ROS 2 Jazzy – Windows Setup Guide

This guide explains how to set up **ROS 2 Jazzy Jalisco** on Windows and run the image publisher/subscriber demo. Follow the steps in order. No prior ROS knowledge is required.

1. Install Pixi (Required)

Open **PowerShell as Administrator** and run:

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

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

```
pixi --version
```

2. Install ROS 2 Jazzy (Windows Binary)

Create a workspace folder:

```
mkdir C:\pixi_ws
cd C:\pixi_ws
```

Download the ROS 2 Jazzy Pixi configuration:

```
irm https://raw.githubusercontent.com/ros2/ros2/refs/heads/jazzy/pixi.toml -OutFile
pixi.toml
```

Install dependencies:

```
pixi install
```

Download the ROS 2 Jazzy Windows ZIP from the official documentation and unzip it to:

```
C:\pixi_ws\ros2-windows
```

Official download page:
https://docs.ros.org/en/jazzy/Installation/Windows-Install-Binary.html

3. Verify ROS 2 Installation

Open **Command Prompt (cmd.exe)** and run:

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

4. Run the Project

Unzip the project to **C:\work**. You should see the folders *publisher*, *subscriber*, and *output*.

Terminal 1 – Publisher

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

Terminal 2 – Subscriber

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

```
python subscriber\image_subscriber.py
```

Expected Output

Images are saved to `C:\work\output\images` and metadata is saved to
`C:\work\output\metadata.json`. Images include a human-readable timestamp overlay.