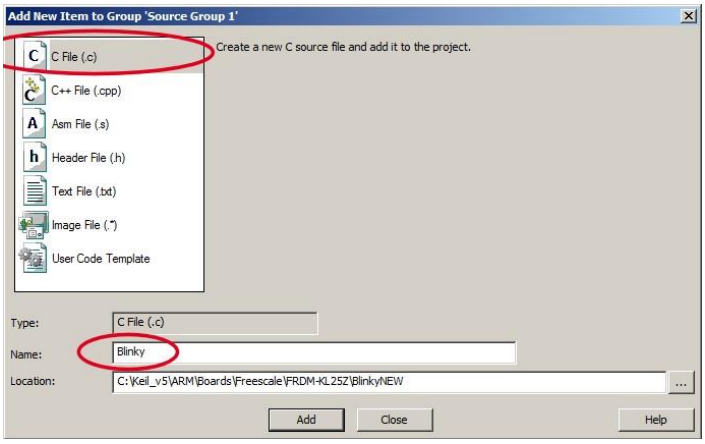
Lab 2 Steps: Introduction to C files

Create a blank C Source File:

1. Right click on Source Group 1 in the Project window and select 

2. This window opens up:
3. Highlight the upper left icon: C file (.c):
4. In the Name: field, enter a name.
5. Click on Add to close this window.
6. Click on File/Save All or 
7. Expand Source Group 1 in the Project window and Your_name.c will now display.
8. It will also open in the Source window.

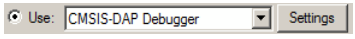


As a test, try copying the following code. Read it through so you understand it first!

```
#include "MK64F12.h"
unsigned int counter = 0;

int main (void) {
  while (1) {
        counter++;
        if (counter > 0xFF)
        counter = 0;
  }
}
```

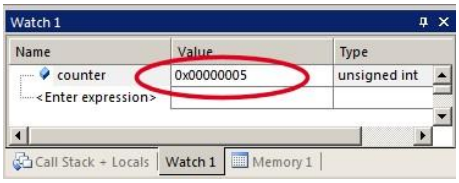
Configure the Target CMSIS-DAP:

1. Select the Target Options icon  . Select the **Target** tab.
2. Click on the **Debug** tab. Select CMSIS-DAP Debugger in the Use: box: 

3. Select Settings: icon beside Use: CMSIS-DAP.
4. Click on OK twice to return to the main menu.
5. Click on File/Save All or 
6. Build the files.  There will be no errors or warnings if all was entered correctly. If there are, please fix them!

Running Your Program:

1. Program the flash by clicking on the Load icon:  Progress will be indicated in the Output Window.
2. Enter Debug mode by clicking on the Debug icon . 
3. Click on the RUN icon.  Note: you stop the program with the STOP icon. 
4. Right click on counter in Your_name.c (the word "counter" inside of your code!) and select Add counter to … and select Watch 1.
5. Counter should be updating as shown here:
6. You can also set a breakpoint in Your_name.c and the program should stop at this point if it is running properly. If you do this, remove the breakpoint.
7. You should now be able to add your own source code to create a meaningful project.



TIP: The Watch 1 is updated periodically, not when a variable value changes. Since this counter is running very fast without any time delays inserted, the values in Watch 1 will appear to jump and skip sequential values you know must exist.

TIP: You can also run any program after loading it by pressing the RESET button on the board itself.