Using Realsense on Jetson

The RealSense product is made of Vision Processors, Depth and Tracking Modules, and Depth Cameras, supported by an open source, cross-platform SDK, simplifying supporting cameras for third party software developers, system integrators, ODMs and OEMs.
https://www.intelrealsense.com/

Jetson Nano and Realsense

1. Realsense-viewer

The Realsense-viewer is one of the sample tools for Realsense. This tool can check the operation of Realsense.

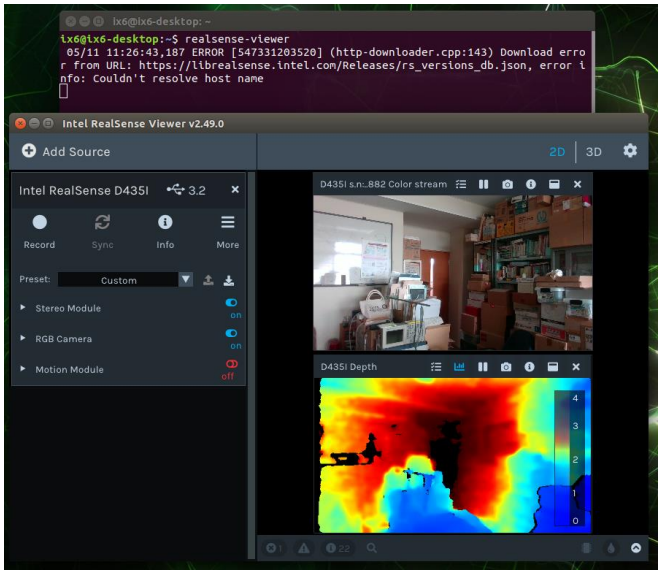
*install RealsenseSDK

Realsense-viewer is included the RealsenseSDK.

Please refer to

`https://github.com/IntelRealSense/librealsense/blob/master/doc/distribution_linux.md`

for installing of RealsenseSDK.



Realsense-viewer

2. point-cloud on ROS1_melodic

*install ROS1_melodic

Please refer to

`http://wiki.ros.org/melodic/Installation/Ubuntu`

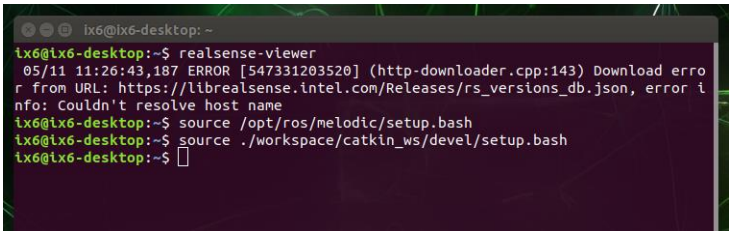
for installing of ROS.

*install ROS Wrapper for Intel RealSense Devices

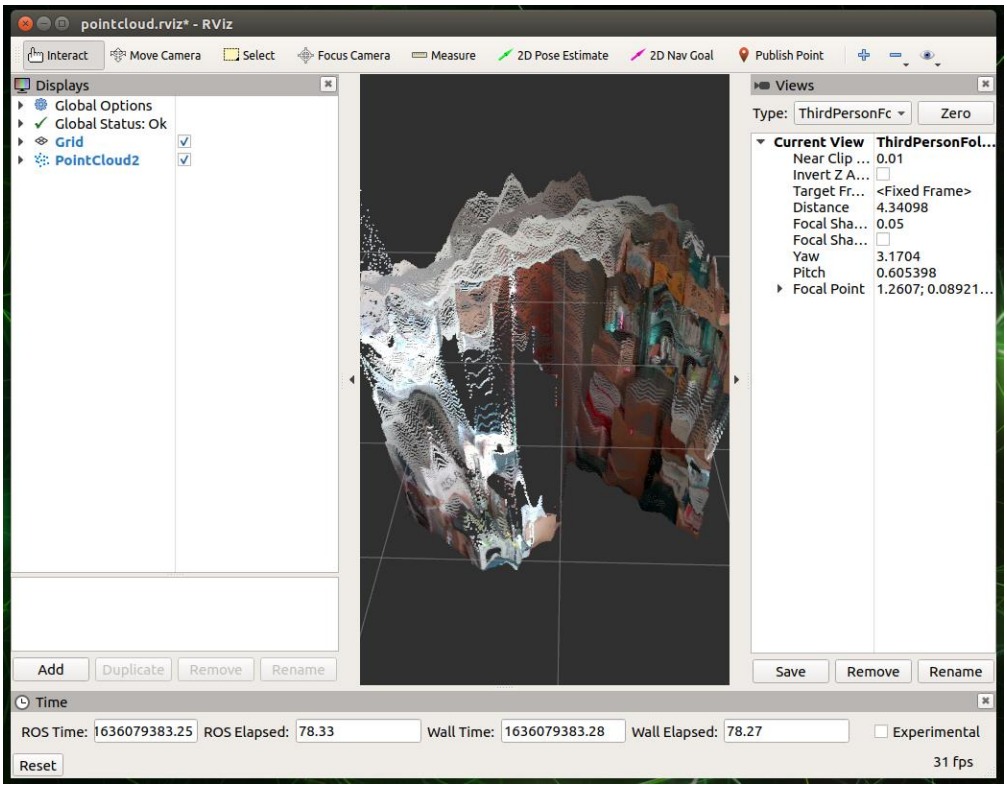
Please refer to

`https://github.com/IntelRealSense/realsense-ros`

for installing of ROS Wrapper

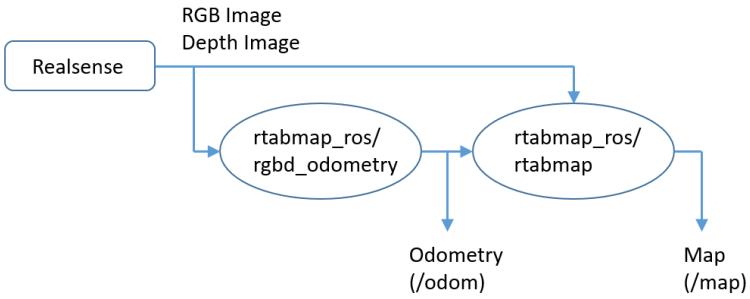


Initialize for ROS and catkin app.



3. RTAB-Map on ROS1_melodic

RTAB-Map (Real-Time Appearance-Based Mapping) is a RGB-D, Stereo and Lidar Graph-Based SLAM approach based on an incremental appearance-based loop closure detector.



http://introlab.github.io/rtabmap/

http://wiki.ros.org/rtabmap_ros

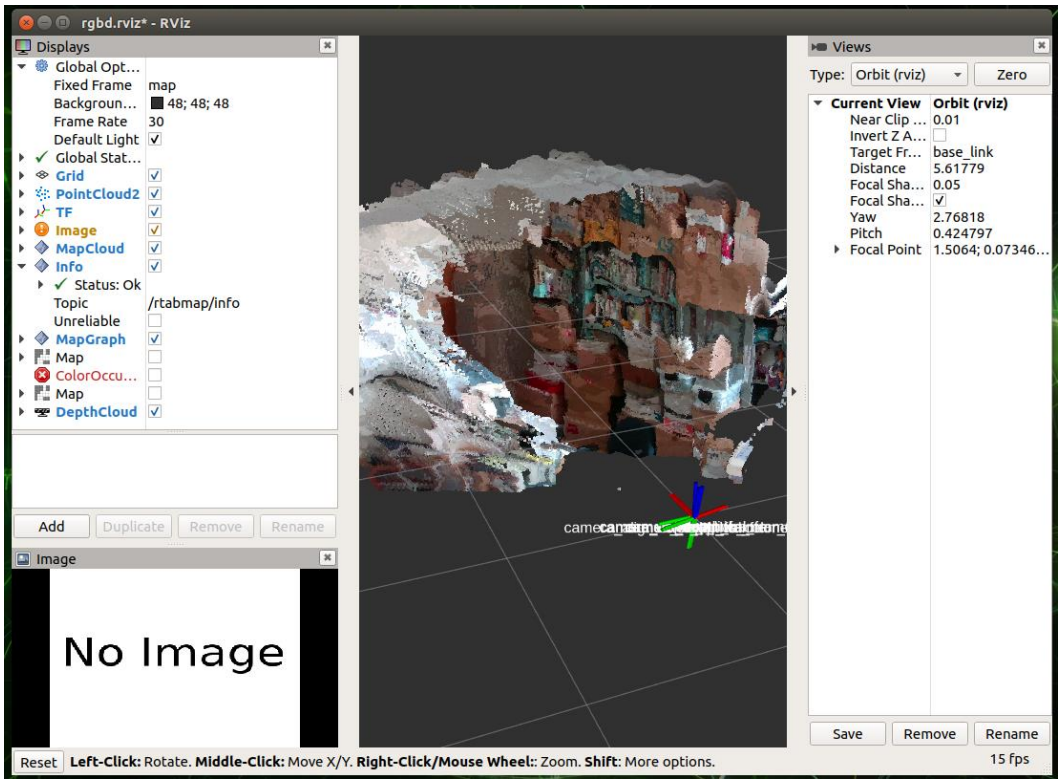
*install rtabmap

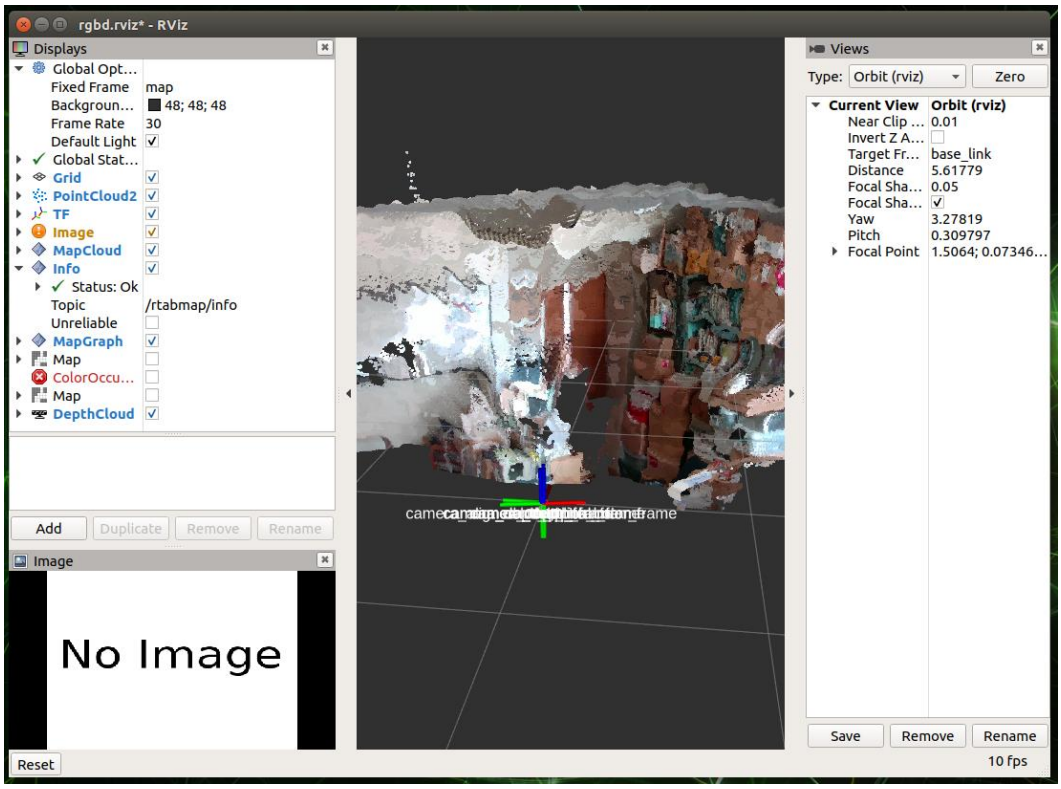
Please refer to

https://github.com/introlab/rtabmap_ros

https://github.com/IntelRealSense/realsense-ros/wiki/SLAM-with-D435i

for installing of rtabmap.




rgbd.rviz* - RViz
Displays
Global Opt…
Fixed Frame map
Backgroun… 48; 48; 48
Frame Rate 30
Default Light
Global Stat…
Grid
PointCloud2
TF
Image
MapCloud
Info
Status: Ok
Topic /rtabmap/info
Unreliable
MapGraph
Map
ColorOccu…
Map
DepthCloud
Add
Duplicate
Remove
Rename
Image
No Image
Views
Type: Orbit (rviz)
Zero
Current View Orbit (rviz)
Near Clip … 0.01
Invert Z A…
Target Fr… base_link
Distance 5.61779
Focal Sha… 0.05
Focal Sha…
Yaw 3.27819
Pitch 0.309797
Focal Point 1.5064; 0.07346…
Save
Remove
Rename
Reset
10 fps