Boost Setup Guide
and
Part 1's architecture

NP TA 子頤

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  - *Boost.Asio*: Asynchronous I/O, Networking APIs in C++
  - *Boost.StringAlgorithms* : Python-like string manipulation

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- **You MUST use Boost.Asio to develop project 3**

Why?

- Less code ($\approx 500 \ lines \ each$)

- Better syntax

- Write once, (almost can) run everywhere

Setup boost on Ubuntu 18.04

- Version **1.65** (np servers has version **1.70**)
  - `sudo apt install libboost-all-dev`

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- Manually install the **latest version,** see:

  - https://www.boost.org/doc/libs/1_71_0/more/getting_started/unix-variants.html

Setup boost on Windows

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Download

My MinGW distribution ("distro") is **x64-native** and currently contains **GCC 8.2.0** and **Boost 1.69.0**.

mingw-16.1.exe (84.1 MB) : This is a self-extracting archive. It's incredibly easy to install; see How To Install below.

mingw-16.1-without-git.exe (43.2 MB) : This is smaller, if you've already installed git.

My build scripts are available on GitHub, and they're also stored within the distro itself.

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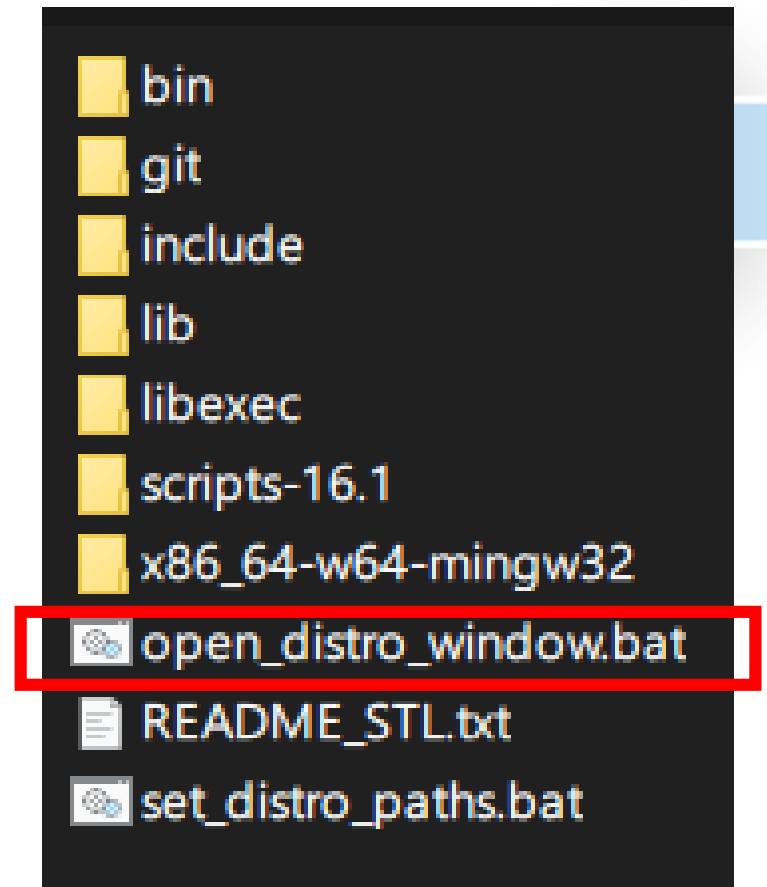My MinGW distribution ("distro") is **x64-native** and currently contains **GCC 8.2.0** and **Boost 1.69.0**.

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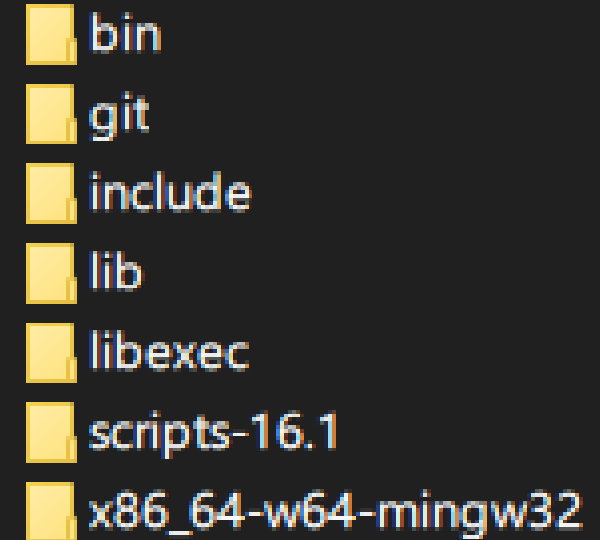My build scripts are available on GitHub, and they're also stored within the distro itself.

Open the extracted folder,

- Run `open_distro_windows.bat`

📁	bin
📁	git
📁	include
📁	lib
📁	libexec
📁	scripts-16.1
📁	x86_64-w64-mingw32
⚙️	**open_distro_window.bat**
📄	README_STL.txt
⚙️	set_distro_paths.bat

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```
MinGW                                              —  □  ✕

C:\Users\Tzu-Yee\Downloads\MinGW>g++ --version
g++ (GCC) 8.2.0
Copyright (C) 2018 Free Software Foundation, Inc.
This is free software; see the source for copying conditions.  There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.


C:\Users\Tzu-Yee\Downloads\MinGW>
```
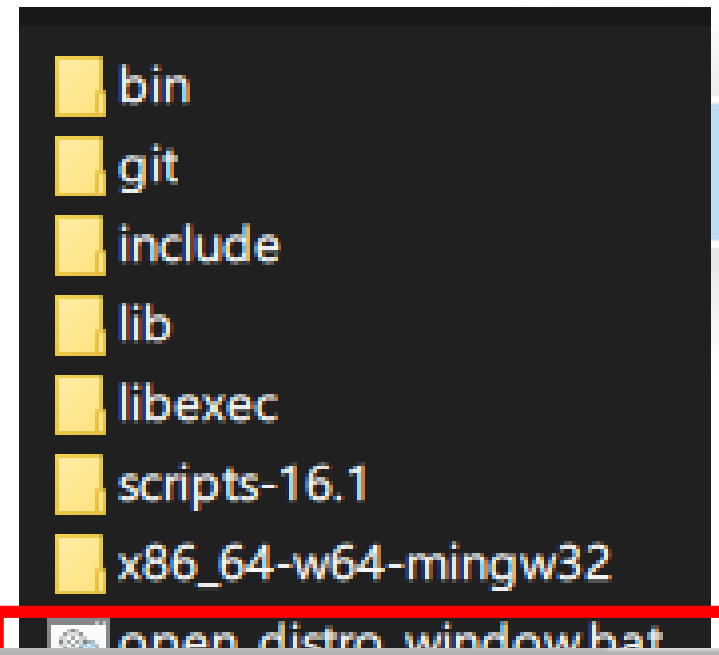
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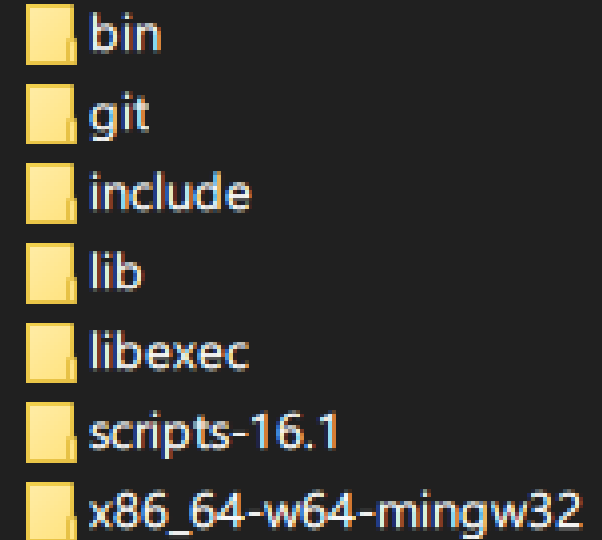x86_64-w64-mingw32
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MinGW

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Copyright (C) 2018 Free Software Foundation, Inc.
This is free software; see the source for copying conditions.  There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.


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MinGW

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C:\Users\Tzu-Yee\Downloads\MinGW>
```

Now you can use:

```
g++ main.cpp -o cgi_server -lwsock32 -lws2_32 -std=c++14,
```
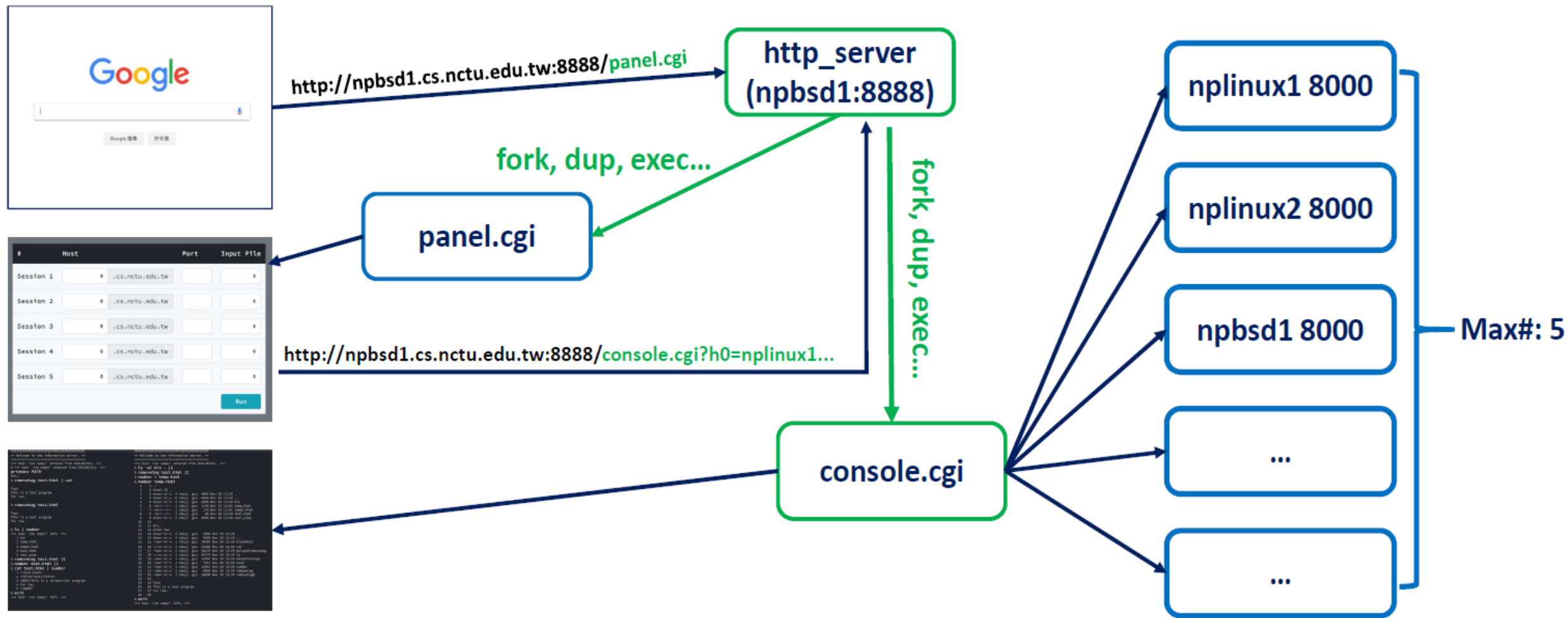
to compile your boost.asio code on Windows.

E.g.,

```
g++ test.cpp                 -o test -lwsock32 -lws2_32 -std=c++14
```

```cpp
#include <boost/asio.hpp>
#include <iostream>
using namespace std;
int main(){

}
```

Part 1

Web Browser

http_server & cgi

Remote Servers