Gamepad Integration

The **Gamepad Integration** addon bridges the gap between standard game controllers (Xbox, PS4/PS5, etc.) and your SimLab Composer VR experience. This allows users to navigate or interact with the scene using a familiar gamepad instead of traditional VR controllers.

How It Works: The Logic

The addon translates physical button presses into **Variables** within SimLab Composer.

- **The Input:** Pressing a button sends a signal (e.g., "Pressed/Released" or a pressure value from 0.0 to 1.0).
- **The Response:** In the **Training Builder**, you use nodes like **Watch Boolean Expression** or **Branch on Expression** to monitor these variables and trigger specific actions in your scene.

Setup Guide

1. Discovering Your Controller

Once you launch the addon, it will detect any connected controllers.

- **Discover:** If you connect your controller after the addon is open, click **Discover**. A popup will appear showing the controller's name and image.
- **Mapping Buttons:** While the Discover dialogue is open, press any button on your gamepad. The variable name and its current value will appear in the list.
- **Add Variable:** Click the **Add Variable** button next to the desired input. This automatically creates that variable in the Training Builder for you to use.

2. Linking the System

After mapping your variables, close the Discover dialogue to return to the main menu.

- **Link VR Experience:** Click this to generate the internal Training Builder system that allows SimLab to talk to the controller server.
- **Connect to VR:** Click this to establish the live connection. This step starts a local server that handles the communication.

3. Running the Experience

Because the addon uses a server-based connection, your gamepad input can be sent to multiple platforms:

- **PC VR:** Standard wired or wireless connection.
- **Mobile & Standalone Headsets:** Since the connection happens via a server, you can control experiences running on mobile devices or headsets like the Meta Quest.

Input Types Reference

Input Type	Value Range	Best Use Case
Discrete (Buttons)	Pressed / Released	Toggling lights, opening doors, or teleporting.
Analog (Triggers/Sticks)	0.0 to 1.0	Controlling movement speed or dimming lights.

Closing the Session

When you are finished testing or presenting, click **Disconnect from VR**. This terminates the server connection and stops the variable tracking.

Workflow Summary

1. **Discover:** Connect and identify your gamepad.
2. **Map:** Press buttons and click **Add Variable** to send them to Training Builder.
3. **Link:** Use **Link VR Experience** to build the connection logic.
4. **Connect:** Hit **Connect to VR** and launch your scene.

Watch this tutorial to learn more

https://www.youtube.com/embed/wrKuLXasTBs

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