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Python Spin Once Equivalent

rospy

spin

spin_once

Is there an equivalent to *spin_once* (C++) in ROS for Python?

In C++ I have a loop with *spin_once* and during each iteration of the loop the code checks a couple of global variables for changes and then does some action based on the value of those global variables. The global variables are based on messages from other nodes' topics to which my C++ ROS node is subscribed. How would this code structure translate into Python?

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asked Dec 13 '13


 atp
499 ●44 ●54 ●67

updated Jan 28 '14


 ngrennan
1 ●1 ●1

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No, there is no *spin_once* in *rospy*. In *rospy* the subscriber's callbacks are executed in separate threads. Google quickly produces these old questions including answers:

- <http://ros-users.122217.n3.nabble.com/rospy-version-of-spinOnce-td180442.html>
- <http://ros-users.122217.n3.nabble.com/ros-spinOnce-equivalent-for-rospy-td2317347.html>
- <http://answers.ros.org/question/30490/rospy-suscriber-run-a-callback-once-using-rospyspin/>

To translate your loop from C++ you could either check periodically in a loop in the main thread, or check in each of the callbacks. Either way you likely need some thread synchronization.

link

add a comment

answered Dec 15 '13


 demmeln
4156 ●31 ●44 ●69

2

The rospy function `wait_for_message()` allowed me to receive one message from topic in Python.

[link](#)

Comments

Exactly what I wanted, thanks.

I have used below code:

```
msg = rospy.wait_for_message("/camera/depth/color/points", PointCloud2, timeout=None)
```

 askkvn (May 19 '20)

Please note that `wait_for_message` does the following internally: it subscribes to the topic, waits for a message, then unsubscribes. This is *only* useful if you want to get an odd message once in a while. Don't do this in a loop - it will stress the ros master and all nodes publishing on that topic, and you'll lose all the messages between unsubscribing and subscribing again.

 Martin Günther (Oct 2 '20)

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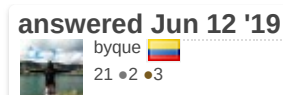
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