How to Use Arducleo with EmbitZ

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EmBitz (formerly Em::Blocks) is a powerful C/C++ IDE for embedded software development. In this guide, we try to use Arducleo with EmBitz.

You can download EmBitz from emblocks.org

1. Prepare the Embitz Debug environment

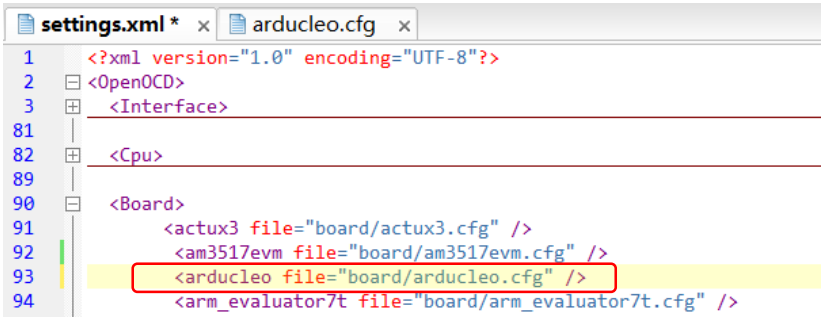
1.1 create a new file named 'arducleo.cfg' at *{embitz_installed_path}/share/contrib/openocd/scripts/board*

```
# This Arducleo board has an stm32f10x chip
source [find interface/cmsis-dap.cfg]
source [find target/stm32f1x.cfg]
```

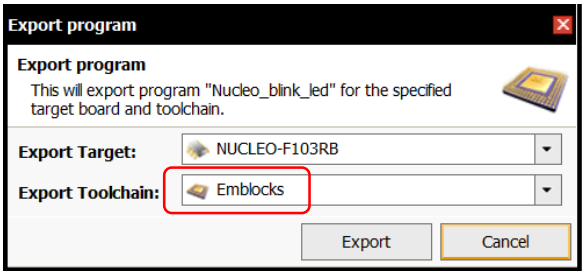
1.2 Add the following line after <Board> of the openocd board setings file *{embitz_installed_path}/share/EmBitz/debuggers/Interfaces/openOCD/settings.xml*

```
<arducleo file="board/arducleo.cfg" />
```

It looks like:

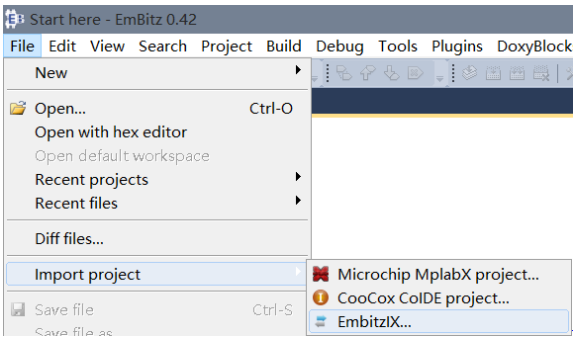


2. Export mbed project



Once the compressed project file downloaded, you should decompress it to any location, e.g. d:\temp\Nucleo_blink_led_ebz

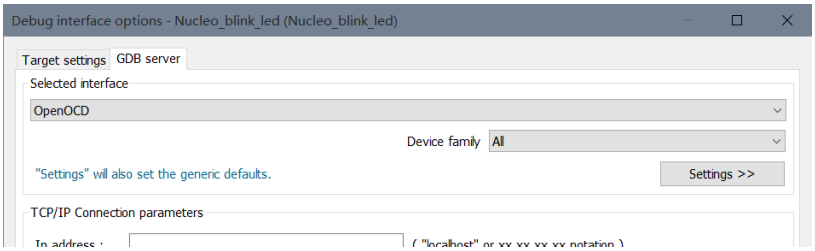
3. Import the project .ebi



4. Modify the Project Build Settings

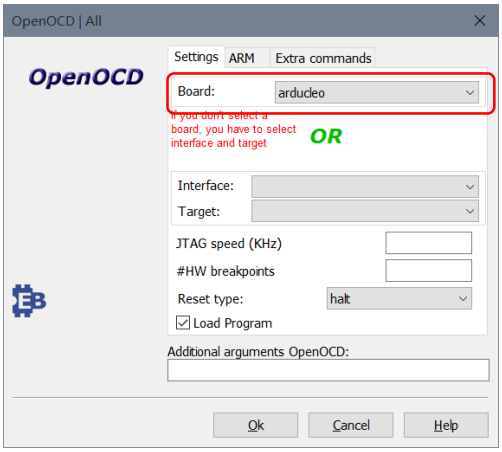
4.1 Change the GDB Server

When you prompt with the a ‘stlink | Stmicroelectronic’ dialog, close it, and change the ‘Select interface’ combbox to ‘OpenOCD’, like this:



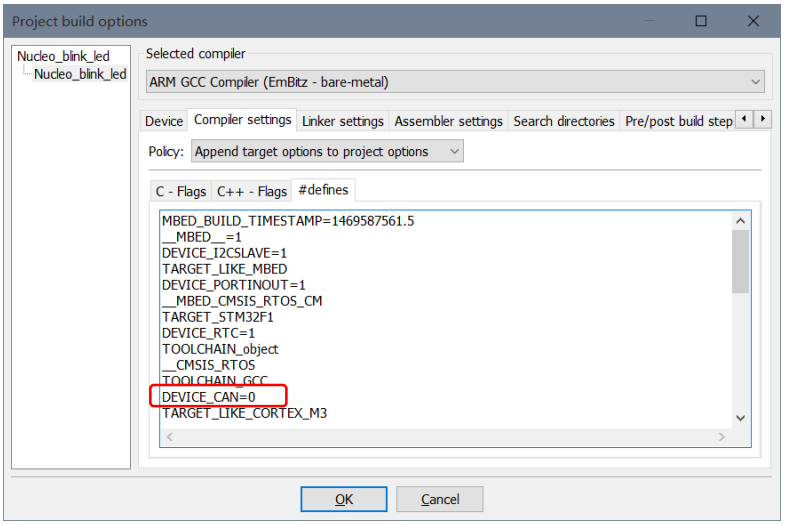
And click on the “Settings >>” button.

4.2 Change Board Settings



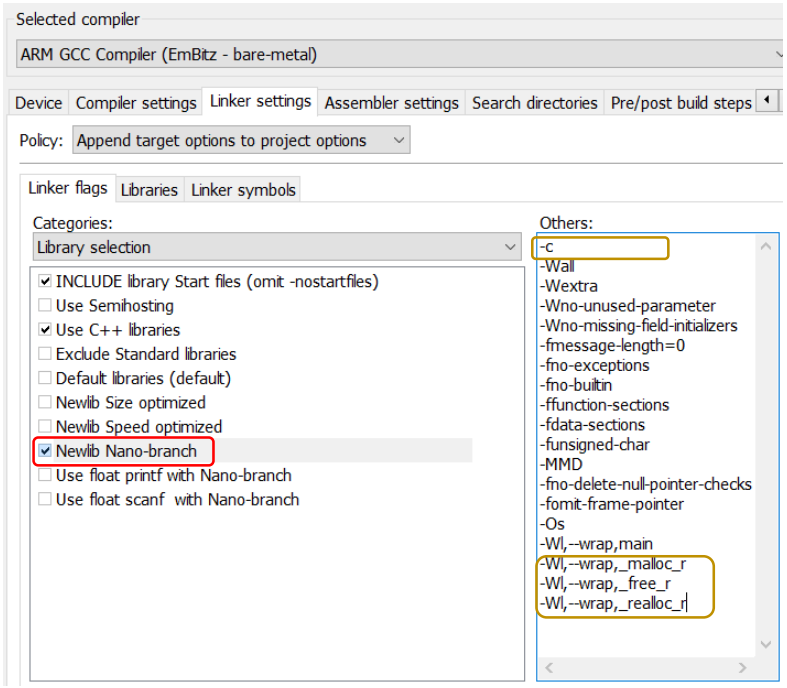
Select the Board ‘arducleo’, and Click Ok to save settings.

4.3 Change Compiler Settings

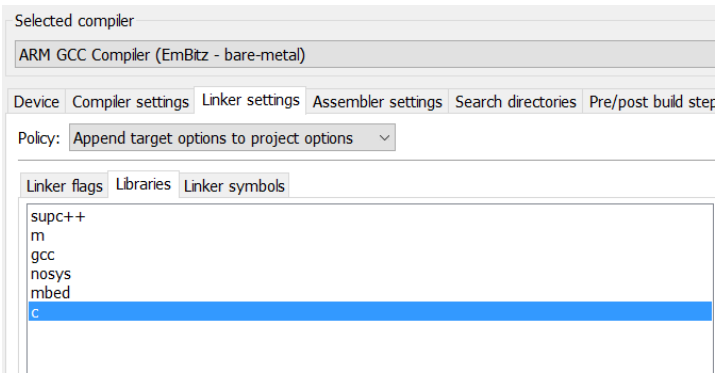


Turn off the CAN peripheral

4.4 Change Linker Settings



- Select the “Newlib Nano-branch” to reduce the program size
- Remove the “-c” ” -Wl,--wrap,_malloc_r” ” -Wl,--wrap,_free_r” ” -Wl,--wrap,_realloc_r” flags.



Move down the ‘c’ library to the end of list.

Finally, press F7 to build your mbed project; F5 to debug it.

```
File                          Line  Message
.\build\Nucleo_blink_led.map  1     Program size (bytes):   19556
                                    Data size    (bytes):     132
                                    BSS size     (bytes):     692
                                                 ----------------
                                    Total size   (bytes):   20380   (R/W Memory: 824)

                                    === Build finished: 0 errors, 0 warnings (0 minutes, 0 seconds) ===
```

---------- The End-----