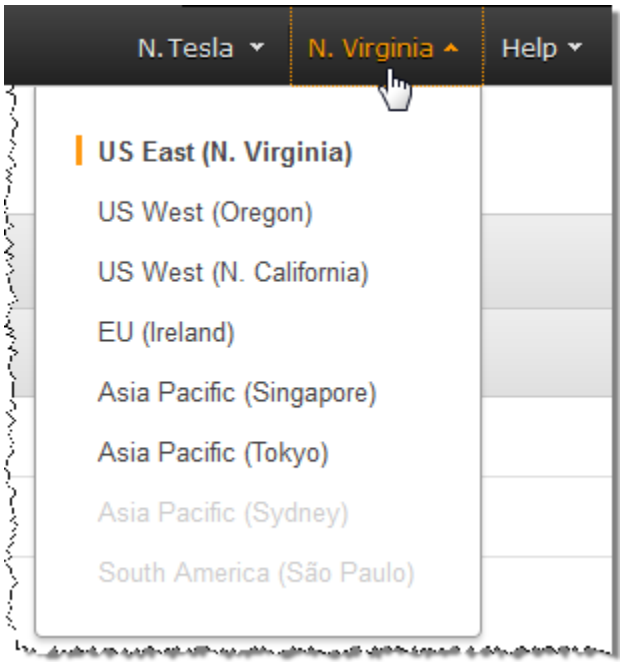
Listing Presets and Viewing Preset Settings in Elastic Transcoder

You can list the default presets included with Elastic Transcoder and the presets that you have added in an AWS region by using the AWS Management Console or by using the Elastic Transcoder List Presets API. You can also view the settings for an individual preset. The following procedure explains how to list presets and how to view settings for a preset using the console.

For information about how to list presets using the API, see List Presets (p. 109). For information about how to view settings for a preset using the API, see Get Preset (p. 114).

To list presets using the Elastic Transcoder console

1. Sign in to the AWS Management Console and open the Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.
2. In the navigation bar of the Elastic Transcoder console, select the region in which you want to list presets.



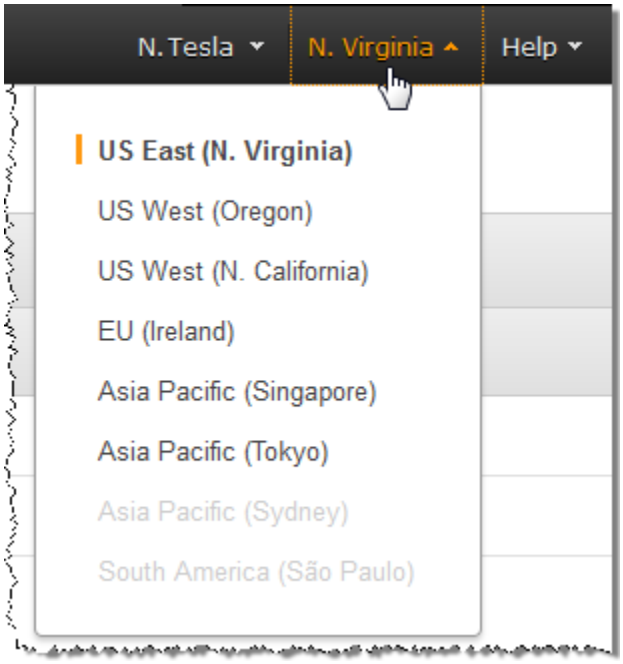
3. In the left pane of the console, click **Presets**.
4. On the **Presets** page, click **Create New Preset**.
5. To display settings for an individual preset, click the ▶ icon next to the preset.

Changing Presets in Elastic Transcoder

Elastic Transcoder doesn't allow you to change the settings in an existing preset. This is true both for the default presets included with Elastic Transcoder and the presets you've added. However, you can easily achieve the same result by making a copy of the preset that you want to change, changing the applicable settings, saving the new preset, and deleting the old preset, as the following procedure explains.

To change a preset using the Elastic Transcoder console

1. Sign in to the AWS Management Console and open the Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.
2. In the navigation bar of the Elastic Transcoder console, select the region that contains the region that you want to change.



3. In the left pane of the console, click **Presets**.
4. Select the check box for the preset that you want to change.
5. Click **Copy**.
6. Change the applicable values in the copy of the preset that you want to change. For more information about each field, see Settings that You Specify When You Create an Elastic Transcoder Preset (p. 25).
7. Click **Create Preset**.
8. Back on the **Presets** page, select the check box for the old version of the preset.
9. Click **Remove**.

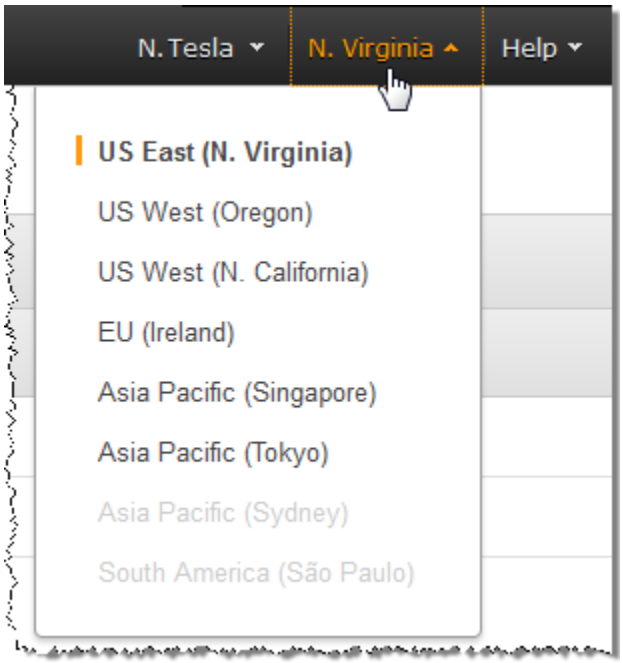
Deleting an Elastic Transcoder Preset

You can delete the presets that you have added in an AWS region by using the AWS Management Console or by using the Elastic Transcoder Delete Preset API. The following procedure explains how to delete presets using the console. For information about how to delete presets using the API, see Delete Preset (p. 119).

Note
You can't delete the default presets that are included with Elastic Transcoder.

To delete a preset using the Elastic Transcoder console

1. Sign in to the AWS Management Console and open the Elastic Transcoder console at https://console.aws.amazon.com/elastictranscoder/.
2. In the navigation bar of the Elastic Transcoder console, select the region that contains the preset that you want to delete.



3. In the left pane of the console, click **Presets**.
4. Select the check box for the preset that you want to delete.
5. Click **Remove**.

Settings that You Specify When You Create an Elastic Transcoder Preset

When you create a preset, you specify the following values.

General Settings (p. 26)

- Start with Preset
- Name
- Description
- Container

Audio Settings (p. 26)

- Codec (Audio)
- Sample Rate (Audio)
- Bit Rate (Audio)
- Channels (Audio)

Thumbnail Settings (p. 26)

- Format (Thumbnails)
- Interval (Thumbnails)
- Resolution (Thumbnails)

- Aspect Ratio (Thumbnails)

Video Settings (p. 27)

- Resolution (Video)
- Aspect Ratio (Video)
- Codec (Video)
- Profile (Video)
- Level (Video)
- Maximum Number of Reference Frames (Video)
- Maximum Number of Frames Between Keyframes (Video)
- Fixed Number of Frames Between Keyframes (Video)
- Bit Rate
- FrameRate

General Settings

Start with Preset
The preset that you want to use as a starting point for your new preset. Elastic Transcoder copies the values from the preset that you select into the fields for the new preset. You can choose either one of the default Elastic Transcoder presets or a preset that you created.

Name
The name of the preset. We recommend that the name be unique within the AWS account, but uniqueness is not enforced. The maximum length is 40 characters.

Description
A description of the preset. The maximum length is 255 characters.

Container
The container type for the output file. This value must be `mp4`.

Audio Settings

Codec (Audio)
The audio codec for the output file. This value must be `AAC`.

Sample Rate (Audio)
The sample rate of the audio stream in the output file, in Hz. If you want Elastic Transcoder to automatically detect the sample rate of the input file and use that value for the output file, select **auto**. If you want to specify the sample rate, select the applicable value.

Bit Rate (Audio)
The bit rate of the audio stream in the output file, in kilobits/second. Enter an integer between 64 and 320, inclusive.

Channels (Audio)
The number of audio channels in the output file. If you want Elastic Transcoder to automatically detect the number of audio channels in the input file and use that value for the output file, select **auto**. If you want to specify the number of audio channels in the output file, select the applicable value.

Thumbnail Settings

Format (Thumbnails)
The format of thumbnails, if any. Currently, the only valid value is `png`.

You specify whether you want Elastic Transcoder to create thumbnails when you create a job. For more information, see Thumbnail Filename Pattern in the topic Settings that You Specify When You Create an Elastic Transcoder Job (p. 19).

Interval (Thumbnails)
The number of seconds between thumbnails. Specify an integer value.

Resolution (Thumbnails)
The width and height of thumbnail files in pixels. Specify a value in the format **Width**x**Height** where both values are even integers. The values cannot exceed the width and height that you specify for Resolution (Video).

Aspect Ratio (Thumbnails)
The aspect ratio of thumbnails. If you want Elastic Transcoder to automatically detect the aspect ratio in the input file and use that value for thumbnails, select **auto**. If you want to specify the aspect ratio for thumbnails, select the applicable value.

Video Settings

Resolution (Video)
The width and height of the video in the output file, in pixels. If you want Elastic Transcoder to automatically detect the resolution of the input file and use that value for the output file, select **auto**. If you want to specify the resolution of the output file, enter a value in the format **Width**x**Height** where both values are even integers.

Note the following about specifying the width and height:

- The width must be an even integer between 128 and 4096, inclusive.
- The height must be an even integer between 96 and 3072, inclusive.
- If you specify a resolution that is less than the resolution of the input file, Elastic Transcoder rescales the output file to the lower resolution.
- If you specify a resolution that is greater than the resolution of the input file, Elastic Transcoder rescales the output to the higher resolution.
- We recommend that you specify a resolution for which the product of width and height is less than or equal to the applicable value in the following table:

Level (Video)	Maximum Value of `width x height`
1	25344
1b	25344
1.1	101376
1.2	101376
1.3	101376
2	101376
2.1	202752
2.2	404720
3	404720
3.1	921600
3.2	1310720

Level (Video)	Maximum Value of `width` x `height`
4	2097152
4.1	2097152

AspectRatio (Video)
The display aspect ratio of the video in the output file. If you want Elastic Transcoder to automatically detect the aspect ratio in the input file and use that value for the output file, select **auto**. If you want to specify the aspect ratio in the output file, select the applicable value.

If you specify an aspect ratio for the output file that differs from aspect ratio of the input file, Elastic Transcoder adds pillarboxing (black bars on the sides) or letterboxing (black bars on the top and bottom) to maintain the aspect ratio of the active region of the video.

Codec (Video)
The video codec for the output file. This value must be `H.264`.

Profile (Video)
The H.264 profile that you want to use for the output file. Elastic Transcoder supports the following profiles:

- **baseline:** The profile most commonly used for videoconferencing and for mobile applications.
- **main:** The profile used for standard-definition digital TV broadcasts.
- **high:** The profile used for high-definition digital TV broadcasts and for Blu-ray discs.

For more information about profiles, see Profiles in the Wikipedia entry "H.264/MPEG-4 AVC."

Level (Video)
The H.264 level that you want to use for the output file. Select the applicable value.

For more information about levels, see Levels in the Wikipedia entry "H.264/MPEG-4 AVC."

Maximum Number of Reference Frames (Video)
The maximum number of previously decoded frames to use as a reference for decoding future frames. If you enter a value greater than the recommended value based on the values that you specified for Resolution (Video) and Level (Video), Elastic Transcoder displays a message that contains the recommended value. For a detailed explanation, including the calculation that Elastic Transcoder performs, see MaxReferenceFrames in the topic Create Preset (p. 99).

Maximum Number of Frames Between Keyframes (Video)
The maximum number of frames between key frames. Key frames are fully encoded frames; the frames between key frames are encoded based, in part, on the content of the key frames. The value is an integer formatted as a string; valid values are between 1 and 100000, inclusive. A higher value results in higher compression but may also discernibly decrease video quality.

For more information about key frames, see the Wikipedia entry Video compression picture types.

Fixed Number of Frames Between Keyframes (Video)
Whether to use a fixed value for Fixed Number of Frames Between Keyframes (Video):

- **Yes:** Elastic Transcoder uses the value of Maximum Number of Frames Between Keyframes (Video) for the distance between key frames (the number of frames in a group of pictures, or GOP).
- **No:** The distance between key frames can vary.

Bit Rate (Video)
The bit rate of the video stream in the output file, in kilobits/second. Valid values depend on the values of the Level (Video) and Profile (Video). We recommend that you specify a value less than or equal to the maximum H.264-compliant value listed in the following table for your level and profile:

Level (Video)	Maximum Video Bit Rate in kilobits/Second: Baseline Profile (Video) and Main Profile (Video)	Maximum Video Bit Rate in kilobits/Second: High Profile (Video)
1	64	80
1b	128	160
1.1	192	240
1.2	384	480
1.3	768	960
2	2000	2500
2.1	4000	5000
2.2	4000	5000
3	10000	12500
3.1	14000	17500
3.2	20000	25000
4	20000	25000
4.1	50000	62500

FrameRate (Video)

The frames per second for the video stream in the output file. Select the applicable value.

If you specify **auto**, Elastic Transcoder uses the detected frame rate of the input source. If you specify a frame rate, we recommend that you perform the following calculation:

```
Frame rate = maximum recommended decoding speed in luma samples/second /
(width in pixels * height in pixels)
```

where:

- `width in pixels` and `height in pixels` represent the Resolution (Video) of the output video.
- `maximum recommended decoding speed in Luma samples/second` is less than or equal to the maximum value listed in the following table, based on the value that you specified for Level (Video).

  Note

  If you enter a value greater than the recommended value based on the values that you specified for Resolution (Video) and Level (Video), Elastic Transcoder displays a message that contains the recommended value.

Level (Video)	Maximum Recommended Decoding Speed in Luma Samples/Second
1	380160
1b	380160
1.1	768000

Level (Video)	Maximum Recommended Decoding Speed in Luma Samples/Second
1.2	1536000
1.3	3041280
2	3041280
2.1	5068800
2.2	5184000
3	10368000
3.1	27648000
3.2	55296000
4	62914560
4.1	62914560

Security Considerations for Elastic Transcoder

Topics

Using IAM to Control Access to Elastic Transcoder Resources

Elastic Transcoder integrates with AWS Identity and Access Management (IAM), which allows you to control access to the Elastic Transcoder console and API, and also allows you to control access to other AWS resources that Elastic Transcoder requires, including Amazon S3 buckets and Amazon Simple Notification Service (Amazon SNS) topics.

For general information about IAM, go to:

- Identity and Access Management (IAM)
- Using AWS Identity and Access Management
- Delegating API Access by Using Roles

You can also give IAM users of your AWS Account access to all Elastic Transcoder functionality. You might do this if you want IAM users to be able to work with Elastic Transcoder in the AWS Management Console. For more information, see Example IAM User Policies for Elastic Transcoder (p. 33).

The Default IAM Role that the Elastic Transcoder Console Creates for Pipelines

When Elastic Transcoder transcodes a file into another format, it needs a limited level of access to resources that are associated with other AWS services. For example, the transcoding process gets files from an Amazon S3 bucket and stores transcoded files in another Amazon S3 bucket, so Elastic Transcoder needs permission to read from and write to those buckets. You can also configure Elastic Transcoder to

notify you of the status of a job; if you configure notifications, Elastic Transcoder needs permission to publish notifications to Amazon Simple Notification Service (Amazon SNS) topics.

When you create the pipeline that manages your transcoding jobs, you specify an IAM role. The role that you specify has a policy that controls the permissions that the pipeline has for transcoding.

You have three options when you specify the role for a pipeline:

- Create a new default role that has only the permissions that Elastic Transcoder needs for transcoding. (This option is available only when you create a pipeline by using the Elastic Transcoder console.)
- Reuse the default role that you created when you previously created a pipeline.
- Choose an existing role that has the permissions that Elastic Transcoder needs. In this case, you must previously have created the role in IAM and attached to the role a policy that gives Elastic Transcoder sufficient permissions to transcode your files. You might do this if you want Elastic Transcoder to have broader permissions than those that are granted via the default role.

The default role created by Elastic Transcoder contains the policy listed below. This policy lets Elastic Transcoder perform the following operations:

- List the contents of any Amazon S3 bucket that is associated with the current AWS account.
- Save a transcoded file in an Amazon S3 bucket.
- Create an Amazon S3 multipart upload.
- Get a file from an Amazon S3 bucket for transcoding.
- Publish notification to any SNS topic.

This policy prevents Elastic Transcoder from performing any of the following operations:

- Perform any Amazon SNS Permission, Delete, or Remove operations.
- Perform any Amazon S3 Policy, ACL, or Delete operations.
- Perform any actions in any AWS service other than Amazon S3 or Amazon SNS.

```
{
   "Version":"2008-10-17",
   "Statement":[
      {
         "Sid":"1",
         "Effect":"Allow",
         "Action":[
            "s3:ListBucket",
            "s3:Put*",
            "s3:*MultipartUpload*",
            "s3:Get*"
         ],
         "Resource":"*"
      },
      {
         "Sid":"2",
         "Effect":"Allow",
         "Action":"sns:Publish",
         "Resource":"*"
      },
      {
         "Sid":"3",
         "Effect":"Deny",
```

```
         "Action":[
            "sns:*Permission*",
            "s3:*Policy*",
            "s3:*Acl*",
            "sns:*Delete*",
            "sns:*Remove*",
            "s3:*Delete*"
         ],
         "Resource":"*"
      }
   ]
}
```

Example IAM User Policies for Elastic Transcoder

By default, IAM users have no access to Elastic Transcoder or to the resources that it uses. If you want IAM users to be able to work with Elastic Transcoder, for example, in the AWS Management Console, you must grant them permissions.

This section shows two simple policies for controlling access to Elastic Transcoder and to the related services that Elastic Transcoder relies on. To use these policies, you create an IAM user and attach one of these policies to the user or to the IAM group that the user belongs to.

Give IAM users broad access to Elastic Transcoder and related services

The following policy lets users perform the following actions:

- Perform any Elastic Transcoder action.
- Create and list Amazon SNS topics. When you create a new pipeline using the Elastic Transcoder console, you choose which Amazon SNS topics you want Elastic Transcoder to use to notify you of the status of your transcoding jobs. The console also gives you the option to create a new Amazon SNS topic.
- List Amazon S3 buckets and the content of buckets. Elastic Transcoder gets the files that you want to transcode from Amazon S3 buckets, and saves the transcoded files in Amazon S3 buckets.
- Create and list IAM roles. When you create a pipeline using the Elastic Transcoder console, you have the option to create a new default role that Elastic Transcoder then uses to process transcoding jobs. The console also displays a list of the IAM roles that are associated with the current AWS account, so you can choose one of those roles instead of creating a new, default Elastic Transcoder role.
- Add and list IAM policies.

```
{
   "Statement":[
      {
         "Effect":"Allow",
         "Action":[
            "elastictranscoder:*",
            "sns:CreateTopic",
            "sns:ListTopics",
            "s3:ListBucket",
            "s3:ListAllMyBuckets",
            "s3:GetBucketLocation",
            "iam:CreateRole",
```

```
            "iam:GetRolePolicy",
            "iam:ListRoles",
            "iam:PutRolePolicy",
            "iam:PassRole"
         ],
         "Resource":"*"
      }
   ]
}
```

Give users limited access to Elastic Transcoder and related services

The following policy lets users perform the following actions:

- Perform any Elastic Transcoder action.
- List Amazon SNS topics. This allows a user to create a pipeline using the Elastic Transcoder console, but the user must either use existing topics for notifications or not configure notifications.
- List Amazon S3 buckets and the content of buckets.
- List IAM roles. This allows a user to create a pipeline and use an existing role, but not create a new default IAM role.

```
{
   "Statement":[
      {
         "Action":[
            "elastictranscoder:*",
            "sns:ListTopics",
            "s3:ListBucket",
            "s3:ListAllMyBuckets",
            "iam:ListRoles"
         ],
         "Effect":"Allow",
         "Resource":"*"
      }
   ]
}
```

Give users read-only access to Elastic Transcoder and related services

The following policy lets users perform the following actions:

- List Elastic Transcoder jobs, pipelines, and presets.
- List Amazon SNS topics. This allows a user to create a pipeline using the Elastic Transcoder console, but the user must either use existing topics for notifications or not configure notifications.
- List Amazon S3 buckets and the content of buckets.
- List IAM roles. This allows a user to create a pipeline and use an existing role, but not create a new default IAM role.

```
{
   "Statement": [
      {
         "Effect": "Allow",
         "Action": [
            "elastictranscoder:ListJobsByPipeline",
            "elastictranscoder:ListJobsByStatus",
            "elastictranscoder:ListPipelines",
            "elastictranscoder:ListPresets",
            "elastictranscoder:ReadJob",
            "elastictranscoder:ReadPipeline",
            "elastictranscoder:ReadPreset",
            "sns:ListTopics",
            "s3:ListBucket",
            "s3:ListAllMyBuckets",
            "iam:ListRoles"
         ],
         "Resource": "*"
      }
   ]
}
```

Security Best Practices

AWS has several features to help you keep your assets secure.

Versioning

Versioning offers an additional level of protection by providing a means of recovery when customers accidentally overwrite or delete objects. This allows you to easily recover from unintended user actions and application failures. You can also use versioning for data retention and archiving. For more information, see Amazon Simple Storage Service FAQs and the Amazon Simple Storage Service Developer Guide.

Multi-Factor Authentication

AWS multi-factor authentication (MFA) is an additional layer of security that offers enhanced control over your AWS account settings and the management of the AWS resources to which the account has subscribed. When you enable this opt-in feature, you need to provide a six-digit single-use code in addition to your standard user name and password credentials before access is granted. You get this single use code from an authentication device or a special application on a mobile phone that you keep in your physical possession.

This feature is called multi-factor authentication because two factors are checked before access is granted to your account: you need to provide both your AWS email ID and password (the first factor: something you know) and the particular code from your authentication device (the second factor: something you have). You can enable multi-factor authentication for your AWS account as well as for the users you have created under your AWS account using IAM.

It's easy to obtain an authentication device from a participating third-party provider. You can also download and install appropriate software on your mobile phone, then set it up for use via the AWS website. For more information, see AWS Multi-Factor Authentication.

Credentials and Key Rotation

You should keep your AWS credentials safe and for the same reasons it is important to change your password frequently. AWS recommends that you rotate your access keys and certificates on a regular basis. To let you do this without potential impact to the availability of your applications, AWS supports multiple concurrent access keys and certificates. With this feature, you can regularly rotate keys and certificates into and out of operation without any downtime to your application. This can help to mitigate risk from lost or compromised access keys or certificates. You can use the IAM APIs to rotate the access keys of your AWS account as well as for users created under your AWS account. For more information, see Security Credentials.

API Reference

Topics

Making HTTP Requests to Elastic Transcoder

Elastic Transcoder REST requests are HTTPS requests as defined in RFC 2616. (For more information, go to http://www.ietf.org/rfc/rfc2616.txt.) This section describes the structure of an Elastic Transcoder REST request. For detailed descriptions of the actions that you can perform, see Pipeline Operations (p. 50), Job Operations (p. 74), and Preset Operations (p. 98).

A typical REST action consists of sending an HTTPS request to Elastic Transcoder and waiting for the response. Like any HTTP request, a REST request to Elastic Transcoder contains a request method, a URI, request headers, and sometimes a query string or request body. The response contains an HTTP status code, response headers, and sometimes a response body.

Topics

HTTP Header Contents

Elastic Transcoder requires the following information in the header of an HTTP request:

Host (Required)
The Elastic Transcoder endpoint. The value must be a named regional endpoint. We recommend that you use the same endpoint for your Amazon EC2 buckets and for your Elastic Transcoder pipelines, jobs, and presets. If you use different endpoints, you'll incur charges for data transfer between the region that contains your Amazon EC2 buckets and the region in which Elastic Transcoder does the encoding. In addition, the time required for the data transfer will delay access to the transcoded file.

For a list of supported Elastic Transcoder endpoints, go to the Regions and Endpoints section in the *Amazon Web Services General Reference*.

x-amz-date or Date (Required)
The date used to create the signature contained in the `Authorization` header. Specify the date in one of the following formats, which are defined in RFC 2616 section 3.1.1:

- Sun, 06 Nov 1994 08:49:37 GMT (RFC 822, updated by RFC 1123)
- Sunday, 06-Nov-94 08:49:37 GMT (RFC 850, obsoleted by RFC 1036)
- Sun Nov 6 08:49:37 1994 (ANSI C asctime() format)

For more information, go to the RFC 2616 specification.

You must include either `x-amz-date` or `Date`. (Some HTTP client libraries don't let you set the `Date` header). When an `x-amz-date` header is present, the system ignores any `Date` header when authenticating the request.

The time stamp must be within 15 minutes of the AWS system time when the request is received. If it isn't, the request fails with the `RequestExpired` error code to prevent someone else from replaying your requests.

Authorization (Required)
The information required for request authentication. For more information about constructing this header, see Signing Requests (p. 41).

Content-Type (Conditional)
Specifies JSON and the version, for example, `Content-Type: application/x-amz-json-1.0`.

Condition: Required for POST requests.

Content-Length (Conditional)
Length of the message (without the headers) according to RFC 2616.

Condition: Required if the request body itself contains information (most toolkits add this header automatically).

The following is an example header for an HTTP request to create a pipeline.

```
POST /2012-09-25/pipelines HTTP/1.1
host: elastictranscoder.us-east-1.amazonaws.com:443
x-amz-date: Mon, 16 Jan 2012 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256 Credential=AccessKeyID/20120116/us-east-
1/ets/aws4_request,SignedHeaders=host;x-amz-date;x-amz-target,Signa
ture=145b1567ab3c50d929412f28f52c45dbf1e63ec5c66023d232a539a4afd11fd9
content-type: application/x-amz-json-1.0
content-length: 231
connection: Keep-Alive
```

HTTP Request Body

Many Elastic Transcoder API actions require you to include JSON-formatted data in the body of the request. The JSON conforms to the ETS schema.

Note
JSON values in the request body are strings.

Example Request

The following example request uses a simple JSON statement to create a job that transcodes a file named `sample.mp4` and saves it as `SamsBirthday.mp4`.

```
POST /2012-09-25/jobs HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.us-east-1.amazonaws.com:443
Content-Length: 300

{
   "Input":{
      "Key": "sample.mp4",
      "FrameRate": "auto",
      "Resolution": "auto",
      "AspectRatio": "auto",
      "Interlaced": "auto",
      "Container": "auto"
   },
   "Output":{
      "Key": "SamsBirthday.mp4",
      "ThumbnailPattern": "sample_{resolution}_{count}",
      "Rotate": "auto",
      "PresetId": "5555555555555-abcde5"
   },
   "PipelineId":"1111111111111-abcde1"
}
```

HTTP Responses

All Elastic Transcoder API actions include JSON-formatted data in the response. The JSON conforms to the ETS schema.

> **Note**
> JSON values in the response are strings.

Here are some important headers in the HTTP response and how you should handle them in your application, if applicable:

HTTP/1.1
This header is followed by a status code. Status code `200` indicates a successful operation. For information about error codes, see API Error Codes (p. 42).

Type: String

x-amzn-RequestId
A value created by Elastic Transcoder that uniquely identifies your request, for example, K2QH8DNOU907N97FNA2GDLL8OBVV4KQNSO5AEMVJF66Q9ASUAAJG. If you have a problem with Elastic Transcoder, AWS can use this value to troubleshoot the problem. We recommend that you log these values.

Type: String

Content-Length
The length of the response body in bytes.

Type: String

Date
The date and time that Elastic Transcoder responded, for example, `Sun, 25 Mar 2012 12:00:00 GMT`. The format of the date must be one of the full date formats specified by RFC 2616, section 3.3.

Type: String

Signing Requests

Elastic Transcoder requires that you authenticate every request you send by signing the request. To sign a request, you calculate a digital signature using a cryptographic hash function, which returns a hash value based on the input. The input includes the text of your request and your secret access key. The hash function returns a hash value that you include in the request as your signature. The signature is part of the `Authorization` header of your request.

After receiving your request, Elastic Transcoder recalculates the signature using the same hash function and input that you used to sign the request. If the resulting signature matches the signature in the request, Elastic Transcoder processes the request. Otherwise, the request is rejected.

Elastic Transcoder supports authentication using AWS Signature Version 4. The process for calculating a signature can be broken into three tasks:

- Task 1: Create a Canonical Request

  Rearrange your HTTP request into a canonical format. Using a canonical form is necessary because Elastic Transcoder uses the same canonical form when it recalculates a signature to compare with the one you sent.
- Task 2: Create a String to Sign

  Create a string that you will use as one of the input values to your cryptographic hash function. The string, called the *string to sign*, is a concatenation of the name of the hash algorithm, the request date, a *credential scope* string, and the canonicalized request from the previous task. The *credential scope* string itself is a concatenation of date, region, and service information.

  For the X-Amz-Credential parameter, specify:
  - `us-east-1` for the region
  - `ets` for the service abbreviation

  For example:

  ```
  X-Amz-Credential=AKIAIOSFODNN7EXAMPLE/20121130/us-east-1/ets/aws4_request
  ```
- Task 3: Create a Signature

  Create a signature for your request by using a cryptographic hash function that accepts two input strings: your *string to sign* and a *derived key*. The *derived key* is calculated by starting with your secret access key and using the *credential scope* string to create a series of hash-based message authentication codes (HMACs).

Handling Errors in Elastic Transcoder

Topics

This section describes how to handle client and server errors. For information about specific error messages, see API Error Codes (p. 42).

Error Types

While interacting with Elastic Transcoder programmatically, you might encounter errors of two types: client errors and server errors. Each error includes the following values:

- A status code, for example, `400`
- An error code, for example, `ValidationException`
- An error message, for example, `Supplied AttributeValue is empty, must contain exactly one of the supported datatypes`

Client Errors

Client errors are indicated by a 4xx HTTP response code.

Client errors indicate that Elastic Transcoder found a problem with the client request, such as an authentication failure or missing required parameters. Fix the issue in the client application before submitting the request again.

Server Errors

Server errors are indicated by a 5xx HTTP response code, and need to be resolved by Amazon. You can resubmit/retry the request until it succeeds.

API Error Codes

HTTP status codes indicate whether an operation is successful or not.

A response code of `200` indicates the operation was successful. Otherwise, the error code indicates either a client (4xx) or server (5xx) error.

The following table lists the errors returned by Elastic Transcoder. Some errors are resolved if you simply retry the same request. The table indicates which errors are likely to be resolved with successive retries. If the value of the Retry column is:

- **Yes:** Submit the same request again.
- **No:** Fix the problem on the client side before submitting a new request.

For more information about retrying requests, see Error Retries and Exponential Backoff (p. 48).

HTTP Status Code	Error code	Message	Cause	Retry
400	Conditional Check Failed Exception	The conditional request failed.	Example: The expected value did not match what was stored in the system.	No
400	Incomplete Signature Exception	The request signature does not conform to AWS standards.	The signature in the request did not include all of the required components. See HTTP Header Contents (p. 38).	No
400	Limit Exceeded Exception	Too many operations for a given AWS account.	Example: The number of pipelines exceeds the maximum allowed.	No
400	Missing Authentication Token Exception	The request must contain a valid (registered) AWS Access Key ID.	The request did not include the required x-amz-security-token See Making HTTP Requests to Elastic Transcoder (p. 38).	No

HTTP Status Code	Error code	Message	Cause	Retry
400	Provisioned Throughput Exceeded Exception	You exceeded your maximum allowed provisioned throughput.	Example: Your request rate is too high. The AWS SDKs for Elastic Transcoder automatically retry requests that receive this exception. Your request is eventually successful unless your retry queue is too large to finish. Reduce the frequency of requests. For more information, see Error Retries and Exponential Backoff (p. 48).	Yes
400	Throttling Exception	Rate of requests exceeds the allowed throughput.	You are submitting requests too rapidly, for example, requests to create new jobs.	Yes

HTTP Status Code	Error code	Message	Cause	Retry
400	Validation Exception	• The value of <video/thumbnail> resolution was '<resolution>'. Change the resolution to 'auto' or WIDTHxHEIGHT. • The value of the video <width/height> was '<value>'. The video <width/height> is outside of the permitted range [<minimum>,<maximum>]. • The value of resolution was '<resolution>' (total pixels = <pixels>). Based on the value that you specified for Level, resolution WIDTHxHEIGHT must be less than or equal to '<resolution>'. • The value of VideoBitRate was '<bitRate>'. Based on the values that you specified for Level and Profile, the value must be less than or equal to '<bitRate>'. • The value of video FrameRate was '<frameRate>'. Based on the values that you specified for Level and Resolution, the value must be less than or equal to '<frameRate>'. • The value of video MaxReferenceFrames was '<number>'. Change MaxReferenceFrames to a value between '<minimum>' and '<maximum>'. • The video codec option '<codecOption>' was '<suppliedValue>'. Change '<codecOption>' to one of the following values: '[value1, value2, ...]'. • The required value '<value>' was not found. • The value of <video/thumbnail> resolution <width/height> was <value>. Change the <width/height> to an even integer. • The value of thumbnail resolution <width/height> was <value>. Change the <width/height> to a value greater than or equal to <minimum>. • The value of thumbnail resolution <width/height> was <value>. Change the <width/height> to a value less than or equal to the video <width/height> (<value>). • The value of the <fieldName> field was <value>. Change <fieldName> to a value greater than zero. • The value of the <fieldName> field was <value>. Change <fieldName> to a value between <minimum> and <maximum>. • The value of Resolution for the job (the resolution of the file that you are transcoding) was <widthxheight>. For the container type of the file that you are transcoding, only 'auto' is allowed for Resolution. Change Resolution to 'auto'.	One or more required parameter values are missing or invalid.	No

HTTP Status Code	Error code	Message	Cause	Retry
403	AccessDenied Exception	• Deleting a system preset is not allowed: account=<accountId>, presetId=<presetId>. • General authentication failure. The client did not correctly sign the request. See Signing Requests (p. 41).	You attempted to delete a system preset, or the signature in a call to the Elastic Transcoder API was invalid.	No
404	ResourceNot Found Exception	• The specified <resource> could not be found: <resourceId>. • The specified job was not found: account=<accountId>, jobId=<jobId>. • The specified pipeline was not found: account=<accountId>, pipelineId=<pipelineId> • The specified preset was not found: account=<accountId>, presetId=<presetId>	Example: The pipeline to which you're trying to add a job doesn't exist or is still being created.	No
409	Resource InUse Exception	• The <resource> was already in use: accountId=<accountId>, resourceId=<resourceId>. • The pipeline contains active jobs: account=<accountId>, pipeline=<pipelineId>.	Example: You attempted to delete a pipeline that is currently in use.	No
429	Limit Exceeded Exception	• The account already has the maximum number of pipelines allowed: account=<accountId>, maximum number of pipelines=<maximum> • The account already has the maximum number of presets allowed: account=<accountId>, maximum number of presets=<maximum> • The account already has the maximum number of jobs per pipeline in the backlog: account=<accountId>, maximum number of jobs in backlog for pipeline=<maximum>	The current AWS account has exceeded limits on Elastic Transcoder objects. For more information, see Limits on the Number of Elastic Transcoder Entities (p. 2).	
500	Internal Failure	The server encountered an internal error trying to fulfill the request.	The server encountered an error while processing your request.	Yes
500	Internal Server Error	The server encountered an internal error trying to fulfill the request.	The server encountered an error while processing your request.	Yes

HTTP Status Code	Error code	Message	Cause	Retry
500	Internal Service Exception		The service encountered an unexpected exception while trying to fulfill the request.	Yes
500	Service Unavailable Exception	The service is currently unavailable or busy.	There was an unexpected error on the server while processing your request.	Yes

Sample Error Response

The following is an HTTP response indicating that the value for `inputBucket` was null, which is not a valid value.

```
HTTP/1.1 400 Bad Request
x-amzn-RequestId: b0e91dc8-3807-11e2-83c6-5912bf8ad066
x-amzn-ErrorType: ValidationException
Content-Type: application/json
Content-Length: 124
Date: Mon, 26 Nov 2012 20:27:25 GMT

{"message":"1 validation error detected: Value null at 'inputBucket' failed to
 satisfy constraint: Member must not be null"}
```

Catching Errors

For your application to run smoothly, you need to build in logic to catch and respond to errors. One typical approach is to implement your request within a `try` block or `if-then` statement.

The AWS SDKs perform their own retries and error checking. If you encounter an error while using one of the AWS SDKs, you should see the error code and description. You should also see a `Request ID` value. The `Request ID` value can help troubleshoot problems with Elastic Transcoder support.

The following example uses the AWS SDK for Java to delete an item within a `try` block and uses a `catch` block to respond to the error. In this case, it warns the user that the request failed. The example uses the `AmazonServiceException` class to retrieve information about any operation errors, including the `Request ID`. The example also uses the `AmazonClientException` class in case the request is not successful for other reasons.

```
try {
   DeleteJobRequest request = new DeleteJobRequest(jobId);
   DeleteJobResult result = ETS.deleteJob(request);
   System.out.println("Result: " + result);
   // Get error information from the service while trying to run the operation
```

```
   }  catch (AmazonServiceException ase) {
      System.err.println("Failed to delete job " + jobId);
      // Get specific error information
      System.out.println("Error Message:    " + ase.getMessage());
      System.out.println("HTTP Status Code: " + ase.getStatusCode());
      System.out.println("AWS Error Code:   " + ase.getErrorCode());
      System.out.println("Error Type:       " + ase.getErrorType());
      System.out.println("Request ID:       " + ase.getRequestId());
   // Get information in case the operation is not successful for other reasons

   }  catch (AmazonClientException ace) {
      System.out.println("Caught an AmazonClientException, which means"+
      " the client encountered " +
      "an internal error while trying to " +
      "communicate with Amazon ETS, " +
      "such as not being able to access the network.");
      System.out.println("Error Message: " + ace.getMessage());
   }
```

Error Retries and Exponential Backoff

Numerous components on a network, such as DNS servers, switches, load balancers, and others can generate errors anywhere in the life of a given request.

The usual technique for dealing with these error responses in a networked environment is to implement retries in the client application. This technique increases the reliability of the application and reduces operational costs for the developer.

Each AWS SDK supporting Elastic Transcoder implements automatic retry logic. The AWS SDK for Java automatically retries requests, and you can configure the retry settings using the `ClientConfiguration` class. For example, in some cases, such as a web page making a request with minimal latency and no retries, you might want to turn off the retry logic. Use the `ClientConfiguration` class and provide a `maxErrorRetry` value of `0` to turn off the retries.

If you're not using an AWS SDK, you should retry original requests that receive server errors (5xx). However, client errors (4xx, other than a `ThrottlingException` or a `ProvisionedThroughputExceededException`) indicate you need to revise the request itself to correct the problem before trying again.

In addition to simple retries, we recommend using an exponential backoff algorithm for better flow control. The idea behind exponential backoff is to use progressively longer waits between retries for consecutive error responses. For example, up to one second before the first retry, up to four seconds before the second retry, up to 16 seconds before the third retry, and so on. However, after a minute, if the request has not succeeded, the problem might be the request size exceeding your provisioned throughput, and not the request rate. Set the maximum number of retries to stop around one minute.

Following is a workflow showing retry logic. The workflow logic first determines if the error is a server error (5xx). Then, if the error is a server error, the code retries the original request.

```
currentRetry = 0
DO
  set retry to false

  execute Amazon ETS request

  IF Exception.errorCode = ProvisionedThroughputExceededException
```

```
    set retry to true
  ELSE IF Exception.httpStatusCode = 500
    set retry to true
  ELSE IF Exception.httpStatusCode = 400
    set retry to false
    fix client error (4xx)

  IF retry = true
    wait for (2^currentRetry * 50) milliseconds
    currentRetry = currentRetry + 1

WHILE (retry = true AND currentRetry < MaxNumberOfRetries)  // limit retries
```

Pipeline Operations

Topics

Pipelines are queues that manage your transcoding jobs. When you create a job, you specify which pipeline you want to add the job to. Elastic Transcoder starts processing the jobs in a pipeline in the order in which you added them.

This section describes operations that you can perform on pipelines using the Elastic Transcoder API. For more information about pipelines, including how to perform the same operations using the Elastic Transcoder console, see Working with Pipelines (p. 8).

Create Pipeline

Topics

Description

To create a pipeline, send a POST request to the `2012-09-25/pipelines/` resource.

Requests

Syntax

```
POST /2012-09-25/pipelines HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
{
   "Name":"pipeline name",
   "InputBucket":"Amazon S3 bucket that contains files to transcode",
   "OutputBucket":"Amazon S3 bucket in which to save transcoded files",
   "Role":"IAM role ARN",
   "Notifications":{
      "Progressing":"SNS topic to notify when
         Elastic Transcoder has started to process the job",
      "Completed":"SNS topic to notify when
         Elastic Transcoder has finished processing the job",
      "Warning":"SNS topic to notify when
         Elastic Transcoder encounters a warning condition"
      "Error":"SNS topic to notify when
         Elastic Transcoder encounters an error condition"
   }
}
```

Request Parameters

This operation does not use request parameters.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

The JSON string in the request body contains the following objects.

Name
The name of the pipeline. We recommend that the name be unique within the AWS account, but uniqueness is not enforced.

Constraints: Maximum 40 characters

InputBucket
The Amazon S3 bucket in which you saved the media files that you want to transcode.

OutputBucket
The Amazon S3 bucket in which you want Elastic Transcoder to save the transcoded files.

Role
The IAM Amazon Resource Name (ARN) for the role that you want Elastic Transcoder to use to transcode jobs for this pipeline.

Notifications:Progressing
The Amazon Simple Notification Service (Amazon SNS) topic that you want to notify when Elastic Transcoder has started to process the job.

> **Important**
> To receive notifications, you must also subscribe to the new topic in the Amazon SNS console.

Notifications:Completed
The Amazon SNS topic that you want to notify when Elastic Transcoder has finished processing the job.

Notifications:Warning
The Amazon SNS topic that you want to notify when Elastic Transcoder encounters a warning condition.

Notifications:Error
The Amazon SNS topic that you want to notify when Elastic Transcoder encounters an error condition.

Responses

Syntax

```
Status: 201 Created
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Pipeline":{
      "Id":"Id for the new pipeline",
      "InputBucket":"Amazon S3 bucket that contains files to transcode",
      "Name":"pipeline name",
      "Notifications":{
         "Completed":"SNS topic to notify when
            Elastic Transcoder has finished processing the job",
         "Error":"SNS topic to notify when
            Elastic Transcoder encounters an error condition",
         "Progressing":"SNS topic to notify when
            when Elastic Transcoder has started to process the job",
```

```
         "Warning":"SNS topic to notify when
            when Elastic Transcoder encounters a warning condition"
      }
      "OutputBucket":"Amazon S3 bucket in which to save transcoded files",
      "Role":"IAM role ARN",
      "Status":"active"|"other status value"
   }
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

When you create a pipeline, Elastic Transcoder returns the values that you specified in the request. For more information, see Request Body (p. 52).

In addition, Elastic Transcoder returns the following values.

Id
Identifier for the pipeline. You use this value to identify the pipeline in which you want to perform a variety of operations, for example, creating a job or a preset.

Status
The current status of the pipeline:

- `active`: The pipeline is processing jobs.
- `paused`: The pipeline is not currently processing jobs.

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Examples

The following example request creates a pipeline named `Default`.

Sample Request

```
POST /2012-09-25/pipelines HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
{
   "Name":"Default",
   "InputBucket":"salesoffice.example.com-source",
```

```
   "OutputBucket":"salesoffice.example.com-public-promos",
   "Role":"arn:aws:iam::123456789012:role/Elastic_Transcoder_Default_Role",
   "Notifications":{
      "Progressing":"",
      "Completed":"",
      "Warning":"",
      "Error":"arn:aws:sns:us-east-1:111222333444:ETS_Errors"
   }
}
```

Sample Response

```
Status: 201 Created
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT
{
   "Pipeline":{
      "Id":"1111111111111-abcde1",
      "InputBucket":"salesoffice.example.com-source",
      "Name":"Default",
      "Notifications":{
         "Completed":"",
         "Error":"arn:aws:sns:us-east-1:111222333444:ETS_Errors",
         "Progressing":"",
         "Warning":""
      }
      "OutputBucket":"salesoffice.example.com-public-promos",
      "Role":"arn:aws:iam::123456789012:role/Elastic_Transcoder_Default_Role",

      "Status":"active"
   }
}
```

List Pipelines

Topics

Description

To get a list of the pipelines associated with the current AWS account, send a GET request to the `/2012-09-25/pipelines/` resource.

Requests

Syntax

```
GET /2012-09-25/pipelines HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Request Parameters

This operation does not use request parameters.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

This operation does not have a request body.

Responses

Syntax

```
Status: 200 OK
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT
{
```

```
   "Pipelines":[
      {
         "Id":"Id for the new pipeline",
         "InputBucket":"Amazon S3 bucket that contains files to transcode",
         "Name":"pipeline name",
         "Notifications":{
            "Completed":"SNS topic to notify when
               Elastic Transcoder has finished processing the list request",
            "Error":"SNS topic to notify when
               Elastic Transcoder returns an error",
            "Progressing":"SNS topic to notify when
               Elastic Transcoder has started to process the list request",
            "Warning":"SNS topic to notify when
               Elastic Transcoder returns a warning"
         },
         "OutputBucket":"Amazon S3 bucket in which to save transcoded files",
         "Role":"IAM role ARN",
         "Status":"active"|"paused"
      },
      {...}
   ]
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

Id
The identifier for the new pipeline. You use this value to identify the pipeline in which you want to perform a variety of operations, for example, creating a job or a preset.

InputBucket
The Amazon S3 bucket from which Elastic Transcoder gets media files for transcoding.

Name
The name of the pipeline.

Notifications:Completed
The Amazon SNS topic that you want to notify when Elastic Transcoder has finished processing the list request.

Notifications:Error
The Amazon SNS topic that you want to notify when Elastic Transcoder returns an error.

Notifications:Progressing
The Amazon SNS topic that you want to notify when Elastic Transcoder has started to process the list request.

Notifications:Warning
The Amazon SNS topic that you want to notify when Elastic Transcoder returns a warning.

OutputBucket
The Amazon S3 bucket in which Elastic Transcoder saves transcoded files.

Role
The IAM Amazon Resource Name (ARN) for the role that Elastic Transcoder uses to transcode jobs for this pipeline.

Status
The status of the pipeline:

- `active`: The pipeline is processing jobs.
- `paused`: The pipeline is not processing jobs.

To change the status of a pipeline, use Update Pipeline Status (p. 62).

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Examples

The following example request gets a list of the pipelines associated with the current AWS account.

Sample Request

```
GET /2012-09-25/pipelines HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Sample Response

```
Status: 200 OK
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT
{
   "Pipelines":[
      {
         "Id":"1111111111111-abcde1",
         "InputBucket":"salesoffice-tokyo.example.com-source",
         "Name":"Tokyo-Default",
         "Notifications":{
            "Completed":"",
            "Error":"arn:aws:sns:us-east-1:111222333444:ETS_Errors",
            "Progressing":"",
            "Warning":""
         },
         "OutputBucket":"salesoffice-tokyo.example.com-public-promos",
         "Role":"transcode-service",
         "Status":"Active"
      },
      {
         "Id":"2222222222222-abcde2",
         "InputBucket":"salesoffice-amsterdam.example.com-source",
         "Name":"Amsterdam-Default",
         "Notifications":{
```

```
            "Completed":"",
            "Error":"arn:aws:sns:us-east-1:111222333444:ETS_Errors",
            "Progressing":"",
            "Warning":""
         },
         "OutputBucket":"salesoffice-amsterdam.example.com-public-promos",
         "Role":"transcode-service",
         "Status":"Active"
      }
   ]
}
```

Get Pipeline

Topics

Description

To get detailed information about a pipeline, send a GET request to the `/2012-09-25/pipelines/pipelineId` resource.

Requests

Syntax

```
GET /2012-09-25/pipelines/pipelineId HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Request Parameters

This operation takes the following request parameter.

pipelineId
The identifier of the pipeline for which you want to get detailed information.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

This operation does not have a request body.

Responses

Syntax

```
Status: 200 OK
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
```

```
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Pipeline":{
      "Id":"Id for the new pipeline",
      "InputBucket":"Amazon S3 bucket that contains files to transcode",
      "Name":"pipeline name",
      "Notifications":{
         "Completed":"SNS topic to notify when
            Elastic Transcoder has created the pipeline",
         "Error":"SNS topic to notify when
            Elastic Transcoder returns an error",
         "Progressing":"SNS topic to notify when
            Elastic Transcoder has started to create the pipeline",
         "Warning":"SNS topic to notify when
            Elastic Transcoder returns a warning"
      },
      "OutputBucket":"Amazon S3 bucket in which to save transcoded files",
      "Role":"IAM role ARN",
      "Status":"active"|"paused"
   }
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

The response body contains the following JSON objects.

Id
The identifier for the new pipeline. You use this value to identify the pipeline in which you want to perform a variety of operations, for example, creating a job or a preset.

InputBucket
The Amazon S3 bucket from which Elastic Transcoder gets media files for transcoding.

Name
The name of the pipeline.

Notifications:Completed
The Amazon SNS topic that you want to notify when Elastic Transcoder has created the pipeline.

Notifications:Error
The Amazon SNS topic that you want to notify when Elastic Transcoder returns an error.

Notifications:Progressing
The Amazon Simple Notification Service (Amazon SNS) topic that you want to notify when Elastic Transcoder has started to create the pipeline.

Notifications:Warning
The Amazon SNS topic that you want to notify when Elastic Transcoder returns a warning.

OutputBucket
The Amazon S3 bucket in which Elastic Transcoder saves transcoded files.

Role
The IAM Amazon Resource Name (ARN) for the role that Elastic Transcoder uses to transcode jobs for this pipeline.

Status

The status of the pipeline:

- `active`: The pipeline is processing jobs.
- `paused`: The pipeline is not processing jobs.

To change the status of a pipeline, use Update Pipeline Status (p. 62).

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Examples

The following example request gets the pipeline that has the ID `1111111111111-abcde1`.

Sample Request

```
GET /2012-09-25/pipelines/1111111111111-abcde1 HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Sample Response

```
Status: 200 OK
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Pipeline":{
      "Id":"1111111111111-abcde1",
      "InputBucket":"salesoffice.example.com-source",
      "Name":"Default",
      "Notifications":{
         "Completed":"",
         "Error":"arn:aws:sns:us-east-1:111222333444:ETS_Errors",
         "Progressing":"",
         "Warning":""
      },
      "OutputBucket":"salesoffice.example.com-public-promos",
      "Role":"transcode-service",
      "Status":"active"
   }
}
```

Update Pipeline Status

Topics

Description

To pause or reactivate a pipeline, so the pipeline stops or restarts processing jobs, update the status for the pipeline. Send a POST request to the `/2012-09-25/pipelines/`*`pipeline Id`*`/status` resource.

Changing the pipeline status is useful if you want to cancel one or more jobs. You can't cancel jobs after Elastic Transcoder has started processing them; if you pause the pipeline to which you submitted the jobs, you have more time to get the job IDs for the jobs that you want to cancel, and to send a `Delete Job` request.

Requests

Syntax

```
POST /2012-09-25/pipelines/pipelineId/status HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
{
   "Status":"new status for the pipeline"
}
```

Request Parameters

This operation takes the following request parameter.

pipelineId
The identifier of the pipeline that you want to pause or reactivate.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

The JSON string in the request body contains the following object.

Status

The new status of the pipeline:

- `active`: Enable the pipeline, so it starts processing jobs.
- `paused`: Disable the pipeline, so it stops processing jobs.

Responses

Syntax

```
Status: 202 Accepted
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Id":"ID for the pipeline",
   "Status":"new status for the pipeline"
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

When you update status for a pipeline, Elastic Transcoder returns the values that you specified in the request. For more information, see Request Body (p. 62).

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Example

The following example request enables the pipeline that has the ID `1111111111111-abcde1`.

Sample Request

```
POST /2012-09-25/pipelines/1111111111111-abcde1/status HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
{
```

```
   "Status":"active"
}
```

Sample Response

```
Status: 202 Accepted
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT
{
   "Id":"1111111111111-abcde1",
   "Status":"active"
}
```

Update Pipeline Notifications

Topics

Description

To update Amazon Simple Notification Service (Amazon SNS) notifications for a pipeline, send a POST request to the `/2012-09-25/pipelines/pipeline Id/notifications` resource.

Requests

Syntax

```
POST /2012-09-25/pipelines/pipelineId/notifications HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
{
   "Id":"pipeline Id",
   "Notifications":{
      "Progressing":"SNS topic to notify when
         Elastic Transcoder has started to create the pipeline",
      "Completed":"SNS topic to notify when
         Elastic Transcoder has created the pipeline",
      "Warning":"SNS topic to notify when
       Elastic Transcoder returns a warning",
      "Error":"SNS topic to notify when
         Elastic Transcoder returns an error"
   }
}
```

Request Parameters

This operation takes the following request parameter.

pipelineId
The identifier of the pipeline for which you want to change notification settings.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

The JSON string in the request body contains the following objects.

Id
The ID of the pipeline that you want to update.

Notifications:Progressing
The Amazon SNS topic that you want to notify when Elastic Transcoder has started to create the pipeline.

Notifications:Completed
The Amazon SNS topic that you want to notify when Elastic Transcoder has created the pipeline.

Notifications:Warning
The Amazon SNS topic that you want to notify when Elastic Transcoder returns a warning.

Notifications:Error
The Amazon SNS topic that you want to notify when Elastic Transcoder returns an error.

Responses

Syntax

```
Status: 202 Accepted
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT
{"Pipeline":
  {"Id":"ID for the new pipeline",
   "Notifications":{
      "Completed":"SNS topic to notify when Elastic Transcoder has created the
 pipeline",
      "Error":"SNS topic to notify when Elastic Transcoder returns an error"},

      "Progressing":"SNS topic to notify when Elastic Transcoder has started
to create the pipeline",
     "Warning":"SNS topic to notify when Elastic Transcoder returns a warning"
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

When you update notifications for a pipeline, Elastic Transcoder returns the values that you specified in the request. For more information, see Request Body (p. 66).

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Examples

The following example request updates the notifications for a pipeline.

Sample Request

```
POST /2012-09-25/pipelines/1111111111111-abcde1/notifications HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
{
   "Id":"1111111111111-abcde1",
   "Notifications":{
      "Progressing":"",
      "Completed":"",
      "Warning":"",
      "Error":"arn:aws:sns:us-east-1:111222333444:ETS_Errors"
   }
}
```

Sample Response

```
Status: 202 Accepted
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Id":"1111111111111-abcde1",
   "Notifications":{
      "Completed":"",
      "Error":"arn:aws:sns:us-east-1:111222333444:ETS_Errors",
      "Progressing":"",
      "Warning":""
   }
}
```

Delete Pipeline

Topics

Description

To delete a pipeline, send a DELETE request to the `/2012-09-25/pipelines/`*`pipelineId`* resource. You can only delete a pipeline that has never been used or that is not currently in use (doesn't contain any active jobs). If the pipeline is currently in use, `Delete Pipeline` returns an error.

Requests

Syntax

```
DELETE /2012-09-25/pipelines/pipelineId HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Request Parameters

This operation takes the following request parameter.

pipelineId
The identifier of the pipeline that you want to delete.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

This operation does not have a request body.

Responses

Syntax

```
Status: 202 Accepted
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Success":"true"
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

The response body contains the following JSON object.

Success
If the pipeline is successfully deleted, the value of `Success` is `true`.

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Example

The following example request deletes the pipeline 1111111111111-abcde1.

Sample Request

```
DELETE /2012-09-25/pipelines/1111111111111-abcde1 HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Sample Response

```
Status: 202 Accepted
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
```

```
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Success":"true"
}
```

Test Role

Topics

Description

To test the settings for a pipeline to ensure that Elastic Transcoder can create and process jobs, send a POST request to the `2012-09-25/roleTests` resource.

Requests

Syntax

```
POST /2012-09-25/roleTests HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
{
   "InputBucket":"Amazon S3 bucket that contains files to transcode",
   "OutputBucket":"Amazon S3 bucket in which to save transcoded files",
   "Role":"IAM ARN for the role to test",
   "Topics": [
      "ARN of SNS topic to test"
   ]
}
```

Request Parameters

This operation does not use request parameters.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

The JSON string in the request body contains the following objects.

InputBucket
The Amazon S3 bucket in which you saved the media files that you want to transcode. `Test Role` tries to read from this bucket.

OutputBucket
The Amazon S3 bucket in which you want Elastic Transcoder to save the transcoded files. `Test Role` tries to read from this bucket.

Role
The IAM Amazon Resource Name (ARN) for the role that you want Elastic Transcoder to use to transcode jobs. `Test Role` tries to assume the specified role.

Topics
The ARNs of one or more Amazon Simple Notification Service (Amazon SNS) topics to which you want `Test Role` to send test notifications. If you aren't using Amazon SNS notifications, you can specify an empty list.

Responses

Syntax

```
Status: 200 OK
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Messages": [
      "error messages, if any"
   ],
   "Success": "true | false"
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

When you test settings for a pipeline, Elastic Transcoder returns the following values.

Messages
If the value of `Success` is `false`, `Messages` contains an array of one or more messages that explain which tests failed.

Success
If the operation is successful, this value is `true`; otherwise, the value is `false`.

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Examples

Sample Request

```
POST /2012-09-25/roleTests HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
{
   "InputBucket":"salesoffice.example.com-source",
   "OutputBucket":"salesoffice.example.com-public-promos",
   "Role":"arn:aws:iam::123456789012:role/transcode-service",
   "Topics":
      ["arn:aws:sns:us-east-1:111222333444:ETS_Errors",
       "arn:aws:sns:us-east-1:111222333444:ETS_Progressing"]
}
```

Sample Response

```
Status: 201 Created
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT
{
   "Messages":[
      "The role arn:aws:iam::123456789012:role/transcode-service does not have
 access to the bucket: salesoffice.example.com-source",
      "The role arn:aws:iam::123456789012:role/transcode-service does not have
 access to the topic: arn:aws:sns:us-east-1:111222333444:ETS_Errors"
   ],
   "Success": "false"
}
```

Job Operations

Topics

Jobs do the work of transcoding. Each job converts one file into one format. For example, if you want to convert a media file into six different formats, you create six jobs.

This section describes operations that you can perform on jobs using the Elastic Transcoder API. For more information about jobs, including how to perform the same operations using the Elastic Transcoder console, see Working with Jobs (p. 15).

Create Job

Topics

Description

To create a job, send a POST request to the `/2012-09-25/jobs` resource.

Requests

Syntax

```
POST /2012-09-25/jobs HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
{
   "Input":{
      "Key":"name of the file to transcode",
      "FrameRate":"auto"|"10"|"15"|"23.97"|"24"|"25"|"29.97"|"30"|"60",
      "Resolution":"auto"|"width in pixelsxheight in pixels",
      "AspectRatio":"auto"|"1:1"|"4:3"|"3:2"|"16:9",
      "Interlaced":"auto"|"true"|"false",
      "Container":"auto"|"3gp"|"asf"|"avi"|"divx"|"flv"|"mkv"|"mov"|"mp4"|
         "mpeg"|"mpeg-ps"|"mpeg-ts"|"mxf"|"ogg"|"vob"|"wav"|"webm"
   },
   "Output":{
      "Key":"name of the transcoded file",
      "ThumbnailPattern":""|"pattern",
      "Rotate":"auto"|"0"|"90"|"180"|"270",
      "PresetId":"preset to use for the job"
   },
   "PipelineId":"pipeline to add the job to"
}
```

Request Parameters

This operation does not use request parameters.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

The JSON string in the request body contains the following objects.

Key (Input)
The name of the file that you want to transcode. Later in this request body, you specify the pipeline that you want to use to process the job. (See PipelineId.) The `InputBucket` object in that pipeline tells Elastic Transcoder which Amazon S3 bucket to get the file from.

If the file name includes a prefix, for example, `cooking/lasagna.mpg`, include the prefix in the key. If the file isn't in the specified bucket, Elastic Transcoder returns an error.

FrameRate
The frame rate of the input file. If you want Elastic Transcoder to automatically detect the frame rate of the input file, specify `auto`. If you want to specify the frame rate for the input file, enter one of the following values:

`10`, `15`, `23.97`, `24`, `25`, `29.97`, `30`, `60`

If you specify a value other than `auto`, Elastic Transcoder disables automatic detection of the frame rate.

Resolution
The resolution, in pixels, of the input file. This value must be `auto`, which causes Elastic Transcoder to automatically detect the resolution of the input file.

AspectRatio
The aspect ratio of the input file. If you want Elastic Transcoder to automatically detect the aspect ratio of the input file, specify `auto`. If you want to specify the aspect ratio for the output file, enter one of the following values:

`1:1`, `4:3`, `3:2`, `16:9`

If you specify a value other than `auto`, Elastic Transcoder disables automatic detection of the aspect ratio.

Interlaced
Whether the input file is interlaced. If you want Elastic Transcoder to automatically detect whether the input file is interlaced, specify `auto`. If you want to specify whether the input file is interlaced, enter one of the following values:

`true`, `false`

If you specify a value other than `auto`, Elastic Transcoder disables automatic detection of interlacing.

Container
The container type for the input file. If you want Elastic Transcoder to automatically detect the container type of the input file, specify `auto`. If you want to specify the container type for the input file, enter one of the following values:

`3gp`, `asf`, `avi`, `divx`, `flv`, `mkv`, `mov`, `mp4`, `mpeg`, `mpeg-ps`, `mpeg-ts`, `mxf`, `ogg`, `vob`, `wav`, `webm`

Key (Output)
The name that you want Elastic Transcoder to assign to the transcoded file. Elastic Transcoder saves the file in the Amazon S3 bucket specified by the `OutputBucket` object in the pipeline that is specified by PipelineId (p. 78). If a file with the specified name already exists in the output bucket, the job fails.

ThumbnailPattern

Whether you want Elastic Transcoder to create thumbnails for your videos and, if so, how you want Elastic Transcoder to name the files.

If you don't want Elastic Transcoder to create thumbnails, specify `""`.

If you do want Elastic Transcoder to create thumbnails, specify the information that you want to include in the file name for each thumbnail. You can specify the following values in any sequence:

- **`{count}` (Required):** If you want to create thumbnails, you must include `{count}` in the `ThumbnailPattern` object. Wherever you specify `{count}`, Elastic Transcoder adds a five-digit sequence number (beginning with **00001**) to thumbnail file names. The number indicates where a given thumbnail appears in the sequence of thumbnails for a transcoded file.

  Important
  If you specify a literal value and/or `{resolution}` but you omit `{count}`, Elastic Transcoder returns a validation error and does not create the job.

- **Literal values (Optional):** You can specify literal values anywhere in the `ThumbnailPattern` object, for example, as a file name prefix or as a delimiter between `{resolution}` and `{count}`.
- **`{resolution}` (Optional):** If you want Elastic Transcoder to include the resolution in the file name, include `{resolution}` in the `ThumbnailPattern` object.

When creating thumbnails, Elastic Transcoder automatically saves the files in the format (.png) that appears in the preset that you specified in PresetId (p. 77). Elastic Transcoder also appends the applicable file name extension.

Rotate

The number of degrees clockwise by which you want Elastic Transcoder to rotate the output relative to the input. Enter one of the following values:

`auto`, `0`, `90`, `180`, `270`

The value `auto` generally works only if the file that you're transcoding contains rotation metadata.

PresetId

The value of the `Id` object for the preset that you want to use for this job. The preset determines the audio, video, and thumbnail settings that Elastic Transcoder uses for transcoding. To use a preset that you created, specify the preset ID that Elastic Transcoder returned in the response when you created the preset.

To use one of the system presets that are included with Elastic Transcoder, use the following IDs. (You can also get these IDs using List Presets (p. 109).)

Preset Name	PresetId	Output Format
Generic 1080p	1351620000000-000001	Generic 1080p
Generic 720p	1351620000000-000010	Generic 720p
Generic 480p 16:9	1351620000000-000020	Generic 480p 16:9
Generic 480p 4:3	1351620000000-000030	Generic 480p 4:3
Generic 360p 16:9	1351620000000-000040	Generic 360p 16:9
Generic 360p 4:3	1351620000000-000050	Generic 360p 4:3
Generic 320x240	1351620000000-000060	Generic 320x240
iPhone4	1351620000000-100010	iPod touch 5G, 4G, iPad 1G, 2G

Preset Name	PresetId	Output Format
iPhone4S	1351620000000-100020	iPhone 5, iPad 3G, 4G, iPad mini, Samsung Galaxy S2/S3/Tab 2
iPhone3GS	1351620000000-100030	iPhone 3GS
iPod Touch	1351620000000-100040	iPhone 1, 3, iPod classic
Apple TV 2G	1351620000000-100050	Apple TV 2G
Apple TV 3G	1351620000000-100060	Apple TV 3G, Roku HD/2 XD
Web	1351620000000-100070	Facebook, SmugMug, Vimeo, YouTube
Kindle Fire HD	1351620000000-100080	Kindle Fire HD
Kindle Fire HD 8.9	1351620000000-100090	Kindle Fire HD 8.9
Kindle Fire	1351620000000-100100	Kindle Fire

PipelineId
The value of the `Id` object for the pipeline that you want Elastic Transcoder to use for transcoding. The pipeline determines several settings, including the Amazon S3 bucket from which Elastic Transcoder gets the files to transcode and the bucket into which Elastic Transcoder puts the transcoded files.

Responses

Syntax

```
Status: 201 Created
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Job":{
      "Id":"Id that Elastic Transcoder assigns to the job",
      "Input":{
         "AspectRatio":"auto"|"1:1"|"4:3"|"3:2"|"16:9",
         "Container":"auto"|"3gp"|"asf"|"avi"|"divx"|"flv"|"mkv"|"mov"|"mp4"|
            "mpeg"|"mpeg-ps"|"mpeg-ts"|"mxf"|"ogg"|"vob"|"wav"|"webm",
         "FrameRate":"auto"|"10"|"15"|"23.97"|"24"|"25"|"29.97"|"30"|"60",
         "Interlaced":"auto"|"true"|"false",
         "Key":"name of the file to transcode",
         "Resolution":"auto"|"width in pixelsxheight in pixels"
      },
      "Output":{
         "Key":"name of the transcoded file",
         "PresetId":"preset to use for the job",
         "Rotate":"auto"|"0"|"90"|"180"|"270",
         "Status":"Submitted"|"Progressing"|"Completed"|"Canceled"|"Error",
         "StatusDetail":"additional information about job status",
```

```
         "ThumbnailPattern":""|"pattern"
      },
      "PipelineId":"pipeline to add the job to"
   }
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

When you create a job, Elastic Transcoder returns the values that you specified in the request. For more information, see Request Body (p. 76).

In addition, Elastic Transcoder returns the following values.

Id
The identifier that Elastic Transcoder assigned to the job. You use this value to get settings for the job or to delete the job.

Status
Status of the job. The value of `Status` is one of the following: `Submitted`, `Progressing`, `Completed`, `Canceled`, or `Error`.

StatusDetail
Information that further explains `Status`.

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

> **Note**
> If a job fails with an `Access Denied` error, we recommend that you run the `Test Role` API action to determine what is causing the error. For more information, see Test Role (p. 71).

Examples

The following example request creates a job.

Sample Request

```
POST /2012-09-25/jobs HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
{
   "Input":{
```

```
      "Key":"cooking/lasagna.mp4",
      "FrameRate":"auto",
      "Resolution":"auto",
      "AspectRatio":"auto",
      "Interlaced":"auto",
      "Container":"mp4"
   },
   "Output":{
      "Key":"",
      "ThumbnailPattern":"cooking/lasagna-{count}",
      "Rotate":"0",
      "PresetId":"5555555555555-abcde5"
   },
   "PipelineId":"1111111111111-abcde1"
}
```

Sample Response

```
Status: 201 Created
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Job":{
      "Id":"3333333333333-abcde3"
      "Input":{
         "AspectRatio":"auto",
         "Container":"mp4",
         "FrameRate":"auto",
         "Interlaced":"auto",
         "Key":"cooking/lasagna.mp4",
         "Resolution":"auto"
      },
      "Output":{
         "Key":"",
         "PresetId":"5555555555555-abcde5",
         "Rotate":"0",
         "Status":"Submitted",
         "StatusDetail":"Job has been received.",
         "ThumbnailPattern":"cooking/lasagna-{count}"
      },
      "PipelineId":"1111111111111-abcde1"
   }
}
```

List Jobs by Pipeline

Topics

Description

To get a list of the jobs currently in a pipeline, send a GET request to the `/2012-09-25/jobsByPipeline/`*`pipeline Id`* resource.

Requests

Syntax

To get information about the jobs currently in a pipeline, send the following GET request.

```
GET /2012-09-25/jobsByPipeline/pipeline Id?
Ascending=true|false&
pageToken=value for accessing the next page of results HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Request Parameters

This operation takes the following request parameters. Elastic Transcoder returns all of the jobs currently in the specified pipeline.

PipelineId
To get information about jobs that you added to a given pipeline, specify the value of the `Id` object for that pipeline.

Ascending
To list jobs in chronological order by the date and time that they were submitted, enter `true`. To list jobs in reverse chronological order, enter `false`.

pageToken
When Elastic Transcoder returns more than one page of results, use `pageToken` in subsequent `GET` requests to get each successive page of results.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

This operation does not use a request body.

Responses

Syntax

```
Status: 200 OK
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Jobs":[
      {
         "Id":"Id that Elastic Transcoder assigns to the job",
         "Input":{
            "AspectRatio":"auto"|"1:1"|"4:3"|"3:2"|"16:9",
          "Container":"auto"|"3gp"|"asf"|"avi"|"divx"|"flv"|"mkv"|"mov"|"mp4"|

               "mpeg"|"mpeg-ps"|"mpeg-ts"|"mxf"|"ogg"|"vob"|"wav"|"webm",
            "FrameRate":"auto"|"10"|"15"|"23.97"|"24"|"25"|"29.97"|"30"|"60",
            "Interlaced":"auto"|"true"|"false",
            "Key":"name of the file to transcode",
            "Resolution":"auto"|"width in pixelsxheight in pixels"
         },
         "Output":{
            "Key":"name of the transcoded file",
            "PresetId":"PresetId for the job",
            "Rotate":"auto"|"0"|"90"|"180"|"270",
           "Status":"Submitted"|"Progressing"|"Completed"|"Canceled"|"Error",

            "StatusDetail":"detail associated with Status",
            "ThumbnailPattern":""|"pattern"
         },
         "PipelineId":"PipelineId for the job"
      },
      {...
      }
   ],
   "NextPageToken":value for accessing the next page of results|null
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

The response body contains one element for each job that satisfies the search criteria. Each element contains the following JSON objects.

Id
The identifier that Elastic Transcoder assigned to the job. You use this value to get settings for the job or to delete the job.

AspectRatio
The aspect ratio of the input file. Valid values include:

- `auto`: Elastic Transcoder automatically detects the aspect ratio of the input file.
- `1:1`, `4:3`, `3:2`, or `16:9`

Container
The container type of the input file. Valid values include:

- `auto`: Elastic Transcoder detects the container type of the input file.
- `3gp`, `asf`, `avi`, `divx`, `flv`, `mkv`, `mov`, `mp4`, `mpeg`, `mpeg-ps`, `mpeg-ts`, `mxf`, `ogg`, `vob`, `wav`, or `webm`

FrameRate
The frame rate for the input file. Valid values include:

- `auto`: Elastic Transcoder automatically detects the frame rate of the input file.
- `10`, `15`, `23.97`, `24`, `25`, `29.97`, `30`, or `60`

Interlaced
Whether the input file is interlaced. Valid values include:

- `auto`: Elastic Transcoder automatically detects whether the input file is interlaced.
- `true` or `false`

Key (Input)
The name of the file that you want to transcode. When you created the job, you specified the pipeline to use to process the job. (See PipelineId.) The `InputBucket` object in that pipeline tells Elastic Transcoder which Amazon S3 bucket to get the file from.

Resolution
The resolution, in pixels, for the input file. This value must be `auto`, which causes Elastic Transcoder to automatically detect the resolution of the input file.

Key (Output)
The name that you want Elastic Transcoder to assign to the transcoded file. Elastic Transcoder saves the file in the Amazon S3 bucket specified by the `OutputBucket` object in the pipeline that is specified by PipelineId (p. 83).

PresetId
The value of the `Id` object for the preset that you specified for this job.

Rotate
The number of degrees clockwise by which you want Elastic Transcoder to rotate the output relative to the input. Enter one of the following values:

`auto`, `0`, `90`, `180`, `270`

Status
The status of the job. The value of `Status` is one of the following: `Submitted`, `Progressing`, `Completed`, `Canceled`, or `Error`.

StatusDetail
Information that further explains `Status`.

ThumbnailPattern
Whether you want Elastic Transcoder to create thumbnails for your videos and, if so, how you want Elastic Transcoder to name the files.

PipelineId
The value of the `Id` object for the pipeline that you want Elastic Transcoder to use for transcoding. The pipeline determines several settings, including the Amazon S3 bucket from which Elastic Transcoder gets the files to transcode and the bucket into which Elastic Transcoder puts the transcoded files.

NextPageToken

A value that you use to access the second and subsequent pages of results, if any. When the jobs in the specified pipeline fit on one page or when you've reached the last page of results, the value of `NextPageToken` is `null`.

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Examples

The following example request creates a job.

Sample Request

The following example request gets the jobs that are currently in the pipeline ID `1111111111111-abcde1`.

```
GET /2012-09-25/jobsByPipeline/1111111111111-abcde1?Ascending=true HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Sample Response

```
Status: 200 OK
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Jobs":[
      {
         "Id":"3333333333333-abcde3",
         "Input":{
            "AspectRatio":"auto",
            "Container":"mp4",
            "FrameRate":"auto",
            "Interlaced":"auto",
            "Key":"cooking/lasagna.mp4",
            "Resolution":"auto"
         },
         "Output":{
            "Key":"",
            "PresetId":"5555555555555-abcde5",
            "Rotate":"0",
            "Status":"Submitted",
            "StatusDetail":"",
```

```
            "ThumbnailPattern":"{count}"
         },
         "PipelineId":"1111111111111-abcde1"
      },
      {
         "Id":"4444444444444-abcde4",
         "Input":{
            "AspectRatio":"auto",
            "Container":"mp4",
            "FrameRate":"auto",
            "Interlaced":"auto",
            "Key":"cooking/baked-ziti.mp4",
            "Resolution":"auto"
         },
         "Output":{
            "Key":"",
            "PresetId":"5555555555555-abcde5",
            "Rotate":"0",
            "Status":"Completed",
            "StatusDetail":"",
            "ThumbnailPattern":"{count}"
         },
         "PipelineId":"1111111111111-abcde1"
      }
   ],
   "NextPageToken":null
}
```

List Jobs by Status

Topics

Description

To get a list of the jobs that have a specified status, send a GET request to the `/2012-09-25/jobsByStatus/Submitted` resource.

Requests

Syntax

To get information about all of the jobs associated with the current AWS account that have a specified status, send the following GET request.

```
GET /2012-09-25/jobsByStatus/Status?
Ascending=true|false&
pageToken=value for accessing the next page of results HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Request Parameters

This operation takes the following request parameters. Elastic Transcoder returns all of the jobs that have the specified status.

Status
To get information about all of the jobs associated with the current AWS account that have a given status, specify the status: `Submitted`, `Progressing`, `Completed`, `Canceled`, or `Error`.

Ascending
To list jobs in chronological order by the date and time that they were submitted, enter `true`. To list jobs in reverse chronological order, enter `false`.

pageToken
When Elastic Transcoder returns more than one page of results, use `pageToken` in subsequent `GET` requests to get each successive page of results.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

This operation does not use a request body.

Responses

Syntax

```
Status: 200 OK
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Jobs":[
      {
         "Id":"Id that Elastic Transcoder assigns to the job",
         "Input":{
            "AspectRatio":"auto"|"1:1"|"4:3"|"3:2"|"16:9",
          "Container":"auto"|"3gp"|"asf"|"avi"|"divx"|"flv"|"mkv"|"mov"|"mp4"|

               "mpeg"|"mpeg-ps"|"mpeg-ts"|"mxf"|"ogg"|"vob"|"wav"|"webm",
            "FrameRate":"auto"|"10"|"15"|"23.97"|"24"|"25"|"29.97"|"30"|"60",
            "Interlaced":"auto"|"true"|"false",
            "Key":"name of the file to transcode",
            "Resolution":"auto"|"width in pixelsxheight in pixels"
         },
         "Output":{
            "Key":"name of the transcoded file",
            "PresetId":"PresetId for the job",
            "Rotate":"auto"|"0"|"90"|"180"|"270",
            "Status":"Submitted"|"In Progress"|"Completed"|"Error",
            "StatusDetail":"detail associated with Status",
            "ThumbnailPattern":""|"pattern"
         },
         "PipelineId":"PipelineId for the job"
      },
      {...
      }
   ],
   "NextPageToken":null
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

The response body contains one element for each job that satisfies the search criteria. Each element contains the following JSON objects.

Id
The identifier that Elastic Transcoder assigned to the job. You use this value to get settings for the job or to delete the job.

AspectRatio
The aspect ratio of the input file. Valid values include:

- `auto`: Elastic Transcoder automatically detects the aspect ratio of the input file.
- `1:1`, `4:3`, `3:2`, or `16:9`

Container
The container type of the input file. Valid values include:

- `auto`: Elastic Transcoder detects the container type of the input file.
- `3gp`, `asf`, `avi`, `divx`, `flv`, `mkv`, `mov`, `mp4`, `mpeg`, `mpeg-ps`, `mpeg-ts`, `mxf`, `ogg`, `vob`, `wav`, or `webm`

FrameRate
The frame rate for the input file. Valid values include:

- `auto`: Elastic Transcoder automatically detects the frame rate of the input file.
- `10`, `15`, `23.97`, `24`, `25`, `29.97`, `30`, or `60`

Interlaced
Whether the input file is interlaced. Valid values include:

- `auto`: Elastic Transcoder automatically detects whether the input file is interlaced.
- `true` or `false`

Key (Input)
The name of the file that you want to transcode. When you created the job, you specified the pipeline to use to process the job. (See PipelineId.) The `InputBucket` object in that pipeline tells Elastic Transcoder which Amazon S3 bucket to get the file from.

Resolution
The resolution, in pixels, for the input file. This value must be `auto`, which causes Elastic Transcoder to automatically detect the resolution of the input file.

Key (Output)
The name that you want Elastic Transcoder to assign to the transcoded file. Elastic Transcoder saves the file in the Amazon S3 bucket specified by the `OutputBucket` object in the pipeline that is specified by PipelineId (p. 89).

PresetId
The value of the `Id` object for the preset that you specified for this job.

Rotate
The number of degrees clockwise by which you want Elastic Transcoder to rotate the output relative to the input. Enter one of the following values:

`auto`, `0`, `90`, `180`, `270`

Status
The status of the job. The value of `Status` is one of the following: `Submitted`, `Progressing`, `Completed`, or `Error`.

StatusDetail
Information that further explains `Status`.

ThumbnailPattern
Whether you want Elastic Transcoder to create thumbnails for your videos and, if so, how you want Elastic Transcoder to name the files.

PipelineId
The value of the `Id` object for the pipeline that you want Elastic Transcoder to use for transcoding. The pipeline determines several settings, including the Amazon S3 bucket from which Elastic Transcoder gets the files to transcode and the bucket into which Elastic Transcoder puts the transcoded files.

NextPageToken
A value that you use to access the second and subsequent pages of results, if any. When the jobs in the specified pipeline fit on one page or when you've reached the last page of results, the value of `NextPageToken` is `null`.

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Examples

The following example request creates a job.

Sample Request

The following example request gets the jobs that are currently in the pipeline Id `1111111111111-abcde1`.

```
GET /2012-09-25/jobsByStatus/Completed?Ascending=true HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Sample Response

```
Status: 200 OK
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Jobs":[
      {
         "Id":"3333333333333-abcde3",
         "Input":{
            "AspectRatio":"auto",
            "Container":"mp4",
            "FrameRate":"auto",
            "Interlaced":"auto",
            "Key":"cooking/lasagna.mp4",
            "Resolution":"auto"
         },
```

```
         "Output":{
            "Key":"",
            "PresetId":"5555555555555-abcde5",
            "Rotate":"0",
            "Status":"Completed",
            "StatusDetail":"",
            "ThumbnailPattern":"{count}"
         },
         "PipelineId":"1111111111111-abcde1"
      },
      {
         "Id":"4444444444444-abcde4",
         "Input":{
            "AspectRatio":"auto",
            "Container":"mp4",
            "FrameRate":"auto",
            "Interlaced":"auto",
            "Key":"cooking/baked-ziti.mp4",
            "Resolution":"auto"
         },
         "Output":{
            "Key":"",
            "PresetId":"5555555555555-abcde5",
            "Rotate":"0",
            "Status":"Completed",
            "StatusDetail":"",
            "ThumbnailPattern":"{count}"
         },
         "PipelineId":"2222222222222-abcde2"
      }
   ],
   "NextPageToken":null
}
```

Get Job

Topics

Description

To get detailed information about a job, send a GET request to the `/2012-09-25/jobs/`*`jobId`* resource.

Requests

Syntax

```
GET /2012-09-25/jobs/jobId HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Request Parameter

This operation takes the following request parameter.

jobId
The identifier of the job for which you want to get detailed information.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

This operation does not have a request body.

Responses

Syntax

```
Status: 200 OK
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
```

```
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Job":{
      "Id":"Id that Elastic Transcoder assigns to the job",
      "Input":{
         "AspectRatio":"auto"|"1:1"|"4:3"|"3:2"|"16:9",
         "Container":"auto"|"3gp"|"asf"|"avi"|"divx"|"flv"|"mkv"|"mov"|"mp4"|
            "mpeg"|"mpeg-ps"|"mpeg-ts"|"mxf"|"ogg"|"vob"|"wav"|"webm",
         "FrameRate":"auto"|"10"|"15"|"23.97"|"24"|"25"|"29.97"|"30"|"60",
         "Interlaced":"auto"|"true"|"false",
         "Key":"name of the file to transcode",
         "Resolution":"auto"|"width in pixelsxheight in pixels"
      },
      "Output":{
         "Key":"name of the transcoded file",
         "PresetId":"PresetId for the job",
         "Rotate":"auto"|"0"|"90"|"180"|"270",
         "Status":"Submitted"|"In Progress"|"Completed"|"Canceled"|"Error",
         "StatusDetail":"detail associated with Status",
         "ThumbnailPattern":""|"pattern"
      },
      "PipelineId":"PipelineId for the job"
   }
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

For each job that satisfies the search criteria, the response body contains the values that you specified when you created the job. For more information, see Create Job (p. 75).

Id
The identifier that Elastic Transcoder assigned to the job. You use this value to get settings for the job or to delete the job.

AspectRatio
The aspect ratio of the input file. Valid values include:

- `auto`: Elastic Transcoder automatically detects the aspect ratio of the input file.
- `1:1`, `4:3`, `3:2`, or `16:9`

Container
The container type of the input file. Valid values include:

- `auto`: Elastic Transcoder detects the container type of the input file.
- `3gp`, `asf`, `avi`, `divx`, `flv`, `mkv`, `mov`, `mp4`, `mpeg`, `mpeg-ps`, `mpeg-ts`, `mxf`, `ogg`, `vob`, `wav`, or `webm`

FrameRate
The frame rate for the input file. Valid values include:

- `auto`: Elastic Transcoder automatically detects the frame rate of the input file.
- `10`, `15`, `23.97`, `24`, `25`, `29.97`, `30`, or `60`

Interlaced
Whether the input file is interlaced. Valid values include:

- `auto`: Elastic Transcoder automatically detects whether the input file is interlaced.
- `true` or `false`

Key (Input)
The name of the file that you want to transcode. When you created the job, you specified the pipeline to use to process the job. (See PipelineId.) The `InputBucket` object in that pipeline tells Elastic Transcoder which Amazon S3 bucket to get the file from.

Resolution
The resolution, in pixels, for the input file. This value must be `auto`, which causes Elastic Transcoder to automatically detect the resolution of the input file.

Key (Output)
The name that you want Elastic Transcoder to assign to the transcoded file. Elastic Transcoder saves the file in the Amazon S3 bucket specified by the `OutputBucket` object in the pipeline that is specified by PipelineId (p. 93).

PresetId
The value of the `Id` object for the preset that you specified for this job.

Rotate
The number of degrees clockwise by which you want Elastic Transcoder to rotate the output relative to the input. Enter one of the following values:

`auto`, `0`, `90`, `180`, `270`

Status
The status of the job. The value of `Status` is one of the following: `Submitted`, `Progressing`, `Completed`, `Canceled`, or `Error`.

StatusDetail
Information that further explains `Status`.

ThumbnailPattern
Whether you want Elastic Transcoder to create thumbnails for your videos and, if so, how you want Elastic Transcoder to name the files.

PipelineId
The value of the `Id` object for the pipeline that you want Elastic Transcoder to use for transcoding. The pipeline determines several settings, including the Amazon S3 bucket from which Elastic Transcoder gets the files to transcode and the bucket into which Elastic Transcoder puts the transcoded files.

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Examples

Sample Request

The following example request gets the job that has the job ID 3333333333333-abcde3.

```
GET /2012-09-25/jobs/3333333333333-abcde3 HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
```

```
                SignedHeaders=host;x-amz-date;x-amz-target,
                Signature=calculated-signature
```

Sample Response

```
Status: 200 OK
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Job":{
      "Id":"3333333333333-abcde3",
      "Input":{
         "AspectRatio":"auto",
         "Container":"mp4",
         "FrameRate":"auto",
         "Interlaced":"auto",
         "Key":"cooking/lasagna.mp4",
         "Resolution":"auto"
      },
      "Output":{
         "Key":"",
         "PresetId":"5555555555555-abcde5",
         "Rotate":"0",
         "Status":"Submitted",
         "StatusDetail":"",
         "ThumbnailPattern":"{count}"
      },
      "PipelineId":"1111111111111-abcde1"
   }
}
```

Delete Job

Topics

Description

To delete a job, send a DELETE request to the `/2012-09-25/jobs/jobId` resource.

> **Note**
> You can only cancel a job that has a status of **Submitted**. To prevent a pipeline from starting to process a job while you're getting the job identifier, use Update Pipeline Status (p. 62) to temporarily pause the pipeline.

Requests

Syntax

```
DELETE /2012-09-25/jobs/jobId HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Request Parameter

This operation takes the following request parameter.

jobId
The identifierof the job that you want to delete.

To get a list of the jobs (including their `jobId`) that have a status of `Submitted`, use the List Jobs by Status (p. 86) API action.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

This operation does not have a request body.

Responses

Syntax

```
Status: 202 Accepted
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Success":"true"
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

The response body contains the following JSON object.

Success
If the job is successfully deleted, the value of `Success` is `true`.

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Examples

The following example request deletes the job that has the ID `3333333333333-abcde3`.

Sample Request

```
DELETE /2012-09-25/jobs/3333333333333-abcde3 HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Sample Response

```
Status: 202 Accepted
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
```

```
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT
{
   "Success":"true"
}
```

Preset Operations

Topics

Presets are templates that contain most of the settings for transcoding media files from one format to another. Elastic Transcoder includes some default presets for common formats, for example, several iPod and iPhone versions. You can also create your own presets for formats that aren't included among the default presets. You specify which preset you want to use when you create a job.

This section describes operations that you can perform on presets using the Elastic Transcoder API. For more information about presets, including how to perform the same operations using the Elastic Transcoder console, see Working with Presets (p. 21).

Create Preset

Topics

Description

To create a preset, send a POST request to the `/2012-09-25/presets` resource.

> **Important**
> Elastic Transcoder checks the settings that you specify to ensure that they meet Elastic Transcoder requirements and to determine whether they comply with H.264 standards. If your settings are not valid for Elastic Transcoder, Elastic Transcoder returns an HTTP 400 response (`ValidationException`) and does not create the preset. If the settings are valid for Elastic Transcoder but aren't strictly compliant with the H.264 standard, Elastic Transcoder creates the preset and returns a warning message in the response. This helps you determine whether your settings comply with the H.264 standard while giving you greater flexibility with respect to the video that Elastic Transcoder produces.

Elastic Transcoder uses the H.264 video-compression format. For more information, see the International Telecommunication Union publication *Recommendation ITU-T H.264: Advanced video coding for generic audiovisual services*, http://www.itu.int/rec/dologin_pub.asp?lang=e&id=T-REC-H.264-201201-I!!PDF-E&type=items.

> **Note**
> Elastic Transcoder includes several system presets for common output formats. For more information, see PresetId in the topic Create Job (p. 75).

Requests

Syntax

```
POST /2012-09-25/presets HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
{
   "Name":"preset name",
   "Description":"preset description",
   "Container":"mp4",
   "Audio":{
      "Codec":"AAC",
      "SampleRate":"auto"|"22050"|"32000"|"44100"|"48000"|"96000",
```

```
      "BitRate":"audio bit rate of output file in kilobits/second",
      "Channels":"auto"|"0"|"1"|"2",
   },
   "Video":{
      "Codec":"H.264",
      "CodecOptions":{
         "Profile":"baseline"|"main"|"high",
         "Level":"1"|"1b"|"1.1"|"1.2"|"1.3"|"2"|"2.1"|"2.2"|
            "3"|"3.1"|"3.2"|"4"|"4.1",
         "MaxReferenceFrames":"maximum number of reference frames"
      },
      "KeyframesMaxDist":"maximum separation between key frames",
      "FixedGOP":"true"|"false",
      "BitRate":"video bit rate of output file in kilobits/second",
      "FrameRate":"auto"|"10"|"15"|"23.97"|"24"|"25"|"29.97"|"30"|"60",
      "Resolution":"width in pixelsxheight in pixels",
      "AspectRatio":"auto"|"1:1"|"4:3"|"3:2"|"16:9"
   },
   "Thumbnails":{
      "Format":"png",
      "Interval":"number of seconds between thumbnails",
      "Resolution":"width in pixelsxheight in pixels",
      "AspectRatio":"auto"|"1:1"|"4:3"|"3:2"|"16:9"
   }
}
```

Request Parameters

This operation does not use request parameters.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

The JSON string in the request body contains the following objects.

Name
The name of the preset. We recommend that the name be unique within the AWS account, but uniqueness is not enforced.

Constraints: Maximum 40 characters

Description
A description of the preset.

Constraints: Maximum 255 characters

Container
The container type for the output file. This value must be `mp4`.

Codec (Audio)
The audio codec for the output file. This value must be `AAC`.

SampleRate (Audio)
The sample rate of the audio stream in the output file, in Hz. Valid values include:

`auto`, `22050`, `32000`, `44100`, `48000`, `96000`

If you specify `auto`, Elastic Transcoder automatically detects the sample rate.

BitRate (Audio)
The bit rate of the audio stream in the output file, in kilobits/second. Enter an integer between 64 and 320, inclusive.

Channels (Audio)
The number of audio channels in the output file. Valid values include:

`auto`, `0`, `1`, `2`

If you specify `auto`, Elastic Transcoder automatically detects the number of channels in the input file.

Codec (Video)
The video codec for the output file. This value must be `H.264`.

Profile (Video:CodecOptions)
The H.264 profile that you want to use for the output file. Elastic Transcoder supports the following profiles:

- `baseline`: The profile most commonly used for videoconferencing and for mobile applications.
- `main`: The profile used for standard-definition digital TV broadcasts.
- `high`: The profile used for high-definition digital TV broadcasts and for Blu-ray discs.

For more information about profiles, see Profiles in the Wikipedia entry "H.264/MPEG-4 AVC."

Level (Video:CodecOptions)
The H.264 level that you want to use for the output file. Elastic Transcoder supports the following levels:

`1`, `1b`, `1.1`, `1.2`, `1.3`, `2`, `2.1`, `2.2`, `3`, `3.1`, `3.2`, `4`, `4.1`

For more information about levels, see Levels in the Wikipedia entry "H.264/MPEG-4 AVC."

MaxReferenceFrames (Video:CodecOptions)
The maximum number of previously decoded frames to use as a reference for decoding future frames. Valid values are integers 0 through 16, but we recommend that you not use a value greater than:

```
Min(Floor(Maximum decoded picture buffer in macroblocks * 256 / (Width in
pixels * Height in pixels)), 16)
```

where `Width in pixels` and `Height in pixels` represent the Resolution of the output video and `Maximum decoded picture buffer in macroblocks` depends on the value of the Level object. (A macroblock is a block of pixels measuring 16x16.)

For more information about encoding based on previously encoded pictures, see Decoded picture buffering in the Wikipedia entry "H.264/MPEG-4 AVC." Note that the Wikipedia calculation for maximum decoded picture buffer, which is similar to the calculation for maximum reference frames, uses macroblocks instead of pixels for the width and height of the video.

To determine the value of `Maximum decoded picture buffer in macroblocks`, see the following table:

Level	Maximum Decoded Picture Buffer in Macroblocks
1	396
1b	396
1.1	900
1.2	2376

Level	Maximum Decoded Picture Buffer in Macroblocks
1.3	2376
2	2376
2.1	4752
2.2	8100
3	8100
3.1	18000
3.2	20480
4	32768
4.1	32768

KeyframesMaxDist (Video)

The maximum number of frames between key frames. Key frames are fully encoded frames; the frames between key frames are encoded based, in part, on the content of the key frames. The value is an integer formatted as a string; valid values are between 1 and 100000, inclusive. A higher value results in higher compression but may also discernibly decrease video quality.

For more information about key frames, see the Wikipedia entry Video compression picture types.

FixedGOP (Video)

Whether to use a fixed value for FixedGOP. Valid values are `true` and `false`:

- `true`: Elastic Transcoder uses the value of KeyframesMaxDist for the distance between key frames (the number of frames in a group of pictures, or GOP).
- `false`: The distance between key frames can vary.

BitRate (Video)

The bit rate of the video stream in the output file, in kilobits/second. Valid values depend on the values of the Level and Profile objects. We recommend that you specify a value less than or equal to the maximum H.264-compliant value listed in the following table for your level and profile:

Level	Maximum Video Bit Rate in kilobits/Second: Baseline Profile and Main Profile	Maximum Video Bit Rate in kilobits/Second: High Profile
1	64	80
1b	128	160
1.1	192	240
1.2	384	480
1.3	768	960
2	2000	2500
2.1	4000	5000
2.2	4000	5000
3	10000	12500

Level	Maximum Video Bit Rate in kilobits/Second: Baseline Profile and Main Profile	Maximum Video Bit Rate in kilobits/Second: High Profile
3.1	14000	17500
3.2	20000	25000
4	20000	25000
4.1	50000	62500

FrameRate (Video)

The frames per second for the video stream in the output file. Valid values include:

`auto`, `10`, `15`, `23.97`, `24`, `25`, `29.97`, `30`, `60`

If you specify `auto`, Elastic Transcoder uses the detected frame rate of the input source. If you specify a frame rate, we recommend that you perform the following calculation:

```
Frame rate = maximum recommended decoding speed in luma samples/second /
(width in pixels * height in pixels)
```

where:

- `width in pixels` and `height in pixels` represent the Resolution of the output video.
- `maximum recommended decoding speed in Luma samples/second` is less than or equal to the maximum value listed in the following table, based on the value that you specified for Level.

Level	Maximum Recommended Decoding Speed in Luma Samples/Second
1	380160
1b	380160
1.1	768000
1.2	1536000
1.3	3041280
2	3041280
2.1	5068800
2.2	5184000
3	10368000
3.1	27648000
3.2	55296000
4	62914560
4.1	62914560

Resolution (Video)

The width and height of the video in the output file, in pixels. Valid values are `auto` and *`width`*x*`height`*:

- `auto`: Elastic Transcoder attempts to preserve the width and height of the input file, subject to the following rules
- *`width`*x*`height`*: The width and height of the output video in pixels.

Note the following about specifying the width and height:

- The width must be an even integer between 128 and 4096, inclusive.
- The height must be an even integer between 96 and 3072, inclusive.
- If you specify a resolution that is less than the resolution of the input file, Elastic Transcoder rescales the output file to the lower resolution.
- If you specify a resolution that is greater than the resolution of the input file, Elastic Transcoder rescales the output to the higher resolution.
- We recommend that you specify a resolution for which the product of width and height is less than or equal to the applicable value in the following table:

Level	Maximum Value of `width` x `height`
1	25344
1b	25344
1.1	101376
1.2	101376
1.3	101376
2	101376
2.1	202752
2.2	404720
3	404720
3.1	921600
3.2	1310720
4	2097152
4.1	2097152

AspectRatio (Video)

The display aspect ratio of the video in the output file. Valid values include:

`auto`, `1:1`, `4:3`, `3:2`, `16:9`

If you specify `auto`, Elastic Transcoder tries to preserve the aspect ratio of the input file.

If you specify an aspect ratio for the output file that differs from aspect ratio of the input file, Elastic Transcoder adds pillarboxing (black bars on the sides) or letterboxing (black bars on the top and bottom) to maintain the aspect ratio of the active region of the video.

Format (Thumbnails)

The format of thumbnails, if any. Currently, the only valid value is `png`.

You specify whether you want Elastic Transcoder to create thumbnails when you create a job. For more information, see ThumbnailPattern (p. 77).

Interval (Thumbnails)
The number of seconds between thumbnails. Specify an integer value.

Resolution (Thumbnails)
The width and height of thumbnail files in pixels. Specify a value in the format *Width*x*Height* where both values are even integers. The values cannot exceed the width and height that you specified in the `Video:Resolution` object.

AspectRatio (Thumbnails)
The aspect ratio of thumbnails. Valid values include:

`auto`, `1:1`, `4:3`, `3:2`, `16:9`

If you specify `auto`, Elastic Transcoder tries to preserve the aspect ratio of the video in the output file.

Responses

Syntax

```
Status: 201 Created
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT
{
   "Preset":{
      "Audio":{
         "BitRate":"audio bit rate of output file in kilobits/second",
         "Channels":"auto"|"0"|"1"|"2",
         "Codec":"AAC",
         "SampleRate":"auto"|"22050"|"32000"|"44100"|"48000"|"96000"
      },
      "Container":"mp4",
      "Description":"preset description",
      "Id":"Id for the new preset",
      "Name":"preset name",
      "Thumbnails":{
         "AspectRatio":"auto"|"1:1"|"4:3"|"3:2"|"16:9",
         "Format":"png",
         "Interval":"number of seconds between thumbnails",
         "Resolution":"width in pixelsxheight in pixels"
      },
      "Type":"Custom"|"System",
      "Video":{
         "AspectRatio":"auto"|"1:1"|"4:3"|"3:2"|"16:9",
         "BitRate":"video bit rate of output file in kilobits/second",
         "Codec":"H.264",
         "CodecOptions":{
            "Level":"1"|"1b"|"1.1"|"1.2"|"1.3"|"2"|"2.1"|"2.2"|
               "3"|"3.1"|"3.2"|"4"|"4.1",
            "MaxReferenceFrames":maximum number of reference frames,
            "Profile":"baseline"|"main"|"high"
         },
         "FixedGOP":"true"|"false",
```

```
        "FrameRate":"auto"|"10"|"15"|"23.97"|"24"|"25"|"29.97"|"30"|"60",
        "KeyframesMaxDist":maximum separation between key frames,
        "Resolution":"width in pixelsxheight in pixels"
      }
   },
   "Warning":"message about codec compatibility"
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

When you create a job, Elastic Transcoder returns the values that you specified in the request. For more information, see Request Body (p. 100).

In addition, Elastic Transcoder returns the following values.

Id
: Identifier for the new preset. You use this value to get settings for the preset or to delete it.

Type
: Whether the preset is a default preset provided by Elastic Transcoder (`System`) or a preset that you have defined (`Custom`).

Warning
: When the settings for a preset are not compliant with the standards for the Codec but the settings may produce acceptable output, Elastic Transcoder creates the preset and includes a warning explaining how the preset settings are not compliant.

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Examples

The following example request creates a preset named DefaultPreset.

Sample Request

```
POST /2012-09-25/presets HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
{
   "Name":"DefaultPreset",
```

```
   "Description":"Use for published videos",
   "Container":"mp4",
   "Audio":{
      "Codec":"AAC",
      "SampleRate":"44100",
      "BitRate":"96",
      "Channels":"2"
   },
   "Video":{
      "Codec":"H.264",
      "CodecOptions":{
         "Profile":"main",
         "Level":"2.2",
         "MaxReferenceFrames":"3"
      },
      "KeyframesMaxDist":"240",
      "FixedGOP":"false",
      "BitRate":"1600",
      "FrameRate":"30",
      "Resolution":"1920x1080",
      "AspectRatio":"16:9"
   },
   "Thumbnails":{
      "Format":"png",
      "Interval":"120",
      "Resolution":"192x108",
      "AspectRatio":"16:9"
   }
}
```

Sample Response

```
Status: 201 Created
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Preset":{
      "Audio":{
         "BitRate":"96",
         "Channels":"2",
         "Codec":"AAC",
         "SampleRate":"44100"
      },
      "Container":"mp4",
      "Description":"Use for published videos",
      "Id":"5555555555555-abcde5",
      "Name":"DefaultPreset",
      "Thumbnails":{
         "Format":"png",
         "Interval":"120",
         "Resolution":"192x108",
         "AspectRatio":"16:9"
      },
```

```
      "Type":"Custom",
      "Video":{
         "AspectRatio":"16:9",
         "BitRate":"1600",
         "Codec":"H.264",
         "CodecOptions":{
            "Level":"2.2",
            "MaxReferenceFrames":"3",
            "Profile":"main"
         },
         "FixedGOP":"false",
         "FrameRate":"30",
         "KeyframesMaxDist":"240",
         "Resolution":"1920x1080"
      }
   },
   "Warning":""
}
```

List Presets

Topics

Description

To get a list of all presets associated with the current AWS account, send a GET request to the `/2012-09-25/presets` resource.

Requests

Syntax

```
GET /2012-09-25/presets HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Request Parameters

This operation does not use request parameters.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

The JSON string in the request body contains the following objects.

Responses

Syntax

```
Status: 200 OK
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT
```

```
{
   "Presets":[
      {
         "Audio":{
            "BitRate":"audio bit rate of output file in kilobits/second",
            "Channels":"auto"|"0"|"1"|"2",
            "Codec":"AAC",
            "SampleRate":"auto"|"22050"|"32000"|"44100"|"48000"|"96000"
         },
         "Container":"mp4",
         "Description":"preset description",
         "Id":"preset ID",
         "Name":"preset name",
         "Thumbnails":{
            "AspectRatio":"auto"|"1:1"|"4:3"|"3:2"|"16:9",
            "Format":"png",
            "Interval":"number of seconds between thumbnails",
            "Resolution":"width in pixelsxheight in pixels"
         },
         "Type":"Custom"|"System",
         "Video":{
            "AspectRatio":"auto"|"1:1"|"4:3"|"3:2"|"16:9",
            "BitRate":"video bit rate of output file in kilobits/second",
            "Codec":"H.264",
            "CodecOptions":{
               "Level":"1"|"1b"|"1.1"|"1.2"|"1.3"|"2"|"2.1"|"2.2"|
                  "3"|"3.1"|"3.2"|"4"|"4.1",
               "MaxReferenceFrames":"maximum number of reference frames",
               "Profile":"baseline"|"main"|"high"
            },
            "FixedGOP":"true"|"false",
            "FrameRate":"auto"|"10"|"15"|"23.97"|"24"|"25"|"29.97"|"30"|"60",
            "KeyframesMaxDist":"maximum separation between key frames",
            "Resolution":"width in pixelsxheight in pixels"
         },
      },
      {...},
   ]
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

The JSON string in the request body contains the following objects. For more detail about the individual objects, see Request Body (p. 100) in the topic Create Preset (p. 99).

BitRate (Audio)
The bit rate of the audio stream in the output file, in kilobits/second. Valid values include integers between 64 and 320, inclusive.

Channels (Audio)
The number of audio channels in the output file. If the value is `auto`, Elastic Transcoder automatically detects the number of channels in the input file. Other valid values include:

`0`, `1`, `2`

Codec (Audio)
The audio codec for the output file. This value must be `AAC`.

SampleRate (Audio)
The sample rate of the audio stream in the output file, in Hz. If the value is `auto`, Elastic Transcoder automatically detects the sample rate. Other valid values include:

`22050`, `32000`, `44100`, `48000`, `96000`

Container
The container for the output file. This value must be `mp4`.

Description
A description of the preset.

Id
Identifier that Elastic Transcoder assigned to the preset when you created it. You use this value to get settings for the preset or to delete it.

Name
The name of the preset.

AspectRatio (Thumbnails)
The aspect ratio of thumbnails. Valid values include:

`auto`, `1:1`, `4:3`, `3:2`, `16:9`

If the value is `auto`, Elastic Transcoder tries to preserve the aspect ratio of the video in the output file.

Format (Thumbnails)
The format of thumbnails, if any. Currently, the only valid value is `png`.

Interval (Thumbnails)
An integer that specifies the number of seconds between thumbnails.

Resolution (Thumbnails)
The width and height of thumbnail files in pixels. Values are in the format `WidthxHeight` where both values are even integers.

Type
Whether the preset is a default preset provided by Elastic Transcoder (`System`) or a preset that you have defined (`Custom`).

AspectRatio (Video)
The display aspect ratio of the video in the output video. Valid values include:

`auto`, `1:1`, `4:3`, `3:2`, `16:9`

If the value is `auto`, Elastic Transcoder tries to preserve the aspect ratio of the input file.

BitRate (Video)
The bit rate of the audio stream in the output file, in kilobits/second. Valid values depend on the values of the `Video:CodecOptions:Level` and `Video:CodecOptions:Profile` objects.

Codec (Video)
The video codec in the output file. This value is always `H.264`.

Level (Video:CodecOptions)
The H.264 level of the output file. Elastic Transcoder supports the following levels:

`1`, `1b`, `1.1`, `1.2`, `1.3`, `2`, `2.1`, `2.2`, `3`, `3.1`, `3.2`, `4`, `4.1`,

MaxReferenceFrames (Video:CodecOptions)
The maximum number of previously decoded frames to use as a reference for decoding future frames.

Profile (Video:CodecOptions)
The H.264 profile of the output file. Elastic Transcoder supports the following profiles:

`baseline`, `main`, `high`

FixedGOP (Video)
Whether to use a fixed value for KeyframesMaxDist. Valid values are `true` and `false`:

- `true`: Elastic Transcoder uses the value of `Video:KeyframesMaxDist` for the distance between key frames.
- `false`: The distance between key frames can vary.

FrameRate (Video)
The frames per second for the video stream in the output file. Valid values include:

`auto`, `10`, `15`, `23.97`, `24`, `25`, `29.97`, `30`, `60`

If the value is `auto`, Elastic Transcoder uses the detected frame rate of the input source.

KeyframesMaxDist (Video)
The maximum number of frames between key frames. Key frames are fully encoded frames; the frames between key frames are encoded based, in part, on the content of the key frames. Valid values are between 1 and 100000, inclusive.

Resolution (Video)
The width and height of the video in the output file, in pixels. Valid values are `auto` and `WxH`:

- `auto`: Elastic Transcoder attempts to preserve the width and height of the input file, subject to the following rules
- `WxH`: `W` is the width and `H` is the height of the output file in pixels.

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Examples

The following example request creates a preset named `DefaultPreset`.

Sample Request

```
GET /2012-09-25/presets HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Sample Response

```
Status: 200 OK
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT
```

```
{
   "Presets":[
      {
         "Audio":{
            "BitRate":"96",
            "Channels":"2",
            "Codec":"AAC",
            "SampleRate":"44100"
         },
         "Container":"mp4",
         "Description":"Use for published videos",
         "Id":"5555555555555-abcde5",
         "Name":"DefaultPreset",
         "Thumbnails":{
            "AspectRatio":"16:9",
            "Format":"png",
            "Interval":"120",
            "Resolution":"192x108"
         },
         "Type":"Custom",
         "Video":{
            "AspectRatio":"16:9",
            "BitRate":"1600",
            "Codec":"H.264",
            "CodecOptions":{
               "Level":"2.2",
               "MaxReferenceFrames":"3",
               "Profile":"main"
            },
            "FixedGOP":"false",
            "FrameRate":"30",
            "KeyframesMaxDist":"240",
            "Resolution":"1920x1080"
         }
      },
      {...
      }
   ]
}
```

Get Preset

Topics

Description

To get detailed information about a preset, send a GET request to the `/2012-09-25/presets/`*`presetId`* resource.

Requests

Syntax

```
GET /2012-09-25/presets/presetId HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
```

Request Parameter

This operation takes the following request parameter.

presetId
The identifier of the preset for which you want to get detailed information.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

This operation does not have a request body.

Responses

Syntax

```
Status: 200 OK
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature

{
   "Preset":{
      "Audio":{
         "BitRate":"audio bit rate of output file in kilobits/second",
         "Channels":"auto"|"0"|"1"|"2",
         "Codec":"AAC",
         "SampleRate":"auto"|"22050"|"32000"|"44100"|"48000"|"96000"
      },
      "Container":"mp4",
      "Description":"preset description",
      "Id":"preset identifier",
      "Name":"preset name",
      "Thumbnails":{
         "AspectRatio":"auto"|"1:1"|"4:3"|"3:2"|"16:9",
         "Format":"png",
         "Interval":"number of seconds between thumbnails",
         "Resolution":"width in pixelsxheight in pixels"
      },
      "Type":"Custom"|"System",
      "Video":{
         "AspectRatio":"auto"|"1:1"|"4:3"|"3:2"|"16:9"
         "BitRate":"video bit rate of output file in kilobits/second",
         "Codec":"H.264",
         "CodecOptions":{
            "Level":"1"|"1b"|"1.1"|"1.2"|"1.3"|"2"|"2.1"|"2.2"|
               "3"|"3.1"|"3.2"|"4"|"4.1",
            "MaxReferenceFrames":"maximum number of reference frames",
            "Profile":"baseline"|"main"|"high"
         },
         "FixedGOP":"true"|"false",
         "FrameRate":"auto"|"10"|"15"|"23.97"|"24"|"25"|"29.97"|"30"|"60",
         "KeyframesMaxDist":"maximum separation between key frames",
         "Resolution":"width in pixelsxheight in pixels"
      }
   }
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

When you get a preset, Elastic Transcoder returns the values that you specified when you created the preset. For more information, see Request Body (p. 100).

In addition, Elastic Transcoder returns the following values.

BitRate (Audio)
The bit rate of the audio stream in the output file, in kilobits/second. Valid values are integers between 64 and 320, inclusive.

Channels (Audio)
The number of audio channels in the output file. If the value is `auto`, Elastic Transcoder automatically detects the number of channels in the input file. Other valid values include:

`0`, `1`, `2`

Codec (Audio)
The audio codec of the output file. This value must be `AAC`.

SampleRate (Audio)
The sample rate of the audio stream in the output file, in Hz. Valid values include:

`auto`, `22050`, `32000`, `44100`, `48000`, `96000`

If the value is `auto`, Elastic Transcoder automatically detects the sample rate.

Container
The container type for the output file. This value must be `mp4`.

Description
A description of the preset.

Id
The identifier that Elastic Transcoder assigned to the preset when you created it. You use this value to get settings for the preset or to delete it.

Name
The name of the preset.

AspectRatio (Thumbnails)
The aspect ratio of thumbnails. Valid values include:

`auto`, `1:1`, `4:3`, `3:2`, `16:9`

If the value is `auto`, Elastic Transcoder tries to preserve the aspect ratio of the video in the output file.

Format (Thumbnails)
The format of thumbnails, if any. Currently, the only valid value is `png`.

Interval (Thumbnails)
An integer that specifies the number of seconds between thumbnails.

Resolution (Thumbnails)
The width and height of thumbnail files in pixels. Values are in the format `WidthxHeight` where both values are even integers.

Type
Whether the preset is a default preset provided by Elastic Transcoder (`System`) or a preset that you have defined (`Custom`).

AspectRatio (Video)
The display aspect ratio of the output video. Valid values include:

`auto`, `1:1`, `4:3`, `3:2`, `16:9`

If the value is `auto`, Elastic Transcoder tries to preserve the aspect ratio of the input file.

BitRate (Video)
The bit rate of the audio stream in the output file, in kilobits/second. Valid values depend on the values of the `Video:CodecOptions:Level` and `Video:CodecOptions:Profile` objects.

Codec (Video)
The video codec for the output file. This value is always `H.264`.

Level (Video:CodecOptions)
The H.264 level of the output file. Elastic Transcoder supports the following levels:

`1`, `1b`, `1.1`, `1.2`, `1.3`, `2`, `2.1`, `2.2`, `3`, `3.1`, `3.2`, `4`, `4.1`,

MaxReferenceFrames (Video:CodecOptions)
The maximum number of previously decoded frames to use as a reference for decoding future frames.

Profile (Video:CodecOptions)
The H.264 profile of the output file. Elastic Transcoder supports the following profiles:

`baseline`, `main`, `high`

FixedGOP (Video)
Whether to use a fixed value for KeyframesMaxDist. Valid values are true and false:

- `true`: Elastic Transcoder uses the value of `Video:KeyframesMaxDist` for the distance between key frames.
- `false`: The distance between key frames can vary.

FrameRate (Video)
The frames per second for the video stream in the output file. Valid values include:

`auto`, `10`, `15`, `23.97`, `24`, `25`, `29.97`, `30`, `60`

If the value is `auto`, Elastic Transcoder uses the detected frame rate of the input source.

KeyframesMaxDist (Video)
The maximum number of frames between key frames. Key frames are fully encoded frames; the frames between key frames are encoded based, in part, on the content of the key frames. Valid values are between 1 and 100000, inclusive.

Resolution (Video)
The width and height of the video in the output file, in pixels. Valid values are `auto` and `widthxheight`:

- `auto`: Elastic Transcoder attempts to preserve the width and height of the input file, subject to the following rules
- `widthxheight`: The width and height of the output file in pixels.

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Examples

The following example request gets the preset that has the preset ID `5555555555555-abcde5`.

Sample Request

```
GET /2012-09-25/presets/5555555555555-abcde5 HTTP/1.1
Content-Type: application/json; charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
```

```
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
Content-Length: number of characters in the JSON string
```

Sample Response

```
Status: 200 OK
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature

{
   "Preset":{
      "Audio":{
         "Codec":"AAC",
         "SampleRate":"44100",
         "BitRate":96,
         "Channels":2
      },
      "Container":"mp4",
      "Description":"Use for published videos",
      "Id":"5555555555555-abcde5",
      "Name":"DefaultPreset",
      "Thumbnails":{
         "Format":"png",
         "Interval":120,
         "Resolution":"192x108",
         "AspectRatio":"16:9"
      },
      "Type":"Custom",
      "Video":{
         "AspectRatio":"16:9",
         "BitRate":1600,
         "Codec":"H.264",
         "CodecOptions":{
            "Level":"2.2",
            "MaxReferenceFrames":3,
            "Profile":"main"
         },
         "FixedGOP":false,
         "FrameRate":30,
         "KeyframesMaxDist":240,
         "Resolution":"1920x1080"
      }
   }
}
```

Delete Preset

Topics

Description

To delete a preset, send a DELETE request to the `/2012-09-25/presets/`*`presetId`* resource.

Note
If the preset has been used, you cannot delete it.

Requests

Syntax

```
DELETE /2012-09-25/presets/presetId HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Request Parameters

This operation takes the following request parameter.

presetId
The identifier of the preset for which you want to get detailed information.

Request Headers

This operation uses only request headers that are common to all operations. For information about common request headers, see HTTP Header Contents (p. 38).

Request Body

This operation does not have a request body.

Responses

Syntax

```
Status: 202 Accepted
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Success":"true"
}
```

Response Headers

This operation uses only response headers that are common to most responses. For information about common response headers, see HTTP Responses (p. 40).

Response Body

The response body contains the following JSON object.

Success
If the preset is successfully deleted, the value of `Success` is `true`.

Errors

For information about Elastic Transcoder exceptions and error messages, see Handling Errors in Elastic Transcoder (p. 42).

Examples

The following example request deletes the preset that has the ID `5555555555555-abcde5`.

Sample Request

```
DELETE /2012-09-25/pipelines/5555555555555-abcde5 HTTP/1.1
Content-Type: charset=UTF-8
Accept: */*
Host: elastictranscoder.Elastic Transcoder endpoint.amazonaws.com:443
x-amz-date: Mon, 14 Jan 2013 17:49:52 GMT
Authorization: AWS4-HMAC-SHA256
               Credential=AccessKeyID/request-date/Elastic Transcoder end
point/ets/aws4_request,
               SignedHeaders=host;x-amz-date;x-amz-target,
               Signature=calculated-signature
```

Sample Response

```
Status: 202 Accepted
x-amzn-RequestId: c321ec43-378e-11e2-8e4c-4d5b971203e9
Content-Type: application/json
```

```
Content-Length: number of characters in the response
Date: Mon, 14 Jan 2013 06:01:47 GMT

{
   "Success":"true"
}
```

History

The following table describes the important changes to the documentation in this release of Amazon Elastic Transcoder.

- **API Version:** 2012-09-25
- **Latest Documentation Date:** January 28, 2013

Change	Description	Release Date
Initial Release	This is the first release of the *Amazon Elastic Transcoder Developer Guide*.	January 28, 2013