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| 1 | | ROS1 VS ROS2 III | *ROS ROBOTICS BY EXAMPLE |
| 2 | | Parameters | ctrl+Enter – new line (Alt+Enter in Excel)Install Terminator |
| 3 | | | |
| 4 | | | ROS2 Basics #8 - Understanding ROS2 Parameters |
| 5 | | | https://www.youtube.com/watch?v=szaG8V9zKJQ |
| 6 | * | | https://docs.ros.org/en/foxy/Tutorials/Parameters/Understanding-ROS2-Parameters.html |
| 7 | Page | ROS1 | ROS2 |
| 8 | | | |
| 9 | | | <pre>ros2 run turtlesim turtlesim_node [INFO] [1625082987.515071038] [turtlesim]: Starting turtlesim with node name /turtlesim [INFO] [1625082987.521584067] [turtlesim]: Spawning turtle [turtle1] at x=[5.544445], y=[5.544445], theta=[0.000000]</pre> |
| 10 | | | <pre>ros2 run -h usage: ros2 run [-h] [--prefix PREFIX] package_name executable_name ... Run a package specific executable positional arguments: package_name Name of the ROS package executable_name Name of the executable argv Pass arbitrary arguments to the executable optional arguments: -h, --help show this help message and exit --prefix PREFIX Prefix command, which should go before the executable. Command must be wrapped in quotes if it</pre> |
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| 14 | 28 | rosparam help | ros2 param -h |
| 15 | | | usage: ros2 param [-h] |
| 16 | | | Call `ros2 param |
| 17 | | | <command> -h` for |
| 18 | | | more detailed |
| 19 | | | usage. ... |
| 20 | | | Various param related sub-commands |
| 21 | | | optional arguments: |
| 22 | | | -h, --help show this help |
| 23 | | | message and exit |
| 24 | | | <pre>Commands: delete Delete parameter describe Show descriptive information about declared parameters **** dump Dump the parameters of a node to a yaml file get Get parameter list Output a list of available parameters load Load parameter file for a node set Set parameter Call `ros2 param <command> -h` for more detailed usage.</pre> |

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| 25 | 29 | rosparam list | ros2 param list /turtlesim: background_b background_g background_r use_sim_time |
| 26 | | rosparam get / ?? | ros2 param describe -h usage: ros2 param describe [-h] [--spin-time SPIN_TIME] [--no-daemon] [--include-hidden-nodes] node_name parameter_names [parameter_names ...] Show descriptive information about declared parameters positional arguments: node_name Name of the ROS node parameter_names Names of the parameters optional arguments: -h, --help show this help message and exit --spin-time SPIN_TIME Spin time in seconds to wait for discovery (only applies when not using an already running daemon) --no-daemon Do not spawn nor use an already running daemon --include-hidden-nodes Consider hidden nodes as well |
| 27 | | | |
| 28 | 29 | rosparam get | ros2 param describe /turtlesim background_b Type: integer Description: Blue channel of the background color Constraints: Min value: 0 Max value: 255 Step: 1 |
| 29 | | | ros2 param describe /turtlesim background_b |
| 30 | 29 | | Parameter name: background_b |
| 31 | | | Type: integer |
| 32 | | | Description: Blue channel of the background color |
| 33 | | | Constraints: |
| 34 | | | Min value: 0 |
| 35 | | | Max value: 255 |
| 36 | | | Step: 1 |
| 37 | | | parameter_name Name of the parameter |
| 38 | | | optional arguments: |
| 39 | | | -h, --help show this help message and exit |
| 40 | | | --spin-time SPIN_TIME |
| 41 | | | Spin time in seconds to wait for discovery (only applies when |
| 42 | | | not using an already running daemon) |
| 43 | | | --no-daemon Do not spawn nor use an already running daemon |
| 44 | | | --include-hidden-nodes |
| 45 | | | Consider hidden nodes as well |
| 46 | | | --hide-type Hide the type information |
| 47 | | | |
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| 51 | 29 | rosparam get | ros2 param get /turtlesim background_b |
| 52 | | | Integer value is: 255 |
| 53 | | | |
| 54 | | rosparam set | ros2 param set -h |
| 55 | | | usage: ros2 param set [-h] [--spin-time SPIN_TIME] [--no-daemon] |
| 56 | | | [--include-hidden-nodes] |
| 57 | | | node_name parameter_name value |
| 58 | | | Set parameter |
| 59 | | | positional arguments: |

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| 60 | | | node_name Name of the ROS node |
| 61 | | | parameter_name Name of the parameter |
| 62 | | | value Value of the parameter |
| 63 | | | optional arguments: |
| 64 | | | -h, --help show this help message and exit |
| 65 | | | --spin-time SPIN_TIME |
| 66 | | | Spin time in seconds to wait for discovery (only applies when |
| 67 | | | not using an already running daemon) |
| 68 | | | --no-daemon Do not spawn nor use an already running daemon |
| 69 | | | --include-hidden-nodes |
| 70 | | | |
| 71 | 30 | rosparam set background_x | ros2 param set /turtlesim background_b 0Set parameter successful (Greenish background) |
| 72 | | | |
| 73 | | NEW | ros2 run turtlesim turtlesim_node & [1] 8619 (Background) |
| 74 | | | Reading from keyboard ----- Use arrow keys to move the turtle. Use G B V C D E R T keys to rotate to absolute orientations. 'F' to cancel a rotation. 'Q' to quit. |
| 75 | | | |
| 76 | | | ros2 param list |
| 77 | | | /teleop_turtle: |
| 78 | | | scale_angular |
| 79 | | | scale_linear |
| 80 | | | use_sim_time |
| 81 | | | /turtlesim: |
| 82 | | | background_b |
| 83 | | | background_g |
| 84 | | | background_r |
| 85 | | | use_sim_time |
| 86 | | | |
| 87 | | | |
| 88 | | dump | ros2 param dump /turtlesimSaving to: ./turtlesim.yaml |
| 89 | | | -rw-rw-r-- 1 harman harman 119 Jun 30 16:55 turtlesim.yaml IN Home |
| 90 | | | /turtlesim:ros__parameters:background_b: 255background_g: 86background_r: 69use_sim_time: false |
| 91 | | | |
| 92 | | Load | ros2 run turtlesim turtlesim_node --ros-args --params-file ./turtlesim.yaml (Restart Turtlesim) |
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