

ature is in a pre-release state and might change or have limited support. For more information, see the [product launch](#) ([/products/#product-launch-stages](#)).

This page describes how to annotate a video stream from a discrete file or from archived data. See [live video streaming](#) ([/video-intelligence/docs/streaming/live-streaming-overview](#)) to learn how to annotate a live video stream.

You can use the streaming API ([StreamingVideoIntelligenceService](#) ([/video-intelligence/docs/reference/rpc/google.cloud.videointelligence.v1p3beta1#google.cloud.videointelligence.v1p3beta1.StreamingVideoIntelligenceService](#))) for real-time video detection with the following features:

- Detecting [shot changes](#) ([/video-intelligence/docs/streaming/shot-change](#))
- Detecting [labels for objects](#) ([/video-intelligence/docs/streaming/label-analysis](#))
- Detecting [explicit content](#) ([/video-intelligence/docs/streaming/explicit-content](#))
- Tracking [objects in the video](#) ([/video-intelligence/docs/streaming/object-tracking](#))

You can split a video file into chunks and stream each chunk by using gRPC to send multiple messages to the Video Intelligence streaming service. The first message can only contain a [StreamingVideoConfig](#) ([/video-intelligence/docs/reference/rpc/google.cloud.videointelligence.v1p3beta1#google.cloud.videointelligence.v1p3beta1.StreamingVideoConfig](#)) message. All subsequent messages must only contain video data.

The Video Intelligence streaming service returns a [response](#) ([/video-intelligence/docs/reference/rpc/google.cloud.videointelligence.v1p3beta1#google.cloud.videointelligence.v1p3beta1.StreamingAnnotateVideoResponse](#)) that contains [results](#)

(/video-intelligence/docs/reference/rpc/google.cloud.videointelligence.v1p3beta1#google.cloud.videointelligence.v1p3beta1.StreamingVideoAnnotationResults)

based on the feature

(/video-intelligence/docs/reference/rpc/google.cloud.videointelligence.v1p3beta1#google.cloud.videointelligence.v1p3beta1.StreamingFeature)

that you specified in your video config.

In a gRPC request, you write the binary data directly to the stream. You do not need to convert the video content to base64.

We recommend that you keep the size of your video chunks to less than 10 MB.

The Video Intelligence also allows you to specify a Google Cloud Storage bucket

(/video-intelligence/docs/reference/rpc/google.cloud.videointelligence.v1p3beta1#google.cloud.videointelligence.v1p3beta1.StreamingAnnotateVideoResponse)

for your results.

The Video Intelligence supports the following common video formats:

Format	Notes
MTS, FLV	All MTS, FLV video formats are supported.
MP4 (MPEG4), MOV, 3GP	The MOOV atom must be at the beginning of the file. You can use the ffmpeg (http://ffmpeg.org) tool to put the MOOV atom at the beginning of your video file, as shown in the following example:

Format	Notes
MKV, WebM	Cues must be at the beginning of the file. You can use the mkclean (https://www.matroska.org/downloads/mkclean.html) tool to move the cue to the start of the file, as shown in the following example:

For video formats that are not listed as supported, you can determine if your video file supports streaming by using a named pipe and the [ffmpeg](http://ffmpeg.org) (<http://ffmpeg.org>) tool. The following sample commands decode a video into PNG images at a rate of 0.2 fps. If your file can be successfully decoded using these commands, then you can stream it using the Video Intelligence streaming service.