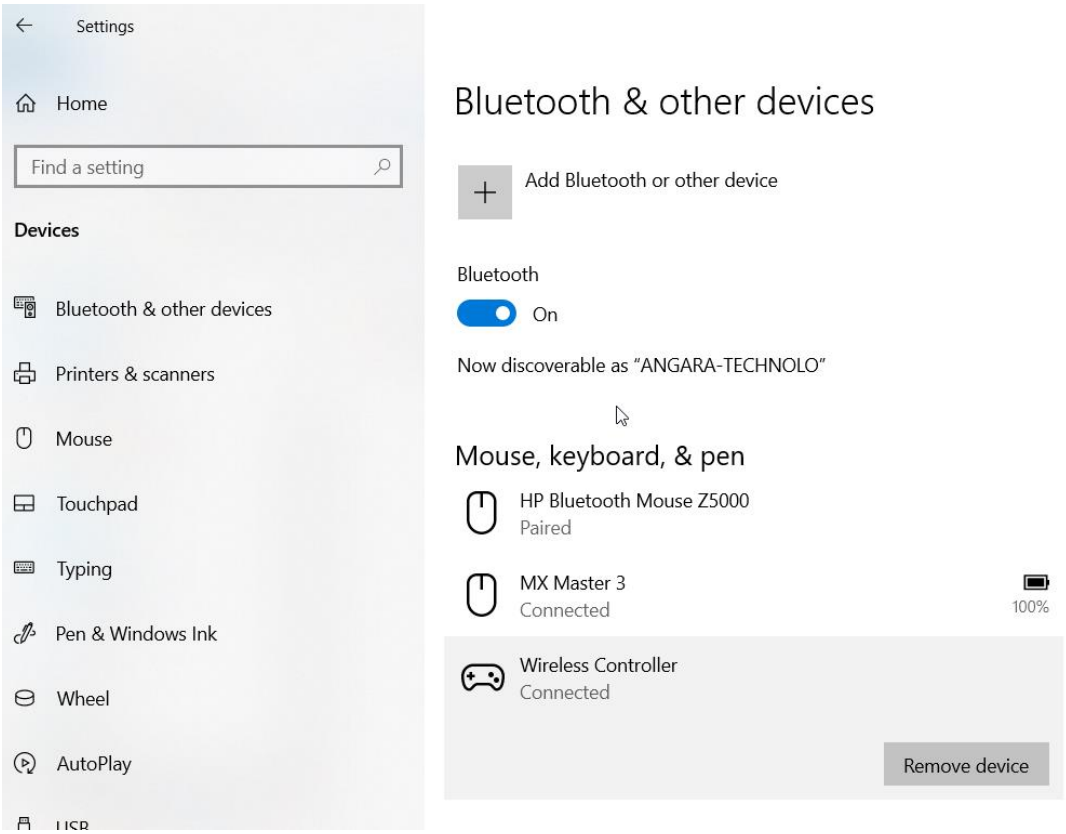
How to start

This application is a demo showing how to connect a gamepad to LabVIEW.

Before starting, your device must be properly connected to Bluetooth.

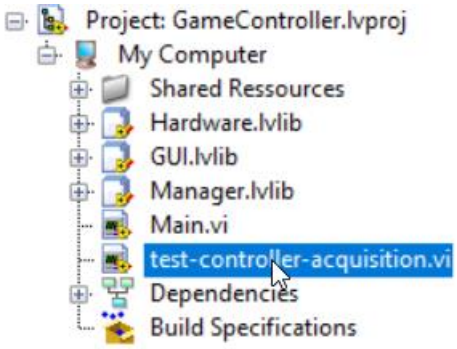


Testing the connection

Once this is done you can start using the demo code.

The code was done aiming to use a PS4 Bluetooth controller. If you use another controller, it will work but the button mapping may be the same.

To test the connection of your controller, you can use the simple tester, ‘’test-controller-acquisition’.



After that you can use the Main application.

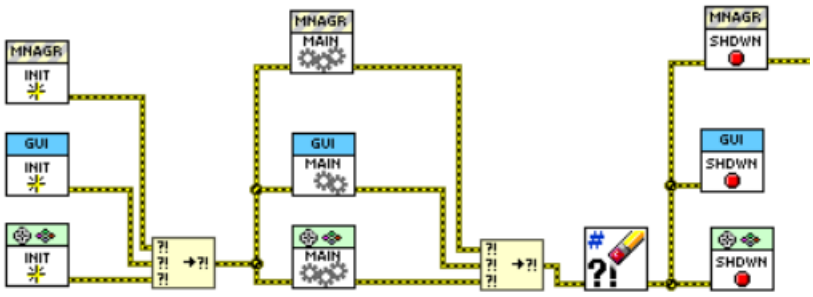
How does the main code works :

As this code is a stripped-down version from one of our client application, it may look a bit overcomplicated for what it does here but it would be actually a good start for you to use a game controller to control something as it is already developed in a view of a bigger/proper application.

There are 3 actors (loops/processes) here:

- the GUI
- the Hardware (handling the gamepad)
- the manager.

The manager is the core of the application. the GUI and the Hardware both goes through him to exchange information. The manager acts as a relay between those two but also would implement all the logic if you needed to control another equipment from there for example.



- Each actor as an Init.vi where the init messages for their state machines are sent.
- Queues and User Event are here dispatched through FGVs.
- We use “API messages” to encapsulate the message sending for each module.
- The application here is just a demo. The only thing it does is to send the information of the button or arrow pressed to the GUI. Once a button is pressed, the Hardware send a message to the manager, that sends the information to the GUI The analog joysticks are not used (but the L3-R3 actions are mapped)

If you want to do more, you can create add a new process in parallel that would react on button pressed. This is done by the Manager. Basically the manager would be the one deciding which action to send to whom based on the information it receives.

Please have fun and do not hesitate to contact me if you have questions ! 😊

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