

首先将py文件中所有文件路径改为资源访问路径

```
#生成资源文件目录访问路径
def resourcePath(relative_path):
    if getattr(sys, 'frozen', False): #是否Bundle Resource
        base_path = sys._MEIPASS
    else:
        base_path = os.path.abspath(".")
    return os.path.join(base_path, relative_path)

path_des = resourcePath(os.path.join("data", "download", "0.txt"))
path_gif = resourcePath(os.path.join("data", "loading.gif"))
path_error = resourcePath(os.path.join("data", "error.jpg"))
path_icon = resourcePath(os.path.join("data", "icon.ico"))
```

这样exe文件就无需附带数据文件，使用后会在下列文件生成临时文件

```
C:\Users\你的用户名\AppData\Local\Temp
```

用pipenv创建python3.6虚拟环境

## 1、安装pipenv

```
pip3 install pipenv
```

2、在干净目录下初始化python环境，系统会自动在环境变量里搜索符合要求的python环境

```
pipenv --python 3.6
```

3、进入虚拟环境（第一次进入会自动进行安装 pipenv install）

```
pipenv shell
```

4、退出虚拟环境

```
exit
```

5、进入虚拟环境内，首先换源解决安装慢问题



Pipfile

用Notepad++（技术无罪。。）编辑环境下的Pipfile文件

```
[[source]]
name = "pypi"
url = "https://pypi.tuna.tsinghua.edu.cn/simple/"
verify_ssl = true

[dev-packages]

[packages]
pyinstaller = "*"
pyqt5 = "*"
requests = "*"

[requires]
python_version = "3.6"
```

---

换掉source里的url

```
[[source]]
name = "pypi"
url = "https://pypi.tuna.tsinghua.edu.cn/simple/"
verify_ssl = true
```

然后开始安装所需要的包

```
pip3 install pyinstaller
pip3 install PyQt5
pip3 install requests
```

## 6、开始生成exe

首先需要生成spec文件，

pyi-makespec -Fw NetSpeedTest.py（如果要添加Icon等可以在这里就使用pyi-makespec --icon icon.ico -Fw NetSpeedTest.py语句生成spec文件）

```
D:\NetSpeedTest
(NetSpeedTest-8GRKhdcv) $ pyi-makespec --icon icon.ico -Fw NetSpeedTest.py
wrote D:\NetSpeedTest\NetSpeedTest.spec
now run pyinstaller.py to build the executable
```

编辑spec文件，在datas选项中说明需要将哪些文件加入exe,在临时文件夹中命名成什么，本次使用data文件夹，会将data的文件都拷贝过去，以及可以改新生成的exe文件名

```
# -*- mode: python ; coding: utf-8 -*-

block_cipher = None

a = Analysis(['NetSpeedTest.py'],
             pathex=['D:\\NetSpeedTest'],
             binaries=[],
             datas=[('data', 'data')],
             hiddenimports=[],
             hookspath=[],
             runtime_hooks=[],
             excludes=[],
             win_no_prefer_redirects=False,
             win_private_assemblies=False,
             cipher=block_cipher,
             noarchive=False)
pyz = PYZ(a.pure, a.zipped_data,
          cipher=block_cipher)
exe = EXE(pyz,
          a.scripts,
          a.binaries,
          a.zipfiles,
          a.datas,
          [],
          name='NetSpeedTest ProH',
          debug=False,
          bootloader_ignore_signals=False,
          strip=False,
          upx=True,
          upx_exclude=[],
          runtime_tmpdir=None,
          console=False , icon='icon.ico')
```

生成EXE文件，`pyinstaller -F NetSpeedTest.spec`

如果报如下错误，肯定是因为路径名（比如icon的路径）写错

```
ESv2.dll', ('libESv2.dll',  
'BINARY'))  
16695 INFO: Building PKG (CArchive) PKG-00.pkg completed successfully.  
16700 INFO: Bootloader c:\users\asymptotic_freedom\virtualenvs\netspeedtest_proh-ei-pi0pm\lib\site-packages\PyInst  
llr\bootloader\Windows-64bit\runw.exe  
16701 INFO: checking EXE  
16701 INFO: Building EXE because EXE-00.toc is non existent  
16701 INFO: Building EXE from EXE-00.toc  
16703 INFO: Copying icons from icon.icon  
Traceback (most recent call last):  
  File "c:\users\asymptotic_freedom\virtualenvs\netspeedtest_proh-ei-pi0pm\lib\site-packages\win32ctypes\pywin32\w  
wintypes.py", line 35, in pywin32error  
    yield  
  File "c:\users\asymptotic_freedom\virtualenvs\netspeedtest_proh-ei-pi0pm\lib\site-packages\win32ctypes\pywin32\w  
n32api.py", line 43, in LoadLibraryEx  
    return _dll.LoadLibraryEx(fileName, 0, flags)  
  File "c:\users\asymptotic_freedom\virtualenvs\netspeedtest_proh-ei-pi0pm\lib\site-packages\win32ctypes\core\ctyp  
s_util.py", line 42, in check_null  
    raise make_error(function, function_name)  
sup: raise make_error(function, function_name)  
OSError: [WinError 2] 系统找不到指定的文件。  
  
During handling of the above exception, another exception occurred:  
  
Traceback (most recent call last):  
  File "c:\users\asymptotic_freedom\virtualenvs\netspeedtest_proh-ei-pi0pm\lib\site-packages\PyInstaller\utils\win  
2\icon.py", line 231, in CopyIcons  
    hsrc = win32api.LoadLibraryEx(srcpath, 0, LOAD_LIBRARY_AS_DATAFILE)  
  File "c:\users\asymptotic_freedom\virtualenvs\netspeedtest_proh-ei-pi0pm\lib\site-packages\win32ctypes\pywin32\w  
wintypes.py", line 35, in pywin32error  
    yield  
  File "c:\users\asymptotic_freedom\virtualenvs\netspeedtest_proh-ei-pi0pm\lib\site-packages\win32ctypes\pywin32\w  
n32api.py", line 43, in LoadLibraryEx  
    return _dll.LoadLibraryEx(fileName, 0, flags)  
  File "c:\users\asymptotic_freedom\virtualenvs\netspeedtest_proh-ei-pi0pm\lib\site-packages\win32ctypes\core\ctyp  
s_util.py", line 42, in check_null  
    raise make_error(function, function_name)  
sup: raise make_error(function, function_name)  
OSError: [WinError 2] 系统找不到指定的文件。  
  
already satisfied: setuptools==36.2.1 in c:\python36\lib\site-packages
```

可以在新生成的dist文件夹里找到

NetSpeedTest ProH.exe	2019/12/23 19:48	应用程序	36,980 KB
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运行时可以找到如下几个临时文件，软件关闭后会自动删除

