Tablet Upgrade- Icthystick Upgrade Kit

Erin Fischell, PhD
Acbotics Research, LLC
82 Technology Park Dr.
East Falmouth, MA 02536

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Questions? Contact: efischell@acbotics.com

Overview

Instructions for updating the windows tablets used with existing Icthystick systems for the new Arduino-based Bluetooth. Also includes instructions for running.

Instructions

Install com0com

1. Turn on tablet, connect to internet. Make sure you are in an admin account.
2. Download the com0com executable from here: https://github.com/Acbotics-Public/Icthystick2.0/tree/main/tablet_executables

3. Double click on the executable file to bring up installer. Follow the instructions (next/agree/install/next). All defaults in the installer work.
4. From the windows menu, search for “Setup Command Prompt”. Right click on the app, and select “Run as administrator”
5. Select “Yes” when prompted
6. In the command prompt that came up, type:

   > install portname=COM101 portname=COM102

7. Restart the tablet

NOTE: This is creating two emulated COM ports, one of which the database program connects to, the other which the arduino bluetooth program connects to allowing serial emulation.

Set Up Icthystick translate

1. Download the icthystick_translate executable from here: https://github.com/Acbotics-Public/Icthystick2.0/tree/main/tablet_executables

2. Put it on your desktop [see pic] or somewhere else you can find it
3. This is the app you will run (double click) to connect the new icthystick hardware with the database software

Create icthystick_translate shortcuts for particular icthystick boxes

The generic ickthystick_translate app you downloaded will connect to the first Icthystick detected by the system over bluetooth BLE. If you are operating multiple Icthysticks, you may want separate icons per unit to connect to a particular set of hardware.

To make an icon to connect to a specific Icthystick:

1. right click on the icthystick_translate icon, create a shortcut (may be under more options -> create shortcut)
2. right click on the new shortcut
3. select properties
4. In the properties menu:
    a. put quotes around the executable path in “Target”
    b. add a space after the quotes
    c. Add the following: –device_mask=<device mask>

    (replacing <device mask> with a full or partial device mask for your unit of interest)

This device mask can be found by running the generic ickthystick translate with just the target icthystick running, then copying the “Device found” set of hex characters, e.g. F4:12:FA:6E:FE:E1

For that example, the Target field in the ickthystick_translate shortcut properties menu might look something like:
“C:\Users\cffatsea\Desktop\ickthystick_translate.exe” –device_mask=F4:12:FA:6E:FE:E1

Note that the character before “device_mask” is a double dash.

5. Select “OK”
6. Rename the shortcut to something that identifies it with the hardware you want it to pair to.

Running with the new Icthystick

1. Double click on the shortcut for ickthystic_translate or a specific-hardware shortcut created as above. A window will launch, and you should see a device found (showing the device mask), and several “done” messages should an icthystick connect.

2. In notepad, edit the CFF_BioData that you wish to run
3. Under InputDevice1, edit Port to be COM102
4. Save and close notepad
5. Double click on CFF_BioData
6. The system should then operate as previously.

Notes

1. Make sure the Icthystick translate window is NOT above the CFF_BioData window. If it is, the data will NOT be properly processed.
2. If the box loses power, you will see a disconnected message after several seconds. When it regains power, the session will reconnect and you can continue logging.
3. The android app lightblue can be used to connect as a debug option with the Icthystick hardware should the tablet stop working or you are uncertain where the issue is.