1. video input and display - file

In [4]:

```python
import cv2

##cap = cv2.VideoCapture(0)  # 0번 카메라
cap = cv2.VideoCapture('./data/vtest.avi')
frame_size = (int(cap.get(cv2.CAP_PROP_FRAME_WIDTH)), int(cap.get(cv2.CAP_PROP_FRAME_HEIGHT)))
print('frame_size =', frame_size)

while True:
    retval, frame = cap.read() # 프레임 캡처
    if not retval:
        break

    cv2.imshow('frame',frame)

    key = cv2.waitKey(25)
    if key == 27: # Esc
        break

if cap.isOpened():
    cap.release()

cv2.destroyAllWindows()
```

```
frame_size = (768, 576)
```

2. video input and display - youtube

pip install youtube_dl

pip install pafy

In [7]:

```python
import pafy
url = 'https://www.youtube.com/watch?v=u_Q7DkI7AIk'

video = pafy.new(url)
print('title = ', video.title)
print('video.rating = ', video.rating)
print('video.duration = ', video.duration)

# Selects the stream with the highest resolution
best = video.getbest(preftype='mp4')      # 'mp4','3gp'
print(best)
print('best.resolution', best.resolution)

cap=cv2.VideoCapture(best.url)

while(True):
    retval, frame = cap.read()
    if not retval:
        break
    cv2.imshow('frame',frame)

    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)
    edges = cv2.Canny(gray,100,200)
    cv2.imshow('edges',edges)

    key = cv2.waitKey(25)
    if key == 27: # Esc
        break

cv2.destroyAllWindows()
```

```
title =  Jeju Island Korea Travel Guide + Attractions Map
video.rating =  4.8220172
video.duration =  00:02:42
normal:mp4@1280x720
best.resolution 1280x720
```

In [ ]: