Keil Studio Compile and Run

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EE2905 – Keil Studio Compile and Run

- Step 1
  - Create your project
- Step 2
  - Modify main.cpp for your new project
- Step 3
  - Compile (build) your new project
- Step 4
  - Open a terminal window
- Step 5
  - Run your project

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- Example – step 1 and 2 (create / modify)
  - Create a project called lab1_base
  - Edit the main.cpp file as shown

elease Notes × Getting Started × main.cpp ×

```
1  ////////////////////////////////////
2  //
3  // lab1_base (my_blink) project
4  //
5  // created (date) by (you)
6  // rev 0
7  //
8  ////////////////////////////////////
9  //
10 // My version of the blink program using wait_us and internal LED
11 //
12 // This program prints out a simple message
13 // and causes an internal LED (LED1) to flash at a
14 // specific interval
15 //
16 ////////////////////////////////////
17
18 #include "mbed.h"
19 #include <stdio.h>          // only needed when printing
20
21 #define T_WAIT 2000000      // in us
22
23 int main(void){
24     setbuf(stdout, NULL);  // disable buffering when printing
25
26     // splash
27     printf("\n\nlab1_base\n");
28     printf("Using Mbed OS version %d.%d.%d\n\n",
29            MBED_MAJOR_VERSION, MBED_MINOR_VERSION, MBED_PATCH_VERSION);
```

```
30
31     // create the LED object tied to internal LED LED1
32     DigitalOut MyLED(LED1);
33
34     // my splash
35     printf("My first mbed program\n");
36
37     // run an infinite loop
38     while(1){
39         // flash the LED and print to the terminal
40         printf("off\n");
41         MyLED.write(0);
42         wait_us(T_WAIT);
43         printf("on\n");
44         MyLED.write(1);
45         wait_us(T_WAIT);
46     }// end while
47
48     return 0;
49 }// end main
```

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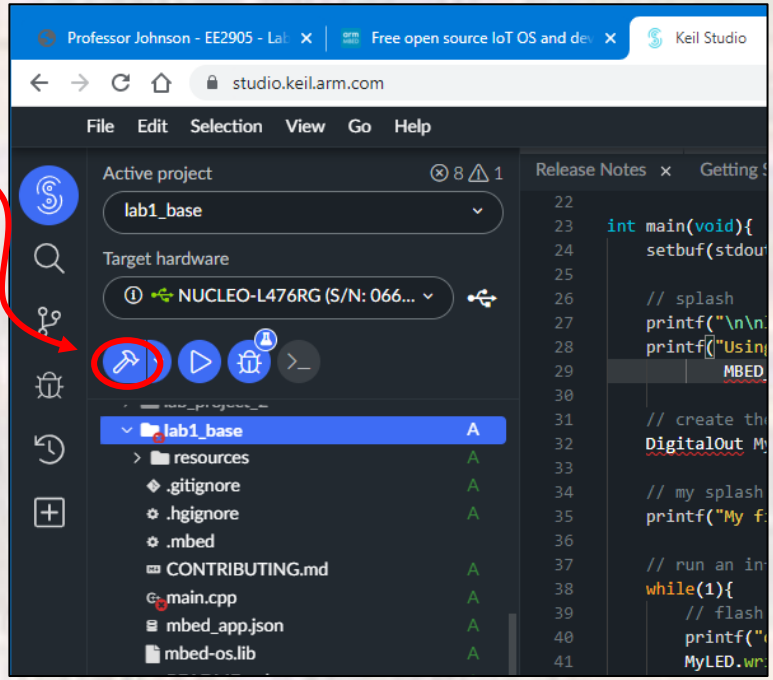
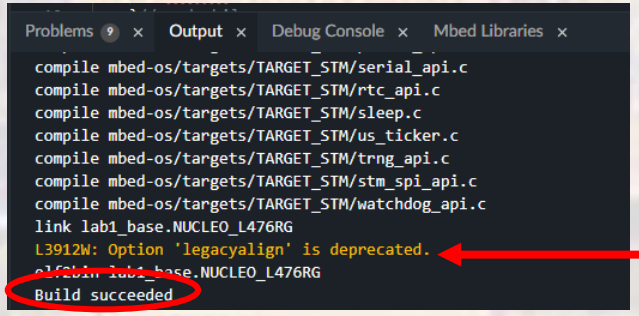
- Example – step 3 (compile)
  - Compile the my_blink project
    - The first time will take a minute or so
    - Future compiles will (should) be faster



  - Clean up any errors in your file



Not our error

  - re-Compile (if corrections made)

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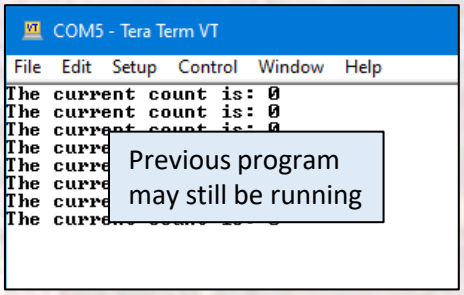
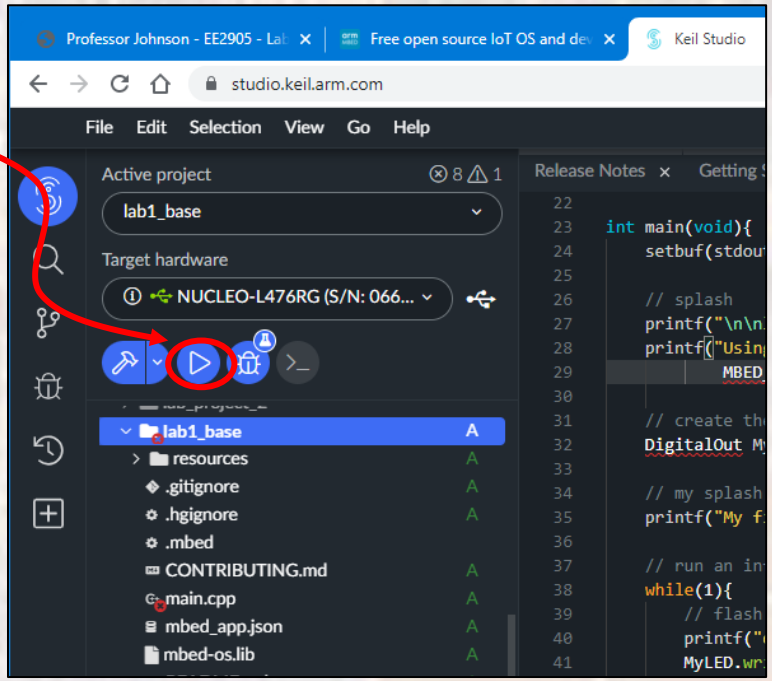
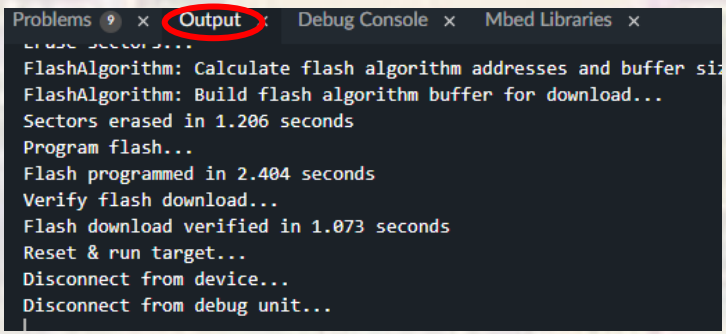
- Example – step 4 and 5 (open terminal / Run)
  - Plug in your Board
  - Open your terminal program (Tera Term)
    - Note: your board is running the last program loaded
  - Select the Run icon







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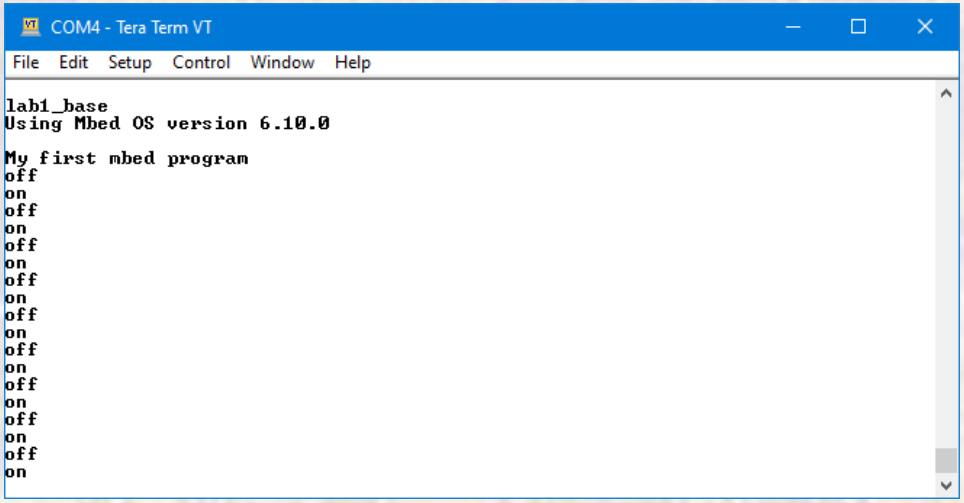
- Example - results
  - See your running program in the terminal window (Tera Term)
  - Watch the LED flash at 4 sec intervals (2s on, 2s off)
  - Watch the terminal print on/off



  - Hit the reset button if you want to restart your program

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If the hardware programming process fails

Go to the next step ONLY after checking with your instructor

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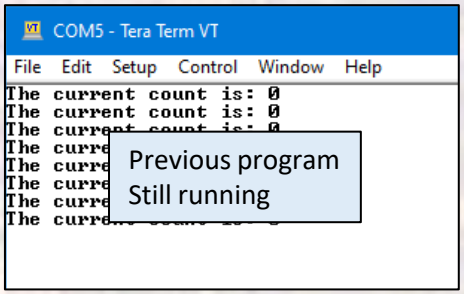
- Emergency Procedure
  - If the run process fails



  - Plug in your Board
  - Open your terminal program (Tera Term)
    - Note: your board is running the last program loaded
  - Open windows file manager
    - Drag the newly downloaded file my_blink_NUCLEO_L476RG.bin file into the NODE_L476RG folder