day1_ros2 jazzy install

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

```
addineud@roastB-ubuntu24-04:~$ 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
LANG=en_US.UTF-8
LANGUAGE=
LC_CTYPE="en_US.UTF-8"
LC_NUMERIC="en_US.UTF-8"
LC_TIME="en_US.UTF-8"
LC_COLLATE="en_US.UTF-8"
LC_MONETARY="en_US.UTF-8"
LC_MESSAGES="en_US.UTF-8"
LC_PAPER="en_US.UTF-8"
LC_NAME="en_US.UTF-8"
LC_ADDRESS="en_US.UTF-8"
LC_TELEPHONE="en_US.UTF-8"
LC_MEASUREMENT="en_US.UTF-8"
LC_IDENTIFICATION="en_US.UTF-8"
LC_ALL=
Hit:1 https://packages.microsoft.com/repos/code stable InRelease
Hit:2 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:3 http://security.ubuntu.com/ubuntu noble-security InRelease
```

```
addineud@roastB-ubuntu24-04:~$ sudo apt install software-properties-common
sudo add-apt-repository universe
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
software-properties-common is already the newest version (0.99.49.1).
software-properties-common set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 1 not upgraded.
Adding component(s) 'universe' to all repositories.
Press [ENTER] to continue or Ctrl-c to cancel.
Hit:1 https://packages.microsoft.com/repos/code stable InRelease
Hit:2 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:3 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:4 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:5 http://archive.ubuntu.com/ubuntu noble-updates InRelease
```

```
addineud@roastB-ubuntu24-04:~$ sudo apt update && sudo apt install curl -y
sudo curl -sSL https://raw.githubusercontent.com/ros/rosdistro/master/ros.key -o /usr/share/keyrings/ros
-archive-keyring.gpg
Hit:1 https://packages.microsoft.com/repos/code stable InRelease
Hit:2 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:3 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:4 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:5 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:6 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
1 package can be upgraded. Run 'apt list --upgradable' to see it.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
```

```
addineud@roastB-ubuntu24-04:~$ ls /usr/share/keyrings/
ros-archive-keyring.gpg              ubuntu-pro-cis.gpg
ubuntu-archive-keyring.gpg           ubuntu-pro-esm-apps.gpg
ubuntu-archive-removed-keys.gpg      ubuntu-pro-esm-infra.gpg
ubuntu-cloudimage-keyring.gpg        ubuntu-pro-fips.gpg
ubuntu-cloudimage-removed-keys.gpg   ubuntu-pro-fips-preview.gpg
ubuntu-master-keyring.gpg            ubuntu-pro-realtime-kernel.gpg
ubuntu-pro-anbox-cloud.gpg           ubuntu-pro-ros.gpg
ubuntu-pro-cc-eal.gpg
addineud@roastB-ubuntu24-04:~$
```

```
addineud@roastB-ubuntu24-04:~$ echo "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyring
s/ros-archive-keyring.gpg] http://packages.ros.org/ros2/ubuntu $(. /etc/os-release && echo $UBUNTU_CODEN
AME) main" | sudo tee /etc/apt/sources.list.d/ros2.list > /dev/null
addineud@roastB-ubuntu24-04:~$
```

```
addineud@roastB-ubuntu24-04:~$ ls /etc/apt/sources.list.d/
google-chrome.list  ros2.list  ubuntu.sources  ubuntu.sources.curtin.orig  vscode.list
addineud@roastB-ubuntu24-04:~$
```

```
addineud@roastB-ubuntu24-04:~$ sudo apt update
Hit:1 https://packages.microsoft.com/repos/code stable InRelease
Hit:2 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:3 http://security.ubuntu.com/ubuntu noble-security InRelease
Get:4 http://packages.ros.org/ros2/ubuntu noble InRelease [4,676 B]
Hit:5 http://archive.ubuntu.com/ubuntu noble InRelease
Get:6 http://packages.ros.org/ros2/ubuntu noble/main amd64 Packages [1,076 kB]
Hit:7 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:8 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Fetched 1,080 kB in 8s (130 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
1 package can be upgraded. Run 'apt list --upgradable' to see it.
```

```
Hit:1 https://packages.microsoft.com/repos/code stable InRelease
Hit:2 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:3 http://security.ubuntu.com/ubuntu noble-security InRelease
Get:4 http://packages.ros.org/ros2/ubuntu noble InRelease [4,676 B]
Hit:5 http://archive.ubuntu.com/ubuntu noble InRelease
Get:6 http://packages.ros.org/ros2/ubuntu noble/main amd64 Packages [1,076 kB]
Hit:7 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:8 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Fetched 1,080 kB in 8s (130 kB/s)
```

```
Hit:1 https://packages.microsoft.com/repos/code stable InRelease
Hit:2 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:3 http://security.ubuntu.com/ubuntu noble-security InRelease
Get:4 http://packages.ros.org/ros2/ubuntu noble InRelease [4,676 B]
Hit:5 http://archive.ubuntu.com/ubuntu noble InRelease
Get:6 http://packages.ros.org/ros2/ubuntu noble/main amd64 Packages [1,076 kB]
Hit:7 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:8 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Fetched 1,080 kB in 8s (130 kB/s)
```

```
addineud@roastB-ubuntu24-04:~$ sudo apt install ros-jazzy-desktop
```

```
addineud@roastB-ubuntu24-04: ~ 104x9
addineud@roastB-ubuntu24-04:~$ source /opt/ros/jazzy/setup.bash
addineud@roastB-ubuntu24-04:~$ ros2 run demo_nodes_cpp talker
INFO] [1743399280.938508832] [talker]: Publishing: 'Hello World: 1'
INFO] [1743399281.938501059] [talker]: Publishing: 'Hello World: 2'
INFO] [1743399282.938446560] [talker]: Publishing: 'Hello World: 3'
INFO] [1743399283.938484166] [talker]: Publishing: 'Hello World: 4'
INFO] [1743399284.938467286] [talker]: Publishing: 'Hello World: 5'
INFO] [1743399285.938457980] [talker]: Publishing: 'Hello World: 6'
```

```
addineud@roastB-ubuntu24-04: ~ 104x11
addineud@roastB-ubuntu24-04:~$ source /opt/ros/jazzy/setup.bash
addineud@roastB-ubuntu24-04:~$ ros2 run demo_nodes_cpp listener
INFO] [1743399282.938997448] [listener]: I heard: [Hello World: 3]
INFO] [1743399283.938846396] [listener]: I heard: [Hello World: 4]
INFO] [1743399284.938945937] [listener]: I heard: [Hello World: 5]
INFO] [1743399285.938928469] [listener]: I heard: [Hello World: 6]
```

```
addineud@roastB-ubuntu24-04: ~ 83x24
addineud@roastB-ubuntu24-04:~$ sudo apt update && sudo apt install ros-dev-tools
[sudo] password for addineud:
Hit:1 https://packages.microsoft.com/repos/code stable InRelease
Hit:2 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:3 http://packages.ros.org/ros2/ubuntu noble InRelease
Hit:4 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:5 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:6 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:7 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
```

```
addineud@roastB-ubuntu24-04:~$ sudo apt install python3-colcon-common-extensions
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
python3-colcon-common-extensions is already the newest version (0.3.0-100).
python3-colcon-common-extensions set to manually installed.
```