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

lease I	Notes x Getting Started x	main.cpp ×
		//////
	<pre>// lab1_base (my_blink) pro //</pre>	ject
	// created (date) by (you)	
	// rev 0	
		//////
9 10 11	// My version of the blink p	program using wait_us and internal LED
12	// This program prints out a	a simple message
13	// and causes an internal LE	ED (LED1) to flash at a
14	<pre>// specific interval</pre>	
15	//	
16	111111111111111111111111111111111111111	//////
18	<pre>#include "mbed.h"</pre>	
19	<pre>#include <stdio.h></stdio.h></pre>	// only needed when printing
20		
21	<pre>#define T_WAIT 2000000 /////////////////////////////</pre>	// in us
22		
23	<pre>int main(void){</pre>	
24	<pre>setbuf(stdout, NULL);</pre>	<pre>// disable buffering when printing</pre>
25		
26	// splash	
27	printf("\n\nlab1_base\n	");
28	printf("Using Mbed OS ve	ersion %d.%d.%d\n\n",
29	MBED_MAJOR_VERS	ION, MBED_MINOR_VERSION, MBED_PATCH_VERSION);
2.0		

// d Digi	reate the LED object tied to internal LED LED1 talOut MyLED(LED1);
// m prin	ny splash htf("My first mbed program\n");
	un an infinite loop
whi]	.e(1){
	// flash the LED and print to the terminal
	<pre>printf("off\n");</pre>
	MyLED.write(0);
	<pre>wait_us(T_WAIT);</pre>
	<pre>printf("on\n");</pre>
	MyLED.write(1);
	<pre>wait_us(T_WAIT);</pre>
}//	end while
retur	יח 0;
	main

- 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

roblems 🧿 🗴 Output 🗴 Debug Console 🗴 Mbed Libraries 🗴

compile mbed-os/targets/TARGET_STM/serial_api.c compile mbed-os/targets/TARGET_STM/tc_api.c compile mbed-os/targets/TARGET_STM/tsleep.c compile mbed-os/targets/TARGET_STM/us_ticker.c compile mbed-os/targets/TARGET_STM/trng_api.c compile mbed-os/targets/TARGET_STM/stm_spi_api.c compile mbed-os/targets/TARGET_STM/stm_spi_api.c link lab1_base.NUCLE0_L476RG L3912W: Option 'legacyalign' is deprecated.

L3912W: Option 'legacyalign' is deprecated. L3912W: lobi_base.NUCLEO_L476RG Build succeeded

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	Gamain.cpp			while(1){
	mbed_app.json			// flash
	🖿 mbed-os.lib		40	MyLED.wr

Not our error

re-Compile (if corrections made)

- 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

Problems • x Output: Debug Console x Mbed Libraries x FlashAlgorithm: Calculate flash algorithm addresses and buffer siz FlashAlgorithm: Build flash algorithm buffer for download... Sectors erased in 1.206 seconds Program flash... Flash programmed in 2.404 seconds Verify flash download... Flash download verified in 1.073 seconds Reset & run target... Disconnect from device... Disconnect from device...

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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

If the hardware programming process fails

Go to the next step ONLY after checking with your instructor

- 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

💆 COM5 - Tera Term VT					
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