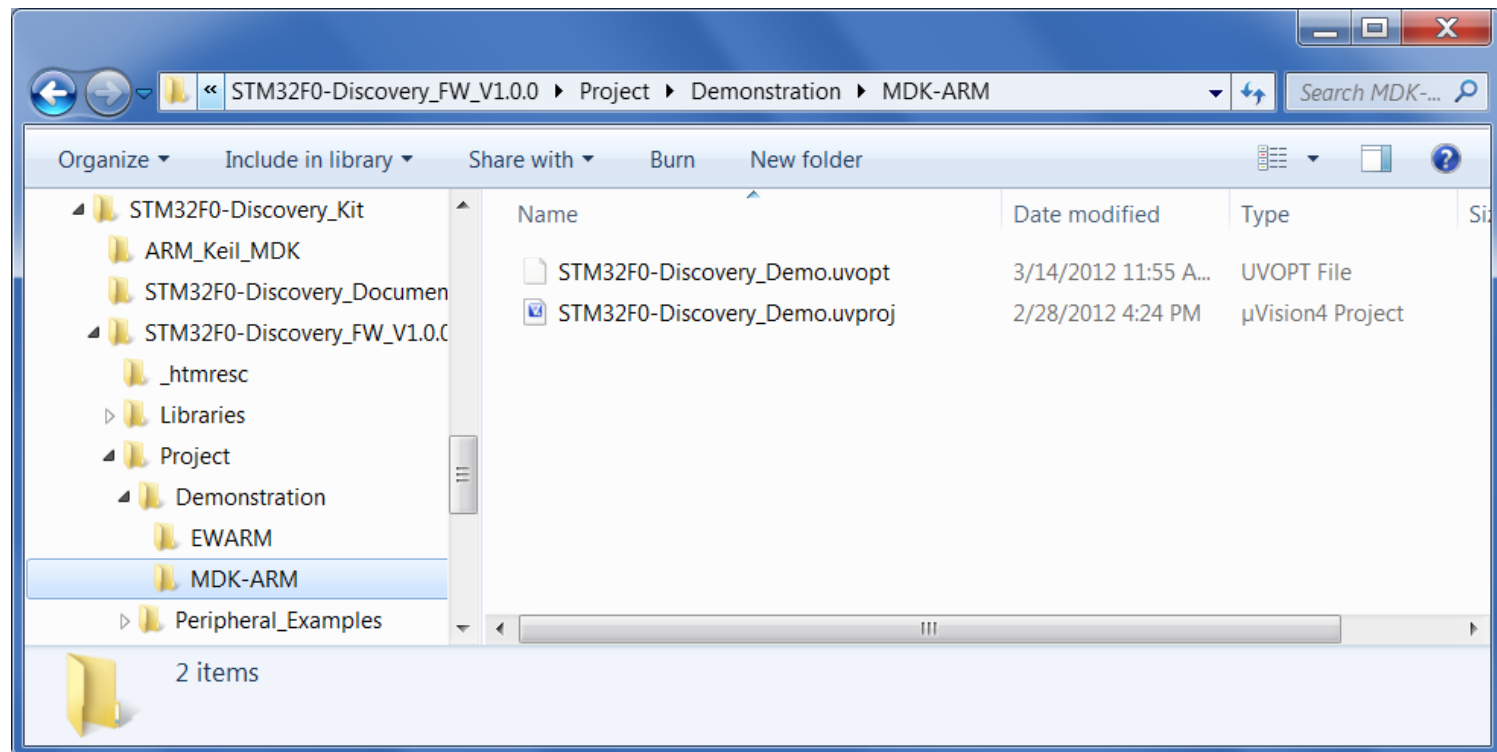


Step #1

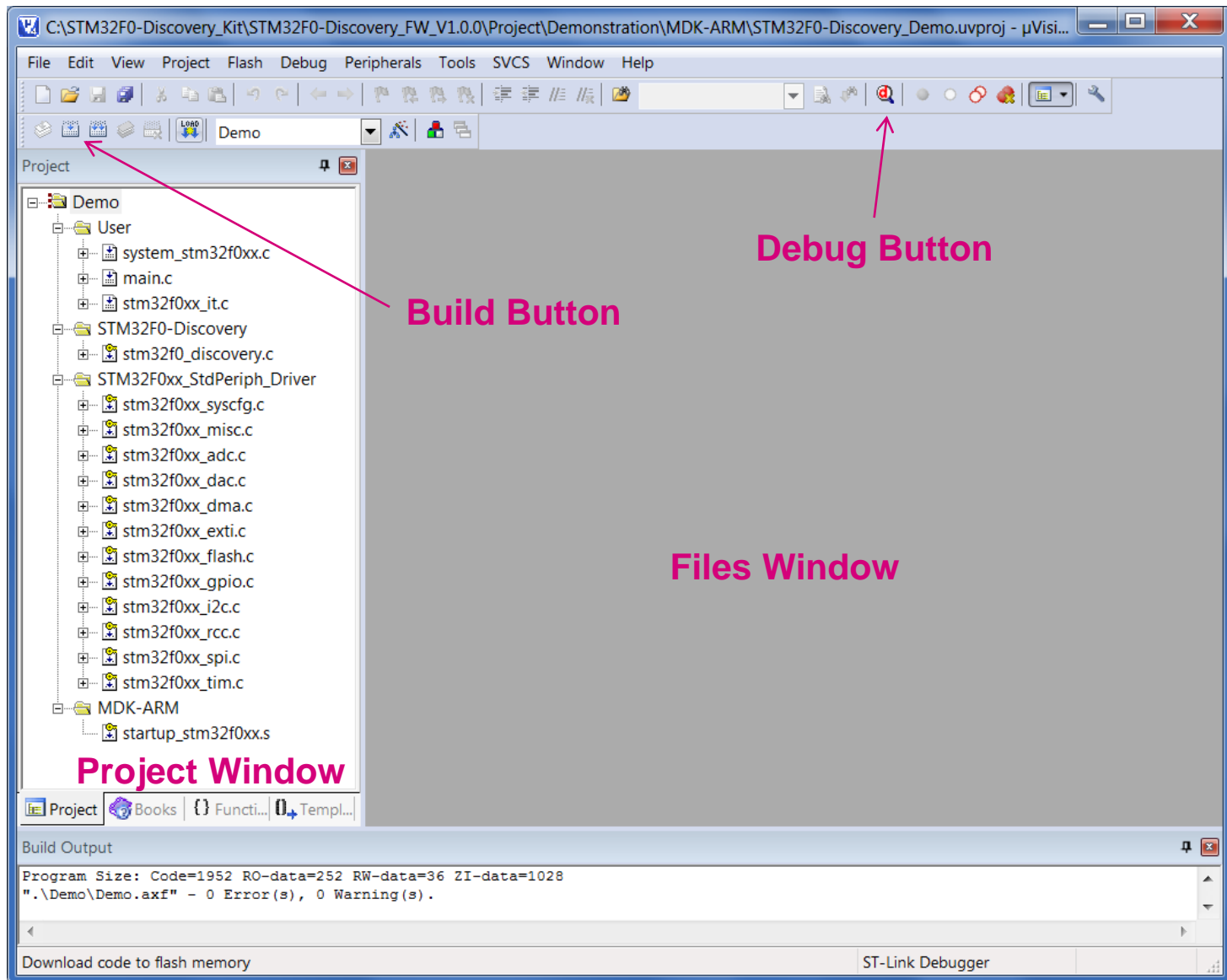
Open FW demo project with Keil uVision

1

- Using explorer, go to the directory:
C:\STM32F0-Discovery_Kit\STM32F0-Discovery_FW_V1.0.0\Project\Demonstration\MDK-ARM
- Double-click on the STM32F0-Discovery_Demo.uvproj file



Step #1 - Inside Keil uVision

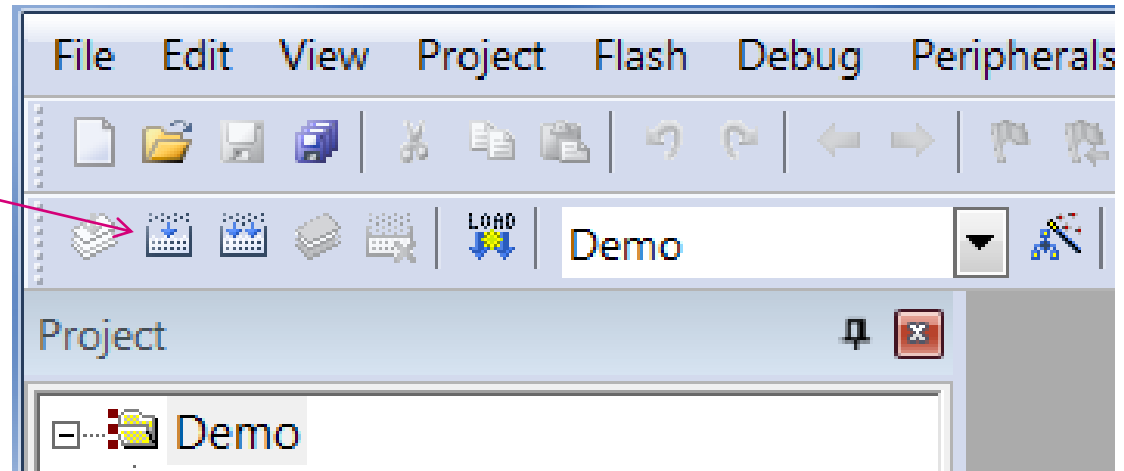


Step #2 - Compile

3

- Click on the **Build** button or Menu::Project::Build Target

Build Button



- The project should compile without errors

Build Output

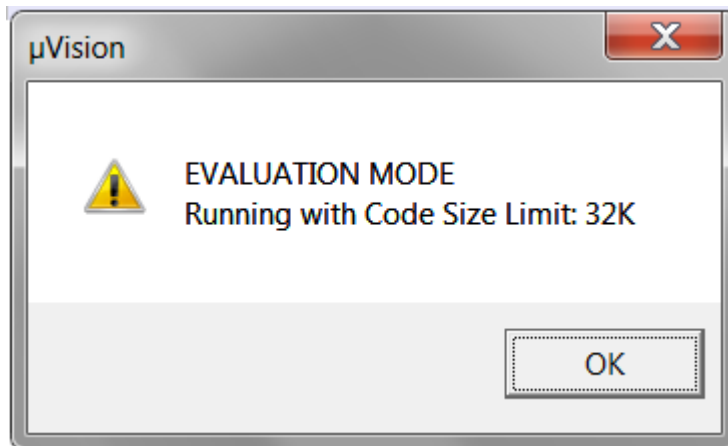
```
compiling stm32f0xx_rcc.c...
compiling stm32f0xx_spi.c...
compiling stm32f0xx_tim.c...
assembling startup_stm32f0xx.s...
linking...
Program Size: Code=1952 RO-data=252 RW-data=36 ZI-data=1028
".\Demo\Demo.axf" - 0 Error(s), 0 Warning(s).
```

Step #3 - Debug

4

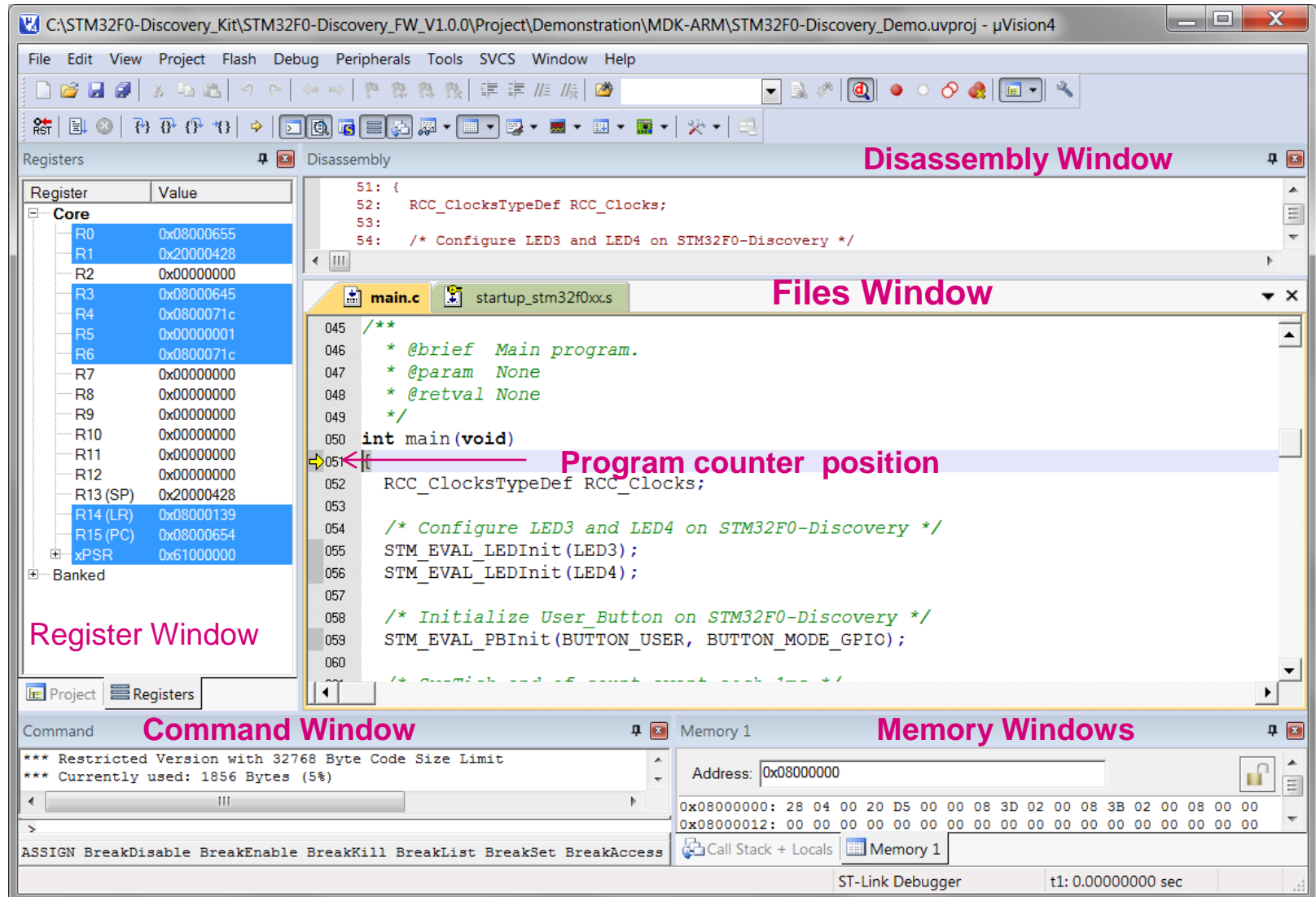
- Click on the Start/Stop Debug Session button or Menu:
Start/Stop Debug Session

Debug Button



- You should receive a warning message. Click "OK"

The MDK-ARM IDE Debugger



The screenshot displays the KEIL MDK-ARM IDE Debugger interface with the following components:

- Register Window:** A table showing the state of registers. The PC register (R15) is highlighted, indicating the current instruction address.

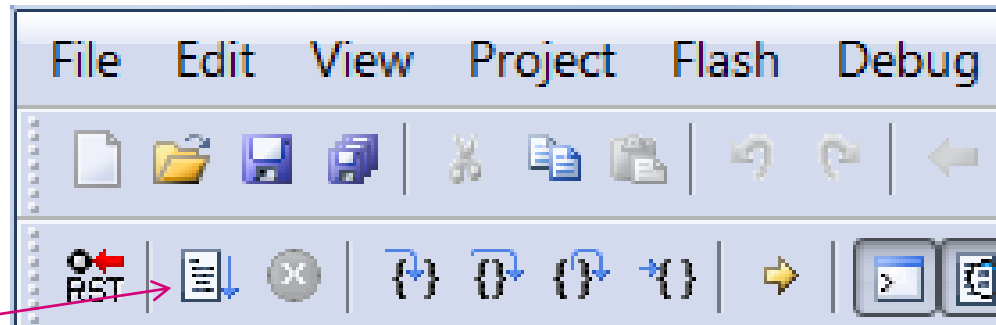
Register	Value
R0	0x08000655
R1	0x20000428
R2	0x00000000
R3	0x08000645
R4	0x0800071c
R5	0x00000001
R6	0x0800071c
R7	0x00000000
R8	0x00000000
R9	0x00000000
R10	0x00000000
R11	0x00000000
R12	0x00000000
R13 (SP)	0x20000428
R14 (LR)	0x0800139
R15 (PC)	0x08000654
xPSR	0x61000000

- Disassembly Window:** Shows the assembly code for the current instruction at address 0x08000654. The instruction is a comment: `/* Configure LED3 and LED4 on STM32F0-Discovery */`.
- Files Window:** Displays the source code file `main.c`. The current instruction is highlighted at line 051: `int main(void)`. A pink arrow points to this line, labeled "Program counter position".
- Command Window:** Shows the status of the debugger, including the number of bytes of code used (1856 Bytes, 5% of the 32768 Byte limit).
- Memory Windows:** Displays the memory contents at address 0x08000000. The memory is shown in hexadecimal and ASCII format.

Step #5 - Run 6

- Click on the Run button to start the program

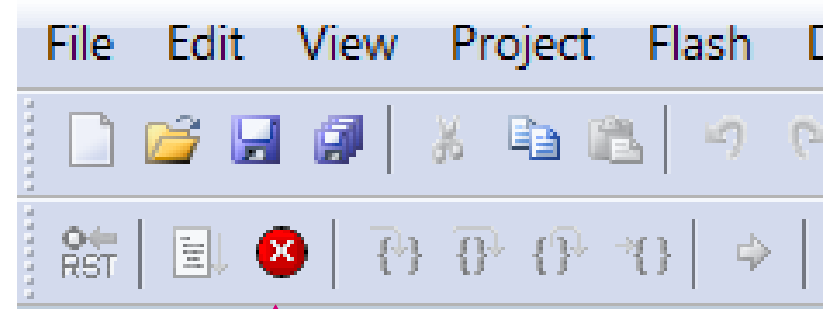
Run Button



- Your STM32F0DISCOVERY board LD3 should begin flashing
 - Note: LD2 (ST-Link Status) Should be flashing

Step #5 - Run 7

- Mission Accomplished
- Please click on the **Stop** button.
- Your code will stop anywhere within the program flow
- Click on the **Debug** button to exit from the debugger



Stop Button



Debug Button

Let's make a change

8

- Double-click to open the main.c file

- Scroll down to line 100

```
092
093     /* Test on blink speed */
094     if(BlinkSpeed == 2)
095     {
096         /* LED3 toggles each 100 ms */
097         STM_EVAL_LEDToggle(LED3);
098
099         /* maintain LED3 status for 100ms */
100         Delay(100); // Your number here [10,500]
101     }
102     else if(BlinkSpeed == 1)
103     {
```

- Enter a number from 10 to 500 and place in the Delay(xxx) statement
- Compile, Debug, and Run
- Press the User button. Validate! Did it work?
- Stop debug and exit the debugger