

CS545 LAB 1: Rampus and ROS

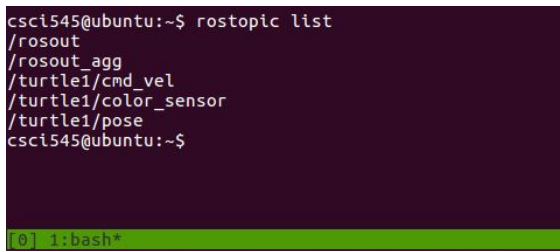
Pranavi Jalapati Satya Narapata Seokjoo Yoo Stephen Iota
jalapati@usc.edu narapata@usc.edu seokjooy@usc.edu iota@usc.edu

Viterbi School of Engineering, University of Southern California

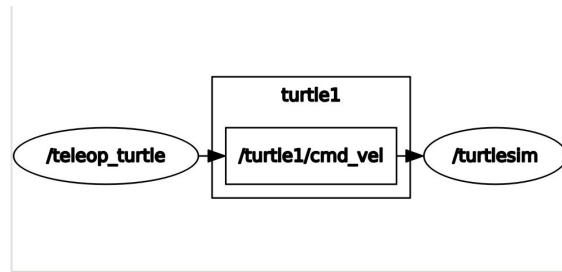
- Q1. Find topics using rostopics: Run *rqt_graph* to see a graphical representation of the nodes. Explain what you see in 1-3 sentences.

Answer.

```
csci545@ubuntu:~$ rostopic list
/rosout
/rosout_agg
/turtle1/cmd_vel
/turtle1/color_sensor
/turtle1/pose
csci545@ubuntu:~$
```



(a)



(b)

Figure 1: (a) A list created by rostopic. (b) A graph generated after running *rqt_graph*.

Rostopics show topics, which are information communicated between nodes (such as position, velocity and etc). In case of Fig. 1(b), Node(teleop_turtle) is publishing information of turtle1 and its topics while Node(turtlesim) is subscribing to them graphically showing turtle's position.

- Q2. Explain in 3-5 sentences the difference between rosservice, rostopic, rospams and rosbag.

Answer.

rosservice	Command for accessing activities of all running ROS service in detail.
rostopic	Access to information of running rostopics.
rospams	Controls parameters for current ROS server.
rosbag	Saves and holds rostopic data generated. Saved data can be used to play saved rostopics again.