

OpenCV – python Examples

Example1: Read and display image

```
import cv2

img = cv2.imread('data/images/img1.jpg')

print(img)

cv2.imshow('Lebanon',img)
cv2.waitKey(5000)
```

Example2: Read and display image size, dimension and resize the image

```
import cv2

img = cv2.imread('data/images/img1.jpg')

cv2.imshow('Lebanon',img)
cv2.waitKey(0)

px = img.size
d = img.shape

print("pixels ", px )
print ("dimensions ", d)

new_img = cv2.resize(img, (750,500))

cv2.imshow('New Lebanon',new_img)
cv2.waitKey(0)
```

Example3: Convert colored image to gray

```
import cv2

img = cv2.imread('data/images/img1.jpg')

gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
cv2.imshow('Lebanon',gray)
cv2.waitKey(10000)
cv2.destroyAllWindows
```

Example 4: Quit / Save image on key press

```
import cv2

img = cv2.imread('data/images/img1.jpg')
gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
cv2.imshow('Lebanon', gray)
key = cv2.waitKey(0)
if key == ord('q'):
    cv2.destroyAllWindows()
elif key==ord('s'):
    cv2.imwrite('data/images/grayleb.jpg', gray)
    cv2.destroyAllWindows()
```

Example 5: Draw line, rectangle and Text in image

```
import cv2

img = cv2.imread('data/images/Capture1.jpg')

cv2.line(img, (50,50), (150,150), (0,255,0),3)
# start at x=50,y=50 and ends at x=150,y=150 with green
color and thickness =3

cv2.rectangle(img, (300,20), (400,250), (0,0,255),2)
# Start at (300x,20y)-end (400x,250y)- color=red, thickness=2

cv2.putText(img, "Flag", (15, 15),
cv2.FONT_HERSHEY_COMPLEX, 5, (255,0,0),2)
#text to print = Flag, start x=15, y=15, font = Hershey,
color= blue, fontsize = 5, thickness = 2.

cv2.imshow('Lebanon', img)

cv2.waitKey(0)
```