Video Intelligence: Qwik Start

Overview

Google Cloud Video Intelligence makes videos searchable and discoverable by extracting metadata with an easy to use REST API. You can now search every moment of every video file in your catalog. It quickly annotates videos stored in Cloud Storage, and helps you identify key entities (nouns) within your video; and when they occur within the video. Separate signal from noise by retrieving relevant information within the entire video, shot-by-shot, -or per frame.

Enable the Video Intelligence API

For this lab, the **Cloud Video Intelligence API** is enabled for you.

Set up authorization

This lab creates and uses a service account that is tied to your Qwiklabs Google Cloud project for authorization.

In Cloud Shell, run the following command to create a new service account named `quickstart`:

```
gcloud iam service-accounts create quickstart
```

Create a service account key file, replacing `<your-project-123>` with your Qwiklabs Project ID:

```
gcloud iam service-accounts keys create key.json --iam-account
quickstart@<your-project-123>.iam.gserviceaccount.com
```

Now authenticate your service account, passing the location of your service account key file:

```
gcloud auth activate-service-account --key-file key.json
```

Obtain an authorization token using your service account:

```
gcloud auth print-access-token
```

The token will print in the output, and you'll be using it in a future step.

Make an annotate video request

Run this command to create a JSON request file with the following text, and save it as `request.json` :

```
cat > request.json <<EOF
{
   "inputUri":"gs://spls/gsp154/video/train.mp4",
   "features": [
       "LABEL_DETECTION"
   ]
}
EOF
```

To make the process simpler, a public video of a train available to your qwiklabs project is used as the value for your `inputUri`. If preferred or running in a personal project, any video can be used in place by uploading it to Cloud Storage and providing its Cloud Storage URI (format: gs://bucket/object) for the value of "inputUri".
Use `curl` to make a `videos:annotate` request passing the filename of the entity request:

```
curl -s -H 'Content-Type: application/json' \
    -H 'Authorization: Bearer '$(gcloud auth print-access-token)'' \
    'https://videointelligence.googleapis.com/v1/videos:annotate' \
```

```
    -d @request.json
```

The Video Intelligence API creates an operation to process your request. You should now see a response that includes your operation name, which should look similar to this one:

```
{
  "name":
"projects/474887704060/locations/asia-east1/operations/16366331060670521152"
}
```

You will use this operation name, locations and projects in the future step.

Use this script to request information on the operation by calling the `v1.operations` endpoint. Replace the `PROJECTS`, `LOCATIONS` and `OPERATION_NAME` with the value you just received in the previous command:

```
curl -s -H 'Content-Type: application/json' \
    -H 'Authorization: Bearer '$(gcloud auth print-access-token)'' \

'https://videointelligence.googleapis.com/v1/projects/PROJECTS/locations/LOCATIONS/operations/OPERATION_NAME'
```

You'll now see information related to your operation. If the operation has completed, a done field is included and set to `true`:

```
{
  "name":
"projects/425437283751/locations/asia-east1/operations/17938636079131796601",
  "metadata": {
    "@type": "type.googleapis.com/google.cloud.videointelligence.v1.AnnotationProgressMetadata",
    "progressMetadata": [
```

```
      {
        "inputUri": "gs://spls/gsp154/video/train.mp4",
        "startTime": "2016-09-22T21:41:56.766091Z",
        "lastUpdateTime": "2016-09-22T21:42:03.889743Z"
      }
    ]
  },
  ...
}
```

After giving the request some time (about a minute, typically), re-run the command and the same request returns annotated results:

```
{
  "name":
"projects/425437283751/locations/asia-east1/operations/17938636079131796601",
  "metadata": {
    "@type":
"type.googleapis.com/google.cloud.videointelligence.v1.AnnotateVideoProgress",
    "annotationProgress": [
      {
        "inputUri": "/spls/gsp154/video/train.mp4",
        "progressPercent": 100,
        "startTime": "2017-02-17T22:39:00.333942Z",
        "updateTime": "2017-02-17T22:39:11.414399Z"
      }
    ]
  },
  "done": true,
  "response": {
    "@type":
"type.googleapis.com/google.cloud.videointelligence.v1.AnnotateVideoResponse",
    "annotationResults": [
      {
        "inputUri": "/spls/gsp154/video/train.mp4",
        "segmentLabelAnnotations": [
          {
```

```
            "entity": {
              "entityId": "/m/01yrx",
              "languageCode": "en-US"
            },
            "segments": [
              {
                "segment": {
                  "startTimeOffset": "0s",
                  "endTimeOffset": "14.833664s"
                },
                "confidence": 0.98509187
              }
            ]
          },
          ...
```

You've sent your first request to Cloud Video Intelligence API.