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# change publish rate of a topic

publisher subscriber topic rate hz

Is there any way to change the rate at which messages are published?



Edit: To update with more information. I would like to know all ways to throttle a node without using programming practices that don't involve the ROS Api. E.g nothing that does (if loop count % 5) -> Publish(msg)





- 2. via command line ROS commands
- 3. via ROS api

Thanks!

add a comment



updated Oct 7 '14

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Basic data passing question.

1 Answer

Sure there is, but it depends on what you really want to do: is this in your own node (read: own code), are you trying to throttle an existing node, or something else?

answered Oct 7 '14

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Please update your question with some more information.



updated Oct 8 '14

Edit:

1. How to throttle the topic via roslaunch

Your statement is a bit ambiguous (what should roslaunch do in your opinion?), but if starting another node is acceptable, then I think the throttle or drop nodes from topic tools should work for you.

2 via command line ROS commands

Afaik, no such thing exists. That would probably have to rely on a built-in throttling capability, which doesn't exist at the moment.

3 . via ROS api

Personally, I always think of topics & services as *the ROS API*, but I think you're referring to the functionality exposed by the C++/Python/X client libraries. See my comment on your 2nd bullet. There is no direct support for expressing don't-publish-this-at-more-than-X-hz right now.

[..] E.g nothing that does (if loop count % 5) -> Publish(msg)

Do these options fall into that category?

- 1. use a ros::Rate with an appropriate period, see C++/Time Sleeping and Rates. This obviously only works if your node is a source, or if you can somehow coalesce all messages received during r.sleep(), and base your own publications on that coalesced state.
- 2. use ros::Timer with an appropriate period, see C++/Timers. You'll have to deal with similar issues as with ros::Rate though.
- 3. use if ((now() previous\_) > desired\_) : admittedly primitive, but at least time-based (in contrast to your counting example) and the ROS C++ API supports it easily.

Finally, throttling / rate limiting / any kind of QoS will be much easier to achieve in ROS2.0: one of the fundamental properties of DDS middleware is their support for QoS policies, and any system built on top of such a middleware should be able to

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rosnode name of connected publishers (rospy)

Can a single node act as publisher and subscriber alternativelye

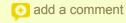
Multiple publishers, one subscriber

exploit that.

PS: this has been asked before, see (for instance):

Creating a throttle node

Throttle message rate for subscribers



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