In [ ]:
```
import binascii
import numpy as np
import cv2
import os
import ffmpeg
```

In [ ]:
```
def strip(content):
    curx = str(content)[2:len(content)]
    return curx
```

In [ ]:
```
# def form():
#     video_name = './vid.mp4'
#     images = ['1.jpg','2.jpg']
#     fourcc = cv2.VideoWriter_fourcc(*'mp4v')
#     video = cv2.VideoWriter(video_name, fourcc, 10, (1280,720))
#     for image in images:
#         video.write(cv2.imread(image))
#     cv2.destroyAllWindows()
#     video.release()
def form_using_image_folder(image_folder):
    video_name = './vid.avi'
    images = [img for img in os.listdir(image_folder) if img.endswith(".j
    fourcc = 0
    video = cv2.VideoWriter(video_name, fourcc, 10, (1920,1080))
    for image in images:
        video.write(cv2.imread(os.path.join(image_folder, image)))
    cv2.destroyAllWindows()
    video.release()
```

In [ ]:
```
image_folder = './folder_img'
form_using_image_folder(image_folder)
```

In [ ]:
```
(
    ffmpeg.input("vid.avi")
    .output("output.avi",vcodec = 'h264')
    .run()
)
```

```
ffmpeg version 4.4.2-0ubuntu0.22.04.1 Copyright (c) 2000-2021 the FFmpeg d
evelopers
  built with gcc 11 (Ubuntu 11.2.0-19ubuntu1)
  configuration: --prefix=/usr --extra-version=0ubuntu0.22.04.1 --toolchai
n=hardened --libdir=/usr/lib/x86_64-linux-gnu --incdir=/usr/include/x86_64
-linux-gnu --arch=amd64 --enable-gpl --disable-stripping --enable-gnutls -
-enable-ladspa --enable-libaom --enable-libass --enable-libbluray --enable
-libbs2b --enable-libcaca --enable-libcdio --enable-libcodec2 --enable-lib
dav1d --enable-libflite --enable-libfontconfig --enable-libfreetype --enab
le-libfribidi --enable-libgme --enable-libgsm --enable-libjack --enable-li
bmp3lame --enable-libmysofa --enable-libopenjpeg --enable-libopenmpt --ena
ble-libopus --enable-libpulse --enable-librabbitmq --enable-librubberband
--enable-libshine --enable-libsnappy --enable-libsoxr --enable-libspeex --
enable-libsrt --enable-libssh --enable-libtheora --enable-libtwolame --ena
ble-libvidstab --enable-libvorbis --enable-libvpx --enable-libwebp --enabl
e-libx265 --enable-libxml2 --enable-libxvid --enable-libzimg --enable-libz
mq --enable-libzvbi --enable-lv2 --enable-omx --enable-openal --enable-ope
ncl --enable-opengl --enable-sdl2 --enable-pocketsphinx --enable-librsvg -
-enable-libmfx --enable-libdc1394 --enable-libdrm --enable-libiec61883 --e
nable-chromaprint --enable-frei0r --enable-libx264 --enable-shared
  WARNING: library configuration mismatch
  avcodec     configuration: --prefix=/usr --extra-version=0ubuntu0.22.04.
1 --toolchain=hardened --libdir=/usr/lib/x86_64-linux-gnu --incdir=/usr/in
clude/x86_64-linux-gnu --arch=amd64 --enable-gpl --disable-stripping --ena
ble-gnutls --enable-ladspa --enable-libaom --enable-libass --enable-libblu
ray --enable-libbs2b --enable-libcaca --enable-libcdio --enable-libcodec2
--enable-libdav1d --enable-libflite --enable-libfontconfig --enable-libfre
etype --enable-libfribidi --enable-libgme --enable-libgsm --enable-libjack
--enable-libmp3lame --enable-libmysofa --enable-libopenjpeg --enable-libop
enmpt --enable-libopus --enable-libpulse --enable-librabbitmq --enable-lib
rubberband --enable-libshine --enable-libsnappy --enable-libsoxr --enable-
libspeex --enable-libsrt --enable-libssh --enable-libtheora --enable-libtw
olame --enable-libvidstab --enable-libvorbis --enable-libvpx --enable-libw
ebp --enable-libx265 --enable-libxml2 --enable-libxvid --enable-libzimg --
enable-libzmq --enable-libzvbi --enable-lv2 --enable-omx --enable-openal -
-enable-opencl --enable-opengl --enable-sdl2 --enable-pocketsphinx --enabl
e-librsvg --enable-libmfx --enable-libdc1394 --enable-libdrm --enable-libi
ec61883 --enable-chromaprint --enable-frei0r --enable-libx264 --enable-sha
red --enable-version3 --disable-doc --disable-programs --enable-libaribb24
--enable-libopencore_amrnb --enable-libopencore_amrwb --enable-libtesserac
t --enable-libvo_amrwbenc --enable-libsmbclient
  libavutil      56. 70.100 / 56. 70.100
  libavcodec     58.134.100 / 58.134.100
  libavformat    58. 76.100 / 58. 76.100
  libavdevice    58. 13.100 / 58. 13.100
  libavfilter     7.110.100 /  7.110.100
  libswscale      5.  9.100 /  5.  9.100
  libswresample   3.  9.100 /  3.  9.100
  libpostproc    55.  9.100 / 55.  9.100
Input #0, avi, from 'vid.avi':
  Metadata:
    software        : Lavf59.27.100
  Duration: 00:00:00.20, start: 0.000000, bitrate: 249632 kb/s
  Stream #0:0: Video: rawvideo (I420 / 0x30323449), yuv420p, 1920x1080, 10
fps, 10 tbr, 10 tbn, 10 tbc
Stream mapping:
  Stream #0:0 -> #0:0 (rawvideo (native) -> h264 (libx264))
Press [q] to stop, [?] for help
[libx264 @ 0x5633ea6878c0] using cpu capabilities: MMX2 SSE2Fast SSSE3 SSE
4.2 AVX FMA3 BMI2 AVX2 AVX512
```

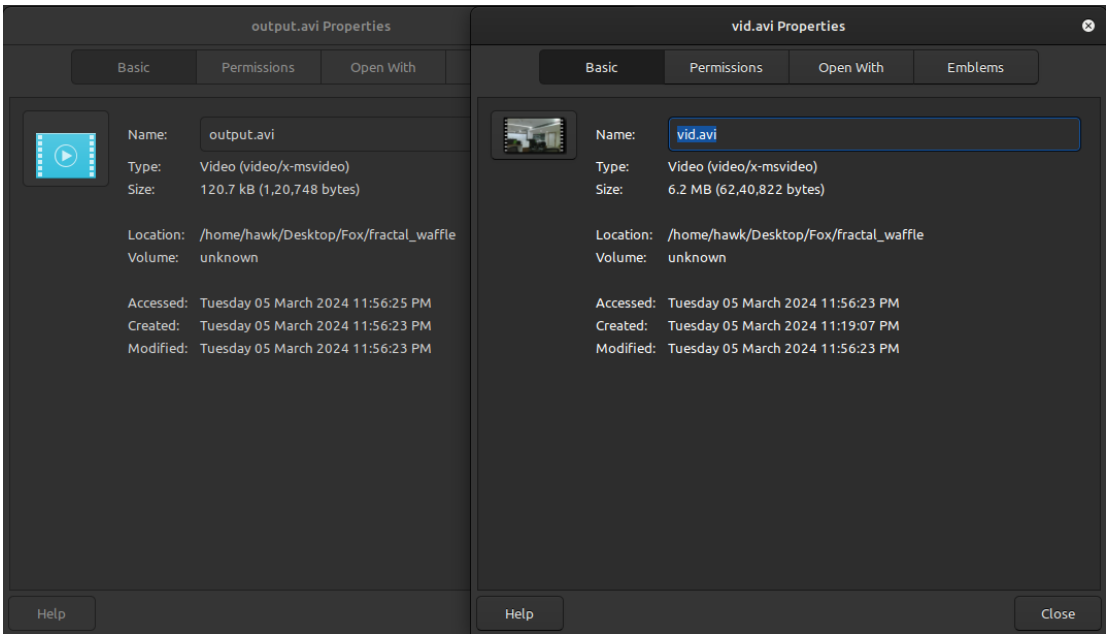
```
[libx264 @ 0x5633ea6878c0] profile High, level 4.0, 4:2:0, 8-bit
Output #0, avi, to 'output.avi':
  Metadata:
    software        : Lavf59.27.100
    ISFT            : Lavf58.76.100
  Stream #0:0: Video: h264 (H264 / 0x34363248), yuv420p(progressive), 1920
x1080, q=2-31, 10 fps, 10 tbn
    Metadata:
      encoder         : Lavc58.134.100 libx264
    Side data:
      cpb: bitrate max/min/avg: 0/0/0 buffer size: 0 vbv_delay: N/A
frame=    2 fps=0.0 q=-1.0 Lsize=     118kB time=00:00:00.20 bitrate=4829.
9kbits/s speed=2.69x
video:112kB audio:0kB subtitle:0kB other streams:0kB global headers:0kB mu
xing overhead: 4.987306%
[libx264 @ 0x5633ea6878c0] frame I:1     Avg QP:20.77  size: 85049
[libx264 @ 0x5633ea6878c0] frame P:1     Avg QP:20.79  size: 29963
[libx264 @ 0x5633ea6878c0] mb I  I16..4: 19.1% 76.3%  4.6%
[libx264 @ 0x5633ea6878c0] mb P  I16..4: 10.9% 32.5%  0.2%  P16..4: 22.8%
5.4%  2.7%  0.0%  0.0%    skip:25.5%
[libx264 @ 0x5633ea6878c0] 8x8 transform intra:75.8% inter:86.8%
[libx264 @ 0x5633ea6878c0] coded y,uvDC,uvAC intra: 50.7% 71.6% 13.8% inte
r: 23.0% 34.6% 0.2%
[libx264 @ 0x5633ea6878c0] i16 v,h,dc,p: 32% 42% 14% 13%
[libx264 @ 0x5633ea6878c0] i8 v,h,dc,ddl,ddr,vr,hd,vl,hu: 25% 39% 25%  1%
1%  1%  3%  1%  5%
[libx264 @ 0x5633ea6878c0] i4 v,h,dc,ddl,ddr,vr,hd,vl,hu: 28% 46%  6%  2%
2%  2%  3%  2%  9%
[libx264 @ 0x5633ea6878c0] i8c dc,h,v,p: 45% 29% 24%  2%
[libx264 @ 0x5633ea6878c0] Weighted P-Frames: Y:0.0% UV:0.0%
[libx264 @ 0x5633ea6878c0] kb/s:4600.48
```

Out[ ]: (None, None)

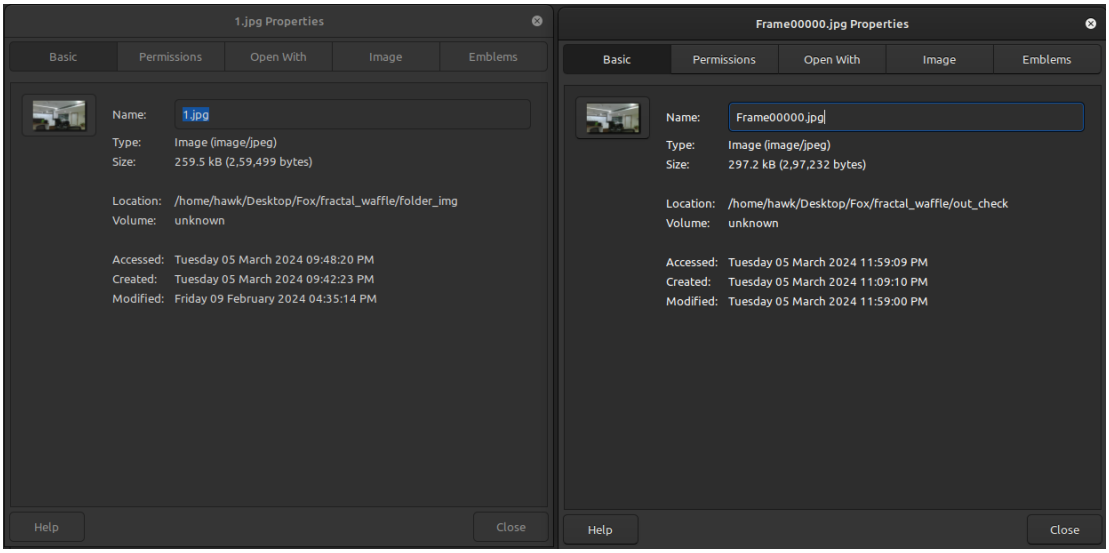
In [ ]:
```python
vid = cv2.VideoCapture('./output.avi')
success,image = vid.read()
c = 0
while success:
  cv2.imwrite("./out_check/Frame%05d.jpg" % c, image)
  success,image = vid.read()
  print('Reading frame: ', c)
  c = c + 1

print('done')
```

```
Reading frame:  0
Reading frame:  1
done
```



We are back to 120kB from the original 250kB images, however this time there is something different.



Somehow the frames have more information than we started with.

In [ ]:
```
filename = 'output.avi'
with open(filename, 'rb') as f:
    content = f.read()
content=binascii.hexlify(content)
# print(content)
```