

Note: This tutorial assumes that you have completed the previous tutorials: writing a simple publisher and subscriber (python) (/ROS/Tutorials/WritingPublisherSubscriber%28python%29) (c++) (/ROS/Tutorials/WritingPublisherSubscriber%28c%2B%2B%29).

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Examining the Simple Publisher and Subscriber

Description: This tutorial examines running the simple publisher and subscriber.

Tutorial Level: BEGINNER

Next Tutorial: Writing a simple service and client (python) (/ROS/Tutorials/WritingServiceClient%28python%29) (c++) (/ROS/Tutorials/WritingServiceClient%28c%2B%2B%29)

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1. Running the Publisher

Make sure that a roscore is up and running:

```
$ roscore
```

catkin specific If you are using catkin, make sure you have sourced your workspace's setup.sh file after calling `catkin_make` but before trying to use your applications:

```
# In your catkin workspace
$ cd ~/catkin_ws
$ source ./devel/setup.bash
```

In the last tutorial we made a publisher called "talker". Let's run it:

```
$ rosrn beginner_tutorials talker      (C++)
$ rosrn beginner_tutorials talker.py  (Python)
```

You will see something similar to:

```
[INFO] [WallTime: 1314931831.774057] hello world 1314931831.77
[INFO] [WallTime: 1314931832.775497] hello world 1314931832.77
[INFO] [WallTime: 1314931833.778937] hello world 1314931833.78
[INFO] [WallTime: 1314931834.782059] hello world 1314931834.78
[INFO] [WallTime: 1314931835.784853] hello world 1314931835.78
[INFO] [WallTime: 1314931836.788106] hello world 1314931836.79
```

The publisher node is up and running. Now we need a subscriber to receive messages from the publisher.

2. Running the Subscriber

In the last tutorial we made a subscriber called "listener". Let's run it:

```
$ rosrn beginner_tutorials listener   (C++)
$ rosrn beginner_tutorials listener.py (Python)
```

You will see something similar to:

```
[INFO] [WallTime: 1314931969.258941] /listener_17657_1314931968795I heard hello world 1314931969.26
[INFO] [WallTime: 1314931970.262246] /listener_17657_1314931968795I heard hello world 1314931970.26
[INFO] [WallTime: 1314931971.266348] /listener_17657_1314931968795I heard hello world 1314931971.26
[INFO] [WallTime: 1314931972.270429] /listener_17657_1314931968795I heard hello world 1314931972.27
[INFO] [WallTime: 1314931973.274382] /listener_17657_1314931968795I heard hello world 1314931973.27
[INFO] [WallTime: 1314931974.277694] /listener_17657_1314931968795I heard hello world 1314931974.28
[INFO] [WallTime: 1314931975.283708] /listener_17657_1314931968795I heard hello world 1314931975.28
```

When you are done, press `Ctrl-C` to terminate both the listener and the talker.

Now that you have examined the simple publisher and subscriber, let's write a simple service and client (python) (/ROS/Tutorials/WritingServiceClient%28python%29) (c++) (/ROS/Tutorials/WritingServiceClient%28c%2B%2B%29).

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