Installing Kinect XBOX360 on Ubuntu 12.04 64 bit and ROS Hydro

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A. Check your device
Connect your kinect device and type in the terminal (I use the sign “$” to distinguish between the note and what that is happening in the terminal):
$ lsusb

You should find some thing like this between the results:

$ Bus 003 Device 007: ID 045e:02ad Microsoft Corp. Xbox NUI Audio

$ Bus 003 Device 004: ID 045e:02b0 Microsoft Corp. Xbox NUI Motor

$ Bus 003 Device 008: ID 045e:02ae Microsoft Corp. Xbox NUI Camera

It seems working.

B. Download necessary files
Now unplug your kinect and download this package OpenNI_NITE_Installer-Linux64-0.27 [126 MB]. it contains four folders:

1. NITE-Bin-Dev-Linux-x64-v1.5.2.21 which NITE is a middleware to enable skeleton tracking
2. OpenNI-Bin-Dev-Linux-x64-v1.5.4.0 which OpenNI is SDK provided by manufacturer of Kinect
3. Sensor-Bin-Linux-x64-v5.1.2.1 which Sensor is a binaries that allow to use Kinect as a hardware
4. kinect

We need three files to install kinect. Use files number 1, 2 and 3 (or instead of file number 3 download the sensor package from [link]). Create a folder named ‘kinect’ in your home folder. Rename those three folders to ‘nite’, ‘openni’ and ‘sensorkin’ and put them in the ‘kinect’ folder.

C. Installation

Install all needed libraries and openJDK using following commands:

$ sudo apt-get install libusb-1.0-0-dev freeglut3-dev g++

$ sudo apt-get install openjdk-7-jdk openjdk-7-jre

Now you should install three packages previously put in the ‘kinect’ folder using following

commands. Install openni:

$ cd ~/kinect/openni/

$ chmod a+x install.sh

$ sudo ./install.sh

Install sensorkin:

$ cd ~/kinect/sensorkin/Platform/Linux/CreateRedist/

$ chmod a+x RedistMaker

$ sudo ./RedistMaker

$ cd ../Redist/Sensor-Bin-Linux-x64-v5.1.2.1

$ sudo chmod a+x install.sh

$ sudo ./install.sh

Install nite:

$ cd ~/kinect/nite/

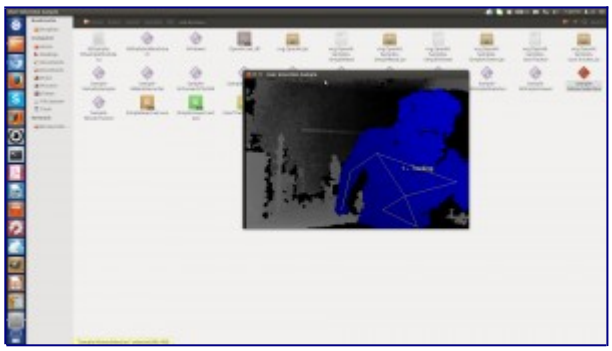
$ chmod a+x install.sh

$ sudo ./install.sh

It is almost Done!
I used these linkes [link] [link] [link] as references. More detalis are available there.

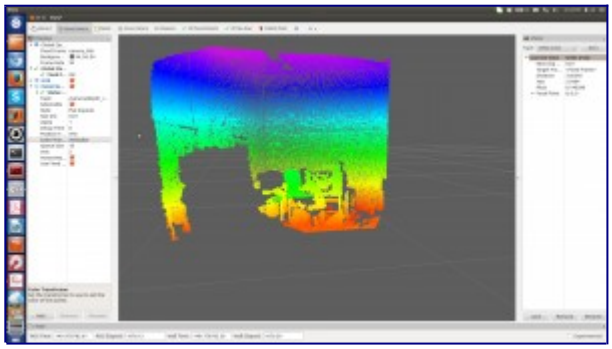
D. Test
Go to the following address and run it.
/home/usr/kinect/openni/Samples/Bin/x64-Release/NiViewer
you should be able to see RGB and Depth images.

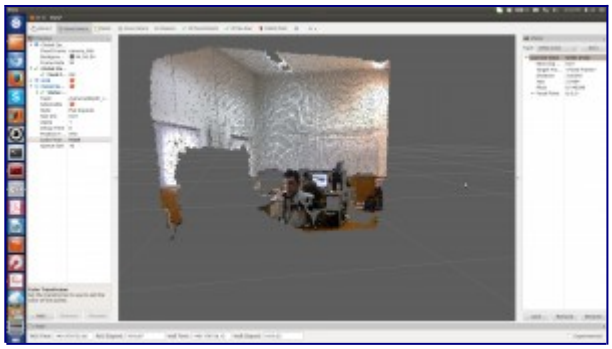
or ‘Sample-NiUserSelection’ to see skeleton



or ‘Sample-PointViewer’ at ‘/home/user/kinect/nite/Samples/Bin/x64-Release/Sample-PointViewer’

Now you can go to this [link] [link] to discover kinect in ROS and see depthmap, point clouds, etc. You should be able to see some thing like this.





Also It is good to take a look at [link] and [link].

Mapping on .