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)](http://wiki.ros.org/ROS/Tutorials/WritingServiceClient%28python%29) [(c++)](http://wiki.ros.org/ROS/Tutorials/WritingServiceClient%28c%2B%2B%29)

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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:

$ rosrun beginner\_tutorials talker (C++)

$ rosrun 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.

Running the Subscriber

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

$ rosrun beginner\_tutorials listener (C++)

$ rosrun 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.