

Reading Videos

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In [14]: import cv2

In [15]: cap=cv2.VideoCapture("image/test2.mp4") #reading video
print("Capture",cap)
while True:
    ret,frame=cap.read()
    frame = cv2.resize(frame,(500,500))
    cv2.imshow("Frame",frame)
    k = cv2.waitKey(25)
    if k == ord("q") & 0xFF: #64bit mask
        break

cap.release()
cv2.destroyAllWindows()

Capture <VideoCapture 0000022A25D84CD0>
```

Converting into gray

```
In [17]: cap=cv2.VideoCapture("image/test2.mp4") #reading video
print("Capture",cap)
while True:
    ret,frame=cap.read()
    frame = cv2.resize(frame,(500,500))
    gray=cv2.cvtColor(frame,cv2.COLOR_BGR2GRAY)
    cv2.imshow("Frame",frame)
    cv2.imshow("Gray",gray)
    k = cv2.waitKey(25) #5->playback speed fast,500->speed slow, 25->normal
    if k == ord("q") & 0xFF: #64bit mask
        break

cap.release()
cv2.destroyAllWindows()

Capture <VideoCapture 0000022A25BA7330>
```

Using WebCam

```
In [18]: cap=cv2.VideoCapture(0) #reading video
print("Capture",cap)
while cap.isOpened(): # till camera is on
    ret,frame=cap.read()
    if ret == True: # it means frame is reading
        frame = cv2.resize(frame,(500,500))
        gray=cv2.cvtColor(frame,cv2.COLOR_BGR2GRAY)
        cv2.imshow("Frame",frame)
        cv2.imshow("Gray",gray)
        if cv2.waitKey(1) & 0xFF == ord("q") : # 1 means video->dynamic 0->image,
            break

cap.release()
cv2.destroyAllWindows()

Capture <VideoCapture 0000022A25BA7690>
```

Saving Colorful Image

```
In [19]: cap=cv2.VideoCapture(0) #reading video from webcam

#it is 4 byte code which is use to specify the video codec
#Various codec --
#DIVX, XVID, MJPG, X264, WMV1, WMV2
fourcc = cv2.VideoWriter_fourcc(*"XVID") # *"XVID"
#It contain 4 parameter , name, codec,fps,resolution
output = cv2.VideoWriter("image/output.avi",fourcc,20.0,(640,480))
while cap.isOpened(): # till camera is on
    ret,frame=cap.read()
    if ret == True: # it means frame is reading
        cv2.imshow("Frame",frame)
        output.write(frame) #it will write the video
        if cv2.waitKey(1) & 0xFF == ord("q") : # 1 means video->dynamic 0->image,
            break

cap.release()
output.release()
cv2.destroyAllWindows()
```

Saving Gray video

```
In [20]: cap=cv2.VideoCapture(0) #reading video from webcam

#it is 4 byte code which is use to specify the video codec
#Various codec --
#DIVX, XVID, MJPG, X264, WMV1, WMV2
fourcc = cv2.VideoWriter_fourcc(*"XVID") # *"XVID"
#It contain 4 parameter , name, codec,fps,resolution
output = cv2.VideoWriter("image/output_gray.avi",fourcc,20.0,(640,480),0)
# we will pass 0 to tell it's gray
while cap.isOpened(): # till camera is on
    ret,frame=cap.read()
    if ret == True: # it means frame is reading
        gray=cv2.cvtColor(frame,cv2.COLOR_BGR2GRAY)
        cv2.imshow("Frame",gray)
        output.write(gray) #it will write the video
        if cv2.waitKey(1) & 0xFF == ord("q") : # 1 means video->dynamic 0->image,
            break

cap.release()
output.release()
cv2.destroyAllWindows()
```

```
In [ ]:
```