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import numpy as np
import visual_map
import os, re, sys
import time, math, string
from matplotlib import pyplot as plt

print ('in python script'      )

f = open('filter_list.tmp'      )

num_lines = sum(1 for line in open('filter_list.tmp'      ))

info_log = np.zeros(11664)

# reading input file line by line to get ID of cell and spot number
for line in xrange(0, num_lines):

    line_content = f.readline()

    line_content = line_content.split()

    filename = line_content[0]

    i = int(filename[-9:-4])

    if (sys.argv[1] == '-s' ):
        info_log[i] = int(line_content[1])

    if (sys.argv[1] == '-i' ):
        info_log[i] = line_content[1]

#for i in xrange(0,num_lines):
# print(spot_log[i])

x_list, y_list, z_list = [], [], []
# [addr] = i, [i] = addr
collect_addr_dict, collect_ordr_dict = visual_map.collect_dicts()
#normal_addr_dict, normal_ordr_dict = visual_map.normal_dicts()
fid_list, corners_list = visual_map.index11664_fiducials()

for j in range(0, 11664):
    addr = collect_ordr_dict[j]
    #addr = normal_ordr_dict[j]
    x, y = visual_map.get_xy(addr)

    if (sys.argv[1] == '-s' ):
        z = info_log[j]
        .....

    if(info_log[j] > 50):
        z = 100
    else:
        z = 0
    .....

    if (sys.argv[1] == '-i' ):
        if (info_log[j] > 0.1):
            z = 100
        else :
            z = 0

    x_list.append(float(x))
    y_list.append(float(y))
    z_list.append(float(z))

X = np.array(x_list)
Y = np.array(y_list)
Z = np.array(z_list)
xr = X.ravel()
yr = Y.ravel()
zr = Z.ravel()

print ('before plot'      )

fig = plt.figure(num=None, figsize=(9,9), facecolor='0.6' , edgecolor='k' )
fig.subplots_adjust(left=0.03,bottom=0.03,right=0.97,top=0.97,wspace=0,hspace=0)
ax1 = fig.add_subplot(111, aspect='equal' , axisbg='0.7' )

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ax1.scatter(xr, yr, c=zr, s=16, alpha=1, marker='s' , linewidth=0.1) #,cmap='PuOr')
ax1.set_xticks([2.2*x for x in range(11)])
ax1.set_yticks([2.5*x for x in range(11)])
ax1.set_xlim(xr.min()-0.2, xr.max()+0.2)
ax1.set_ylim(yr.min()-0.2, yr.max()+0.2)
ax1.invert_yaxis()

if (sys.argv[1] == '-s' ):
    plt.savefig('spot_plot.png' , dpi=600, bbox_inches='tight' , pad_inches=0.05)

if (sys.argv[1] == '-i' ):
    plt.savefig('index_plot.png' , dpi=600, bbox_inches='tight' , pad_inches=0.05)

print ('after plot' )

np.save('info_log.npy' , info_log)
```