

[AI & Machine Learning Products](https://cloud.google.com/products/machine-learning/) (<https://cloud.google.com/products/machine-learning/>)

[Cloud Video Intelligence API](https://cloud.google.com/video-intelligence/) (<https://cloud.google.com/video-intelligence/>)

[Documentation](https://cloud.google.com/video-intelligence/docs/) (<https://cloud.google.com/video-intelligence/docs/>) [Guides](#)

# Using Docker & Kubernetes

## Beta

This feature is in a pre-release state and might change or have limited support. For more information, see the [product launch stages](https://cloud.google.com/products/#product-launch-stages) (<https://cloud.google.com/products/#product-launch-stages>).

A [Docker image](https://github.com/google/aistreamer/blob/master/ingestion/env/Dockerfile) (<https://github.com/google/aistreamer/blob/master/ingestion/env/Dockerfile>) is provided for you to evaluate these features. You can download this image as part of the [AIStreamer](https://github.com/google/aistreamer/tree/master/ingestion) (<https://github.com/google/aistreamer/tree/master/ingestion>).

Please note that use of third-party software is solely at your discretion. Google does not own the copyright of third-party software.

## Prerequisites

- Install [Docker](https://docs.docker.com/install) (<https://docs.docker.com/install>).
- Install [Google Cloud SDK](https://cloud.google.com/sdk) (<https://cloud.google.com/sdk>).
- Install [Kubernetes](https://kubernetes.io/docs/tasks/tools/install-kubectl/#download-as-part-of-the-google-cloud-sdk) (<https://kubernetes.io/docs/tasks/tools/install-kubectl/#download-as-part-of-the-google-cloud-sdk>).

## Build Docker image

Go into the [ingestion directory](https://github.com/google/aistreamer/tree/master/ingestion) (<https://github.com/google/aistreamer/tree/master/ingestion>) and run the following command line on your host machine:

```
$ export DOCKER_IMAGE=gcr.io/gcp-project-name/docker-image-name:version  
$ docker build -t $DOCKER_IMAGE -f env/Dockerfile .
```



## Try Docker image on your local host

Run following command in the terminal for your host machine:

```
$ docker run -it $DOCKER_IMAGE /bin/bash
```



The command returns a response similar to the following example.

```
root@e504724e76fc:/#
```



To open another terminal connecting to Docker, run the following command on the host machine:

```
$ docker exec -it e504724e76fc /bin/bash
```



Now, you have both host terminals that are in the same Docker container.

## Docker image environment setting

Some environment settings can be customized in the [Docker image](https://github.com/google/aistreamer/blob/master/ingestion/env/Dockerfile) (<https://github.com/google/aistreamer/blob/master/ingestion/env/Dockerfile>).

```
#set up environment for Google Video Intelligence Streaming API  
ENV SRC_DIR /googlesrc #Source code directory  
ENV BIN_DIR /google #Binary directory
```



## Push Docker image to GCP container registry

Run the following command in the terminal for your host machine:

```
$ gcloud docker --verbosity debug -- push $DOCKER_IMAGE
```



You might need to set access control.

## Deploy to GCP

Run the following commands in the terminal for your host machine:

```
$ export KUBE_ID=any_string_you_like  
$ kubectl run -it $KUBE_ID --image=$DOCKER_IMAGE -- /bin/bash
```



This returns a response similar to the following:

```
root@$KUBE_ID-215855480-c4sqp:/#
```



To open another terminal connecting to the same Kubernetes container on GCP, run the following command line on host machine:

```
$ kubectl exec -it $KUBE_ID-215855480-c4sqp -- /bin/bash
```



Now, you have both host terminals that are in the same Kubernetes container on Google Cloud.

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