OpenHMD

From The Relativty Wiki

How to install OpenHMD from source.

Work in progress

This is probably incomplete and likely contains errors. If you encounter any issues, please ask in # help-software on the Relativty's Guild (http://web.archive.org/web/20190725062136/https://discord.gg/NxkquJd) discord server. --HickDead (talk) 15:22, 23 July 2019 (UTC)

TODO:

- testing and verification
- add screenshots
- figure out how to link the dll statically on windows.
- mac support?

Contents

Setting up a build environment

This should be generalized and moved to a seperate page

Linux

Debian

```
sudo apt-get install build-essential git libhidapi-dev cmake
```

(there may be more, please add if you find something missing)

Ubuntu

See Debian above, or fill out this section if different...

Arch

Please add this if you're using Arch...

Other

Please add here...

Windows

Install MSYS2 (http://web.archive.org/web/20190725062136/https://www.msys2.org/) for x86_64, run it and enter the following commands:

```
pacman -Sy
pacman -Su
```

Close the window when told to do so, and start **MSYS2 MinGW 64-bit** again.

```
pacman -Su
pacman -S mingw-w64-x86_64-toolchain git mingw-w64-x86_64-hidapi mingw-w64-x86_64-cmake
```

The commands below assume you are running them from inside this window and not a DOS box or powershell.

OS-X

No idea, really... The commands below might work if you have the right tools installed. Feel free to test and tell us all about it.

Obtaining the source code

Grab the fork with preliminary support for the Relativ tracker, and prepare it for building.

```
cd
git clone https://github.com/HickDead/OpenHMD.git
cd OpenHMD
mkdir -p build
```

Modifying the source code for your system

Edit *src/drv_serial/serial.c* with your favorite text editor and change **PORT** to the serial port of your tracker (if it's not **com5**).

This is usually the same port you used to upload the firmware with the Arduino IDE.

For Linux this could be */dev/ttyUSB**x*** or */dev/ttyACM**x*** for Windows it should be like *COM**x***, where **x** is a number.

To find out which you have on your linux system:

```
ls /dev/ttyUSB* /dev/ttyACM*
```

Alternatively for Linux you could make a symbolic link called *com5* to the right device under */dev/* in the directory where your application is run, but this is tedious and impractical.

To find out which you have on Windows, find it in the device manager under **Ports (COM & LPT)**.

Alternatively for windows, you could change the COM port of the device in the device manager (properties>Port Settings>Advanced).

Building

General

First make sure you're in the build directory

```
cd ~/OpenHMD/build
```

Then continue with the platform specific commands below.

Linux

```
cmake ..
make
```

Optionally install it system-wide:

```
sudo make install
```

Windows

```
cmake .. -G "MinGW Makefiles" -DCMAKE_SH=CMAKE_SH-NOTFOUND
mingw32-make
```

To be able to run the example outside of the MSYS2 window, copy all the extra-terrestial dlls to *examples/simple*:

```
cp -v `ldd examples/simple/simple.exe | grep -v '/c/' | sed 's/^.* => \([^ ]*\).*$/\1/'` examples/simple/
```

Testing

Connect your tracker and run the simple test example.

```
OpenHMD/build/examples/simple/simple
```

Leave out the *OpenHMD/build/* part if you're already there, like after building.

You should now see a bunch of numbers scroll by that change when you move your tracker. Hit <CTRL>-c to stop it.