

# Step-by-step guide for the 2048-AI (made by nneonneo)

## 1. Download Cygwin:

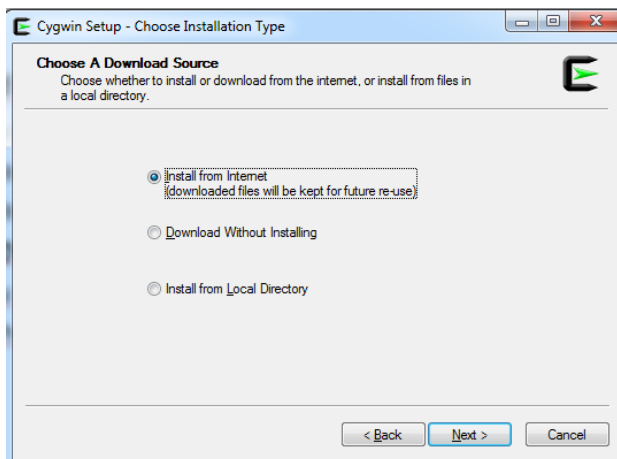
First you have to download Cygwin:

<http://cygwin.com/setup-x86.exe> - if you have 32 bit OS

[http://cygwin.com/setup-x86\\_64.exe](http://cygwin.com/setup-x86_64.exe) - if you have 64 bit OS.

## 2. Install Cygwin:

First you have to select where do you want to download the parts from. I recommend choosing the Install from Internet option.



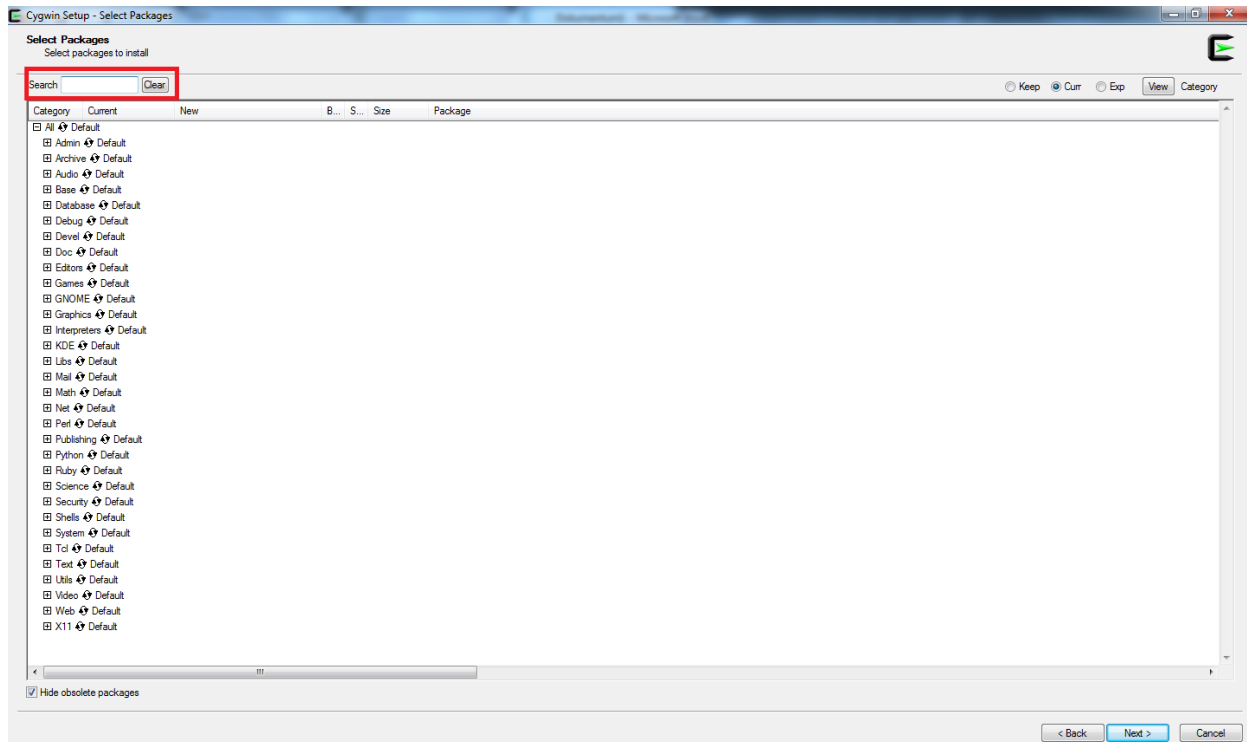
Click Next, then select the install folder (use the default: C:\cygwin for 32-bit systems or C:\cygwin64 for 64-bit systems)

Select the local package directory (it's completely your choice)

Then select your internet connection, and the mirror you want to download from. Here is a list containing the locations of the mirrors:

<http://cygwin.com/mirrors.html>

In the next window, there is a search bar.



Search for: - "g++" - and there is a Devel directory. Set it to Install by clicking to that arrow.

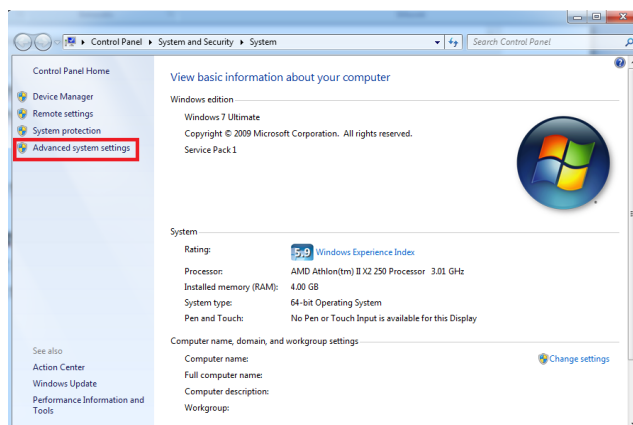
- "make" - select the Devel directory again, set it to Install
- "python" - Select the Python directory, set it to Install

Press the Next button, and wait until it finishes the install.

### 3. Add Cygwin to Environment Variables

Start menu -> Right-click to "Computer" -> Properties

Click to "Advanced system settings".



Select "Environment Variables..." -> Under the system variables, search for PATH -> Edit... -> Go to the end of the "Variable value" box, and add the following (without the quotation marks):

";C:\cygwin\bin" - if you have 32 bit OS

";C:\cygwin64\bin" - if you have 64 bit OS

Hit OK and you are done with this.

Launch the Cygwin Terminal from the desktop, and let it create the necessary files and directories.

#### 4. Download the necessary files:

<https://github.com/nneonneo/2048-ai> -> Download ZIP.

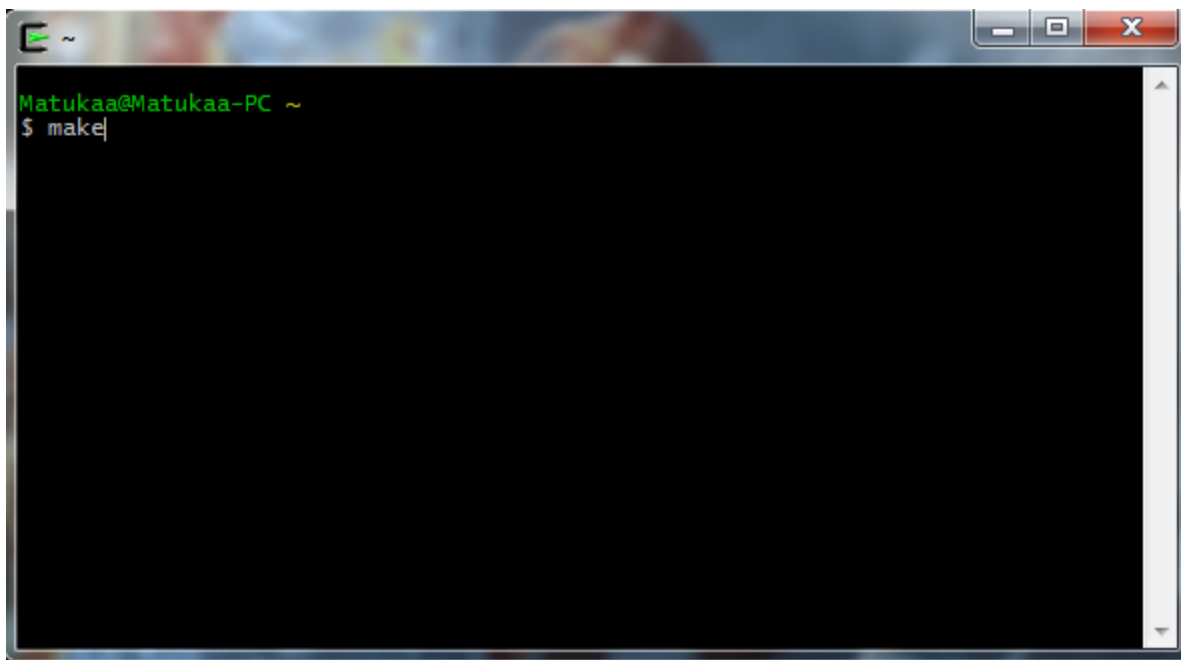
After you downloaded the ZIP, unzip it to the following directory:

"C:\cygwin(64)\home\<<YourUserName>>\"

<<YourUserName>> directory should exist after you launched the Cygwin Terminal.

#### 5. Makefile

If you successfully unzipped the files to the directory, open the Cygwin Terminal, and write: "make" and press Enter



```
Matukaa@Matukaa-PC ~  
$ make|
```

If everything is installed correctly, and put to the correct directory, then it should work, so it will create a subfolder:

```
"C:\cygwin\home\<<YourUserName>>\bin\"
```

There should be two files: 2048.exe and 2048.so

If you want to see the AI in action, run the exe file.

## 6. Install Mozilla Firefox (v28.0) and Remote Control (v1.0)

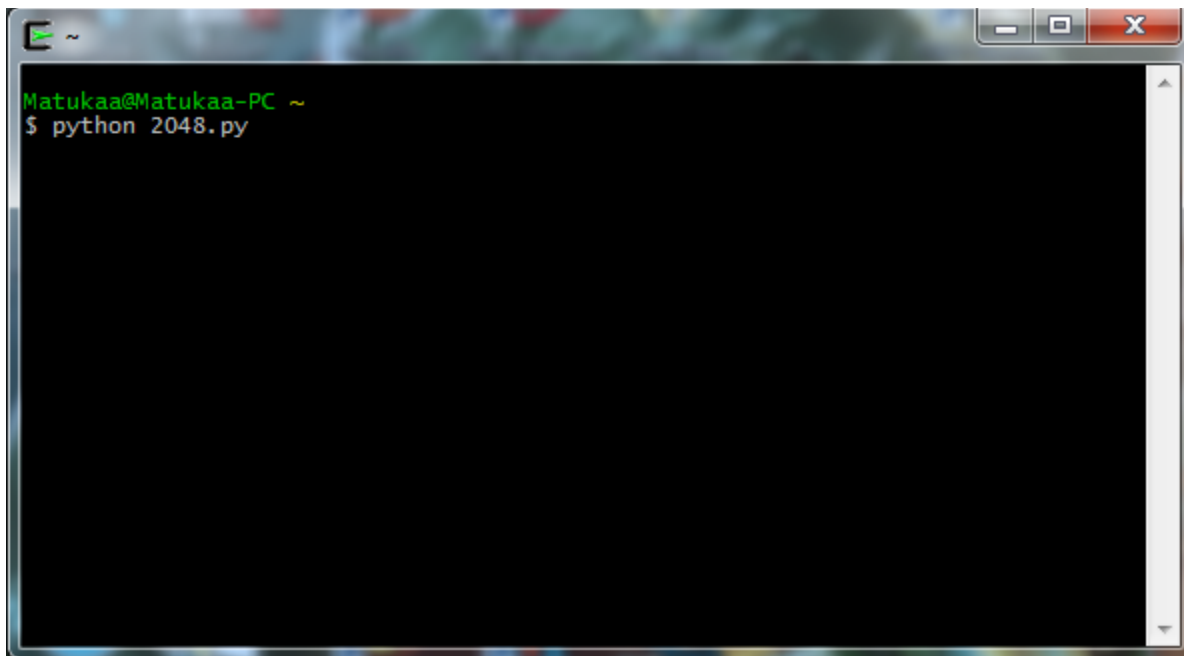
First install Mozilla Firefox, and after you open it, go to this page, and install the plug-in: <https://addons.mozilla.org/en-US/firefox/addon/remote-control/>

You have to add it to the toolbar if you want to enable it, so do so.

Open up the 2048 website, and activate the Remote Control (do not open new tabs) : <http://gabrielecirulli.github.io/2048/>

## 7. Running the python

Open up the Cygwin Terminal, and write: "python 2048.py" and press Enter.

A screenshot of a Cygwin terminal window. The window title bar shows a green icon, a tilde (~), and standard window controls (minimize, maximize, close). The terminal content shows the prompt 'Matukaa@Matukaa-PC ~' followed by the command '\$ python 2048.py'. The rest of the terminal is black with no output visible.

```
Matukaa@Matukaa-PC ~  
$ python 2048.py
```

If you have Firefox running with enabled Remote Control on the game's site, then the program should start solving the game. Have fun!