

How to Use RobiLidar-2D-02 in ROS1

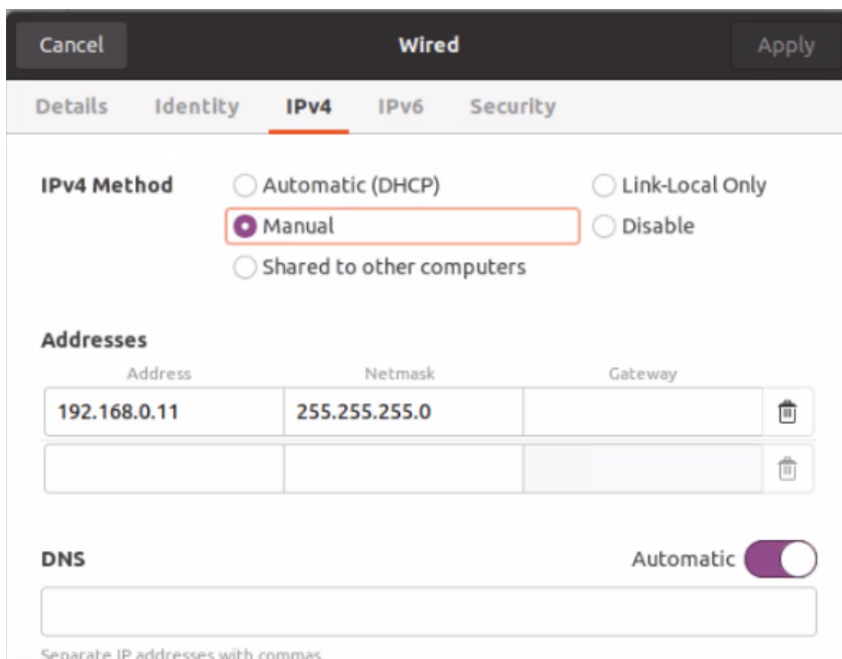
Hardware Connection

Use 24V DC power to supply the RobiLidar-2D-02.

Plug the Ethernet data cable into the network port of the industrial PC.

Network Configuration

Set the IP address of the network adapter on the industrial PC that is connected to the RobiLidar-2D-02 to the `192.168.0.x` subnet, for example `192.168.0.11`.



Use the `ping` command to test connectivity. The default IP address of RobiLidar-2D-02 is `192.168.0.10`.

代码块

```
1 ping 192.168.0.10
```

If the device responds to `ping`, continue to the next step. Otherwise, check whether the IP address of the industrial PC's network adapter is set correctly, whether the RobiLidar-2D-02 is powered on, and whether the Ethernet cable is properly connected.

Use `ifconfig` to check the IP address of the industrial PC's network adapter. Make sure you have set the IP address of the network adapter connected to the RobiLidar-2D-02.

代码块

```
1 ifconfig
```

Build the ROS1 Package

Download the ROS package for RobiLidar-2D-02 from the link below.



robilidar2d02.7z

1.14MB



robilidar2d02.zip

1.14MB



Run `catkin_make` to build the package, then `source` the workspace:

代码块

```
1 catkin_make
2 source devel/setup.bash
```

Launch the Launch File

代码块

```
1 roslaunch robilidar2d02 robilidar2d02_udp.launch
```

The 2D LiDAR point cloud is published on the `/scan` topic.

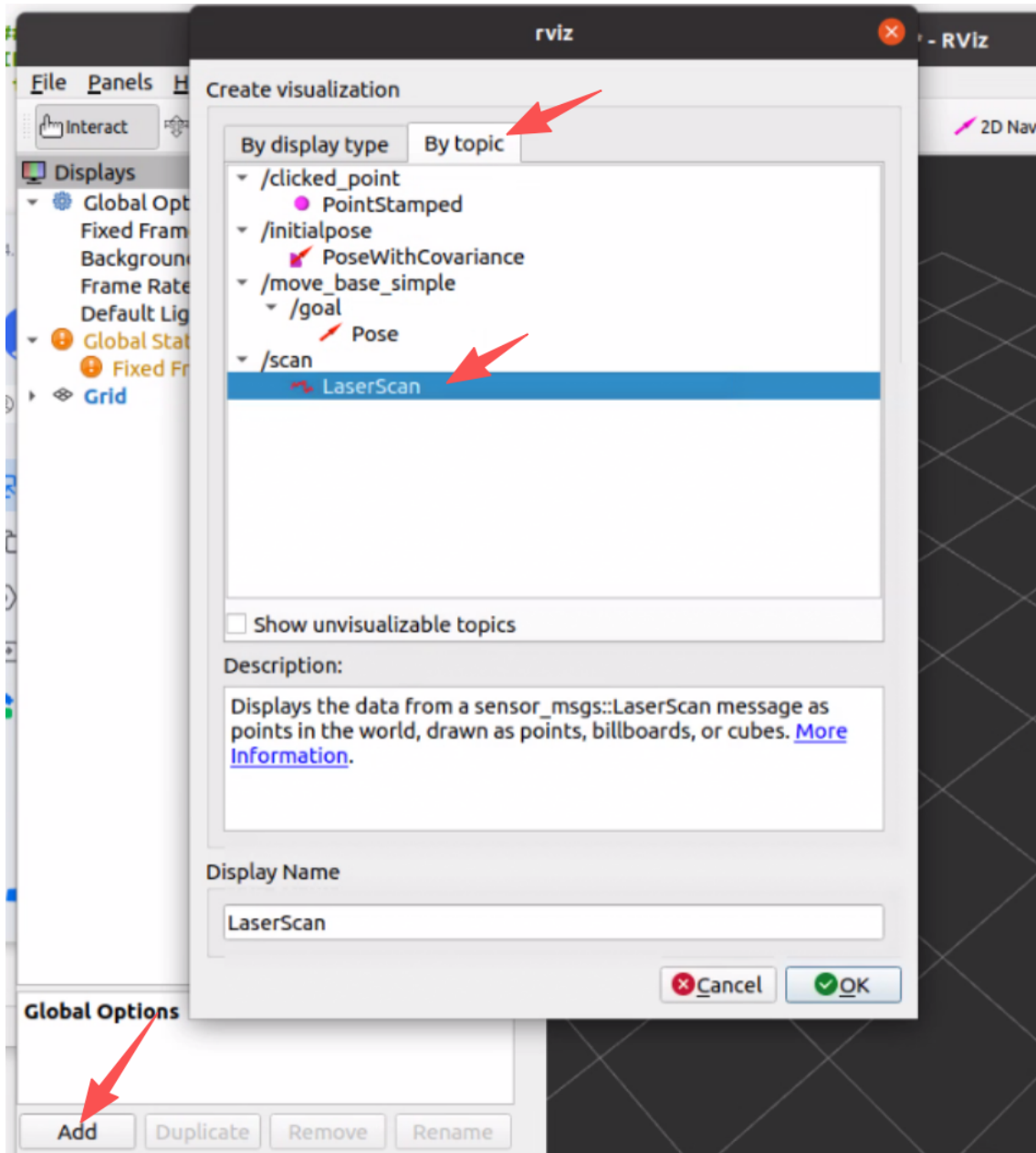
```
setting /run_id to 0a8e146c-3c94-11f1-9629-3c6d66b1f948
process[rosout-1]: started with pid [17968]
started core service [/rosout]
process[laser-2]: started with pid [17975]
[INFO] [1776674196.388293836]: range_min: 0.010000
[INFO] [1776674196.389819731]: range_max: 60.000000
[INFO] [1776674196.390455990]: frame_id: laser
[INFO] [1776674196.401409126]: sending data to '192.168.0.10' (IP : 192.168.0.10) (PORT : 2112)
[INFO] [1776674196.413244027]: laser - Successfully connected !!
```

Start RViz for Visualization

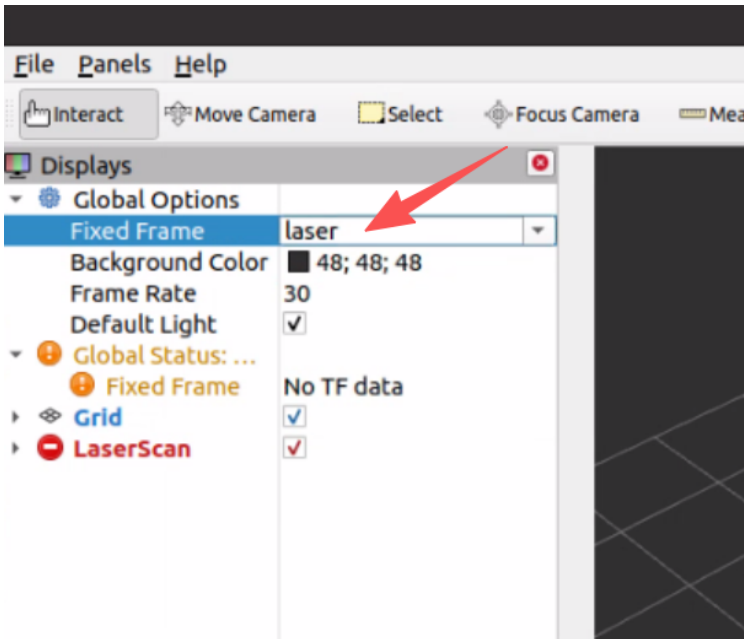
代码块

```
1 rviz
```

Then select "Add" → "By topic" → "LaserScan" → "OK" in sequence.



After that, enter `laser` in the **Fixed Frame** field.



You will then be able to see the visualized point cloud from the RobiLidar-2D-02.

