

# **FE ROS**

## DEBUG

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**www.fe-ros.si**  
**www.robofab.si**  
**www.cobotic.si**  
**agro.cobotic.si**

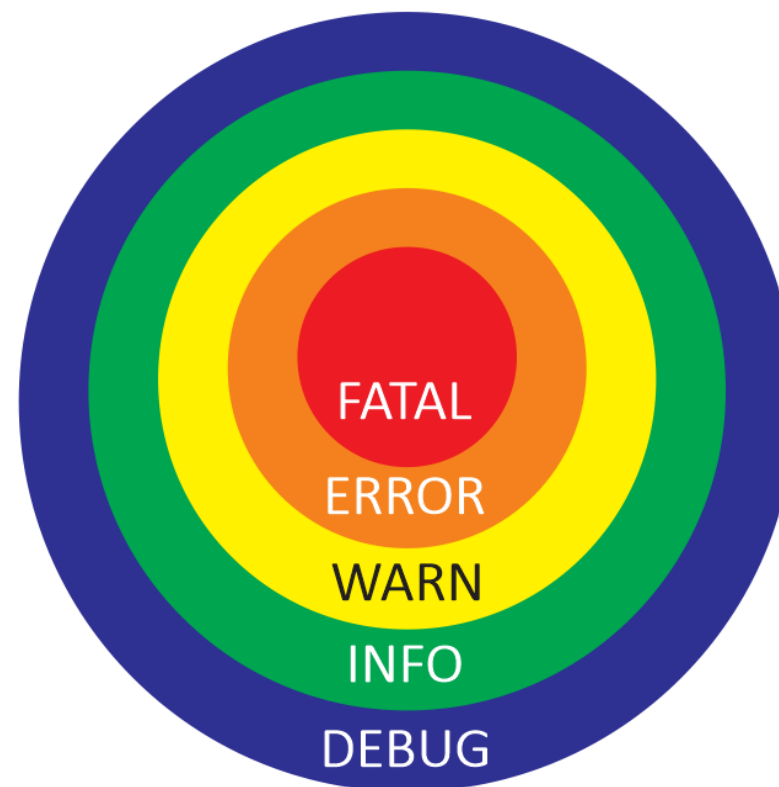
# DEBUG orodja

- logiranje
- rqt\_console
- rqt\_plot
- rqt\_graph
- rosbag
- RViz

# LOGIRANJE

5 nivojev:

- DEBUG
  - INFO
    - WARN
      - ERROR
        - FATAL



# LOGIRANJE

```
rospy.init_node('log_demo', log_level=rospy.DEBUG)
```

```
while not rospy.is_shutdown():  
    rospy.logdebug("Debug msg")  
    rospy.loginfo("Info msg")  
    rospy.logwarn("Warning msg")  
    rospy.logerr("Error msg" )  
    rospy.logfatal("Fatal msg")
```

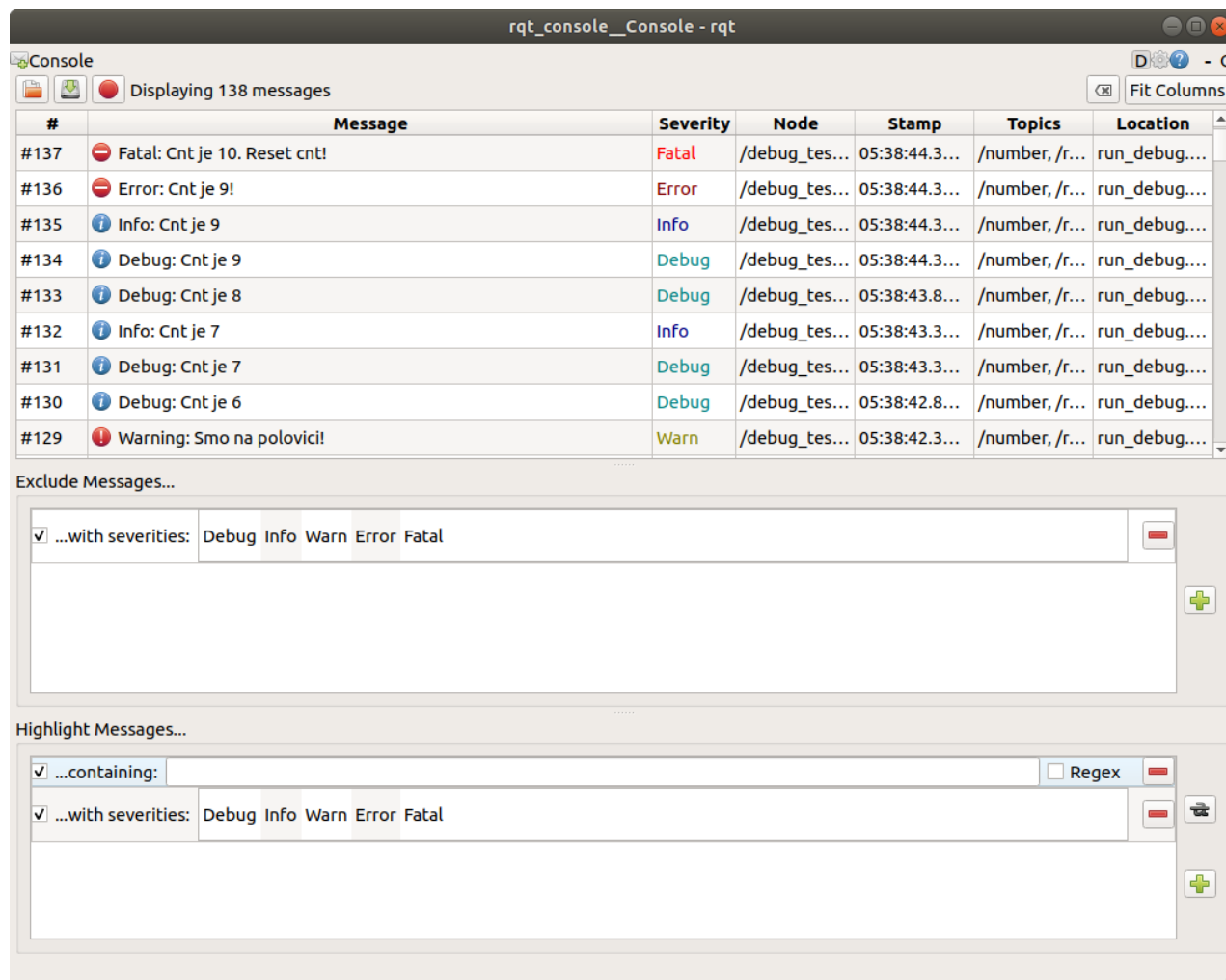
```
>> rosrun rpi_feros run_debug.py
```

# RQT\_CONSOLE

GUI za prikaz sporočil

- filtriranje
- označevanje

\$ `rqt_console`



The screenshot shows the RQT Console window titled "rqt\_console\_\_Console - rqt". It displays a table of 138 messages. The table has columns for #, Message, Severity, Node, Stamp, Topics, and Location. The messages are sorted by severity, with Fatal at the top, followed by Error, Info, Debug, and Warn.

#	Message	Severity	Node	Stamp	Topics	Location
#137	Fatal: Cnt je 10. Reset cnt!	Fatal	/debug_tes...	05:38:44.3...	/number, /r...	run_debug...
#136	Error: Cnt je 9!	Error	/debug_tes...	05:38:44.3...	/number, /r...	run_debug...
#135	Info: Cnt je 9	Info	/debug_tes...	05:38:44.3...	/number, /r...	run_debug...
#134	Debug: Cnt je 9	Debug	/debug_tes...	05:38:44.3...	/number, /r...	run_debug...
#133	Debug: Cnt je 8	Debug	/debug_tes...	05:38:43.8...	/number, /r...	run_debug...
#132	Info: Cnt je 7	Info	/debug_tes...	05:38:43.3...	/number, /r...	run_debug...
#131	Debug: Cnt je 7	Debug	/debug_tes...	05:38:43.3...	/number, /r...	run_debug...
#130	Debug: Cnt je 6	Debug	/debug_tes...	05:38:42.8...	/number, /r...	run_debug...
#129	Warning: Smo na polovici!	Warn	/debug_tes...	05:38:42.3...	/number, /r...	run_debug...

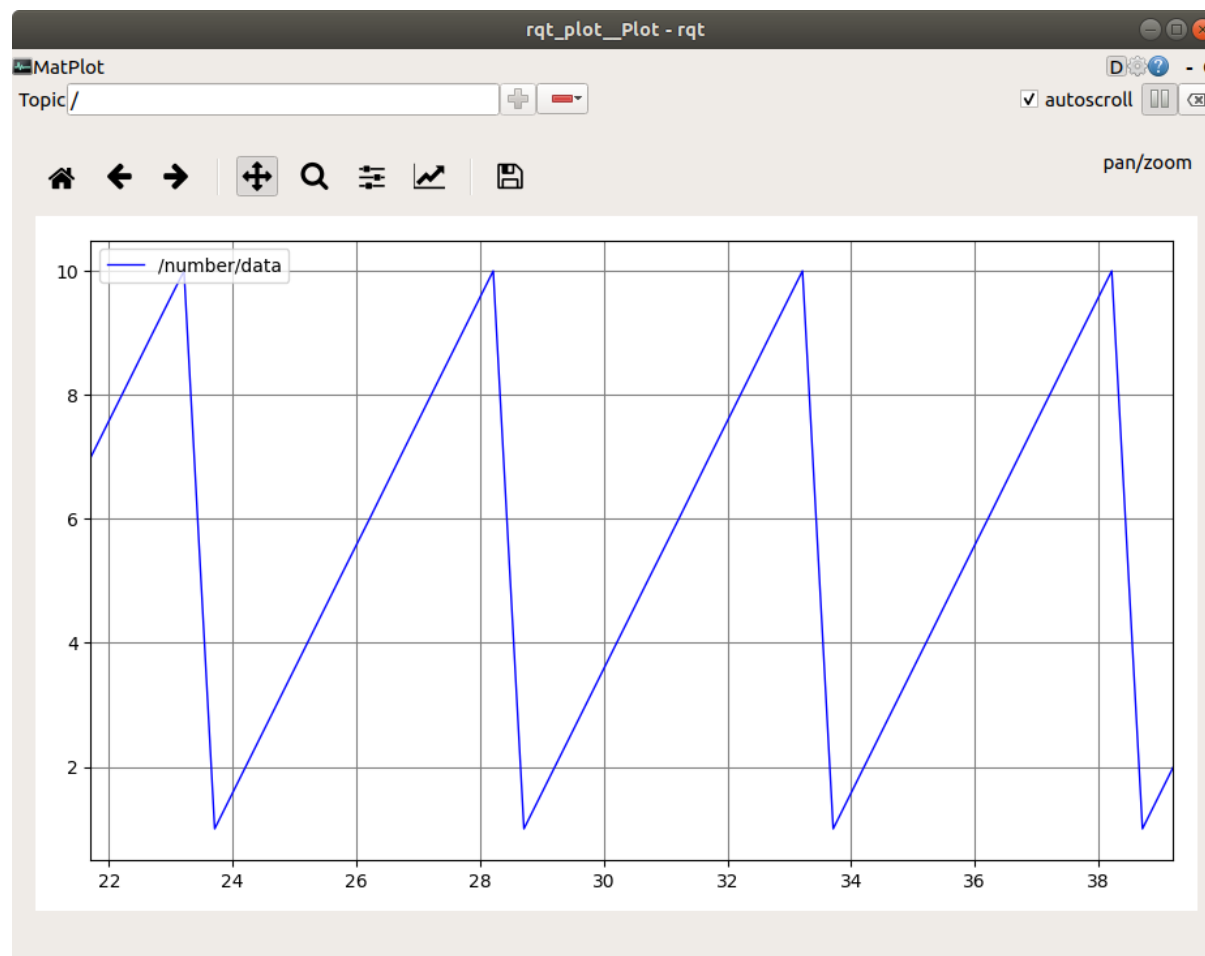
Below the table, there are two sections for filtering messages:

- Exclude Messages...**: A section with a checkbox "✓ ...with severities:" and a list of severity levels: Debug, Info, Warn, Error, Fatal. A red minus button is on the right.
- Highlight Messages...**: A section with a checkbox "✓ ...containing:" and a text input field. A "Regex" checkbox is on the right. Below it, there is another checkbox "✓ ...with severities:" and a list of severity levels: Debug, Info, Warn, Error, Fatal. A red minus button is on the right.

# RQT\_PLOT

grafični izris signalov

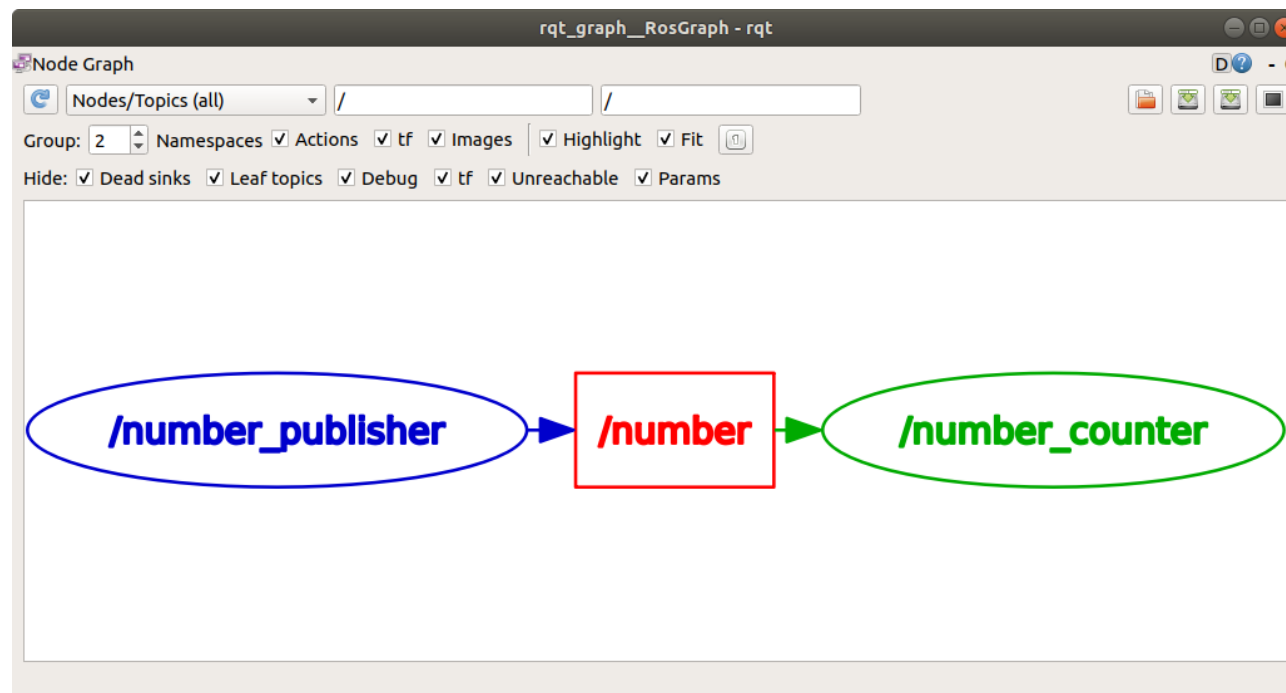
```
$ rqt_plot
```



# RQT\_GRAPH

povezave med posameznim gradniki

```
$ rqt_graph
```



# ROSBAG

Shranjevanje podatkov

```
$ rosbag record -O name_bag_file.bag topic1 ... topicN
```

```
-O >> output_name
```

rosbag record





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rosbag record

Informacije o podatkih

```
$ rosbag info name_bag_file.bag
```



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Shranjevanje podatkov

```
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```

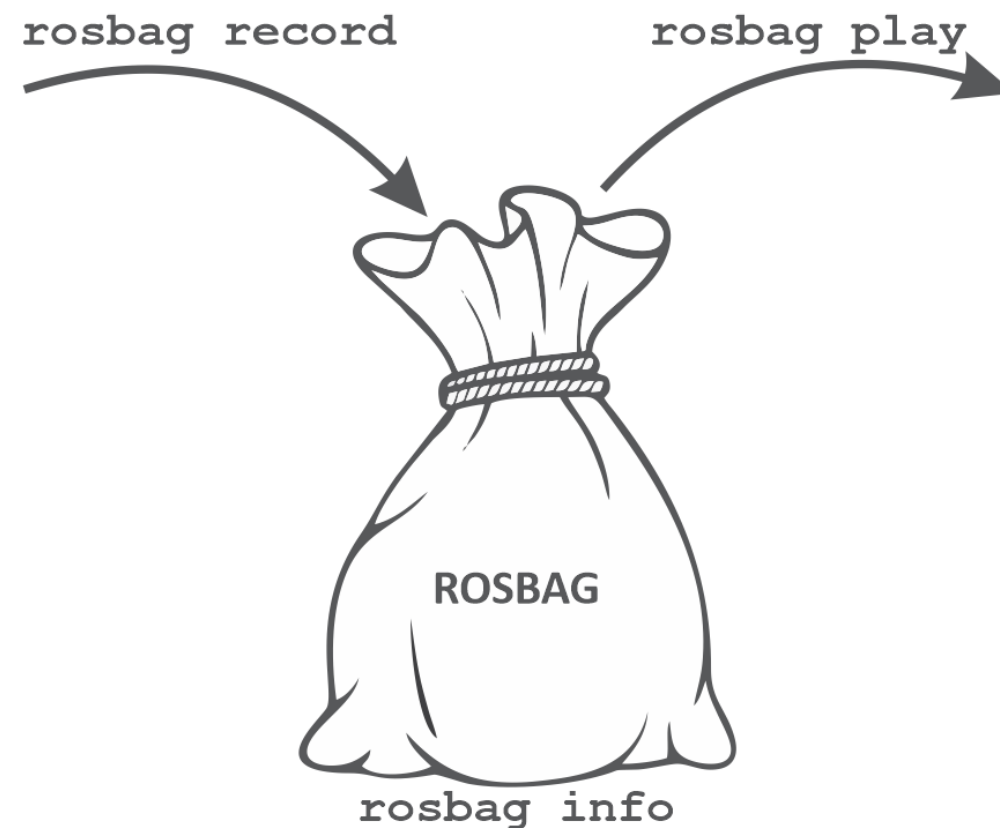
```
-O >> output_name
```

Informacije o podatkih

```
$ rosbag info name_bag_file.bag
```

Predvajanje podatkov

```
$ rosbag play name_bag_file.bag
```

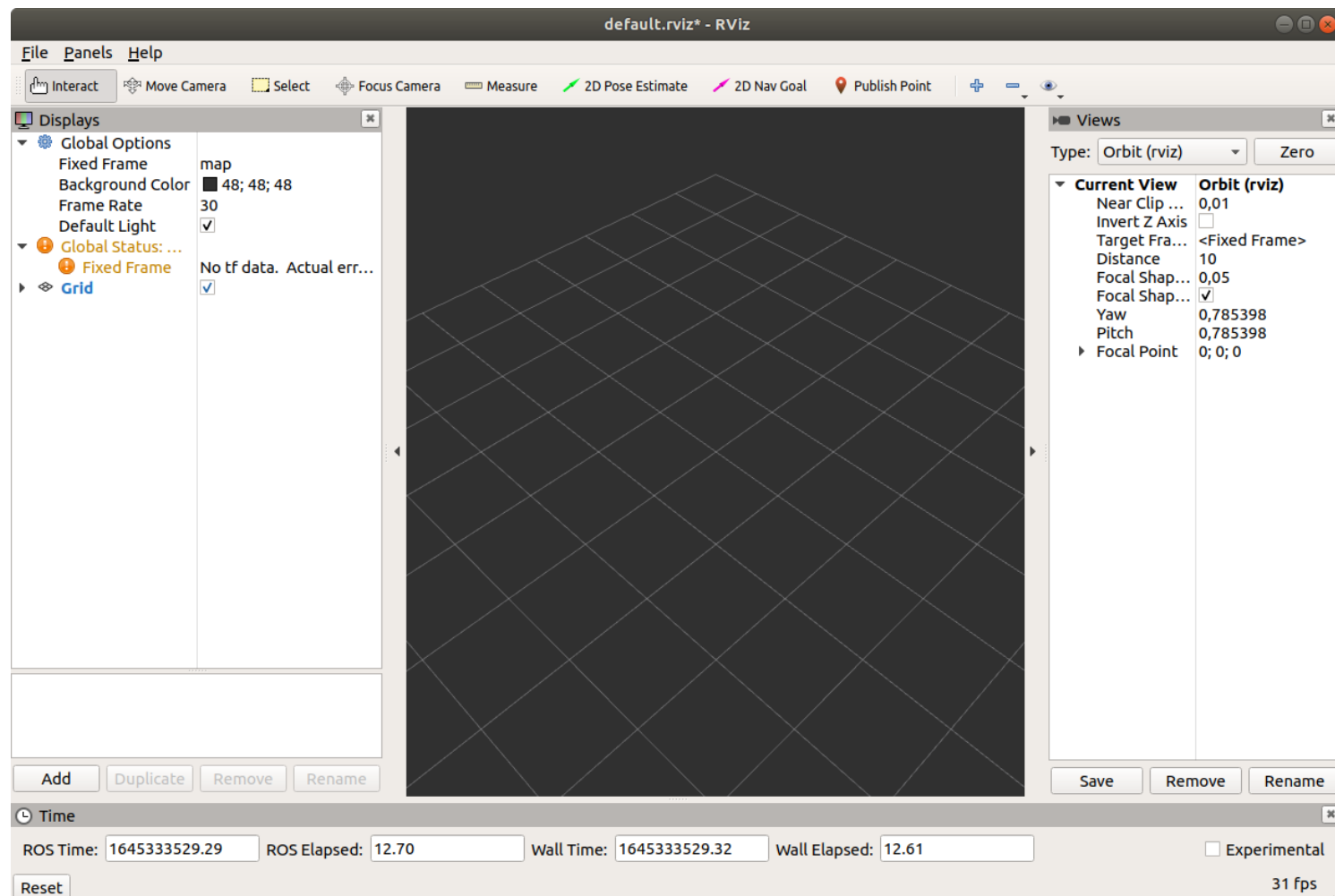


# RVIZ

- RViz vizualno predstavlja podatke, ki jih pošiljajo topics
- RViz NI simulacija, predstavlja trenutno stanje robota

```
$ rviz
```

```
$ rosrun rviz rviz
```



# RVIZ



rviz

Create visualization

By display type By topic

- moveit\_ros\_visualization
  - MotionPlanning
  - PlanningScene
  - RobotState
  - Trajectory
- rviz
  - Axes
  - Camera
  - DepthCloud
  - Effort
  - FluidPressure
  - Grid
  - GridCells
  - Group
  - Illuminance
  - Image
  - InteractiveMarkers
  - LaserScan
  - Map
  - Marker
  - MarkerArray
  - Odometry
  - Path
  - PointCloud
  - PointCloud2
  - PointStamped
  - Polygon
  - Pose
  - PoseArray
  - PoseWithCovariance
  - Range
  - RelativeHumidity
  - RobotModel
  - TF
  - Temperature
  - WrenchStamped

Description:

Display Name

Cancel OK

urdf.rviz\* - RViz

File Panels Help

Interact Move Camera Select Focus Camera Measure 2D Pose Estimate 2D Nav Goal Publish Point

Displays

- Global Options
  - Fixed Frame: base\_link
  - Background Color: 48; 48; 48
  - Frame Rate: 30
  - Default Light: ☒
  - Global Status: Ok
  - Fixed Frame: OK
- Grid: ☒
- RobotModel: ☒
- TF: ☒

Show Names  
Whether or not names should be shown next to the frames.

Add Duplicate Remove Rename

Views

Type: Orbit (rviz) Zero

Current View

Near Clip ...	0,01
Invert Z Axis	<input type="checkbox"/>
Target Fra...	<Fixed Frame>
Distance	1,27094
Focal Shap...	0,05
Focal Shap...	<input checked="" type="checkbox"/>
Yaw	4,89857
Pitch	0,639798
Focal Point	0.023953; 0.135...

Save Remove Rename

Time

ROS Time: 1645333946.47 ROS Elapsed: 84.11 Wall Time: 1645333946.50 Wall Elapsed: 84.11

Reset

Experimental 31 fps

joint\_state\_publisher\_...

axis\_joint\_1 0.00

axis\_joint\_2 0.00

axis\_joint\_3 0.00

axis\_joint\_4 0.00

axis\_joint\_5 0.00

axis\_joint\_6 0.00

Randomize

Center

6