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[Cloud Speech-to-Text](https://cloud.google.com/speech-to-text/) (https://cloud.google.com/speech-to-text/)

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Transcribing audio with multiple channels

This page describes how to transcribe audio files that include more than one channel using Speech-to-Text.

Often times, audio data include a channel for each speaker present on the recording. For audio of two people talking over the phone, as an example, the audio may contain two channels where each line is recorded separately.

To transcribe audio data that includes multiple channels, you must provide the number of channels in your request to the Speech-to-Text API. In your request, set the `audioChannelCount` field in your request to the number of channels present in your audio.

When you send a request with multiple channels, Cloud Speech-to-Text returns a result to you that identifies the different channels present in the audio, labeling the alternatives for each result with the `channelTag` field.

The following code sample demonstrates how to transcribe audio that contains multiple channels.

PROTOCOL

GO

JAVA

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Refer to the `speech:recognize`

(https://cloud.google.com/speech-to-text/docs/reference/rest/v1/speech/recognize) API endpoint for complete details.

To perform synchronous speech recognition, make a `POST` request and provide the appropriate request body. The following shows an example of a `POST` request using `curl`. The example uses the access token for a service account set up for the project using the Google Cloud [Cloud SDK](https://cloud.google.com/sdk) (https://cloud.google.com/sdk). For instructions on installing the Cloud SDK, setting up a project with a service account, and obtaining an access token, see the [quickstart](https://cloud.google.com/speech-to-text/docs/quickstart-protocol) (https://cloud.google.com/speech-to-text/docs/quickstart-protocol).

The following example show how to send a `POST` request using `curl`, where the body of the request specifies the number of channels present on the audio sample.

```
curl -X POST -H "Authorization: Bearer "$(gcloud auth application-default print-access-token) \
  -H "Content-Type: application/json; charset=utf-8" \
  --data "{
```

```
'config': {
  'encoding': 'LINEAR16',
  'languageCode': 'en-US',
  'audioChannelCount': 2,
  'enableSeparateRecognitionPerChannel': true
},
'audio': {
  'uri': 'gs://cloud-samples-tests/speech/commercial_stereo.wav'
}
}" "https://speech.googleapis.com/v1/speech:recognize" > multi-channel.txt
```

If the request is successful, the server returns a **200 OK** HTTP status code and the response in JSON format, saved to a file named `multi-channel.txt`.

```
{
  "results": [
    {
      "alternatives": [
        {
          "transcript": "hi I'd like to buy a Chromecast I'm always wondering wheth",
          "confidence": 0.8991147
        }
      ],
      "channelTag": 1,
      "languageCode": "en-us"
    },
    {
      "alternatives": [
        {
          "transcript": "certainly which color would you like we have blue black an",
          "confidence": 0.9408236
        }
      ],
      "channelTag": 2,
      "languageCode": "en-us"
    },
    {
      "alternatives": [
        {
          "transcript": " let's go with the black one",
          "confidence": 0.98783094
        }
      ],
      "channelTag": 1,
      "languageCode": "en-us"
    }
  ]
}
```

```
},
{
  "alternatives": [
    {
      "transcript": " would you like the new Chromecast Ultra model or the regu",
      "confidence": 0.9573053
    }
  ],
  "channelTag": 2,
  "languageCode": "en-us"
},
{
  "alternatives": [
    {
      "transcript": " regular Chromecast is fine thank you",
      "confidence": 0.9671048
    }
  ],
  "channelTag": 1,
  "languageCode": "en-us"
},
{
  "alternatives": [
    {
      "transcript": " okay sure would you like to ship it regular or Express",
      "confidence": 0.9544821
    }
  ],
  "channelTag": 2,
  "languageCode": "en-us"
},
{
  "alternatives": [
    {
      "transcript": " express please",
      "confidence": 0.9487205
    }
  ],
  "channelTag": 1,
  "languageCode": "en-us"
},
{
  "alternatives": [
    {
      "transcript": " terrific it's on the way thank you",
```

```
    "confidence": 0.97655964
  }
],
"channelTag": 2,
"languageCode": "en-us"
},
{
  "alternatives": [
    {
      "transcript": " thank you very much bye",
      "confidence": 0.9735077
    }
  ],
  "channelTag": 1,
  "languageCode": "en-us"
}
]
```

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