

Azure Video Indexer enabled by Arc

Private preview walkthrough

Basic audio

About Azure Video Indexer enabled by Arc

We are excited to announce the private preview release of the Video Indexer extension for Azure Arc and want to **thank you for participating** in this effort.

The Video Indexer Edge private preview for basic audio analysis as an arc enabled service begins on June 20th, 2023.

This release is the first step toward **hybrid video indexing solution** that will enable customers to index their video content anywhere it resides, from cloud, edge to multi-cloud.

The solution is designed to run on a heavy edge device and supports a minimum set of video formats and a single preset – basic audio analysis, that includes AI modules for transcribing and translating video\audio content.

Preview participants will be sent instructions. We appreciate your participation as the goal of the private preview is to collect valuable feedback before moving to public preview.

Known limitations

Known limitations of the product during the private preview:

- 1) Since we operate on a connected scenario, we require customers to always maintain connection to Azure Cloud. To avoid an incidental, disconnect from disrupting operation, there is a window we will continue to operate during incidental connectivity disruption, but this window is not defined yet.
- 2) Only one extension can be added per Video indexer account.
- 3) Only one video can be indexed at a time, if a second indexing is attempted while the previous one did not complete, the indexing will fail.
- 4) The customer is required to delete the Video indexer Arc extension when the private preview is completed. This can be easily done by deleting the extension resource, and we also recommend deleting other related resources if not other used.
- 5) Video file supported size limit is 2GB, though there is no active validation currently in place, indexing files larger than 2GB might fail.

Before we start

Please get 5 to 10 video files ready to be indexed:

Video length: up to 30 minutes.

Video size: up to 2GB.

Video formats: MP4, MP3, WAV, FLAC.

Video codecs: AAC, H264, HEVC, WAV/PCM, VORBIS, Mpeg-layer 2+3, WMA, VC-1, FLAC.

Video language: English, German.

Installing the extension follow [this](#) guide.

Scenario

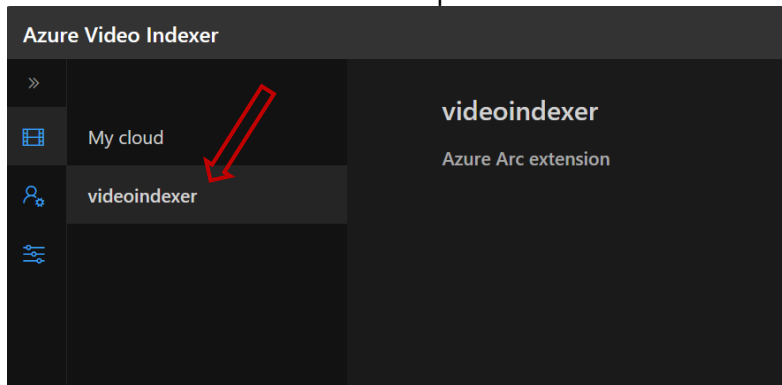
This private preview document is a step-by-step guide on how to index video files using Video indexer Arc extension, review the transcription of the video, translate the video to one or more languages, and play the video with captions.

It will first cover the steps to do so from the web portal and then using the APIs.

Step-by-step guide

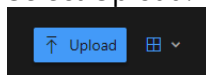
Video indexer web portal

- 1) Access Video indexer, you can either browse external URL [web portal](#), or the internal URL that was configured during the extension installation in the 'frontend.endpointUri' property.
- 2) Locate the new extension on the left pane.



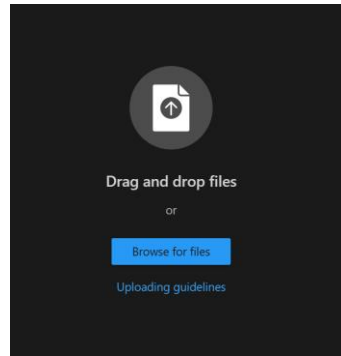
- 3) Upload a video and start the indexing process:

- a. Select Upload.



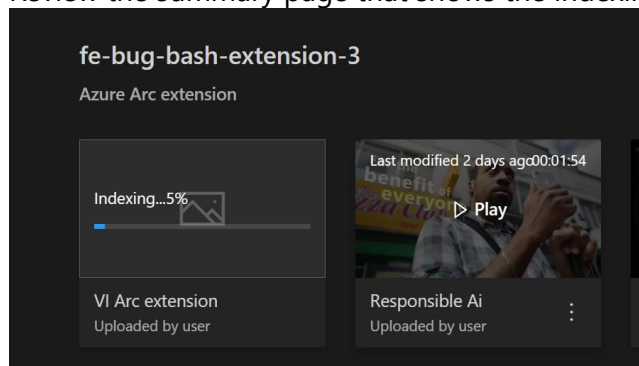
- b. Select the file source. You can upload only one file at a time, if you select more than one file, the first file will be selected.

To upload from your file system, select Browse files and choose the files you want to upload, or drag and drop a file to the designated area.



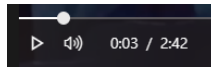
- c. Set the video name, source language and if this is the first time you upload a media file, you need to check the consent checkbox to agree to the terms and conditions.

- d. Select 'Upload + index'
- e. Review the summary page that shows the indexing settings and the upload progress.

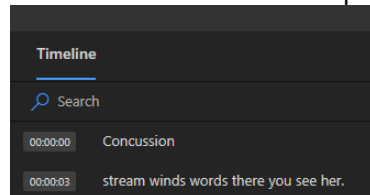


- 4) After the indexing is done, you can view the insights by selecting the video. Go to the video page by clicking on the indexed video:

- a. First, click on play video, the video will be streamed from the local location set at the extension installation.

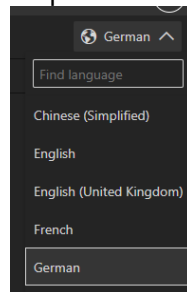


- b. Check the right side on the page, you will notice the video transcription located there including the time marks.
check that while the movie is playing, the correct transcript line is highlighted.

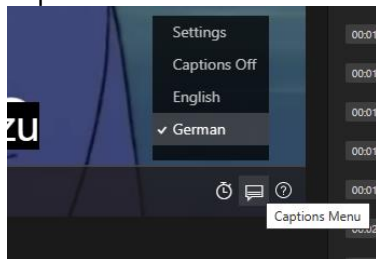


- c. To translate the text to one of the supported languages: English (US), Spanish, German.

Click on the dropdown on the top right of the page, select German.
now the transcript shown on the right of the page will display the translated transcript in the selected language.



- d. Last step, to turn on the captions, click on the text bubble icon on the bottom right side of the player, select one of the supported languages.
captions should start to show while the movie is playing.



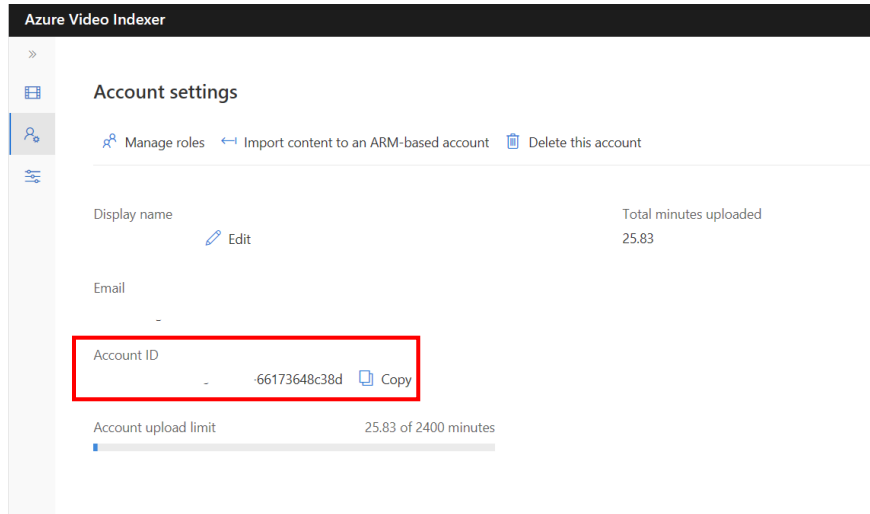
Video Indexer APIs

In this section you will learn how to leverage Video Indexer APIs for the following tasks:

- Get details about the installed extension, including indexing statistics, supported languages and version.

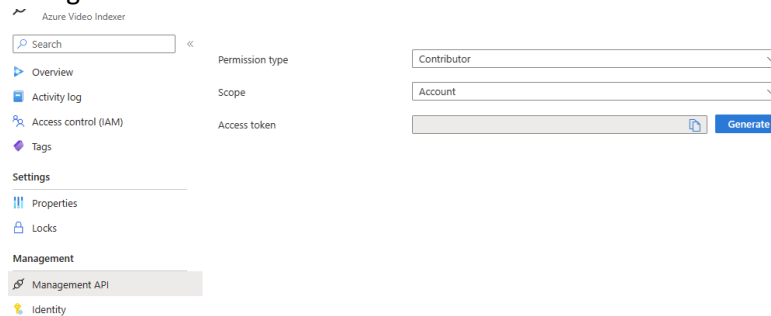
- Run through the process of indexing a video, list the videos indexed via the extension, get insights for a specific indexed video, get captions for a specific video and the streaming endpoint URL for a specific video.

Before you can start to run the APIs, you will first need to locate the Video indexer account Id. In the portal, select 'account settings' on the left side pane and copy the account ID. it will be used as a parameter for all the APIs.



Also, you will need to generate an access token and use the token to authenticate the call.

From the Azure portal, go to the Azure video indexer account, under "Management API", set permission type 'Contributor', set scope 'Account', click generate.



Alternatively, you can call the [generate access token API](#)

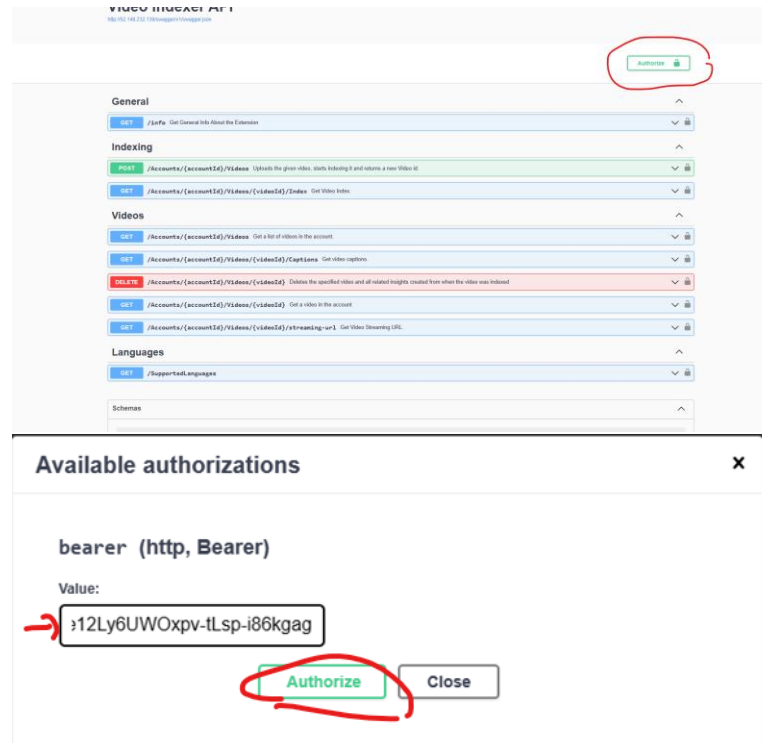
Video tutorial - [how to generate an access token via the Azure Portal and via postman](#)

Next, access the swagger UI to run the APIs

Browses to internal URL that was configured during the extension installation in the 'frontend.endpointUri' property including 'swagger/index.html'.

ex: <https://127.0.0.1/swagger/index.html>

Last, enter the generated access token in Swagger UI



Call the following APIs to get more info on your extension:

GET /info

Get General Info About the Extension

GET /SupportedLanguages

Lists the languages supported for indexing using this extension

In the response body, check the following:

1. isSourceLanguage: return parameter represents what transcription language are supported.
2. isSupportedForTranslation: return parameter represents what **translation** language are supported.

GET /Accounts/{accountId}/extension

Will return statistics about the extension

1. quotaUsage: will return information about the number of videos uploaded during the current day, number of uploaded seconds within the current day and total uploaded seconds.
2. videoCount: the number of total videos in the extension.

Call the following APIs to start the video indexing process:

POST /Accounts/{accountId}/Videos

Fill in the following parameters:

1. Name: the name for the indexed video.
2. Description: additional details for the indexed video.
3. Language: The video's original language, this is the language that the transcript AI will use, (either: en-US. de-DE)
4. IndexingPreset: BasicAudio.

Check that the response is 200 Ok

In the response body, check the following:

1. Id – the video id, **copy it for later use.**
2. State – should be "processing"
3. ProcessingProgress – should be <=100%

GET /Accounts/{accountId}/Videos/{videoid}/Index

Fill in the accountId and Videoid

Check the response is 200 OK and the state property:

If the state property is still **processing**,

Retry calling this API again, the processing might take up to 50% of the video length.

If the state property is **failed**,

Check the failureCode and failureMessage properties for more information.

If the state is **processed**,

you will receive the following properties:

1. Transcript: contains the transcribed text from the video, including the time signature.

2. PublishedUrl: the streaming location for the video.

Get /Accounts/{accountId}/Videos

Retrieves a list of metadata properties for videos indexed in the extension, including Indexing state, indexing progress, indexing preset and languages the list can be filtered by date and supports pagination.

Call the following APIs to translate a video to Spanish:

GET /Accounts/{accountId}/Videos/{videoid}/Index

Set the accountId and videoid, and set language to "es-ES"

In the response, language will now show "es-ES" and the transcript will be in Spanish.