

```
In [1]: import sys,os
sys.path.insert(1, os.path.join(sys.path[0], '..'))
from IPython_generator import IPythonNotebookGenerator
current_path = '../dataset/MG caiT'
path_ext = os.path.split(current_path)[1]
current_path = os.path.abspath(current_path)
print 'data path (abs) : ', current_path
res_folder = os.path.join('.',path_ext)
res_folder = os.path.abspath(res_folder)
print 'res_folder path (abs output) : ', res_folder
prev_path='../home/xsong/coliSurvivalAnalysis/xsong/Microfluidics Database/'
prev_path = os.path.abspath(prev_path)
print "prev_path (abs) : ", prev_path
python_class_path = "../"
python_class_path = os.path.abspath(python_class_path)
print "python class path (abs) : ", python_class_path
alcohol_time = "120"
cutoff="CheckReplication.cutoff31"
cutoff="-1"

use_mg_wt = True
if use_mg_wt:
    MG_WT_path = '../dataset/MG-WT'
    MG_WT_path = os.path.abspath(MG_WT_path)

data path (abs) : /home/xsong/mg-wt/dataset/MG caiT
res_folder path (abs output) : /home/xsong/mg-wt/demo/MG caiT
prev_path (abs) : /home/xsong/coliSurvivalAnalysis/xsong/Microfluidics Database
python class path (abs) : /home/xsong/mg-wt
```

Preprocessing, check file duplication, generate new list

```
In [2]: #---Demo---Preprocessing auto generator and execution, modify the generated
#Verify inside the code, the good paths are set for the current dataset and
oPath = os.path.join(res_folder,'run-PRE')
filter_file_path = '#'/Users/songxiaohu/Desktop/githubYfan/PIMortalityAnaly
selfFilter = 'True'
IPythonNotebookGenerator.run_PRE(python_class_path,oPath, current_path,prev_
```

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In [3]: IPythonNotebookGenerator.execute(oPath)
```

```
---Execute ipython code---
--Execute-- /home/xsong/mg-wt/demo/MG caiT/run-PRE/Preprocessing.ipynb
```

.tab files in replicate group in finalFiles.txt TAB Analyzer

```
In [4]: #---Demo--- TAB processing auto generator and execution
#data_path = '/Users/songxiaohu/Desktop/githubYfan/PI Mortality Analysis/xsong
filter_path = os.path.join(current_path+'/ '+'report', 'finalFiles.txt')#'/Us
oPath = os.path.join(res_folder, 'run-TAB')
nbGenerator = IPythonNotebookGenerator(filterPath=filter_path,outputPath=oPa
#fFn_parent_path for non relative path in the filter file path
fFn_parent_path=current_path#'/Users/songxiaohu/Desktop/githubYfan/PI Mortal
nbGenerator.run_TAB_PIP(python_class_path,alcohol_time,fFn_parent_path)

Initialization of Ipython auto generator
---Ipython code generation process---
/home/xsong/mg-wt/demo/MG caiT/run-TAB/MG caiT-1.ipynb
```

```
In [5]: IPythonNotebookGenerator.execute(oPath)

---Execute ipython code---
--Execute-- /home/xsong/mg-wt/demo/MG caiT/run-TAB/MG caiT-1.ipynb
```

generate Mortality Distribution ipython file, modify the input in the file

```
In [6]: oPath =os.path.join(res_folder, 'run-MD')
data_folder_path = current_path#'/Users/songxiaohu/Desktop/githubYfan/PI Mor
if use_mg_wt:
    ref_df_path = os.path.join(MG_WT_path, 'MG_WT_CLUSTER_0_df_relative_timegr
else:
    ref_df_path=os.path.join(prev_path, 'WT/WT-1_df_relative_timegrid.pickle
print ref_df_path
IPythonNotebookGenerator.run_MD(python_class_path,oPath,data_folder_path,ref

/home/xsong/mg-wt/dataset/MG-WT/MG_WT_CLUSTER_0_df_relative_timegrid.pickl
e
```

```
In [7]: IPythonNotebookGenerator.execute(oPath)

---Execute ipython code---
--Execute-- /home/xsong/mg-wt/demo/MG caiT/run-MD/Mortality_distribution.
ipynb
```

Check Replication

```
In [8]: oPath = os.path.join(res_folder, 'run-CR')
folderPath = current_path
if use_mg_wt:
    path_ref_folder = os.path.split(MG_WT_path)[0]
else:
    path_ref_folder = os.path.join(prev_path, 'WT')
IPythonNotebookGenerator.run_CR(python_class_path,oPath,folderPath,path_ref
```

```

In [9]: IPythonNotebookGenerator.execute(oPath)

---Execute ipython code---
--Execute-- /home/xsong/mg-wt/demo/MG caiT/run-CR/Check_replication.ipynb

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-
CalledProcessError                                Traceback (most recent call last)
<ipython-input-9-765ee562b514> in <module>()
----> 1 IPythonNotebookGenerator.execute(oPath)

/home/xsong/mg-wt/IPython_generator.py in execute(folder_path, filterName
s)
    352
    353         paths = IPythonNotebookGenerator.listFilesFromFolder(folde
r_path)
--> 354         IPythonNotebookGenerator.callPython(paths,filterNames)
    355
    356         @staticmethod

/home/xsong/mg-wt/IPython_generator.py in callPython(paths, filterList)
    574         for p in path_filtered:
    575             print "--Execute-- ",p
--> 576             IPythonNotebookGenerator.runIpython(p)
    577
    578

/home/xsong/mg-wt/IPython_generator.py in runIpython(path)
    547     def runIpython(path):
    548         import subprocess
--> 549         p = subprocess.check_call(['jupyter', 'nbconvert', '--exec
ute', '--inplace', '--ExecutePreprocessor.timeout=-1',path])
    550         if p:
    551             print "Raise Call Error : ", path

/home/xsong/miniconda2/lib/python2.7/subprocess.py in check_call(*popenar
gs, **kwargs)
    188         if cmd is None:
    189             cmd = popenargs[0]
--> 190         raise CalledProcessError(retcode, cmd)
    191     return 0
    192

CalledProcessError: Command '['jupyter', 'nbconvert', '--execute', '--inpl
ace', '--ExecutePreprocessor.timeout=-1', '/home/xsong/mg-wt/demo/MG caiT/
run-CR/Check_replication.ipynb']' returned non-zero exit status 1

```

GG GGM Selector

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In [ ]: oPath = os.path.join(res_folder,'run-SELECTOR')
        data_folder_path = current_path
        IPythonNotebookGenerator.run_SELECTOR(python_class_path,oPath,data_folder_path)

In [ ]: IPythonNotebookGenerator.execute(oPath)

In [ ]:

In [ ]:

```

