import os

import matplotlib.pyplot as plt

import cv2

from matplotlib.widgets import RectangleSelector

from generate\_xml import write\_xml

# global constants

img = None

tl\_list = []

br\_list = []

object\_list = []

# constants

image\_folder = 'images'

savedir = 'annotations'

obj = 'traffic-light'

def line\_select\_callback(clk, rls):

global tl\_list

global br\_list

global object\_list

tl\_list.append((int(clk.xdata), int(clk.ydata)))

br\_list.append((int(rls.xdata), int(rls.ydata)))

object\_list.append(obj)

def onkeypress(event):

global object\_list

global tl\_list

global br\_list

global img

if event.key == 'q':

write\_xml(image\_folder, img, object\_list, tl\_list, br\_list, savedir)

tl\_list = []

br\_list = []

object\_list = []

img = None

plt.close()

def toggle\_selector(event):

toggle\_selector.RS.set\_active(True)

if \_\_name\_\_ == '\_\_main\_\_':

for n, image\_file in enumerate(os.scandir(image\_folder)):

img = image\_file

fig, ax = plt.subplots(1)

#mngr = plt.get\_current\_fig\_manager()

#mngr.window.setGeometry(250, 120, 1280, 1024)

image = cv2.imread(image\_file.path)

image = cv2.cvtColor(image, cv2.COLOR\_BGR2RGB)

ax.imshow(image)

toggle\_selector.RS = RectangleSelector(

ax, line\_select\_callback,

drawtype='box', useblit=True,

button=[1], minspanx=5, minspany=5,

spancoords='pixels', interactive=True

)

bbox = plt.connect('key\_press\_event', toggle\_selector)

key = plt.connect('key\_press\_event', onkeypress)

plt.show()