

Ubuntu16.04下安装ROS教程及报错解决方法

2022-03-23 21:46:39 By 小峰

1、设置sources.list

```
sudo sh <span class="token operator">-</span>c <span class="token string">'echo "deb http://packages.ros.org/ros/ubuntu $(lsb_release -sc) main" &gt; /etc/apt/sources.list.d/ros-latest.list'</span>
```

2、设置key（公钥已更新）

```
sudo apt<span class="token operator">-</span>key adv <span class="token operator">--</span>keys  
erver <span class="token string">'hkp://keyserver.ubuntu.com:80'</span> <span class="token operator">--</span>recv<span class="token operator">-</span>key C1CF6E31E6BADE8868B172B4F42ED6FB  
AB17C654
```

```
zhenkai@ThundeRobot:~$ sudo apt-key adv --keyserver hkp://ha.pool.sks-keyservers.net:80 --recv-key 421C365BD9F  
F1F717815A3895523BAEEB01FA116  
Executing: /tmp/tmp.uusJmPSCso/gpg.1.sh --keyserver  
hkp://ha.pool.sks-keyservers.net:80  
--recv-key  
421C365BD9FF1F717815A3895523BAEEB01FA116  
gpg: 下载密钥 'B01FA116', 从 hkp 服务器 ha.pool.sks-keyservers.net  
gpg: 密钥 B01FA116: 公钥 "ROS Builder <rosbuild@ros.org>" 已导入  
gpg: 合计被处理的数量: 1  
gpg: 已导入: 1
```

https://blog.csdn.net/weixin_43159148

3、更新package

```
sudo apt<span class="token operator">-</span>get update
```

4、安装ROS kinetic完整版

```
sudo apt<span class="token operator">-</span>get install ros<span class="token operator">-</span>  
kinetic<span class="token operator">-</span>desktop<span class="token operator">-</span>full
```

5、初始化rosdep

注意：在使用ROS之前需要初始化rosdep

```
sudo rosdep init
```

```
rosdep update
```

6、配置ROS环境

```
echo "source /opt/ros/kinetic/setup.bash" >&&~> bashrc
source ~> bashrc
```

7、安装依赖项

```
sudo apt-get install python-rosinstall python-rosinstall-generator python-wstool build-essential
```

8、测试ROS是否安装成功

(1)、CTRL+ALT+T打开终端(Termial)，输入以下命令，初始化ROS环境：

```
roscore
```

成功打开如下图所示：

```
● ● ● roscore http://ThundeRobot:11311/
zhenkai@ThundeRobot:~$ roscore
... logging to /home/zhenkai/.ros/log/17f0fab4-d7fe-11e8-b1f8-b46d83d664c9/roslaunch-ThundeRobot-25254.log
Checking log directory for disk usage. This may take awhile.
Press Ctrl-C to interrupt
Done checking log file disk usage. Usage is <1GB.

started roslaunch server http://ThundeRobot:38281/
ros_comm version 1.12.14

SUMMARY
=====

PARAMETERS
* /rostdistro: kinetic
* /rosversion: 1.12.14

NODES
auto-starting new master
process[master]: started with pid [25265]
ROS_MASTER_URI=http://ThundeRobot:11311/

setting /run_id to 17f0fab4-d7fe-11e8-b1f8-b46d83d664c9
process[rosout-1]: started with pid [25278]
started core service [/rosout]


```

上面显示有ROS的版本，还有一些节点、端号等内容。

(2)、再 打开一个新的终端（Termial），输入以下命令，弹出一个小乌龟窗口：

```
roslaunch turtlesim turtlesim_node
```

```
zhenkai@ThundeRobot: ~  
zhenkai@ThundeRobot:~$ rosrn turtlesim turtlesim_node  
[ INFO] [1540434890.618238431]: Starting turtlesim with node name /turtlesim  
[ INFO] [1540434890.624061855]: Spawning turtle [turtle1] at x=[5.544445], y=[5.544445], theta=[0.000000]
```



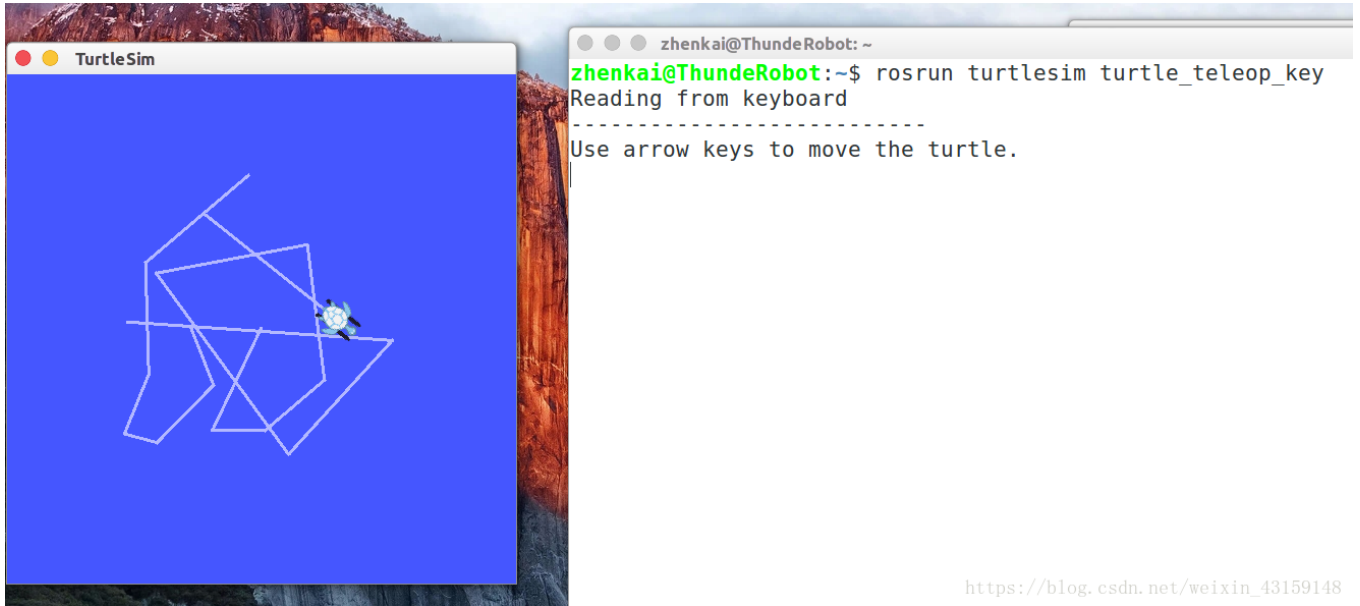
(3)、出现一个小乌龟的LOGO后，再 打开一个新的终端（Termial），输入以下命令 https://blog.csdn.net/weixin_43159148

rosrn turtlesim turtle_teleop_key

```
zhenkai@ThundeRobot: ~  
zhenkai@ThundeRobot:~$ rosrn turtlesim turtle_teleop_key  
Reading from keyboard  
-----  
Use arrow keys to move the turtle.  
|
```

然后，通过方向键控制小乌龟的移动：如下图所示

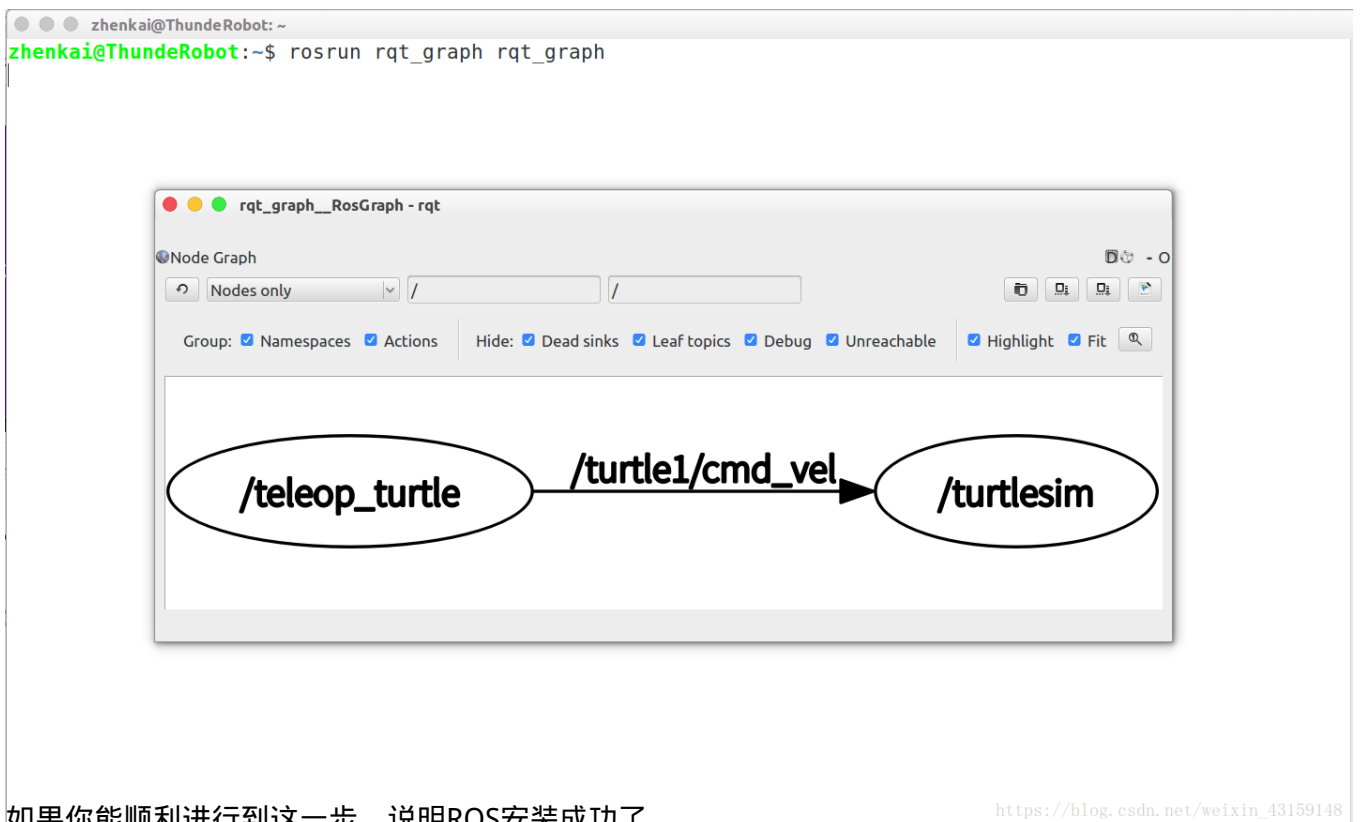
https://blog.csdn.net/weixin_43159148



https://blog.csdn.net/weixin_43159148

(4)、打开新的Terminal，输入以下命令，可以查看ROS节点信息：

```
roslaunch turtlesim turtlesim
```



如果你能顺利进行到这一步，说明ROS安装成功了。

https://blog.csdn.net/weixin_43159148

错误提示：

```
$ rosdep update
```

If you get

reading in sources list data from /etc/ros/rosdep/sources.list.d

Hit <https://raw.githubusercontent.com/ros/rosdistro/master/rosdep/osx-homebrew.yaml>

Hit <https://raw.githubusercontent.com/ros/rosdistro/master/rosdep/base.yaml>

ERROR: unable to process source [<https://raw.githubusercontent.com/ros/rosdistro/master/rosdep/python.yaml>]:

<urlopen error timed out> (<https://raw.githubusercontent.com/ros/rosdistro/master/rosdep/python.yaml>)

then you can execute the following command:

解决方法：

```
sudo gedit /etc/resolv.conf
```

改成下面两句：

```
nameserver 8.8.8.8 #google域名服务器
```

```
nameserver 8.8.4.4 #google域名服务器
```

安装husky

1.How to install husky-simulator in kinetic ?

安装：

```
sudo apt-get install ros-Kinetic-husky-simulator
```

报错提示：E: 无法定位软件包 ros-Kinetic-husky-simulator

正确方法：Kinetic改为小写即可！

```
sudo apt-get install ros-kinetic-husky-simulator
```

error:[test_rig3.launch] is neither a launch file in package [svo_ros] nor is [svo_ros] a launch file name
The traceback for the exception was written to the log file

只需要回到上层进行source即可

```
$ cd ~/catkin_ws: $source devel/setup.bash
```

或者直接

```
source ~/catkin_ws/devel/setup.bash
```

环境变量需要重新设置下

3.启动 使用roslaunch启动husky模拟器，启动一个空的世界(任选其一即可，两个区别就是地图不一样)：

```
roslaunch husky_gazebo husky_empty_world.launch (空地图启动)
```

```
roslaunch gazebo_ros willowgarage_world.launch (默认地图启动)
```

bug描述：

VMware: vmw_ioctl_command error Invalid argument.

解决方式：设置环境变量

```
export SVGA_VGPU10=0 //临时处理方式，一次性的，下次重启还会同样报错
```

或者

```
echo "export SVGA_VGPU10=0" >> ~/.bashrc //中间俩转义符换成英文大于号>>，此方式为永久方式，  
会添加一条环境变量，重启后或者运行下面的语句生效
```

```
source ~/.bashrc
```

版权声明：

本站遵循 署名-非商业性使用-相同方式共享 2.5 共享协议.

转载请注明转自**疯人峰语**并标明URL.

本文链接：<https://www.iiii.name/?p=2573>