TVTK库的安装

PROJECTS **INSTALL** **SOURCE** **SUPPORT**

PROJECTS

Mayavi Project

http://code.enthought.com/projects/mayavi/

3D Scientific Data Visualization and Plotting

The Mayavi *project* includes two related *packages* for 3-dimensional visualization:

- **Mayavi**: A tool for **easy and interactive** visualization of data, with **seamless integration with Python scientific libraries.**

- **TVTK**: A Traits-based wrapper for the Visualization Toolkit, a popular open-source visualization library.

These libraries operate at different levels of abstraction. TVTK manipulates visualization objects, while Mayavi lets you operate on your data, and then see the results. Most users either use the Mayavi user interface or program to its scripting interface; you probably don't need to interact with TVTK unless you want to create a new Mayavi module.
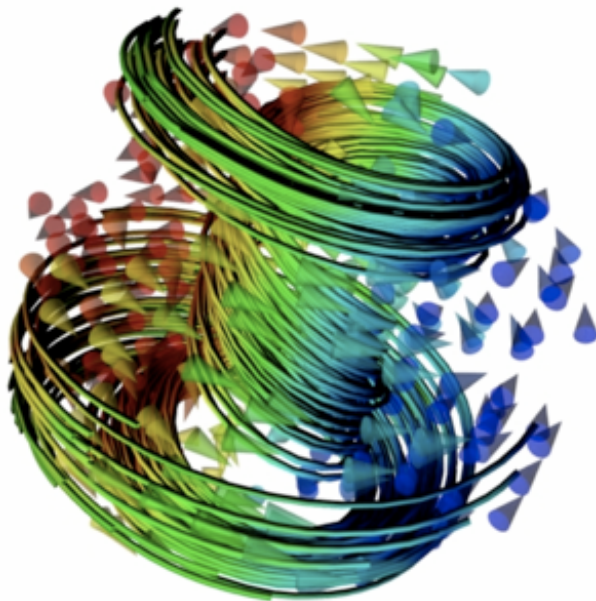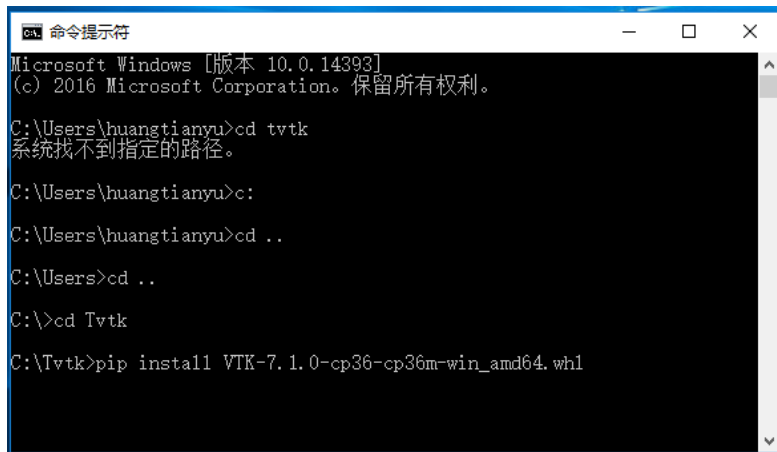
TVTK库的安装

IDE编程环境：

Python3.6/IDLE3.6

Pycharm Community Edition 2017

TVTK库的安装

下载 VTK-7.1.1-cp36-cp36m-win_amd64.whl

"以管理员身份运行" cmd

在下载目录执行pip install VTK-7.1.1-cp36-cp36m-win_amd64.whl
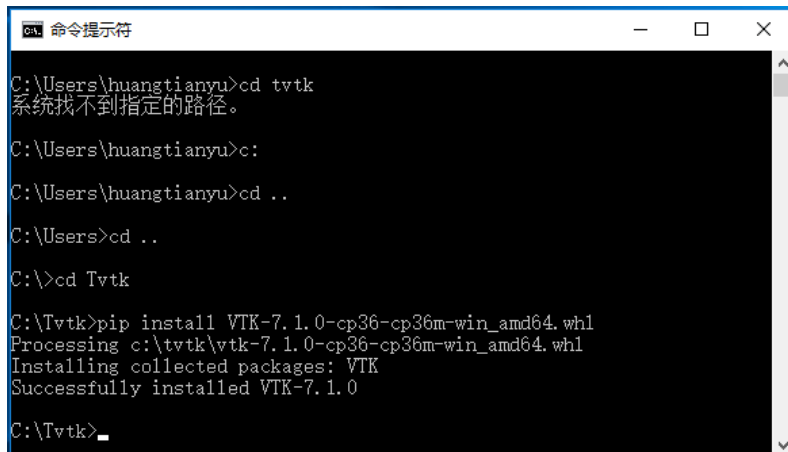
TVTK库的安装小测

```
>>> from tvtk.tools import tvtk_doc
>>> tvtk_doc.main()
```
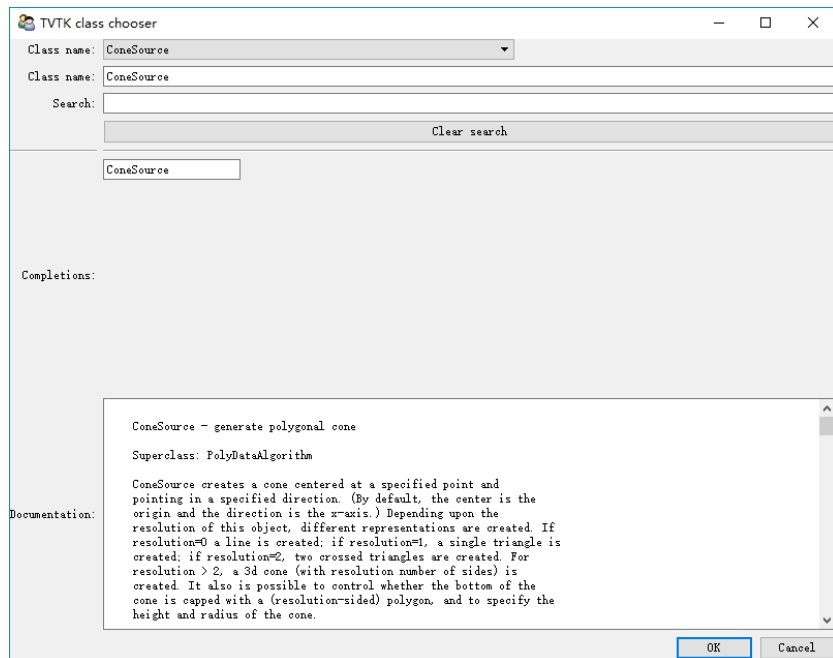
TVTK库的安装小测

建立tvtk长方体数据源

```
>>> from tvtk.api import tvtk
>>> s = tvtk.CubeSource(x_length=1.0, y_length=2.0, z_length=3.0)
>>> print(s)
vtkCubeSource (0000028E98EA6AA0)
  Debug: Off
  Modified Time: 96
  Reference Count: 2
  Registered Events:
    Registered Observers:
      vtkObserver (0000028E9A6FC3F0)
        Event: 33
        EventName: ModifiedEvent
```

TVTK帮助资源

http://www.vtk.org/doc/nightly/html/annotated.html

TVTK帮助资源

● TVTK库中的类名去除了前缀vtk

● 函数名按照Python的惯例，采用下划线连接单词

如AddItem->add_item

● VTK对象的方法在TVTK中用Trait属性替代

m.SetInputConnnection(c.GetOutputPort())   #VTK

m.input_connection(c.output_port)   #TVTK