同济大学计算机系

VS2022 调试实验报告

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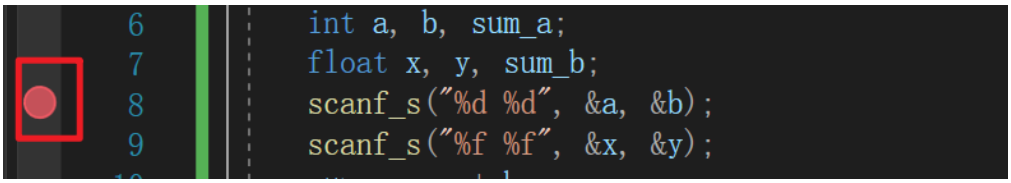
目录（使用手册）

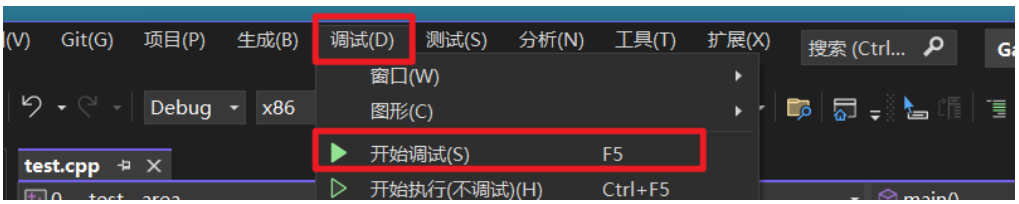
一、Vs2022 下调试工具的基本使用方法

开始/关闭调试

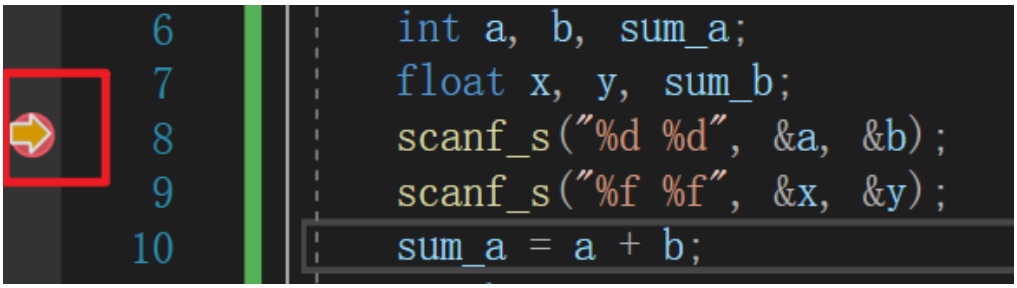
设置断点

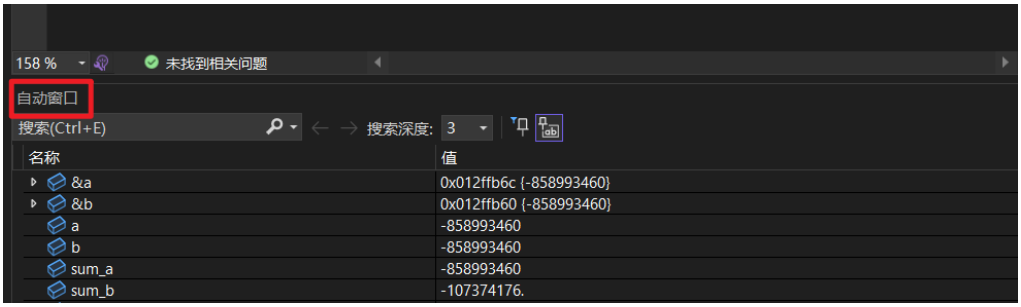


开始调试（F5）

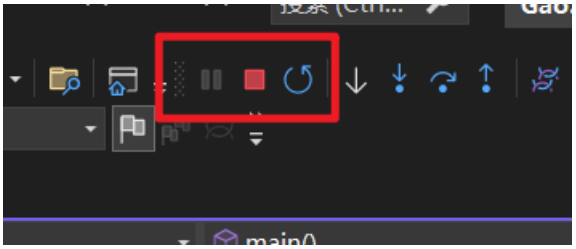


进入调试界面



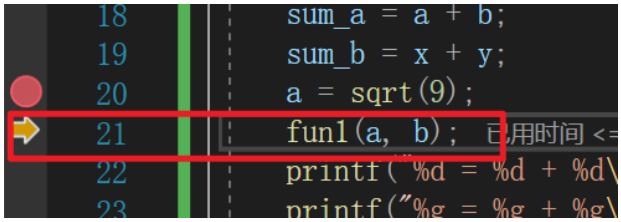


结束调试（shift+f5）



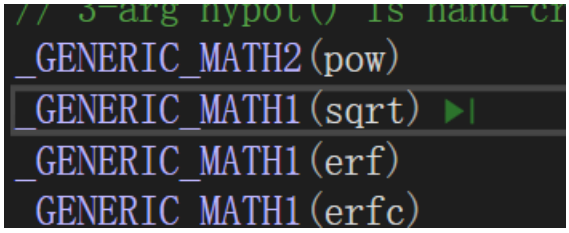
单步执行语句（两种方式）

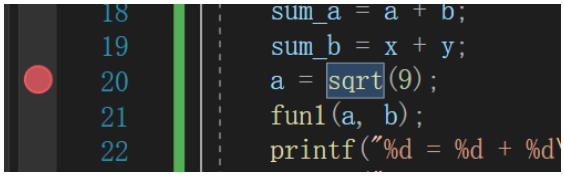
碰到系统类函数（cout/sqrt 等）一步完成不进入内部调试使用逐语句即可（f11）



（直接跳过）

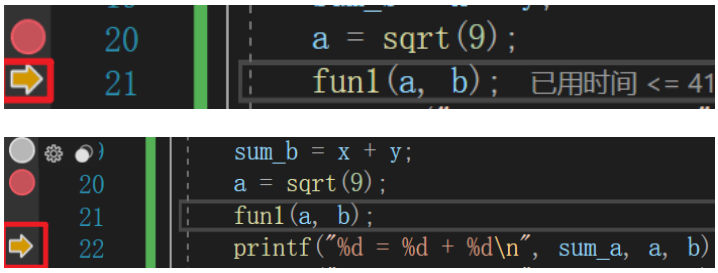
进入到系统函数内部（cout/sqrt 等）如何跳出并返回自己的函数（shift+f11）



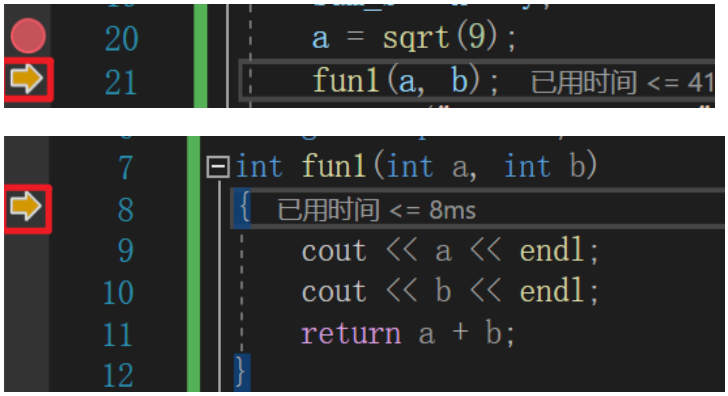


（回到原界面）

碰到自定义的函数调用语句，如何一步完成而不进入自定义（f10）

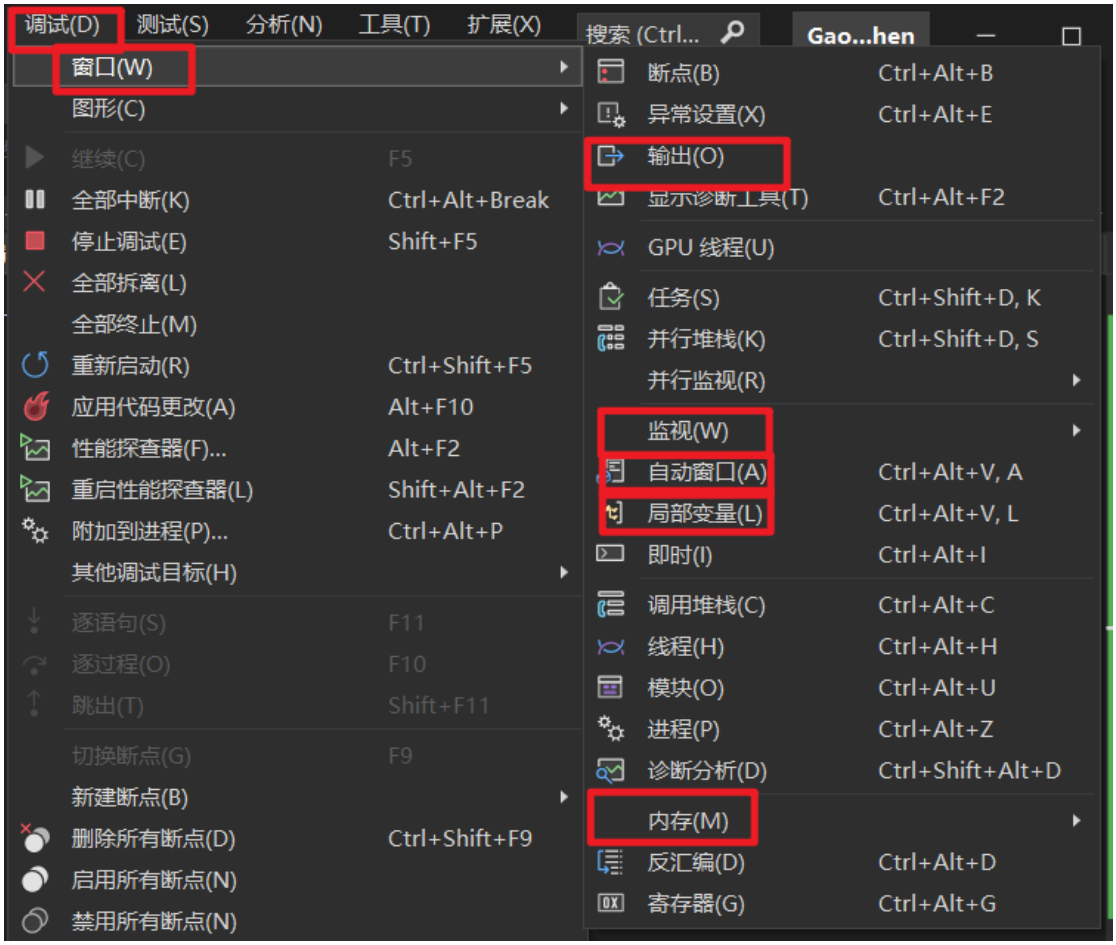


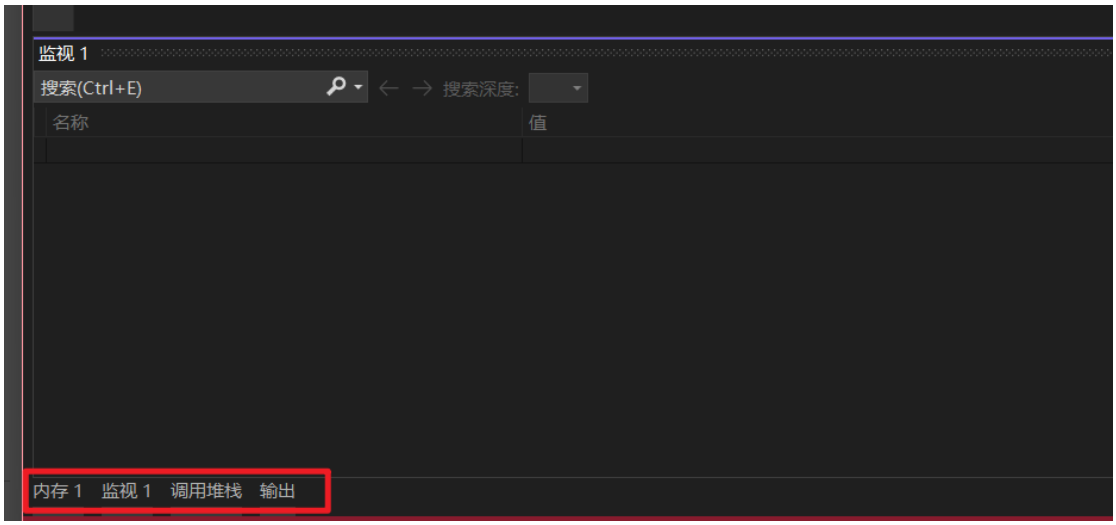
在碰到自定义的函数的调用语句（例如在 main 函数中调用自定义的 fun 函数）时，如何转到被调用函数中单步执行 （f11）



二、Vs2022 查看变量等相关信息的方法

打开显示信息的窗口（调试状态下才能打开）

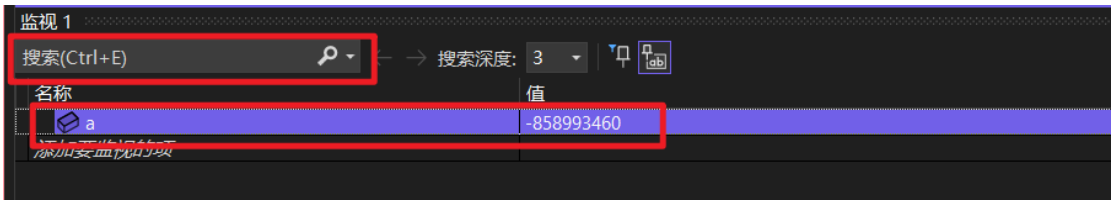




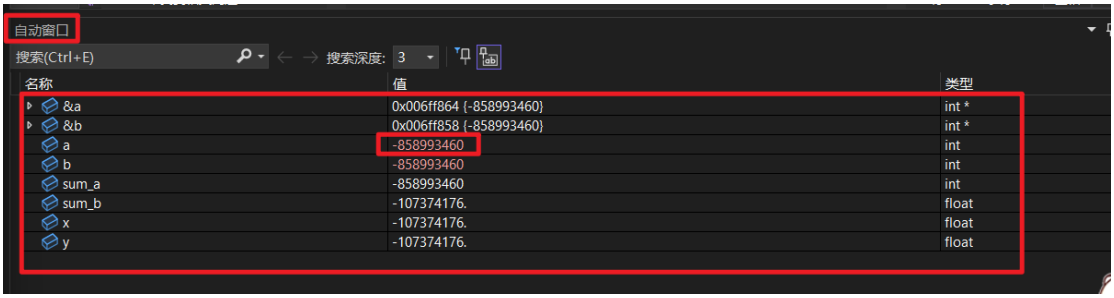
调到舒服的位置，就可以在下方查看了

查看形参/自动变量

右键一个变量，添加监视，变量可以是全局变量，静态变量，指针变量等（也可以在搜索框里面搜索，不同作用域的变量重名会都显示）



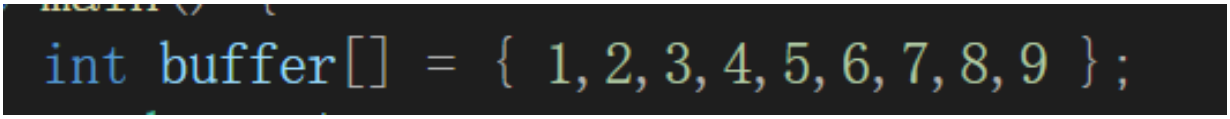
自动窗口的变量的显示（不会显示全部，可以根据需要添加监视）

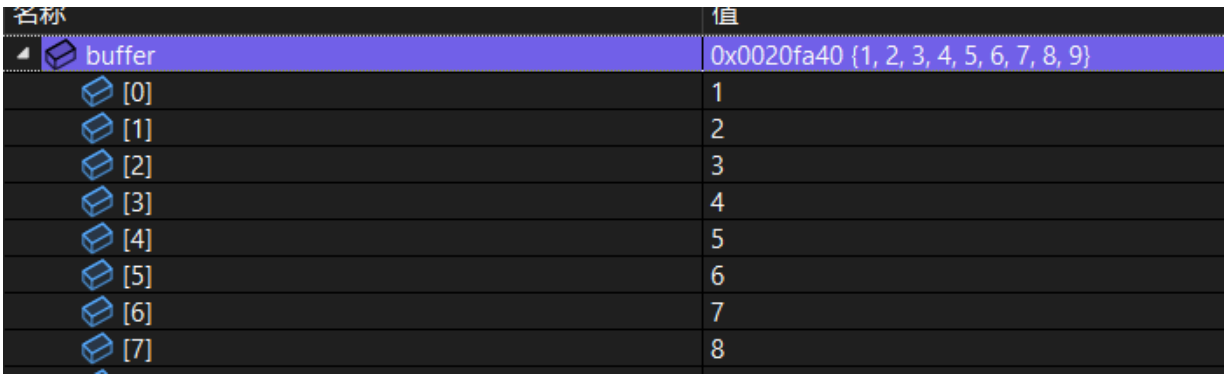


数组和二维数组

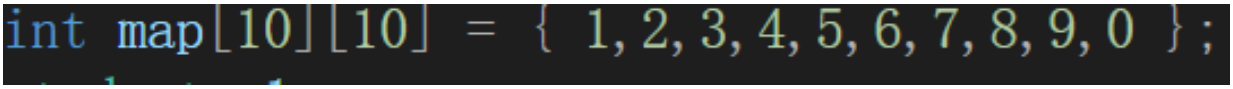
同样也可以添加监视

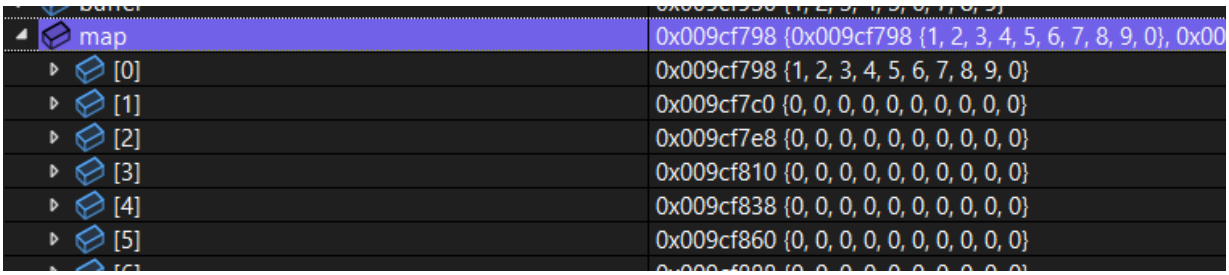
一维数组

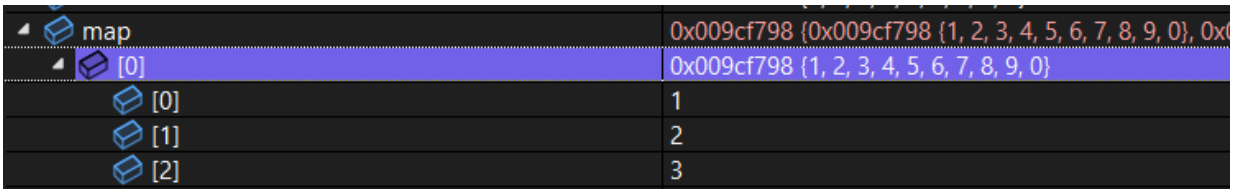




二维数组





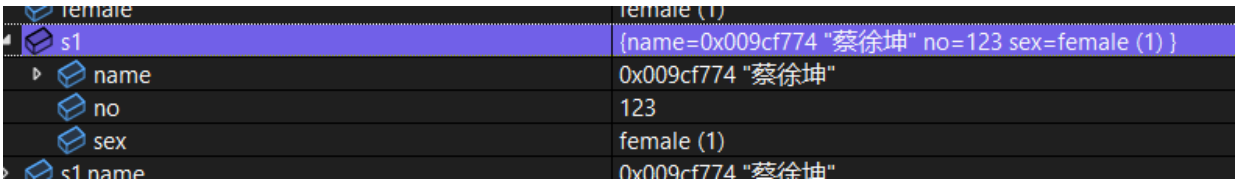


结构体

结构体也可以增加监视

```
student s1;
```

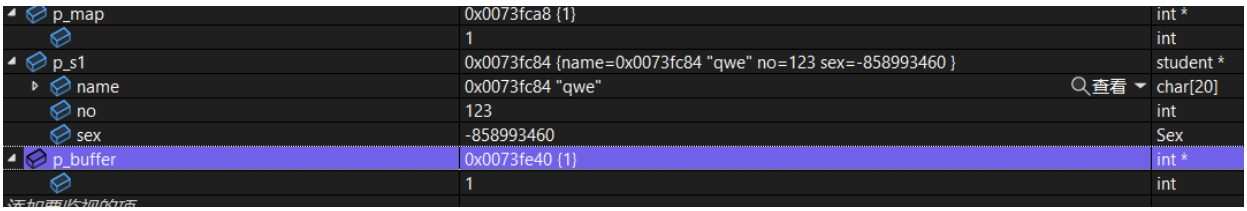
```
enum Sex{ male,female };
struct student
{
    char name[20];
    int no;
    Sex sex;
};
```



指向数组和结构体的指针

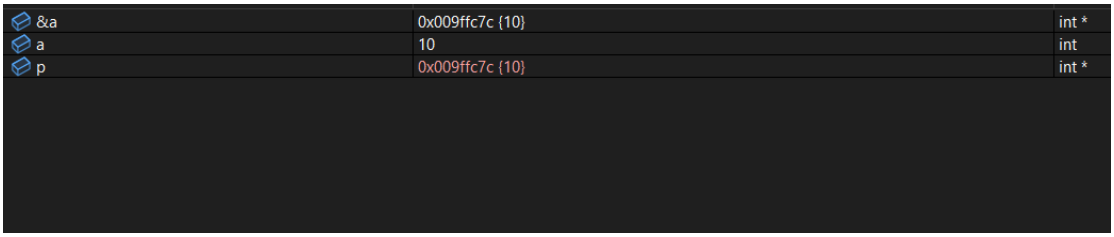
```
int buffer[] = { 1,2,3,4,5,6,7,8,9 };
int map[10][10] = { 1,2,3,4,5,6,7,8,9,0 };
student s1;
student* p_s1 = &s1;
int* p_map = map[0];
int* p_buffer = buffer;
```

显示当前指向的地址和改地址存储的内容，以及指针的基类型



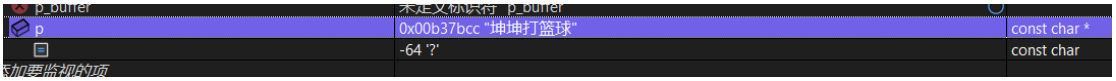
引用

```
int a = 10;
int* p = &a;
int& b = a;
```



指向字符串常量的指针变量（查看无名字符串常量的地址）

```
const char* p = "坤坤打篮球";
```



使用指针出现越界访问的情况

只出现地址，可能不显示指向的内容，或指向的内容不可信
非法写入时会弹窗

```
int main() {
    int buffer[10] = { 0,1,2,3,4,5,6,7,8,9 };
    int* p = buffer;

    cout << (p + 11) << ": " << *(p + 11) << endl;
    for (int i = 0; i < 11; i++)  已用时间 <= 5ms
        p++;
    *(p + 11) = 12;

     return 0;
}
```

值不可信

非法写入会弹窗警告