You're reading the documentation for an older, but still supported, version of ROS 2. For information on the latest version, please have a look at **Kilted**.

Ubuntu (deb packages)

Table of Contents

Deb packages for ROS 2 Jazzy Jalisco are currently available for Ubuntu Noble (24.04). The target platforms are defined in REP 2000.

Resources

- Status Page:
  - ROS 2 Jazzy (Ubuntu Noble 24.04): amd64, arm64
- Jenkins Instance
- Repositories

System setup

Set locale

Make sure you have a locale which supports `UTF-8` . If you are in a minimal environment (such as a docker container), the locale may be something minimal like `POSIX` . We test with the following settings. However, it should be fine if you're using a different UTF-8 supported locale.

```
$ locale  # check for UTF-8

$ sudo apt update && sudo apt install locales
$ sudo locale-gen en_US en_US.UTF-8
$ sudo update-locale LC_ALL=en_US.UTF-8 LANG=en_US.UTF-8
$ export LANG=en_US.UTF-8

$ locale  # verify settings
```

Enable required repositories

You will need to add the ROS 2 apt repository to your system.

First ensure that the Ubuntu Universe repository is enabled.

```
$ sudo apt install software-properties-common
$ sudo add-apt-repository universe
```

The ros-apt-source packages provide keys and apt source configuration for the various ROS repositories.

Installing the ros2-apt-source package will configure ROS 2 repositories for your system. Updates to repository configuration will occur automatically when new versions of this package are released to the ROS repositories.

```
$ sudo apt update && sudo apt install curl -y
$ export ROS_APT_SOURCE_VERSION=$(curl -s https://api.github.com/repos/ros-infrastructure/ros-apt-source/releases/latest | grep -F "tag_name" | awk -F\" '{print $4}')
$ curl -L -o /tmp/ros2-apt-source.deb "https://github.com/ros-infrastructure/ros-apt-source/releases/download/${ROS_APT_SOURCE_VERSION}/ros2-apt-source_${ROS_APT_SOURCE_VERSION}.$(. /etc/os-release && echo ${UBUNTU_CODENAME:-${VERSION_CODENAME}})_all.deb"
$ sudo dpkg -i /tmp/ros2-apt-source.deb
```

Install development tools (optional)

If you are going to build ROS packages or otherwise do development, you can also install the development tools:

```
$ sudo apt update && sudo apt install ros-dev-tools
```

Install ROS 2

Update your apt repository caches after setting up the repositories.

```
$ sudo apt update
```

ROS 2 packages are built on frequently updated Ubuntu systems. It is always recommended that you ensure your system is up to date before installing new packages.

```
$ sudo apt upgrade
```

Desktop Install (Recommended): ROS, RViz, demos, tutorials.

```
$ sudo apt install ros-jazzy-desktop
```

ROS-Base Install (Bare Bones): Communication libraries, message packages, command line tools. No GUI tools.

```
$ sudo apt install ros-jazzy-ros-base
```

Install additional RMW implementations (optional)

The default middleware that ROS 2 uses is `Fast DDS`, but the middleware (RMW) can be replaced at runtime. See the guide on how to work with multiple RMWs.

Setup environment

Set up your environment by sourcing the following file.

```
$ source /opt/ros/jazzy/setup.bash
```

> ⓘ Note
>
> Replace `.bash` with your shell if you're not using bash. Possible values are: `setup.bash`, `setup.sh`, `setup.zsh`.

Try some examples

If you installed `ros-jazzy-desktop` above you can try some examples.

In one terminal, source the setup file and then run a C++ `talker`:

```
$ source /opt/ros/jazzy/setup.bash
$ ros2 run demo_nodes_cpp talker
```

In another terminal source the setup file and then run a Python `listener`:

```
$ source /opt/ros/jazzy/setup.bash
$ ros2 run demo_nodes_py listener
```

You should see the `talker` saying that it's `Publishing` messages and the `listener` saying `I heard` those messages. This verifies both the C++ and Python APIs are working properly. Hooray!

If you want to use other RMW implementations, you can check the guide.

Next steps

Continue with the tutorials and demos to configure your environment, create your own workspace and packages, and learn ROS 2 core concepts.

Troubleshoot

Troubleshooting techniques can be found here.

Uninstall

If you need to uninstall ROS 2 or switch to a source-based install once you have already installed from binaries, run the following command:

```
$ sudo apt remove ~nros-jazzy-* && sudo apt autoremove
```

You may also want to remove the repository:

```
$ sudo apt remove ros2-apt-source
$ sudo apt update
$ sudo apt autoremove
$ sudo apt upgrade # Consider upgrading for packages previously shadowed.
```