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Documentation Status

***joystick_drivers (/joystick_drivers?distro=melodic)**: joy | ps3joy (/ps3joy?distro=melodic) | spacenav_node (/spacenav_node?distro=melodic) | wiimote (/wiimote?distro=melodic)*
Package Links

- **Code API (http://docs.ros.org/melodic/api/joy/html)**
- Tutorials (/joy/Tutorials)
- Troubleshooting (/joy/Troubleshooting)
- FAQ (http://answers.ros.org/questions/scope:all/sort:activity-desc/tags:joy/page:1/)
- Changelog (http://docs.ros.org/melodic/changelogs/joy/changelog.html)
- Change List (/joystick_drivers/ChangeList)
- Reviews (/joy/Reviews)

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Package Summary

✔ **Released** ✔ **Continuous Integration: 1 / 1** ▾ ✔ **Documented**

ROS driver for a generic Linux joystick. The joy package contains joy_node, a node that interfaces a generic Linux joystick to ROS. This node publishes a "Joy" message, which contains the current state of each one of the joystick's buttons and axes.

- Maintainer status: developed
- Maintainer: Jonathan Bohren <jbo AT jhu DOT edu>
- Author: Morgan Quigley, Brian Gerkey, Kevin Watts, Blaise Gassend
- License: BSD
- Bug / feature tracker: https://github.com/ros-drivers/joystick_drivers/issues (https://github.com/ros-drivers/joystick_drivers/issues)
- Source: git https://github.com/ros-drivers/joystick_drivers.git (https://github.com/ros-drivers/joystick_drivers) (branch: master)

Inhaltsverzeichnis

1. Supported Hardware

This node should work with any joystick that is supported by Linux.

2. API Stability

The ROS API of this node should be considered stable.

Official Documentation (http://www.ros.org/doc/api/joy/html/)

3. Nodes

- **joy_node.py**
  The `joy_node` provides a generic Linux joystick node.

3.1 Published

- **joy**
  sensor_msgs/Joy
  Outputs the joystick state.

3.2 Parameters

1. *~dev*
   type = string
   default = `/dev/input/js0`
   Linux joystick device from which to read joystick events.
2. *~deadzone*
   type = double
   default = 0.05
   Amount by which the joystick has to move before it is considered to be off-center. This parameter is specified relative to an axis normalized between -1 and 1. Thus, 0.1 means that the joystick has to move 10% of the way to the edge of an axis's range before that axis will output a non-zero value. Linux does its own deadzone processing, so in many cases this value can be set to zero.

3. *~autorepeat_rate*
   type = double
   default = 0.0 (disabled)
   Rate in Hz at which a joystick that has a non-changing state will resend the previously sent message.
4. *~coalesce_interval*
   type = double
   default = 0.001
   Axis events that are received within coalesce_interval (seconds) of each other are sent out in a single ROS message. Since the kernel sends each axis motion as a separate event, coalescing greatly reduces the rate at which messages are sent. This option can also be used to limit the rate of outgoing messages. Button events are always sent out immediately to avoid missing button presses.

4. Using this Package

For an example of using **joy_node** to control a teleoperation node with a joystick, see the tutorials (/joy/Tutorials).

In some cases, multiple joysticks may control a single robot. For example, a user may use the default joystick to drive a robot, but a second user may wish to use a different kind. Since the button mappings on each joystick may be different, it will be necessary to remap buttons on one joystick so they can match. See the Joystick Remapper (/joystick_remapper) package for details.

5. Application

5.1 Microsoft Xbox 360 Wireless Controller for Windows

Table of index number of `/joy.buttons`:

Index	Button name on the actual controller
0	A
1	B
2	X
3	Y
4	LB
5	RB
7	start
8	power
10	cross key up
11	cross key down
12	cross key left
13	cross key right
14	back

5.2 Microsoft Xbox 360 Wireless Controller for Linux

Table of index number of `/joy.buttons`:

Index	Button name on the actual controller
0	A
1	B
2	X
3	Y
4	LB
5	RB
6	back
7	start
8	power
9	Button stick left
10	Button stick right

Table of index number of `/joy.axes`:

Index	Axis name on the actual controller
0	Left/Right Axis stick left
1	Up/Down Axis stick left
2	Left/Right Axis stick right
3	Up/Down Axis stick right
4	RT
5	LT
6	cross key left/right
7	cross key up/down

5.3 Microsoft Xbox 360 Wired Controller for Linux

Table of index number of `/joy.buttons`:

Index	Button name on the actual controller
0	A
1	B
2	X
3	Y
4	LB
5	RB
6	back
7	start

8	power
9	Button stick left
10	Button stick right

Table of index number of `/joy.axes`:

Index	Axis name on the actual controller
0	Left/Right Axis stick left
1	Up/Down Axis stick left
2	LT
3	Left/Right Axis stick right
4	Up/Down Axis stick right
5	RT
6	cross key left/right
7	cross key up/down

5.4 Logitech Wireless Gamepad F710 (DirectInput Mode)

Table of index number of `/joy.buttons`:

Index	Button name on the actual controller
0	X
1	A
2	B
3	Y
4	LB
5	RB
6	LT
7	RT
8	back
9	start
10	Button stick left
11	Button stick right

Table of index number of `/joy.axes`:

Index	Axis name on the actual controller
0	Left/Right Axis stick left
1	Up/Down Axis stick left
2	Left/Right Axis stick right
3	Up/Down Axis stick right
4	cross key left/right

5	cross key up/down

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