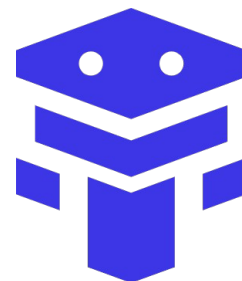


ROS – Mensajes personalizados

Santiago Jiménez Salazar

Estudiante Ingeniería Mecatrónica

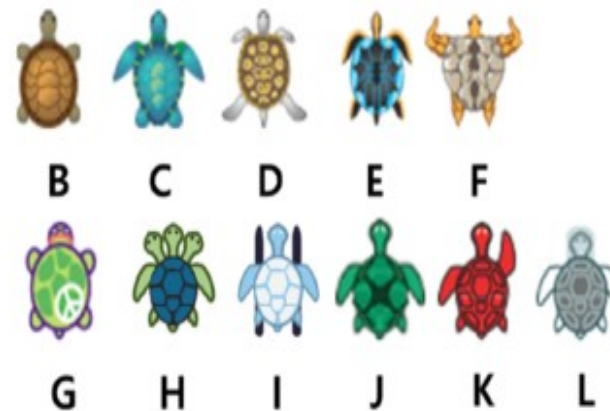
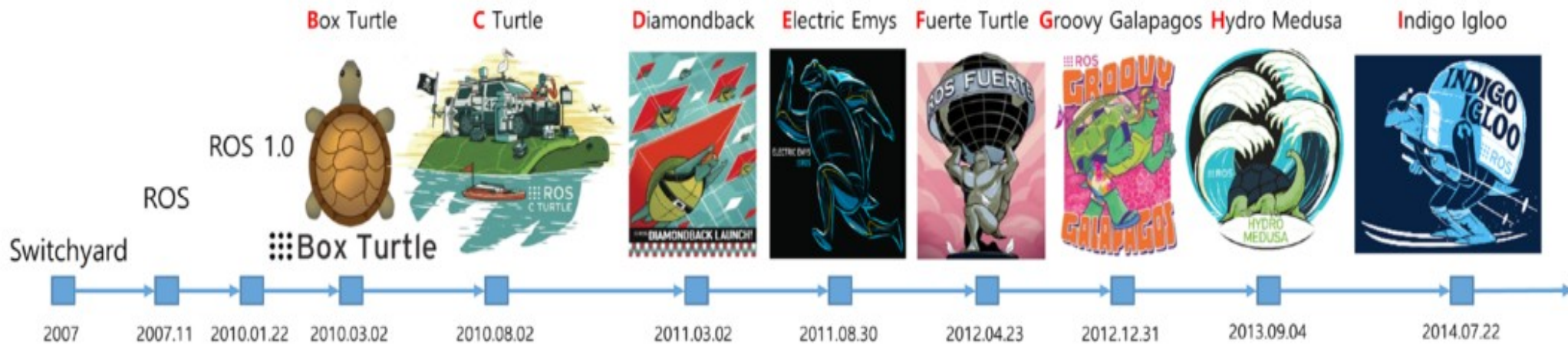
Github: @sjimenez44



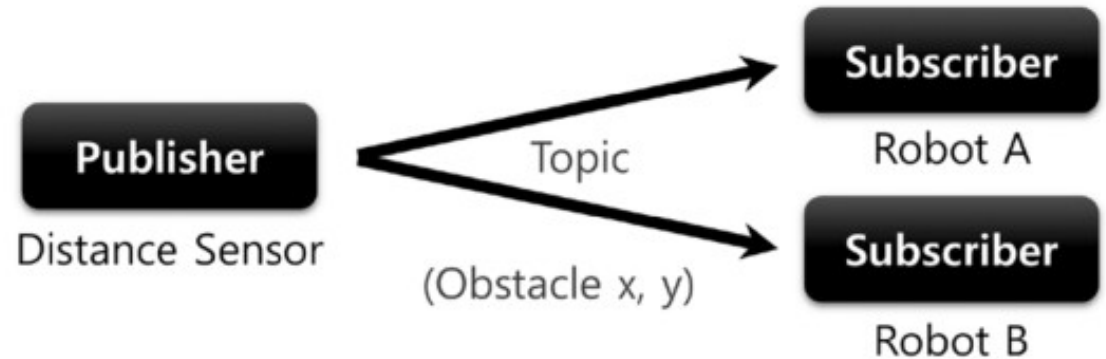
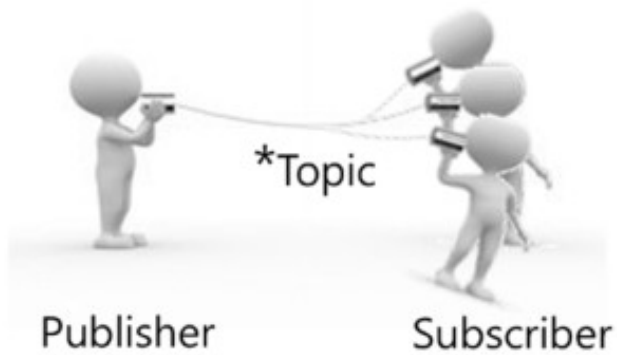
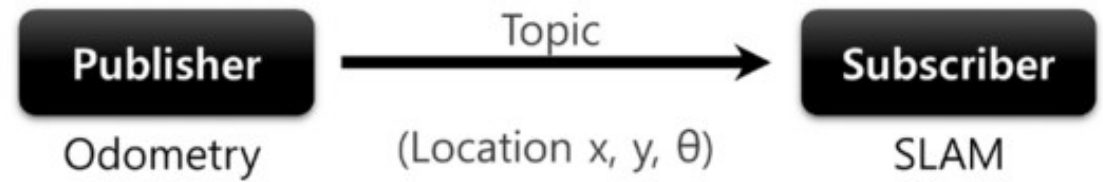
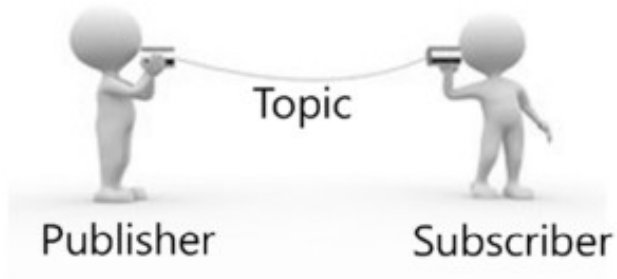
Robot Operation System - ROS


Proporcionar un estándar para el desarrollo de software de robótica que pueda usarse en cualquier robot.






Tópicos



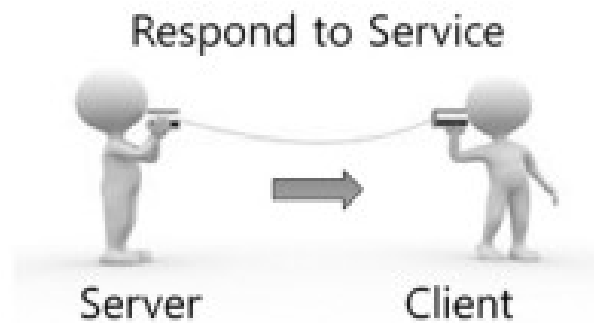
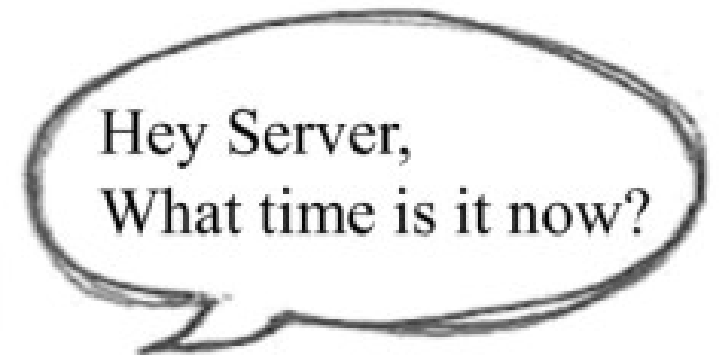
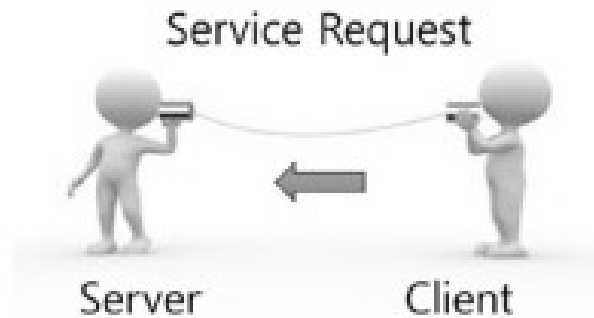
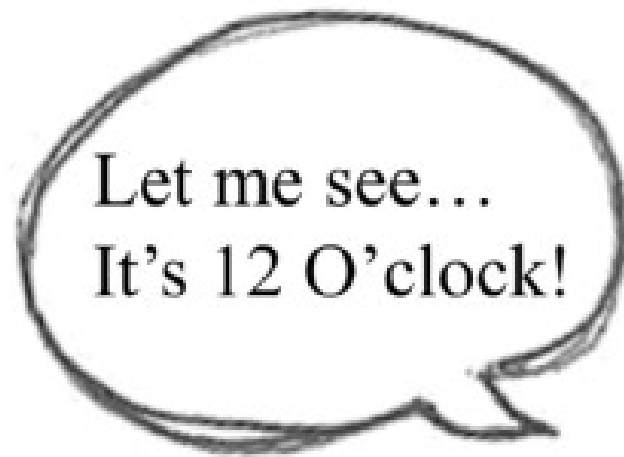


```
$ rosmmsg show
actionlib/
actionlib_msgs/
control_msgs/
costmap_2d/
diagnostic_msgs/
sensor_msgs/
world_canvas_msgs/
move_base_msgs/
nav_msgs/
rocon_std_msgs/
rosapi/
rosgraph_msgs/
geometry_msgs/
smach_msgs/
std_msgs/
stdr_msgs/
trajectory_msgs/
turtle_actionlib/
driver_base/
shape_msgs/
```



```
$ rosmmsg show nav_msgs/
nav_msgs/GetMapAction
nav_msgs/GetMapActionFeedback
nav_msgs/GetMapActionGoal
nav_msgs/GetMapActionResult
nav_msgs/GetMapFeedback
nav_msgs/GetMapGoal
nav_msgs/GetMapResult
nav_msgs/GridCells
nav_msgs/MapMetaData
nav_msgs/OccupancyGrid
nav_msgs/Odometry
nav_msgs/Path
```

Servicios



rosservice y rossrv

rosservice

```
$ rosservice
```

Commands:

```
rosservice args print service arguments
rosservice call call the service with the provided args
rosservice find find services by service type
rosservice info print information about service
rosservice list list active services
rosservice type print service type
rosservice uri print service ROSRPC uri
```

Type `rosservice <command> -h` for more detailed usage,
e.g. `'rosservice call -h'`

Se usa cuando se ejecuta un nodo que contiene los servicios.

rossrv

```
$ rossrv
```

rossrv is a command-line tool for displaying information about ROS Service types.

Commands:

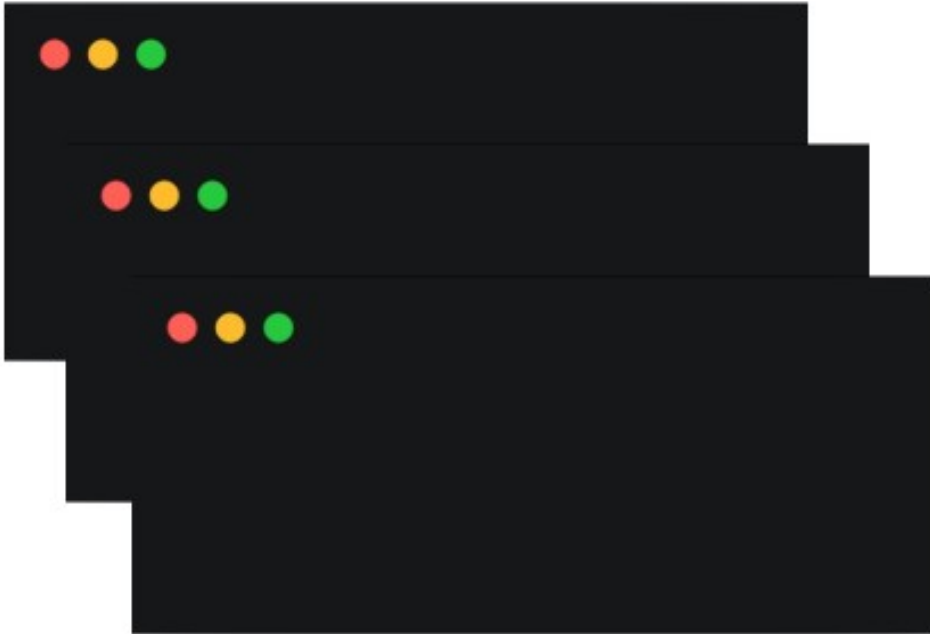
```
rossrv show Show service description
rossrv info Alias for rossrv show
rossrv list List all services
rossrv md5 Display service md5sum
rossrv package List services in a package
rossrv packages List packages that contain services
```

Type `rossrv <command> -h` for more detailed usage

Se usa para obtener informacion del servicio a traves de la terminal.

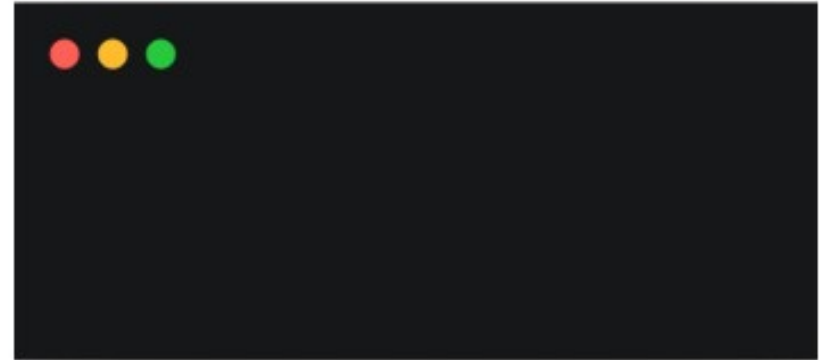
Como ejecutar los archivos

- **roslun**



roslun <paquete> <archivo>

- **roslaunch**



roslaunch <paquete> <archivo>

Nota: Si se ejecutan archivos .py se le deben dar derechos de ejecución.

Reto

Crear un roslaunch que permita ejecutar una turtlesim que haga un circulo y se le pueda cambiar el tamaño de este por medio de un rosservice.

Crear un roslaunch que permita ejecutar una turtlesim que dibuje la primera letra de su nombre.

Referencias

- [1] <http://wiki.ros.org/>
- [2] A Handbook Written by TurtleBot3 Developers
- [3] <https://www.clearpathrobotics.com/>