In [1]:
```
import sys,os
sys.path.insert(1, os.path.join(sys.path[0], '..'))
from IPython_generator import IPythonNotebookGenerator
current_path = '../dataset/MS2 for GitHub Updated 26.05.2019/flu'
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/MS2 for GitHub Updated 26.05.
2019/flu
res_folder path (abs output) :  /home/xsong/mg-wt/demo/flu
prev_path (abs) :  /home/xsong/coliSurvivalAnalysis/xsong/Microfluidics Da
tabase
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
#Veryfy 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_
```

```
/home/xsong/mg-wt/demo/flu/run-PRE
```

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

```
---Execute ipython code---
--Execute--  /home/xsong/mg-wt/demo/flu/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/PIMortalityAnalysis/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/PIMortal
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/flu/run-TAB/flu-1.ipynb
/home/xsong/mg-wt/demo/flu/run-TAB
```

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

```
---Execute ipython code---
--Execute--  /home/xsong/mg-wt/demo/flu/run-TAB/flu-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/PIMor
if use_mg_wt:
    ref_df_path = os.path.join(MG_WT_path,'MG_WT_CLUSTER_0_df_relative_timeg
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,re
```

```
/home/xsong/mg-wt/dataset/MG-WT/MG_WT_CLUSTER_0_df_relative_timegrid.pickl
e
/home/xsong/mg-wt/demo/flu/run-MD
```

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

```
---Execute ipython code---
--Execute--  /home/xsong/mg-wt/demo/flu/run-MD/Mortality_distribution.ipyn
b
```

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
```

```
/home/xsong/mg-wt/demo/flu/run-CR
```

In [9]:
```
IPythonNotebookGenerator.execute(oPath)
```

```
---Execute ipython code---
--Execute--  /home/xsong/mg-wt/demo/flu/run-CR/Check_replication.ipynb
```

GG GGM Selector

In [10]:
```
oPath = os.path.join(res_folder,'run-SELECTOR')
data_folder_path = current_path
IPythonNotebookGenerator.run_SELECTOR(python_class_path,oPath,data_folder_pa
```

```
/home/xsong/mg-wt/demo/flu/run-SELECTOR
```

In [11]:
```
IPythonNotebookGenerator.execute(oPath)
```

```
---Execute ipython code---
--Execute--  /home/xsong/mg-wt/demo/flu/run-SELECTOR/GG_GGM_Selector.ipynb

---------------------------------------------------------------------------
-
CalledProcessError                        Traceback (most recent call last
)
<ipython-input-11-765ee562b514> in <module>()
----> 1 IPythonNotebookGenerator.execute(oPath)

/home/xsong/mg-wt/IPython_generator.pyc 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.pyc 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.pyc 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.pyc 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/flu/run-
SELECTOR/GG_GGM_Selector.ipynb']' returned non-zero exit status 1
```

In [ ]:

In [ ]: