Project Study, SS09

HowTo: wiipy

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Contents

1 Windows XP Professional

Unfortunately, wiipy cannot run on Windows Vista (this is due to some libraries not supporting Windows Vista).

1.1 Preparation

First you need to install the Widcomm Bluetooth Stack under Windows XP. The Python-Bluetooth implementation is only fully supported under Widcomm, it simply won't work using the Microsoft-Stack or any other Bluetooth driver software. If you need to buy a Bluetooth-Dongle including the Widcomm-Stack, Digitus delivers at the time of this writing their dongles with it, at least here in Austria.

1.2 Needed tools and libraries

- Widcomm Bluetooth Stack: tested 4.1 and 5.1.1100
- Python >= 2.5 < 2.6: Runtime for the interface; Download: `http://www.python.org/ftp/python/2.5.4/python-2.5.4.msi`
- pybluez >= 0.15: Bluetooth-Library for Python; Download: `http://pybluez.googlecode.com/files/PyBluez-0.16.win32-py2.5.exe`
- pyliblo >= 0.7.2: OSC-Library for Python; Download: `http://code.google.com/p/touchpy/downloads/detail?name=pyliblo.rar&can=2&q=`

1.2.1 Additionally for GUI

- GTK+ Runtime for Win32; Download `http://www.gtk.org/download-windows.html#StableRelease`
- pywin32: Win32 Extensions for Python; Download `http://sourceforge.net/project/showfiles.php?group_id=78018`
- pygtk: GTK bindings for Python; Download `http://ftp.gnome.org/pub/GNOME/binaries/win32/pygtk/`
- pycairo: Cairo for Python and Win32; Download `http://ftp.gnome.org/pub/GNOME/binaries/win32/pycairo/`
- pygobject: GObject for Python and Win32; Download `http://ftp.gnome.org/pub/GNOME/binaries/win32/pygobject/`

1.2.2 Addionally for WiiMaze

- pygame: Python Game Library (SDL based); Download `http://www.pygame.org/ftp/pygame-1.8.1release.win32-py2.5.msi`

1.3 Step-by-Step Instructions

1.3.1 Widcomm installieren

Install Widcomm using the Setup-Program and reboot your computer. No further configuration should be necessary. Maybe you need to change the driver from the MS-Driver to the Widcomm one using XP's device manager.

1.3.2 Installing Python

Install python using the Setup-Program to C:\Python25 (important!) with default options.

1.3.3 Installing pybluez

Again, use the setup program to install pybluez with default settings.

1.3.4 pyliblo

Extract the rar-file (e.g. using WinRAR) and copy 'liblo.pyd' to 'C:\Python25\Lib\site-packages'. Copy libpthreadGC2.dll to the directory where you want to run wiipy or to 'C:\windows\system32' for a system-wide installation.

1.3.5 GUI

Install all setup programs one-by-one.

1.3.6 WiiMaze

Install pygame using the Setup-program.

1.4 Starting the Frontend

Simply double-click wiipy_frontend.py, a short initialization-message should appear.

2 Mac OS X Leopard

2.1 Preparation

Python is already integrated into MacOS X, so only some libraries need to be installed seperately.

WiiMaze and the GUI are still untested on OS X, but after installing the necessary Python-packages, they should run.

2.2 Needed tools and libraries

- liblo >= 0.26: OSC Library in C; Download: `http://downloads.sourceforge.net/liblo/liblo-0.26.tar.gz`
- pyliblo >= 0.7.2: OSC-Library for Python; Download: `http://das.nasophon.de/download/pyliblo-0.7.2.tar.gz`
- lightblue >= 0.4: Python-Bluetooth Library for OS X and S60; Download: `http://prdownloads.sourceforge.net/lightblue/lightblue-0.4.tar.gz?download`
- XCode Tools for installing lightblue. Either download it from Apple or use the version included on your OS X DVD.
- OSCulator; Includes the perfect-pairing patch needed for successful connection to Wii-devices; Download: `http://www.osculator.net`

2.3 Step-by-Step Instructions

Untypically, you need to use the Terminal. But beforehand, install XCode using the installer.

2.3.1 Installing liblo

Extract the .tar.gz-archive and compile it using the terminal:

```
cd liblo-0.26
./configure
make
sudo make install
```

2.3.2 Installing pyliblo

Again, extract the archive and install it using the terminal:

```
cd pyliblo-0.7.2
C_INCLUDE_PATH=/usr/local/include LIBRARY_PATH=/usr/local/lib sudo python setup.py install
```

2.3.3 Installing lightblue

Extract the archive and enter in the Terminal:

```
cd lightblue-0.4
sudo python setup.py install
```

Compilation can take some time!

2.3.4 Installing the WiiMote Patch

Install OSCulator and start it once. Upon startup, OSCulator asks whether you want to install the perfect paring patch. Accept the offer and exit OSCulator.

2.4 Starting the Frontend

wiipy_frontend.py is best started using the Terminal:

```
./wiipy_frontend.py
```

3 Ubuntu GNU/Linux Jaunty Jackalope

The Python-Code was developed and tested under Ubuntu Intepid Ibex respectively Ubuntu Jaunty Jackalope.

3.1 Preparation

You only need to install some libraries using the package manager:

3.2 Step-by-Step Instructions

First we need to install some utilities:

```
sudo apt-get install python-bluez
sudo apt-get install python-liblo
```

Additionally for the GUI:

```
sudo apt-get instyll pygtk
```

Additionally for WiiMaze:

```
sudo apt-get install python-pygame
```

3.3 Starting the Frontend

```
./wiipy_frontend.py
```