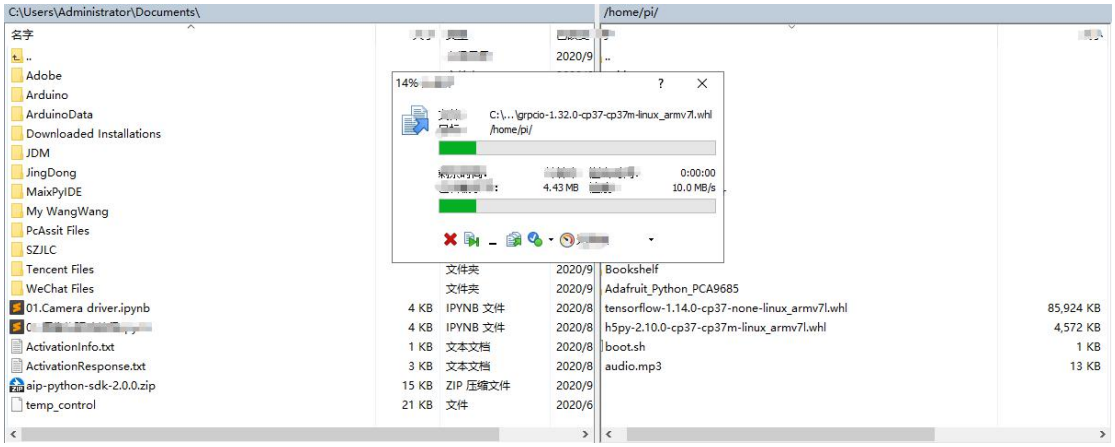
1. We need remote transfer the installation package needed for this installation of tensorflow into the Raspberry Pi through WinSCP software.

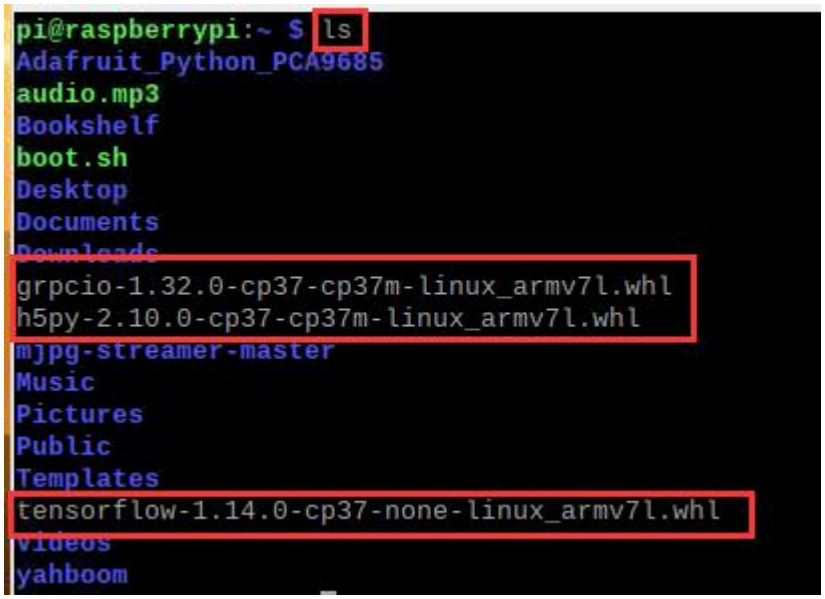
grpcio-1.32.0-cp37-cp37m-linux_armv7l.whl	2020/9/29 17:39	WHL 文件	32,004 KB
h5py-2.10.0-cp37-cp37m-linux_armv7l.whl	2020/9/29 18:02	WHL 文件	4,572 KB
tensorflow-1.14.0-cp37-none-linux_armv7l.whl	2020/9/25 20:08	WHL 文件	85,924 KB

For example, we can transfer them on /home/pi directory.



Input following command, we can see three file.

ls



2. Install tensorflow

2.1 Input following command to install pip tools:

sudo apt-get install python3-pip python3-dev

2.1 Input following command to install some dependencies pack.

pip3 install h5py-2.10.0-cp37-cp37m-linux_armv7l.whl
pip3 install grpcio-1.32.0-cp37-cp37m-linux_armv7l.whl
pip3 install tensorflow-1.14.0-cp37-none-linux_armv7l.whl

```
pi@raspberrypi:~ $ pip3 install h5py-2.10.0-cp37-cp37m-linux_armv7l.whl
Looking in indexes: https://pypi.org/simple, https://www.piwheels.org/simple
Requirement already satisfied: h5py==2.10.0 from file:///home/pi/h5py-2.10.0-cp3
7-cp37m-linux_armv7l.whl in ./.local/lib/python3.7/site-packages (2.10.0)
Requirement already satisfied: numpy>=1.7 in /usr/lib/python3/dist-packages (fro
m h5py==2.10.0) (1.16.2)
Requirement already satisfied: six in /usr/lib/python3/dist-packages (from h5py=
=2.10.0) (1.12.0)
```

3. Test tensorflow

After the installation is complete, enter the following commands in the terminal to check whether tensorflow is successfully installed.

python3

import tensorflow as tf

tf.__version__

As shown below.

```
  _np_quint8 = np.dtype([("quint8", np.uint8, 1)])
/home/pi/.local/lib/python3.7/site-packages/tensorboard/compat/tensorflow_stub/d
types.py:543: FutureWarning: Passing (type, 1) or '1type' as a synonym of type i
s deprecated; in a future version of numpy, it will be understood as (type, (1,)
) / '(1,)type'.
  _np_qint16 = np.dtype([("qint16", np.int16, 1)])
/home/pi/.local/lib/python3.7/site-packages/tensorboard/compat/tensorflow_stub/d
types.py:544: FutureWarning: Passing (type, 1) or '1type' as a synonym of type i
s deprecated; in a future version of numpy, it will be understood as (type, (1,)
) / '(1,)type'.
  _np_quint16 = np.dtype([("quint16", np.uint16, 1)])
/home/pi/.local/lib/python3.7/site-packages/tensorboard/compat/tensorflow_stub/d
types.py:545: FutureWarning: Passing (type, 1) or '1type' as a synonym of type i
s deprecated; in a future version of numpy, it will be understood as (type, (1,)
) / '(1,)type'.
  _np_qint32 = np.dtype([("qint32", np.int32, 1)])
/home/pi/.local/lib/python3.7/site-packages/tensorboard/compat/tensorflow_stub/d
types.py:550: FutureWarning: Passing (type, 1) or '1type' as a synonym of type i
s deprecated; in a future version of numpy, it will be understood as (type, (1,)
) / '(1,)type'.
  np_resource = np.dtype([("resource", np.ubyte, 1)])
>>> tf.__version__
'1.14.0'
>>>
```

Input following command to check tensorflow installation path

tf.__path__

```
  _np_qint16 = np.dtype([("qint16", np.int16, 1)])
/home/pi/.local/lib/python3.7/site-packages/tensorboard/compat/tensorflow_stub/d
types.py:544: FutureWarning: Passing (type, 1) or '1type' as a synonym of type i
s deprecated; in a future version of numpy, it will be understood as (type, (1,)
) / '(1,)type'.
  _np_quint16 = np.dtype([("quint16", np.uint16, 1)])
/home/pi/.local/lib/python3.7/site-packages/tensorboard/compat/tensorflow_stub/d
types.py:545: FutureWarning: Passing (type, 1) or '1type' as a synonym of type i
s deprecated; in a future version of numpy, it will be understood as (type, (1,)
) / '(1,)type'.
  _np_qint32 = np.dtype([("qint32", np.int32, 1)])
/home/pi/.local/lib/python3.7/site-packages/tensorboard/compat/tensorflow_stub/d
types.py:550: FutureWarning: Passing (type, 1) or '1type' as a synonym of type i
s deprecated; in a future version of numpy, it will be understood as (type, (1,)
) / '(1,)type'.
  np_resource = np.dtype([("resource", np.ubyte, 1)])
>>> tf.__version__
'1.14.0'
>>> tf.__path__
['/home/pi/.local/lib/python3.7/site-packages/tensorflow/python/keras/api/_v1',
'/home/pi/.local/lib/python3.7/site-packages/tensorflow_estimator/python/estimat
or/api/_v1', '/home/pi/.local/lib/python3.7/site-packages/tensorflow', '/home/pi
/.local/lib/python3.7/site-packages/tensorflow/_api/v1']
>>>
```

Input following command to test.

```
hello = tf.constant('Hello,Tensorflow')
sess = tf.Session()
print(sess.run(hello))
```

As shown below.

```
types.py:543: FutureWarning: Passing (type, 1) or '1type' as a synonym of type i
s deprecated; in a future version of numpy, it will be understood as (type, (1,)
) / '(1,)type'.
  _np_qint16 = np.dtype([("qint16", np.int16, 1)])
/home/pi/.local/lib/python3.7/site-packages/tensorboard/compat/tensorflow_stub/d
types.py:544: FutureWarning: Passing (type, 1) or '1type' as a synonym of type i
s deprecated; in a future version of numpy, it will be understood as (type, (1,)
) / '(1,)type'.
  _np_quint16 = np.dtype([("quint16", np.uint16, 1)])
/home/pi/.local/lib/python3.7/site-packages/tensorboard/compat/tensorflow_stub/d
types.py:545: FutureWarning: Passing (type, 1) or '1type' as a synonym of type i
s deprecated; in a future version of numpy, it will be understood as (type, (1,)
) / '(1,)type'.
  _np_qint32 = np.dtype([("qint32", np.int32, 1)])
/home/pi/.local/lib/python3.7/site-packages/tensorboard/compat/tensorflow_stub/d
types.py:550: FutureWarning: Passing (type, 1) or '1type' as a synonym of type i
s deprecated; in a future version of numpy, it will be understood as (type, (1,)
) / '(1,)type'.
  np_resource = np.dtype([("resource", np.ubyte, 1)])
>>> hello = tf.constant('Hello,Tensorflow')
>>> sess = tf.Session()
>>> print(sess.run(hello))
b'Hello,Tensorflow'
>>>
```