

Gstreamer Commands

1) Command to play the Video test pattern(video only)

```
gst-launch-1.0 videotestsrc ! Autovideosink
```

2) Command to play the Audio test pattern(Audio only)

```
gst-launch-1.0 audiotestsrc ! Autoaudiosink
```

3) Command to play the video and audio test pattern(video & audio)

```
gst-launch-1.0 audiotestsrc ! autoaudiosink videotestsrc ! Autovideosink
```

4) Command to generate a test file with video and audio:

```
gst-launch-1.0 videotestsrc num-buffers=1000 ! video/x-raw,width=1280,height=720,framerate=30/1 ! queue ! x264enc ! qtmux name=m ! filesink location=test.mp4 audiotestsrc wave=2 freq=440 num-buffers=1000 ! audioconvert ! avenc_aac ! m.
```

This command will generate test.mp4 with 720p30 H.264 encoded video, and AAC audio. By changing the width, height, and framerate in the above command, you can obtain test cases for various resolutions, and framerate.

5) Command to get a list of elements in the GStreamer installation:

```
gst-inspect-1.0 >> elements.txt
```

6) Command to inspect properties, and pads of an element, say x264enc:

```
gst-inspect-1.0 x264enc
```

7) Command to play the file we created:

```
gst-play-1.0 test.mp4
```

8) Command to transcode from H.264 to H.265

```
gst-launch-1.0 filesrc location=test.mp4 ! qtdemux name=demux qtmux name=mux !  
filesink location=test_hevc_noaudio.mp4 demux.video_0 ! queue ! h264parse !  
avdec_h264 ! x265enc ! h265parse ! mux.
```

9) Command to resizing the video

```
gst-launch-1.0 filesrc location=test.mp4 ! qtdemux name=demux qtmux name=mux !  
filesink location=test_320p_noaudio.mp4 demux.video_0 ! queue ! h264parse !  
avdec_h264 ! videoscale ! video/x-raw, width=640, height=320 ! x264enc ! h264parse !  
mux.
```

10) Command to add the two videos in a single bitstream(multiplexing)

```
gst-launch-1.0 -e filesrc location=KGF_C2.mp4 ! decodebin name=decodebin  
decodebin. ! videoconvert ! x264enc ! h264parse ! mp4mux name=mux ! filesink  
location=output_video.mp4 filesrc location=Salaar_C1.mp4 ! decodebin ! videoconvert !  
x264enc ! h264parse ! mux.
```

It has two videos

Video_0

Video_1

11) Command to add the another audio to an video (multiplexing)

```
gst-launch-1.0 -e filesrc  
location=/home/bhargav/Documents/gstreamer_sample/gst_tools/kgf2_telugu.mp4 !  
decodebin name=decodebin decodebin. ! videoconvert ! x264enc ! h264parse ! mp4mux  
name=mux ! filesink location=output_video.mp4 decodebin. ! audioconvert !  
audioresample ! voaacenc ! aacparse ! mux. filesrc  
location=/home/bhargav/Documents/gstreamer_sample/gst_tools/kgf2_hindi.mp3 !  
decodebin ! audioconvert ! audioresample ! voaacenc ! aacparse ! mux.
```

It has telugu audio ,i want to add hindi audio then above command is enough to merge the audio to it

To add a Telugu language audio track to a video that already has an English audio track, you can use GStreamer to perform this task. You'll need to extract the audio from the video, add the Telugu audio, and then mux the audio and video back together.

12) Command to extract the video from video file1 and audio from video file2 and merge the audio and video and save it in a file

```
gst-launch-1.0 filesrc
location=/home/bhargav/Documents/gstreamer_sample/gst_tools/video.mp4 !
matroskademux name=demux demux.video_0 ! queue ! vp8dec ! matroskamux
name=mux filesrc
location=/home/bhargav/Documents/gstreamer_sample/gst_tools/varma.mp3 ! queue !
decodebin ! audioconvert ! avenc_aac ! mux. mux.! filesink location=one.mp4
```

12) Command to audio visualization using the spacescope element.

```
gst-launch-1.0 filesrc location=varma.mp3 ! decodebin ! tee name=t ! queue !
audioconvert ! autoaudiosink t. ! queue ! audioconvert ! spacescope ! videoconvert !
autovideosink
```

13) Command to extract the audio and video from the file and save it individually

```
gst-launch-1.0 souphttpsrc
location=https://gstreamer.freedesktop.org/data/media/sintel\_trailer-480p.webm !
matroskademux name=d d.audio_0 ! queue ! vorbisparse ! matroskamux ! filesink
location=audio.mp3 d.video_0 ! queue ! vp8dec ! matroskamux ! filesink
location=test.mp4
```

13) Command to extract the audio and video from a video file and play simultaneously

```
gst-launch-1.0 filesrc location=/home/bhargav/Downloads/videor.mp4 ! qtdemux
name=demuxer demuxer. ! queue ! h264parse ! avdec_h264 ! autovideosink demuxer. !
queue ! aacparse ! faad ! Autoaudiosink
```

13) Command to scale the compresses data file which is(.mp4)

```
gst-launch-1.0 filesrc location=/home/bhargav/Downloads/kgf.mp4 ! decodebin !
videoconvert ! videoscale ! video/x-raw, width=360, height=240 ! Autovideosink
```

13) Command to debug and save the log file

```
GST_DEBUG=7 GST_DEBUG_FILE=gst_debug.log gst-launch-1.0 filesrc
location=/home/bhargav/Downloads/kgf.mp4 ! decodebin ! videoconvert ! playsink
```

