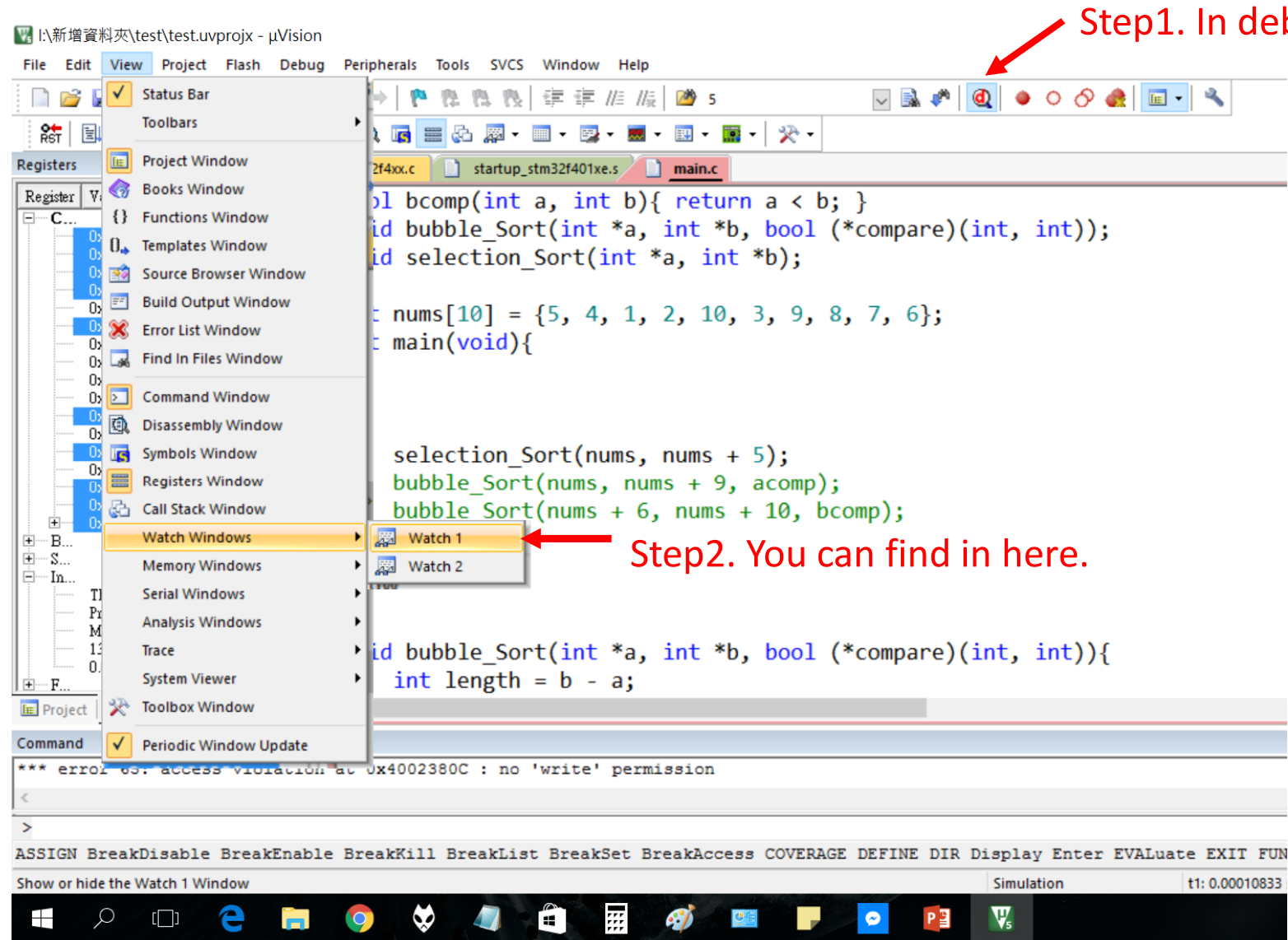


Environment Problem#1

Questioned by 黃凱麟

1. Where to find Watch window in debug mode?



2. What are these errors?

The screenshot shows the uVision IDE interface. The main window displays a C program in `main.c` with the following code:

```
1 #include "stm32f4xx.h" // Device header
2 #include <stdbool.h>
3
4 bool acomp(int a, int b){ return a > b; }
5 bool bcomp(int a, int b){ return a < b; }
6 void bubble_Sort(int *a, int *b, bool (*compare)(int, int));
7 void selection_Sort(int *a, int *b);
8
9 int nums[10] = {5, 4, 1, 2, 10, 3, 9, 8, 7, 6};
10 int main(void){
11     selection_Sort(nums, nums + 5);
12     // bubble_Sort(nums, nums + 9, acomp);
13 }
```

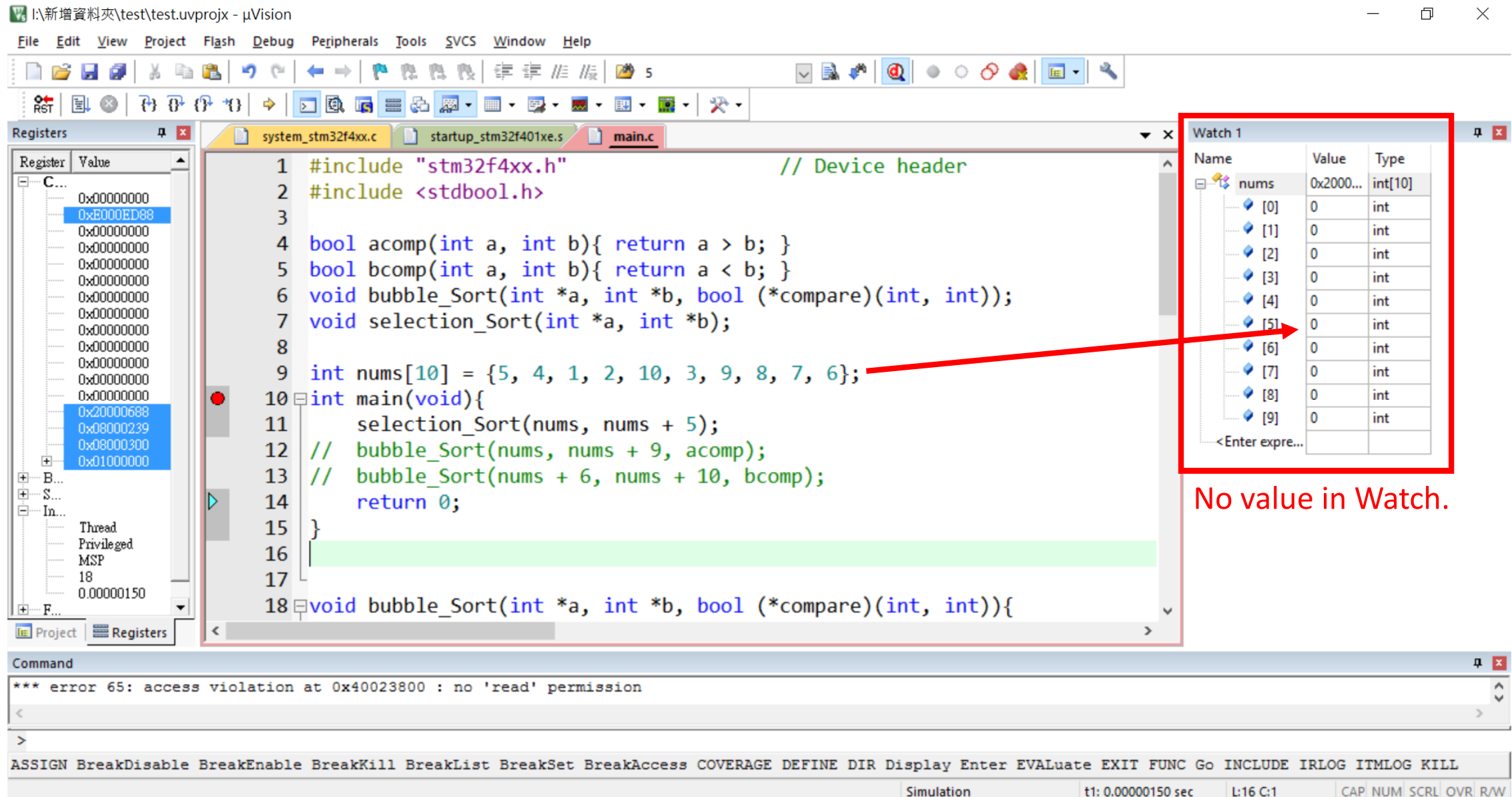
The left sidebar shows the 'Registers' window with a list of registers (R0 to R15) and their values. The bottom window shows the 'Command' window with the following error messages:

```
*** error 65: access violation at 0x40023800 : no 'read' permission
*** error 65: access violation at 0x40023800 : no 'write' permission
*** error 65: access violation at 0x40023808 : no 'write' permission
*** error 65: access violation at 0x40023800 : no 'read' permission
*** error 65: access violation at 0x40023800 : no 'write' permission
*** error 65: access violation at 0x40023804 : no 'write' permission
*** error 65: access violation at 0x40023800 : no 'read' permission
*** error 65: access violation at 0x40023800 : no 'write' permission
*** error 65: access violation at 0x4002380C : no 'write' permission
```

These errors will only occur in simulate mode. You can ignore them or use develop board to run your code.

The bottom status bar shows the simulation status: Simulation, t1: 0.00010833 sec, L:20 C:5, CAP NUM SCRL OVR R/W.

3. Cannot see value in Watch window.



3. Let Program Counter(PC) run to main.

μVision

File Edit View Project Flash Debug Peripherals Tools SVCS Window Help

Registers

Register	Value
C...	0x20000088
	0x20000288
	0x20000288
	0x20000288
	0x00000000
	0x20000028
	0x00000000
	0x00000000
	0x00000000
	0x00000000
	0x080003D8
	0x00000000
	0x20000688
	0x20000688
	0x08000223
	0x08000354
	0x21000000

system_stm32f4xx.c startup_stm32f401xe.s main.c

```
5 bool bcomp(int a, int b){ return a < b; }
6 void bubble_Sort(int *a, int *b, bool (*compare)(int, int));
7 void selection_Sort(int *a, int *b);
8 Program Counter(PC)
9 int nums[10] = {5, 4, 1, 2, 10, 3, 9, 8, 7, 6};
10 int main(void){
11     selection_Sort(nums, nums + 5);
12     // bubble_Sort(nums, nums + 9, acomp);
13     // bubble_Sort(nums + 6, nums + 10, bcomp);
14     return 0;
15 }
16
17
18 void bubble_Sort(int *a, int *b, bool (*compare)(int, int)){
19     int length = b - a;
20     bool swapped = true;
21     int newi;
22     //int i = length - 1;
```

Watch 1

Name	Value	Type
nums	0x2000...	int[10]
[0]	5	int
[1]	4	int
[2]	1	int
[3]	2	int
[4]	10	int
[5]	3	int
[6]	9	int
[7]	8	int
[8]	7	int
[9]	6	int

Value come out in Watch.

Command

```
*** error 65: access violation at 0x4002380C : no 'write' permission
```

ASSIGN BreakDisable BreakEnable BreakKill BreakList BreakSet BreakAccess COVERAGE DEFINE DIR Display Enter EVALuate EXIT FUNC Go INCLUDE IRLOG ITMLOG KILL

Simulation t1: 0.00010833 sec L:10 C:1 CAP NUM SCRL OVR R/W