***Controller Instructions For Java***

The zip file on collab contains several things. Two .jar files, several .dll / .so / .jnilib files, a controller package with two classes, and a new Game.java file.

To use controllers in your games, perform the following steps:

1. Get the two jar files and put in a lib/ folder (jinput.jar and jinput-test.jar). The lib/ folder should be at the same level as your src/ folder (by convention)
2. Connect jar files to your build path. If using Eclipse, you can do this in project properties->build path->add Jar files. Ask me or a colleague if you are having trouble finding it.
3. Copy all of the .dll, .so, and .jnilib files into your main project folder (at same level as src, lib, and bin folders). Do not place these inside a folder though. You won’t actually need all of them, but just go ahead and copy them all to keep it simple.
4. Add controller code folder to src/edu/Virginia/engine/ folder.
5. Replace Game.java with new version (if you’ve made changes yourself to Game.java, you’ll need to merge them into this).
6. After adding the new Game.java class, all Update() methods throughout the engine will now need take in two parameters. ArrayList<String> pressedKeys and ArrayList<GamePad> gamePads. The second parameter is a list of the detected game controllers that you can use to react to button presses on update calls.
7. Look at GamePad.java for methods that you can use for controller input.

Notes:

* I tested this on Windows with a ps3 controller. I had to use a tool called the DS3 tool which emulated the controller as if it was an Xbox controller. You may have to play with this to get it right.
* In GamePad.java, there are several constant strings. You may have to tweak these strings if the emulation of your controller is using different “ID” values than mine. I created a printButtonSummary() method in GamePad.java that shows the buttons and id values that are being simulated by your controller. Simply call this method on every update within GamePad.java to diagnose yourself.
* When I start a game I get the following output:

Mar 09, 2016 10:35:52 AM net.java.games.input.ControllerEnvironment log

INFO: Failed to initialize device MotioninJoy Virtual Game Controller because of: java.io.IOException: Failed to acquire device (8007001e)

Mar 09, 2016 10:35:52 AM net.java.games.input.ControllerEnvironment log

INFO: Failed to initialize device Wireless Receiver because of: java.io.IOException: Failed to acquire device (8007001e)

Found Controller: Controller (Xbox 360 Wireless Receiver for Windows), Gamepad

Don’t worry about these warnings as long as your controller is working properly