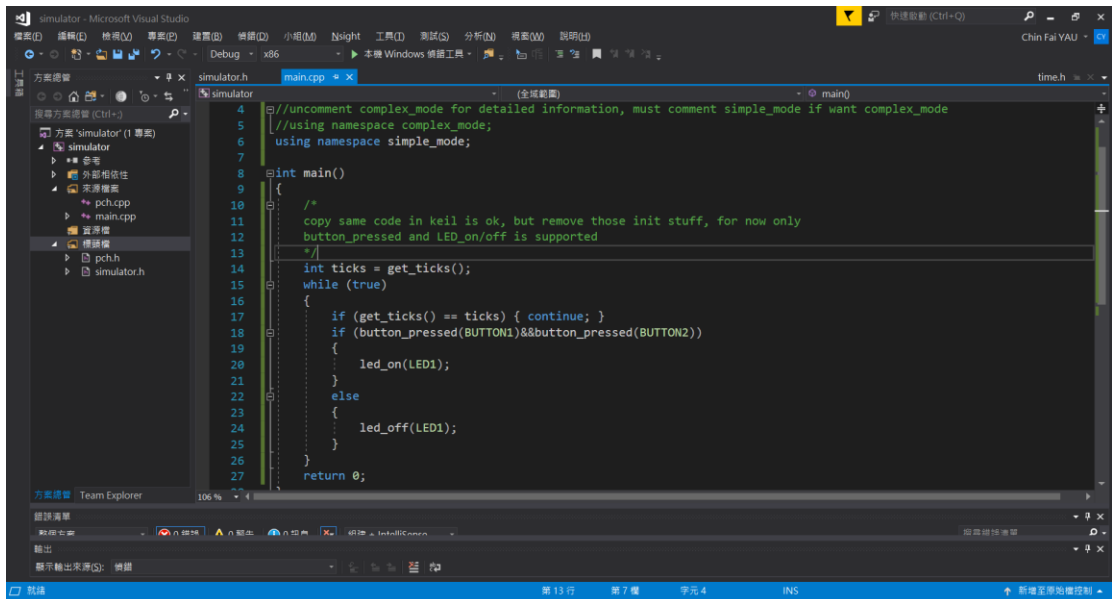


## Simulator user guide v1.0

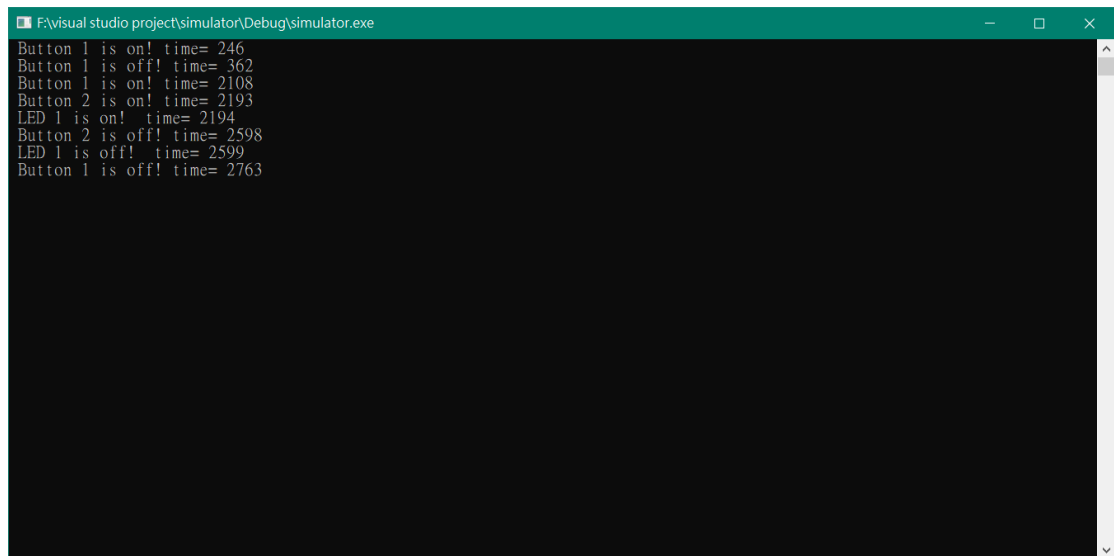
The aim of this simulator is to help people who cannot access to the internal mainboard to debug their program (Windows only).

1. Download the project and copy the folder “simulator”
2. Download and install visual studio, when install, choose C++
3. Open project “simulator” in visual studio
4. In source file main.cpp, you can test out anything thing with button and LED.  
Totally 3 buttons and 3 LED can be used. All information can be found in simulator.h if anyone want to dive deep into implementation.
5. Use the namespace simple\_mode for easier and short output, complex\_mode for detailed output.



```
4 //uncomment complex_mode for detailed information, must comment simple_mode if want complex_mode
5 //using namespace complex_mode;
6 using namespace simple_mode;
7
8 int main()
9 {
10     /*
11     copy same code in keil is ok, but remove those init stuff, for now only
12     button_pressed and LED_on/off is supported
13     */
14     int ticks = get_ticks();
15     while (true)
16     {
17         if (get_ticks() == ticks) { continue; }
18         if (button_pressed(BUTTON1)&&button_pressed(BUTTON2))
19         {
20             led_on(LED1);
21         }
22         else
23         {
24             led_off(LED1);
25         }
26     }
27     return 0;
28 }
```

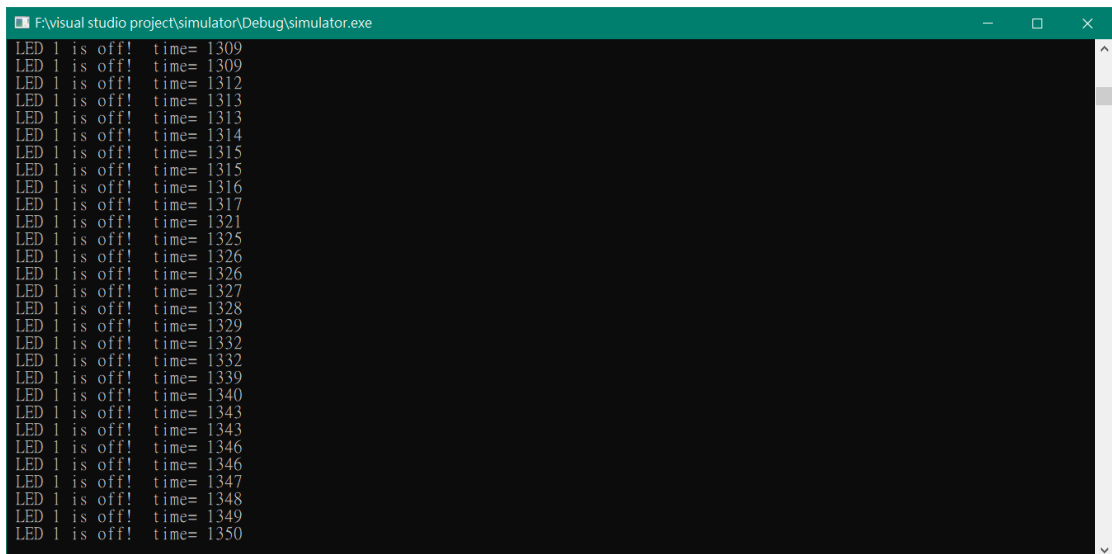
Simple output example:



A screenshot of a Windows command prompt window titled "F:\visual studio project\simulator\Debug\simulator.exe". The window has a green title bar and standard Windows window controls. The output text is as follows:

```
Button 1 is on! time= 246
Button 1 is off! time= 362
Button 1 is on! time= 2108
Button 2 is on! time= 2193
LED 1 is on! time= 2194
Button 2 is off! time= 2598
LED 1 is off! time= 2599
Button 1 is off! time= 2763
```

Detailed output:



A screenshot of a Windows command prompt window titled "F:\visual studio project\simulator\Debug\simulator.exe". The window has a green title bar and standard Windows window controls. The output text is as follows:

```
LED 1 is off! time= 1309
LED 1 is off! time= 1309
LED 1 is off! time= 1312
LED 1 is off! time= 1313
LED 1 is off! time= 1313
LED 1 is off! time= 1314
LED 1 is off! time= 1315
LED 1 is off! time= 1315
LED 1 is off! time= 1316
LED 1 is off! time= 1317
LED 1 is off! time= 1321
LED 1 is off! time= 1325
LED 1 is off! time= 1326
LED 1 is off! time= 1326
LED 1 is off! time= 1327
LED 1 is off! time= 1328
LED 1 is off! time= 1329
LED 1 is off! time= 1332
LED 1 is off! time= 1332
LED 1 is off! time= 1339
LED 1 is off! time= 1340
LED 1 is off! time= 1343
LED 1 is off! time= 1343
LED 1 is off! time= 1346
LED 1 is off! time= 1346
LED 1 is off! time= 1347
LED 1 is off! time= 1348
LED 1 is off! time= 1349
LED 1 is off! time= 1350
```

Note: A new version with GUI is under development using Qt.