ROS 2 Jazzy Jalisco on Windows

Setup Guide (Pixi + Binary ZIP)

Tip

This guide installs **ROS 2 Jazzy Jalisco** on Windows and runs the image publisher/subscriber demo.
The directory paths used in this guide (for example `C:\pixi_ws` and `C:\work`) are **recommendations only**. You may use different locations, but **all commands** must be updated consistently to match your chosen paths.

Step 1 — Install Pixi

Open **PowerShell as Administrator**:

```
iwr -useb https://pixi.sh/install.ps1 | iex
```

Close PowerShell completely, open a new PowerShell, and verify:

```
pixi --version
```

If you see a version number, Pixi is installed correctly.

Important

If `pixi` is not recognized, restart your PC or ensure your PATH was updated by the installer.

Step 2 — Create Pixi Workspace

Open **PowerShell as Administrator**:

```
mkdir C:\pixi_ws
cd C:\pixi_ws
irm https://raw.githubusercontent.com/ros2/ros2/refs/heads/jazzy/pixi.toml -OutFile
    pixi.toml
pixi install
```

Step 3 — Install ROS 2 Jazzy (Windows Binary)

Download the official ROS 2 Jazzy Windows ZIP and unzip it into:

```
C:\pixi_ws
```

Official instructions:
https://docs.ros.org/en/jazzy/Installation/Windows-Install-Binary.html
Direct ZIP download:
ROS 2 Jazzy Jalisco — Windows amd64 ZIP

Common Pitfall

Make sure `local_setup.bat` exists at: `C:\pixi_ws\ros2-windows\local_setup.bat`
A common issue is unzipping into an extra nested folder (double `ros2-windows`).

Step 4 — Verify ROS 2

Use **Command Prompt (cmd.exe)** (ROS uses `.bat` scripts):

```
cd C:\pixi_ws
pixi shell
call C:\pixi_ws\ros2-windows\local_setup.bat
ros2 -h
```

If you see ROS 2 help output, the installation is working.

Step 5 — Clone Project Repository

Use **Command Prompt (cmd.exe)**.
Create a working directory:

```
mkdir C:\work
cd C:\work
```

Clone the repository:

```
git clone https://github.com/VamsiU987/ros_camera.git
```

Verify the repository structure:

```
cd ros_camera
dir
```

Expected structure:

```
output
publisher
subscriber
dependencies
installation
README.md
```

Tip

You can update the project later with:

```
cd C:\work\ros_camera
git pull
```

Run the Project

Terminal 1 — Publisher

Open a new **cmd.exe** window and run:

```
cd C:\pixi_ws
pixi shell
call C:\pixi_ws\ros2-windows\local_setup.bat
cd C:\work\ros_camera
set ROS_DOMAIN_ID=0
python publisher\image_publisher.py
```

Terminal 2 — Subscriber

Open another **cmd.exe** window and run:

```
cd C:\pixi_ws
pixi shell
call C:\pixi_ws\ros2-windows\local_setup.bat
cd C:\work\ros_camera
set ROS_DOMAIN_ID=0
python subscriber\image_subscriber.py
```

Important

ROS_DOMAIN_ID must match in both terminals.

Expected Output

- Images: `C:\work\ros_camera\output\images`
- Metadata: `C:\work\ros_camera\output\metadata.json`

Each image includes a timestamp overlay.