

Ubuntu18.04 安装 ROS melodic

注：此过程为学习 ROS 理论与实践时个人安装过程记录即问题解决，所参考的安装教程为古月居博客 <https://www.guyuehome.com/19962>

1.添加 ROS 软件源

```
sudo sh -c 'echo "deb http://packages.ros.org/ros/ubuntu $(lsb_release -sc) main" > /etc/apt/sources.list.d/ros-latest.list'
```

2.添加密钥

```
sudo apt-key adv --keyserver 'hkp://keyserver.ubuntu.com:80' --recv-key
```

```
C1CF6E31E6BADE8868B172B4F42ED6FBAB17C654
```

```
Executing: /tmp/apt-key-gpghome.LbxweiyIEy/gpg.1.sh --keyserver hkp://keyserver.ubuntu.com:80 --recv-key C1CF6E31E6BADE8868B172B4F42ED6FBAB17C654
gpg: 密钥 F42ED6FBAB17C654: 公钥“Open Robotics <info@osrfoundation.org>”已导入
gpg: 合计被处理的数量: 1
gpg: 已导入: 1
```

3.更新，确保之前的软件源的修改获得更新

```
sudo apt-get update && sudo apt-get upgrade
```

4.正式安装

```
sudo apt-get install ros-melodic-desktop-full
```

```
文件(F) 编辑(E) 查看(V) 搜索(S) 终端(T) 帮助(H)
正在设置 ros-melodic-robot (1.4.1-0bionic.20211014.175005) ...
正在设置 ros-melodic-gazebo-plugins (2.8.7-1bionic.20210921.213916) ...
正在设置 ros-melodic-interactive-marker-tutorials (0.10.5-1bionic.20210921.214054) ...
正在设置 ros-melodic-rviz (1.13.23-1bionic.20211216.180048) ...
正在设置 ros-melodic-rqt-rviz (0.7.0-1bionic.20211216.191229) ...
正在设置 ros-melodic-rqt-robot-plugins (0.5.7-0bionic.20211216.191914) ...
正在设置 ros-melodic-gazebo-ros-pkgs (2.8.7-1bionic.20210921.221119) ...
正在设置 ros-melodic-rqt-common-plugins (0.4.8-0bionic.20210921.220636) ...
正在设置 ros-melodic-rviz-python-tutorial (0.10.5-1bionic.20211216.191335) ...
正在设置 ros-melodic-rviz-plugin-tutorials (0.10.5-1bionic.20211216.191325) ...
正在设置 ros-melodic-librviz-tutorial (0.10.5-1bionic.20211216.191128) ...
正在设置 ros-melodic-simulators (1.4.1-0bionic.20211216.192002) ...
正在设置 ros-melodic-urdf-tutorial (0.4.0-0bionic.20211216.190939) ...
正在设置 ros-melodic-urdf-sim-tutorial (0.4.0-0bionic.20211216.191012) ...
正在设置 ros-melodic-viz (1.4.1-0bionic.20211216.192037) ...
正在设置 ros-melodic-visualization-tutorials (0.10.5-1bionic.20211216.191902) ..
.
正在设置 ros-melodic-desktop (1.4.1-0bionic.20211216.192152) ...
正在设置 ros-melodic-desktop-full (1.4.1-0bionic.20211216.192238) ...
正在处理用于 libc-bin (2.27-3ubuntu1.4) 的触发器 ...
```

查看安装情况：

```
cd /opt
```

```
ls
```

```
yuanxq@yuanxq-Lenovo-TianYi-310-15ISK:~$ cd /opt/
yuanxq@yuanxq-Lenovo-TianYi-310-15ISK:/opt$ ls
ros
```

5.初始化 rosdep

```
yuanxq@yuanxq-Lenovo-TianYi-310-15ISK:~$ sudo rosdep init
sudo: rosdep: 找不到命令
```

sudo apt-get install python-rosdep

再次初始化:

ERROR: Rosdep experienced an error: ('The read operation timed out',)

Please go to the rosdep page [1] and file a bug report with the stack trace below.

[1] : <http://www.ros.org/wiki/rosdep>

rosdep version: 0.21.0

Traceback (most recent call last):

```
File "/usr/lib/python2.7/dist-packages/rosdep2/main.py", line 146, in rosdep_main
    exit_code = _rosdep_main(args)
File "/usr/lib/python2.7/dist-packages/rosdep2/main.py", line 441, in _rosdep_main
    return _no_args_handler(command, parser, options, args)
File "/usr/lib/python2.7/dist-packages/rosdep2/main.py", line 450, in _no_args_handler
    return command_handlers[command](options)
File "/usr/lib/python2.7/dist-packages/rosdep2/main.py", line 594, in command_init
    data = download_default_sources_list()
File "/usr/lib/python2.7/dist-packages/rosdep2/sources_list.py", line 340, in
download_default_sources_list
    f = urlopen(url, timeout=DOWNLOAD_TIMEOUT)
File "/usr/lib/python2.7/urllib2.py", line 154, in urlopen
    return opener.open(url, data, timeout)
File "/usr/lib/python2.7/urllib2.py", line 429, in open
    response = self._open(req, data)
File "/usr/lib/python2.7/urllib2.py", line 447, in _open
    '_open', req)
File "/usr/lib/python2.7/urllib2.py", line 407, in _call_chain
    result = func(*args)
File "/usr/lib/python2.7/urllib2.py", line 1248, in https_open
    context=self._context)
File "/usr/lib/python2.7/urllib2.py", line 1208, in do_open
    r = h.getresponse(buffering=True)
File "/usr/lib/python2.7/httplib.py", line 1178, in getresponse
    response.begin()
File "/usr/lib/python2.7/httplib.py", line 452, in begin
    version, status, reason = self._read_status()
File "/usr/lib/python2.7/httplib.py", line 408, in _read_status
    line = self.fp.readline(_MAXLINE + 1)
File "/usr/lib/python2.7/socket.py", line 480, in readline
    data = self._sock.recv(self._rbufsize)
File "/usr/lib/python2.7/ssl.py", line 754, in recv
    return self.read( buflen )
File "/usr/lib/python2.7/ssl.py", line 641, in read
    v = self._sslobj.read( len )
SSLError: ('The read operation timed out',)
```

执行命令：

sudo apt install rospack-tools

仍然报错（同上）

```
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    return command_handlers[command](options)
  File "/usr/lib/python2.7/dist-packages/rosdep2/main.py", line 594, in command_init
    data = download_default_sources_list()
```

参考：https://blog.csdn.net/weixin_53660567/article/details/120607176#comments_18709733

rosdep 初始化及更新成功