

Camilo Andres Tellez Sanguino

202312456

ACTIVIDAD #1

The screenshot displays three terminal windows on a Linux desktop. The top-left window shows a ROS node named 'talker' publishing 'Hello World' messages at various time intervals. The top-right window shows a ROS node named 'listener' receiving these messages and printing them to the console. The bottom-left window shows the user running ROS commands to start the nodes.

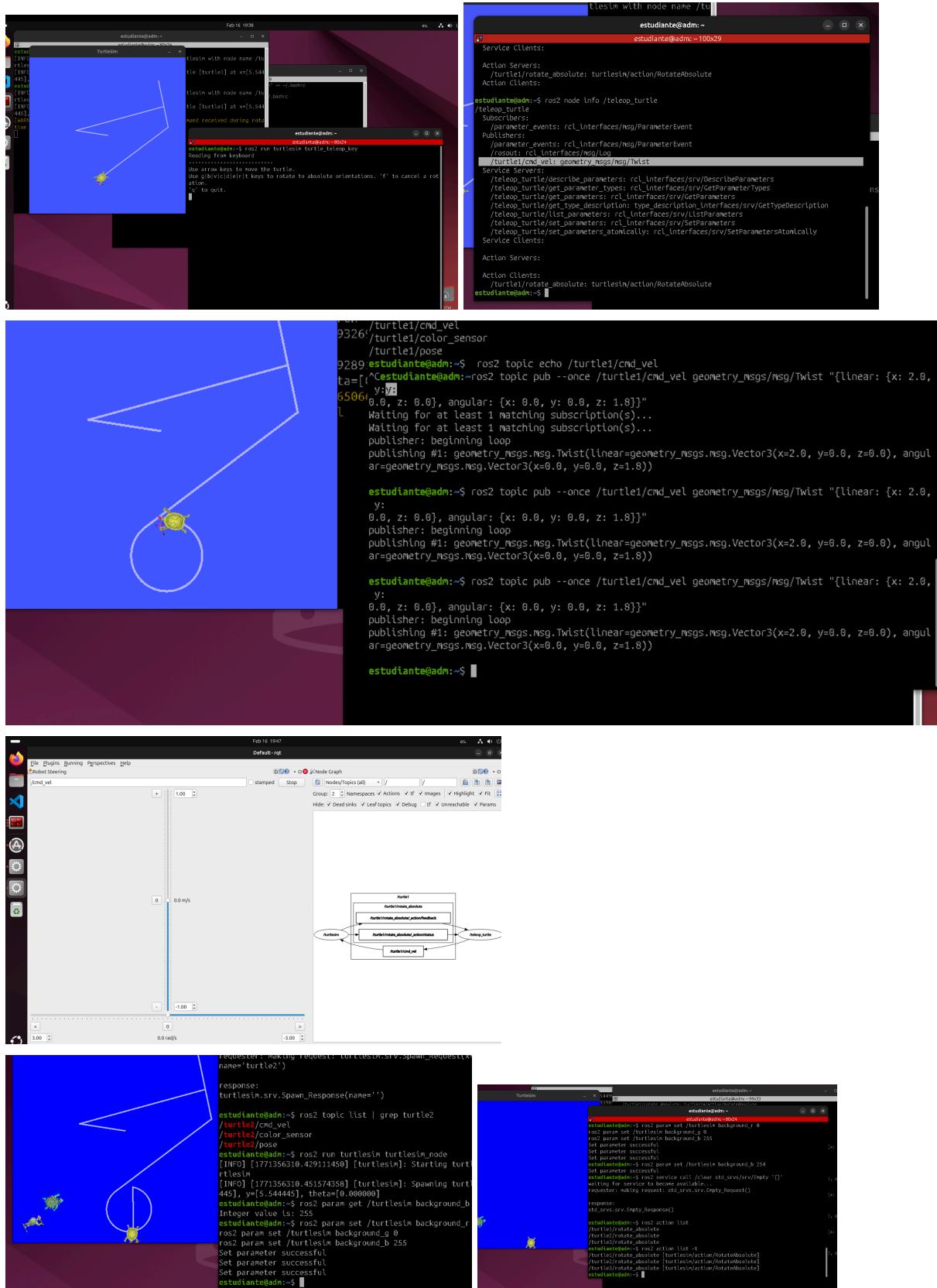
```
estudiante@adm:~$ rosrun talker talker
estudiante@adm:~$ rosrun listener listener
estudiante@adm:~$ rostopic echo /chatter
```

```
[INFO] [1771287697.752721557] [talker]: Publishing: 'Hello World: 66'
[INFO] [1771287698.752697478] [talker]: Publishing: 'Hello World: 67'
[INFO] [1771287699.752576855] [talker]: Publishing: 'Hello World: 68'
[INFO] [1771287700.752698148] [talker]: Publishing: 'Hello World: 69'
[INFO] [1771287701.752614822] [talker]: Publishing: 'Hello World: 70'
[INFO] [1771287702.752551369] [talker]: Publishing: 'Hello World: 71'
[INFO] [1771287703.752485574] [talker]: Publishing: 'Hello World: 72'
[INFO] [1771287704.752745795] [talker]: Publishing: 'Hello World: 73'

[INFO] [1771287697.752721557] [talker]: Publishing: 'Hello World: 21'
[INFO] [1771287698.752697478] [talker]: Publishing: 'Hello World: 22'
[INFO] [1771287699.752576855] [talker]: Publishing: 'Hello World: 23'
[INFO] [1771287700.752698148] [talker]: Publishing: 'Hello World: 24'
[INFO] [1771287701.752614822] [talker]: Publishing: 'Hello World: 25'
[INFO] [1771287702.752551369] [talker]: Publishing: 'Hello World: 26'
[INFO] [1771287703.752485574] [talker]: Publishing: 'Hello World: 27'
[INFO] [1771287704.752745795] [talker]: Publishing: 'Hello World: 28'

estudiante@adm:~$ nano .bashrc
estudiante@adm:~$ nano .bashrc
estudiante@adm:~$ nano .bashrc
estudiante@adm:~$ source ~/.bashrc
estudiante@adm:~$ echo $ROS_DOMAIN_ID
91
estudiante@adm:~$
```

ACTIVIDAD #2



agregar tortugas con el servicio /spawn, el grafo cambia principalmente por tópicos, no tanto por nodos: ¿Hay nodos nuevos?

No, solo estoy usando el mismo nodo de simulación /turtlesim .

Las tortugas “nuevas” no son nodos nuevos, son entidades dentro del mismo nodo /turtlesim.

¿Hay tópicos nuevos?

Sí. Por cada tortuga aparece un nuevo conjunto de tópicos con su namespace.

```
estudiante@adm:~
```

```
estudiante@adm:~
```

```
estudiante@adm: ~ 99x33
```

```
7656
```

```
Feedback:  
remaining: 0.08399999141693115
```

```
par Feedback:  
para remaining: 0.13519996404647827
```

```
para Feedback:  
para remaining: 0.0679999589920044
```

```
dian
```

```
para Feedback:  
dian remaining: 0.11919999122619629
```

```
i
```

```
e
```

```
c
```

```
s
```

```
Real remaining: 0.10319995880126953
```

```
---
```

```
Use Feedback:  
d Use remaining: 0.03600001335144043
```

```
t
```

```
tati
```

```
t'q'
```

```
remaining: 0.08719998598098755
```

```
d
```

```
Feedback:  
remaining: 0.019999980926513672
```

```
t
```

```
/turt
```

```
estud
```

```
turt
```

```
estud
```

```
Goal finished with status: SUCCEEDED
```

```
estudiante@adm:~$
```

```
estudiante@adm:~
```

```
estudiante@adm:~
```

```
estudiante@adm: ~ 99x33
```

```
656
```

```
Feedback:  
remaining: 0.07919996976852417
```

```
par Feedback:  
para remaining: 0.06319993734359741
```

```
para Feedback:  
para remaining: 0.06319993734359741
```

```
dian
```

```
para Feedback:  
dian remaining: 0.04719996452331543
```

```
Feedback:  
remaining: 0.04719996452331543
```

```
est
```

```
Feedback:  
Real remaining: 0.031199932098388672
```

```
---
```

```
Use Feedback:  
Use remaining: 0.031199932098388672
```

```
tati
```

```
t'q'
```

```
remaining: 0.015200018882751465
```

```
Feedback:  
remaining: 0.015200018882751465
```

```
Result:  
delta: -0.8320000171661377
```

```
Goal finished with status: SUCCEEDED
```

```
estudiante@adm:~$
```

ACTIVIDAD #3

The image shows two terminal windows side-by-side, both running in a dark-themed code editor interface.

Terminal 1 (Left): This terminal is titled "python3". It displays the output of a ROS 2 subscriber node. The logs show multiple "INFO" messages from the "minimal_subscriber" component, each containing a timestamp and the string "Hello World: <some ID>". The IDs range from 1409 to 1420.

```
estudiante@adm:~/ros2_ws$ source ~/ros2_ws/install/setup.bash
ros2 run lab_1_ros listener_node
[INFO] [1771358093.776379708] [minimal_subscriber]: I heard: "Hello World: 1409"
[INFO] [1771358094.276293230] [minimal_subscriber]: I heard: "Hello World: 1410"
[INFO] [1771358094.776395395] [minimal_subscriber]: I heard: "Hello World: 1411"
[INFO] [1771358095.277753714] [minimal_subscriber]: I heard: "Hello World: 1412"
[INFO] [1771358095.779118313] [minimal_subscriber]: I heard: "Hello World: 1413"
[INFO] [1771358096.276443637] [minimal_subscriber]: I heard: "Hello World: 1414"
[INFO] [1771358096.777944529] [minimal_subscriber]: I heard: "Hello World: 1415"
[INFO] [1771358097.27788644] [minimal_subscriber]: I heard: "Hello World: 1416"
[INFO] [1771358097.776348382] [minimal_subscriber]: I heard: "Hello World: 1417"
[INFO] [1771358098.276461797] [minimal_subscriber]: I heard: "Hello World: 1418"
[INFO] [1771358098.776410276] [minimal_subscriber]: I heard: "Hello World: 1419"
[INFO] [1771358099.276363354] [minimal_subscriber]: I heard: "Hello World: 1420"
```

Terminal 2 (Right): This terminal is also titled "python3". It displays the output of a ROS 2 publisher node. The logs show multiple "INFO" messages from the "minimal_publisher" component, each containing a timestamp and the string "Publishing: <some ID>". The IDs range from 1426 to 1439.

```
[INFO] [1771358102.275325354] [minimal_publisher]: Publishing: "Hello World: 1426"
[INFO] [1771358102.775881916] [minimal_publisher]: Publishing: "Hello World: 1427"
[INFO] [1771358103.275607311] [minimal_publisher]: Publishing: "Hello World: 1428"
[INFO] [1771358103.775375579] [minimal_publisher]: Publishing: "Hello World: 1429"
[INFO] [1771358104.275369074] [minimal_publisher]: Publishing: "Hello World: 1430"
[INFO] [1771358104.775324970] [minimal_publisher]: Publishing: "Hello World: 1431"
[INFO] [1771358105.275348471] [minimal_publisher]: Publishing: "Hello World: 1432"
[INFO] [1771358105.775925787] [minimal_publisher]: Publishing: "Hello World: 1433"
[INFO] [1771358106.275930292] [minimal_publisher]: Publishing: "Hello World: 1434"
[INFO] [1771358106.776488617] [minimal_publisher]: Publishing: "Hello World: 1435"
[INFO] [1771358107.278766123] [minimal_publisher]: Publishing: "Hello World: 1436"
[INFO] [1771358107.775396307] [minimal_publisher]: Publishing: "Hello World: 1437"
[INFO] [1771358108.283550095] [minimal_publisher]: Publishing: "Hello World: 1438"
[INFO] [1771358108.775289177] [minimal_publisher]: Publishing: "Hello World: 1439"
```