

Osire demo 使用说明

发布清单

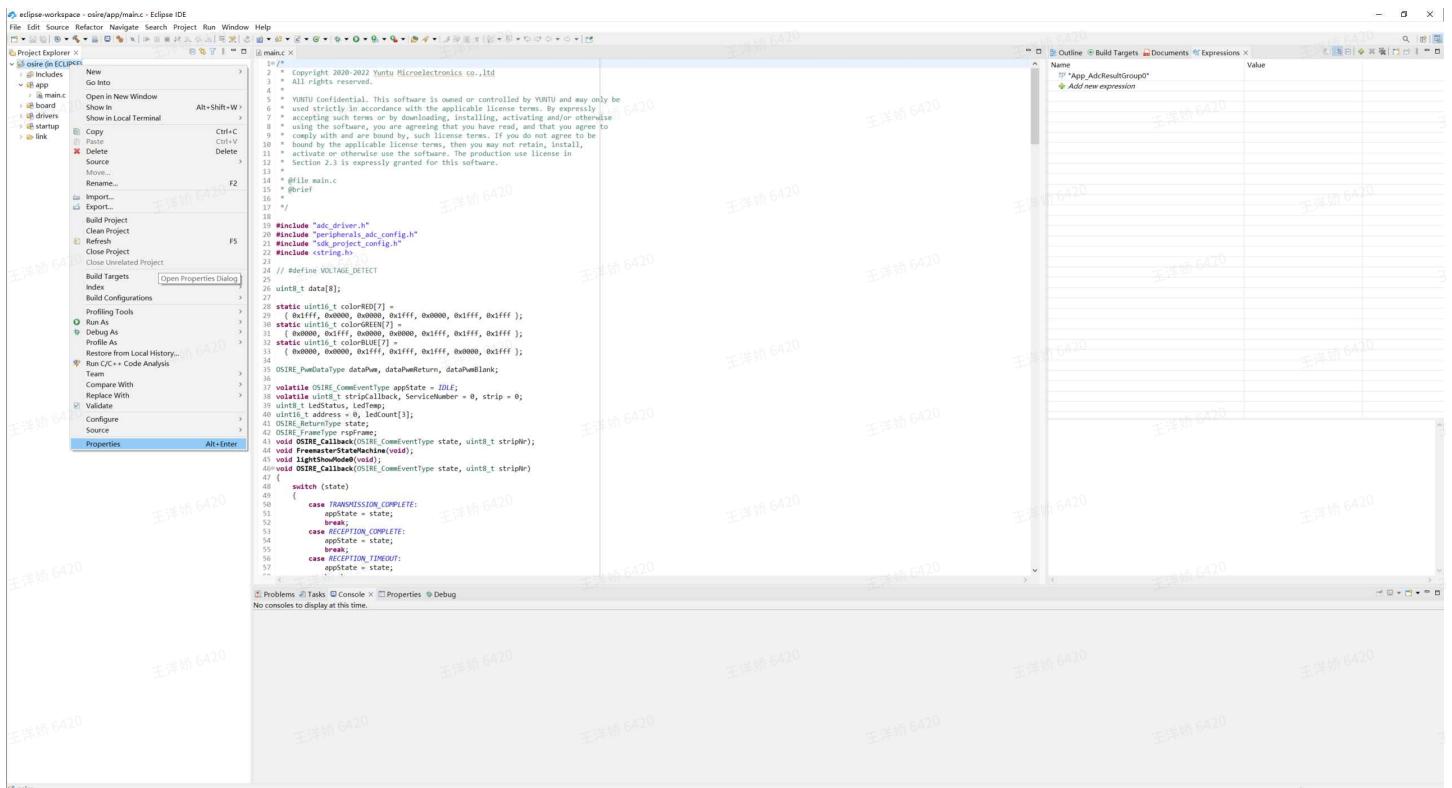
- Osire demo 应用程序 (双击 osire.yct 生成工程)
- lib_osire.a (OSIRE 的驱动包, 适用于 GCC 与 YuntuIDE 开发环境)
- mdk_osire.lib (OSIRE 的驱动包, 适用于 KEIL 开发环境)
- iar_osire.a (OSIRE 的驱动包, 适用于 IAR 开发环境)

常见问题

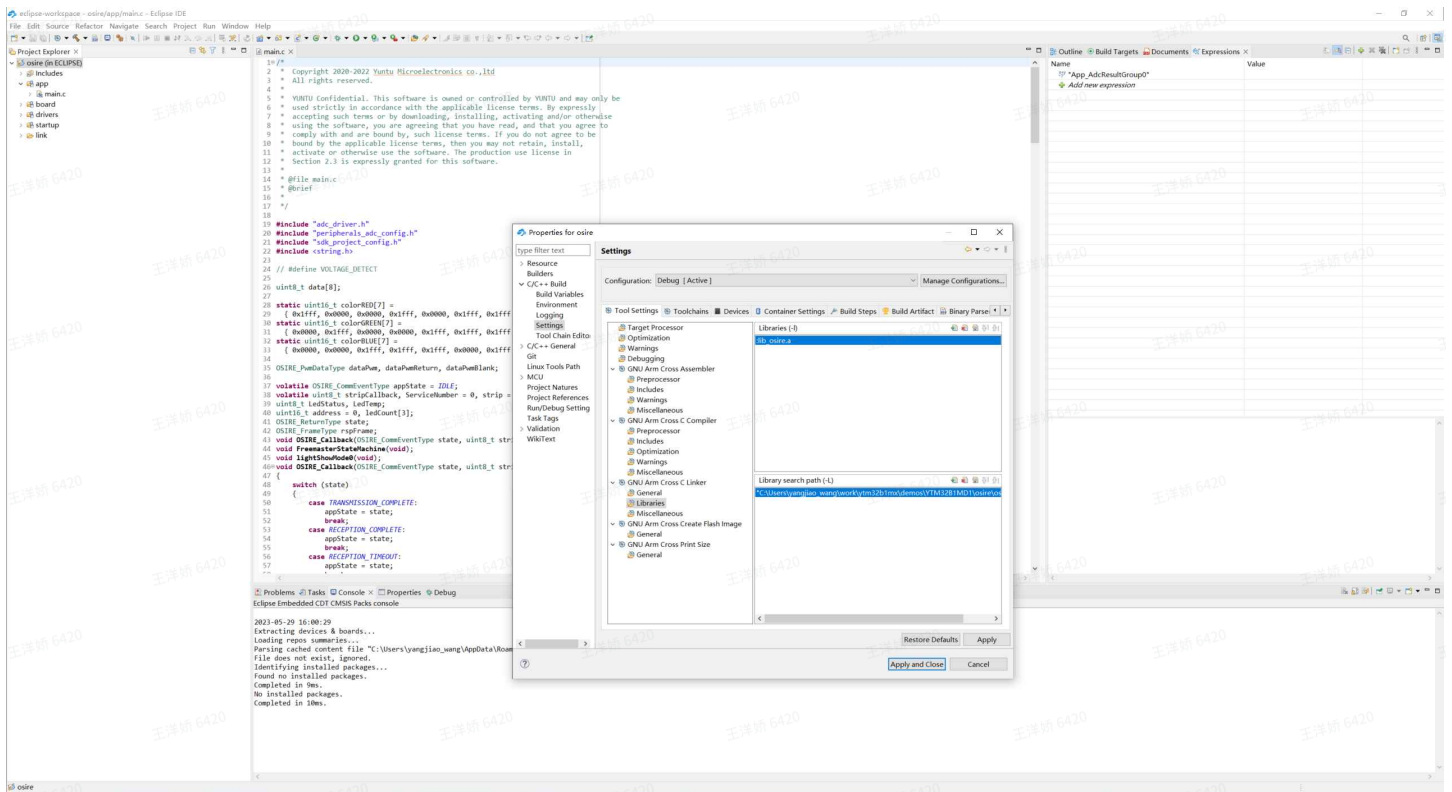
YuntuIDE 添加库

在 YuntuIDE 加载完 OSIRE 的示例后, 请注意下面几条提示。

右键工程并点击 **Properties** 来打开工程属性窗口。



然后点击 **C/C++ Build** 来展开并点击 **Setting**, 并选择 **Libraries**。 *Libraries(-l)* 里的内容是实际的库文件, 例如, `:lib_osire.a`, *Library search path(-L)* 里的内容是库所在的路径。

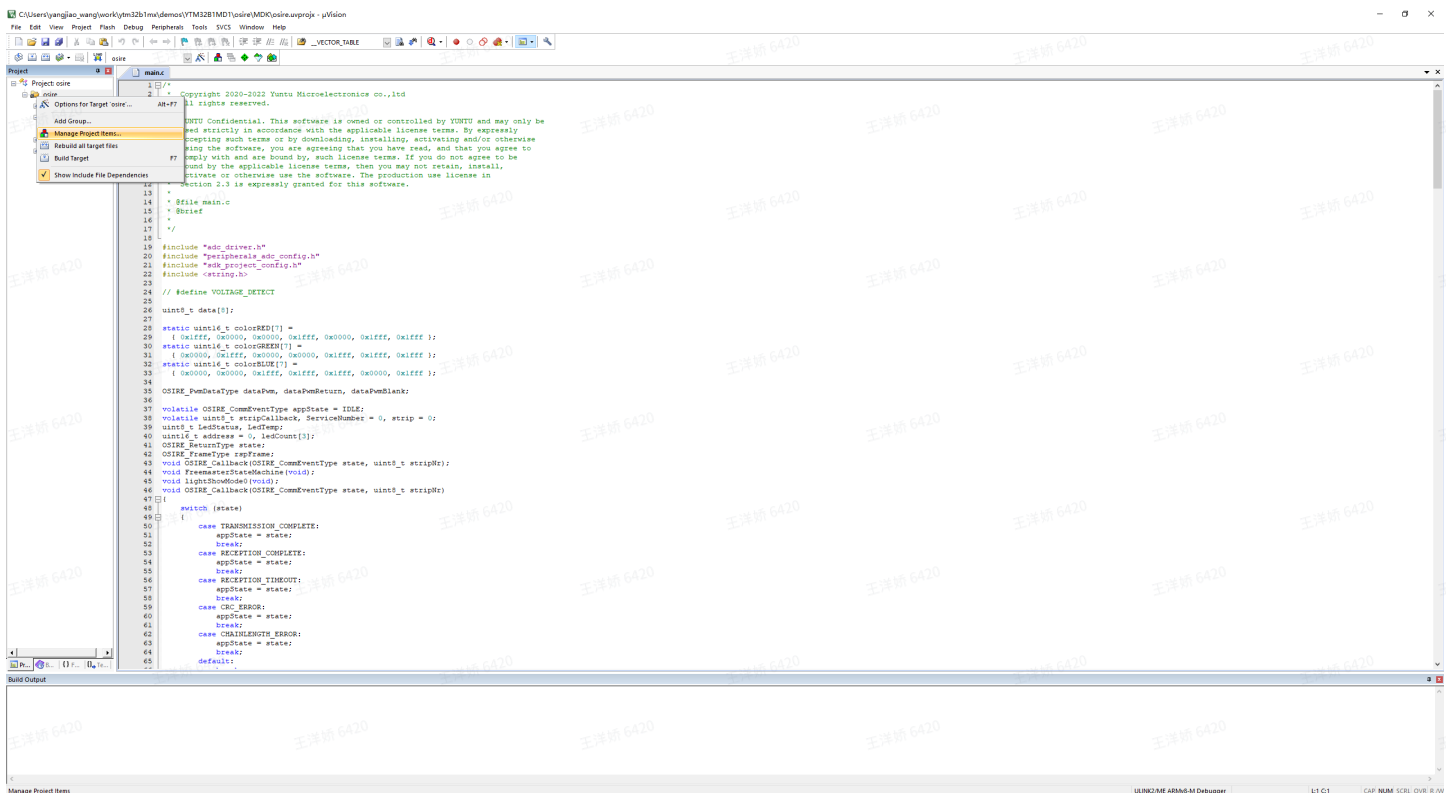


随后正常编译即可。

KEIL添加库

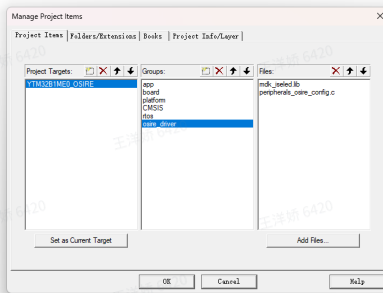
在 KEIL 加载完 OSIRE 的示例后，请注意下面几条提示。

右键工程并点击 **Manage Project Items** 来打开工程文件配置窗口



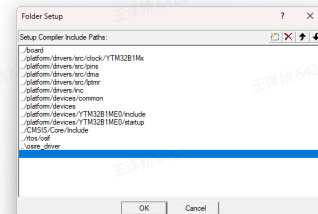
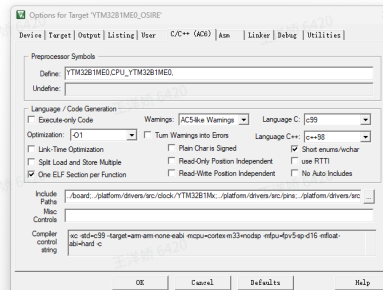
添加 **osire_driver** 文件夹，并添加 **mdk_osire.lib** 与 **peripherals_osire_config.c**

```
1  /* USER CODE BEGIN Header */
2  /* you can remove the copyright */
3
4  /*
5   * Copyright 2020-2024 Yuntu Microelectronics co.,ltd
6   * All rights reserved.
7   *
8   * YUNTU Confidential. This software is owned or controlled by YUNTU and may only be
9   * used strictly in accordance with the applicable license terms. By expressly
10  * accepting such terms or by downloading, installing, activating and/or otherwise
11  * using the software, you are agreeing that you have read, and that you agree to
12  * comply with and are bound by, such license terms. If you do not agree to be
13  * bound by the applicable license terms, then you may not retain, install,
14  * activate or otherwise use the software. The production use license in
15  * Section 2.3 is expressly granted for this software.
16  */
17  #file main.c
18  #brief
19
20  */
21
22  /* USER CODE END Header */
23  #include "adk_project_config.h"
24  /* Includes */
25
26  /* Private includes */
27  /* USER CODE BEGIN Includes */
28  #include "osire_driver.h"
29  #include "peripherals_osire_config.h"
30  #include "osire.h"
31  #include <string.h>
32  /* USER CODE END Includes */
33
34  /* Private typedef */
35  /* USER CODE BEGIN PTD */
36  /* USER CODE END PTD */
37
38  /* Private define */
39  /* USER CODE BEGIN PD */
40  /* USER CODE END PD */
41
42  /* Private macro */
43  /* USER CODE BEGIN PM */
44  /* USER CODE END PM */
45
46  /* Private variables */
47  /* USER CODE BEGIN PV */
48  uint8_t data[5];
49
50  static uint16_t colorRED[] =
51  { 0xffff, 0x0000, 0x0000, 0xffff, 0x0000, 0xffff, 0xffff };
52  static uint16_t colorGREEN[] =
53  { 0x0000, 0xffff, 0x0000, 0x0000, 0xffff, 0xffff, 0xffff };
54  static uint16_t colorBLUE[] =
55  { 0x0000, 0x0000, 0xffff, 0xffff, 0xffff, 0x0000, 0xffff };
56
57  OSIRE_PwmDataType dataPwm, dataPwmReturn, dataPwmBlank;
58
59  volatile OSIRE_CommEventTypeDef appState = IDLE;
60  volatile uint8_t stripCallback, ServiceNumber = 0, strip = 0;
61  uint8_t LedStatus, LedTemp;
62  uint16_t address = 0, ledCount[3];
63  OSIRE_StatusTypeDef state;
64  OSIRE_FxmaType rxFxma;
65  volatile uint32_t timer10ms = 0;
66  /* USER CODE END PV */
67
68  /* Private function declare */
69  /* USER CODE BEGIN PFC */
70  void OSIRE_Callback(OSIRE_CommEventTypeDef state, uint8_t stripNr);
71
```



添加编译路径，增加 osire_driver

```
1  /* USER CODE BEGIN Header */
2  /* you can remove the copyright */
3
4  /*
5   * Copyright 2020-2024 Yuntu Microelectronics co.,ltd
6   * All rights reserved.
7   *
8   * YUNTU Confidential. This software is owned or controlled by YUNTU and may only be
9   * used strictly in accordance with the applicable license terms. By expressly
10  * accepting such terms or by downloading, installing, activating and/or otherwise
11  * using the software, you are agreeing that you have read, and that you agree to
12  * comply with and are bound by, such license terms. If you do not agree to be
13  * bound by the applicable license terms, then you may not retain, install,
14  * activate or otherwise use the software. The production use license in
15  * Section 2.3 is expressly granted for this software.
16  */
17  #file main.c
18  #brief
19
20  */
21
22  /* USER CODE END Header */
23  #include "adk_project_config.h"
24  /* Includes */
25
26  /* Private includes */
27  /* USER CODE BEGIN Includes */
28  #include "osire_driver.h"
29  #include "peripherals_osire_config.h"
30  #include "osire.h"
31  #include <string.h>
32  /* USER CODE END Includes */
33
34  /* Private typedef */
35  /* USER CODE BEGIN PTD */
36  /* USER CODE END PTD */
37
38  /* Private define */
39  /* USER CODE BEGIN PD */
40  /* USER CODE END PD */
41
42  /* Private macro */
43  /* USER CODE BEGIN PM */
44  /* USER CODE END PM */
45
46  /* Private variables */
47  /* USER CODE BEGIN PV */
48  uint8_t data[5];
49
50  static uint16_t colorRED[] =
51  { 0xffff, 0x0000, 0x0000, 0xffff, 0x0000, 0xffff, 0xffff };
52  static uint16_t colorGREEN[] =
53  { 0x0000, 0xffff, 0x0000, 0x0000, 0xffff, 0xffff, 0xffff };
54  static uint16_t colorBLUE[] =
55  { 0x0000, 0x0000, 0xffff, 0xffff, 0xffff, 0x0000, 0xffff };
56
57  OSIRE_PwmDataType dataPwm, dataPwmReturn, dataPwmBlank;
58
59  volatile OSIRE_CommEventTypeDef appState = IDLE;
60  volatile uint8_t stripCallback, ServiceNumber = 0, strip = 0;
61  uint8_t LedStatus, LedTemp;
62  uint16_t address = 0, ledCount[3];
63  OSIRE_StatusTypeDef state;
64  OSIRE_FxmaType rxFxma;
65  volatile uint32_t timer10ms = 0;
66  /* USER CODE END PV */
67
68  /* Private function declare */
69  /* USER CODE BEGIN PFC */
70  void OSIRE_Callback(OSIRE_CommEventTypeDef state, uint8_t stripNr);
71
```

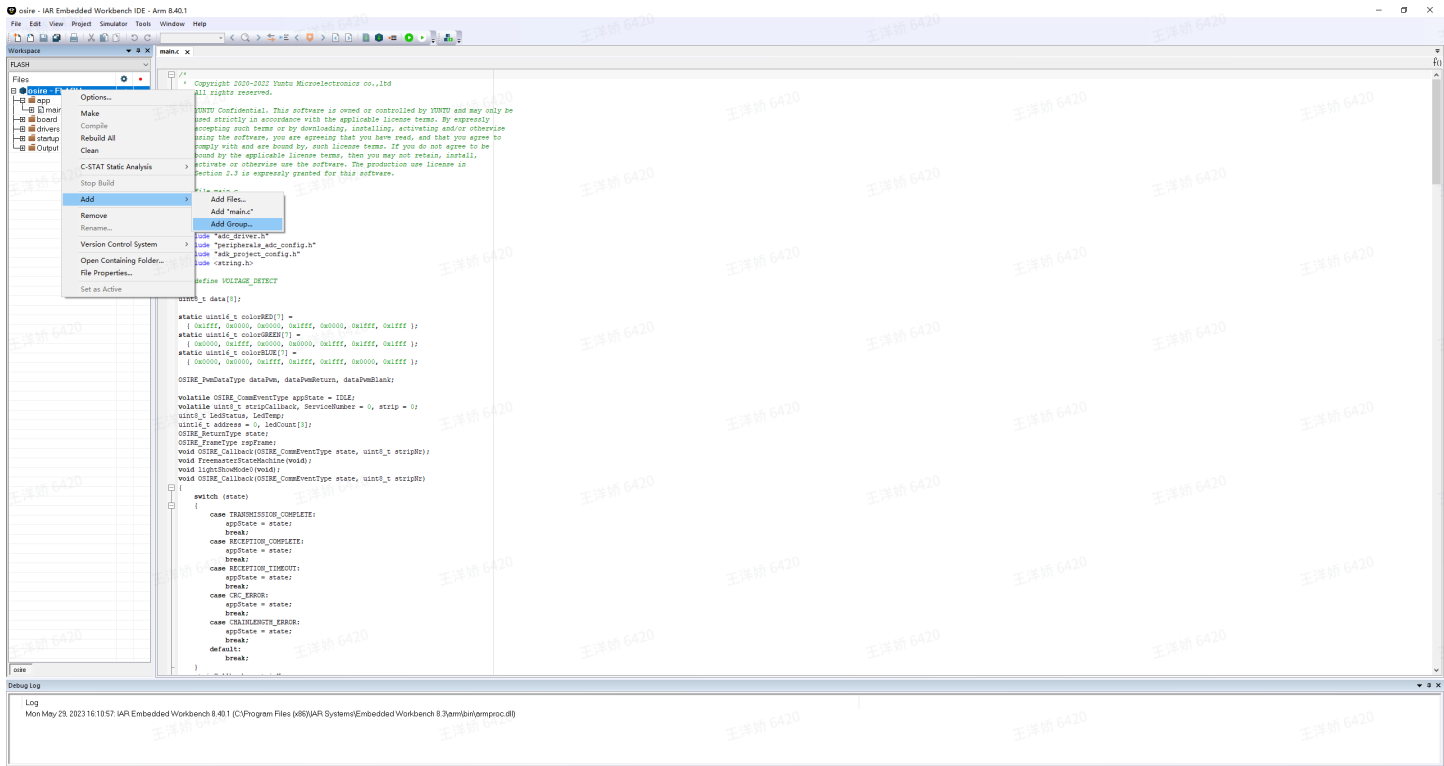


随后正常编译即可。

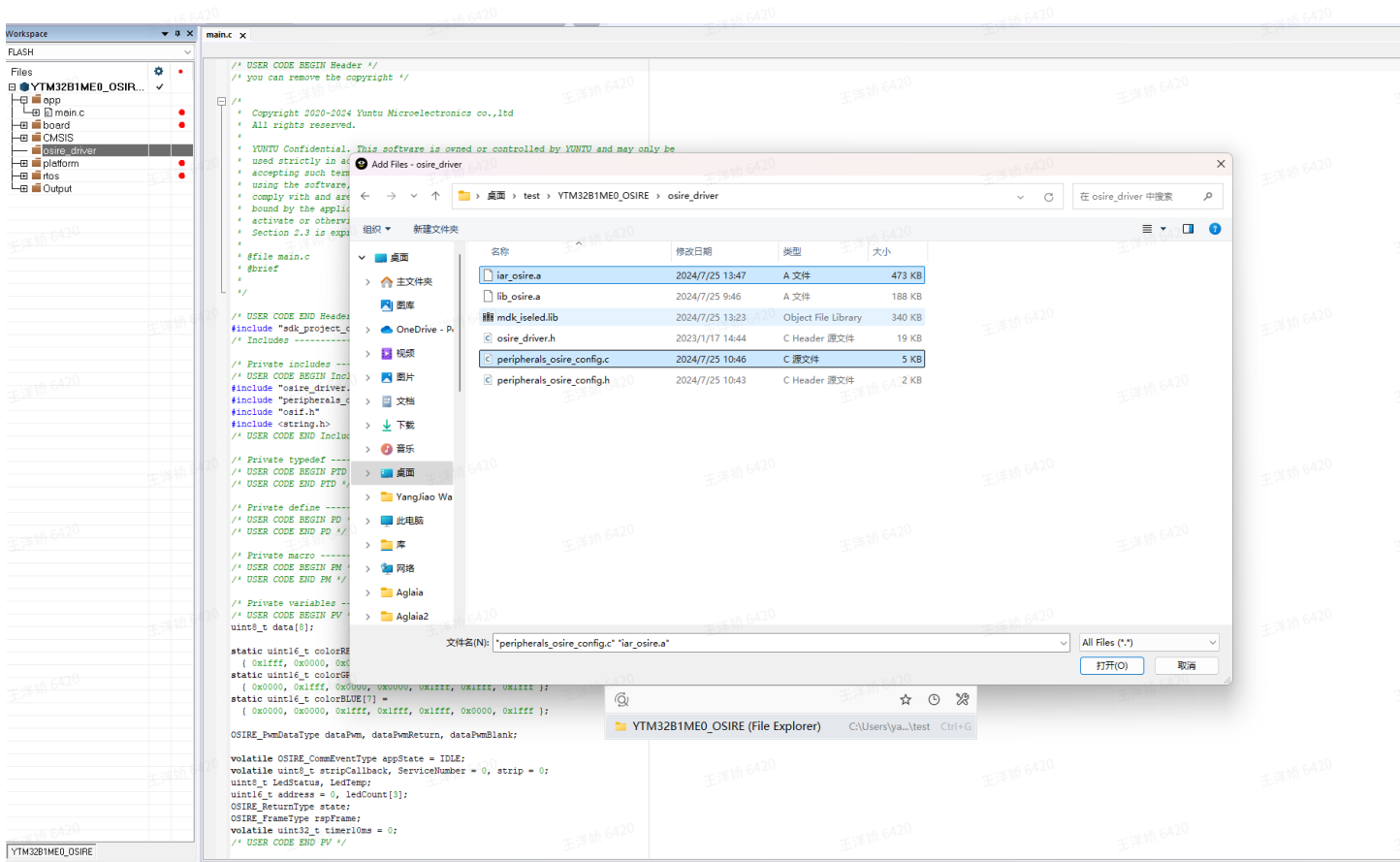
IAR添加库

在 IAR 中加载完 OSIRE 的示例后，请注意下面几条提示。

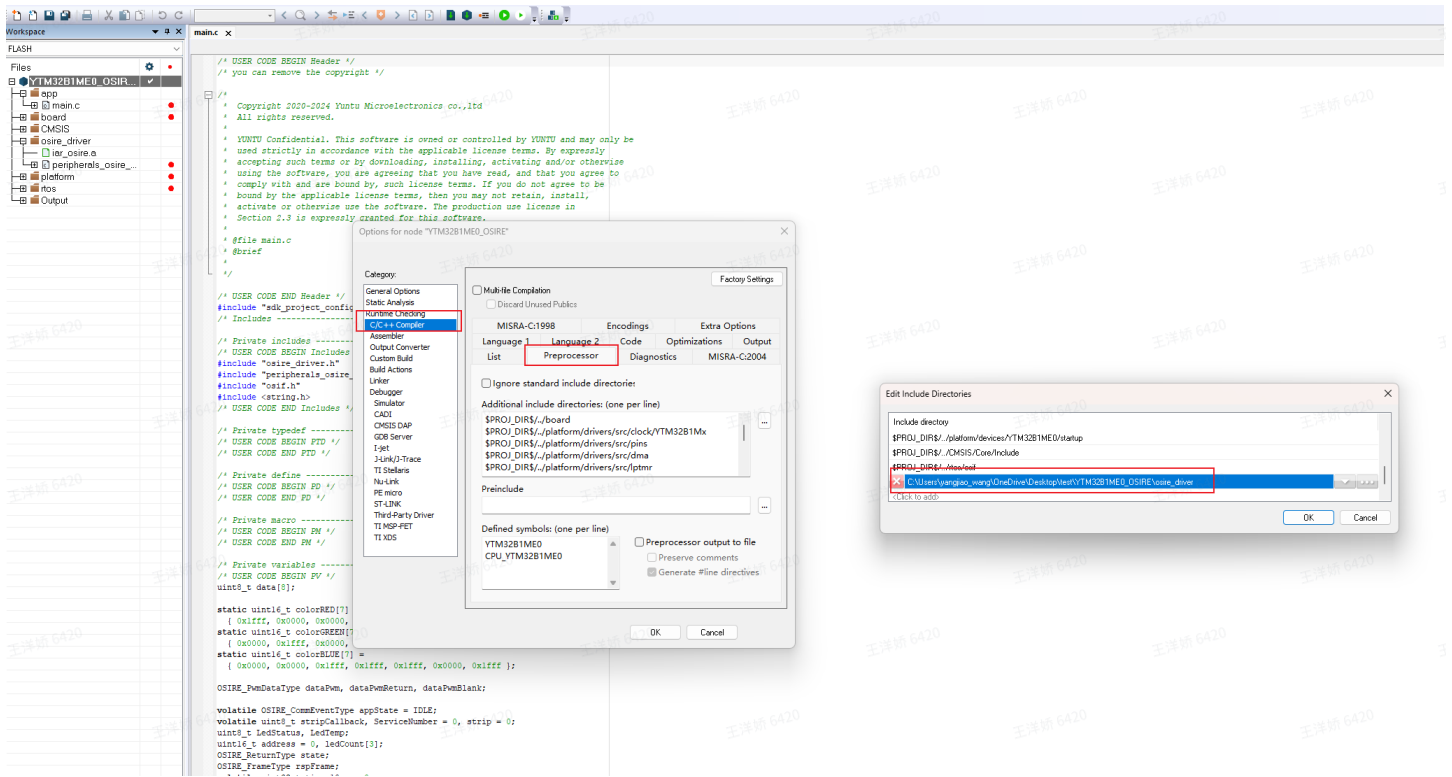
右键工程并点击 Add，并选择 Add Group，添加 osire_driver 的目录。



右键 **osire_driver** Group，并选择 **Add Files** 添加 **iar_osire.a** 与 **peripherals_osire_config.c**。



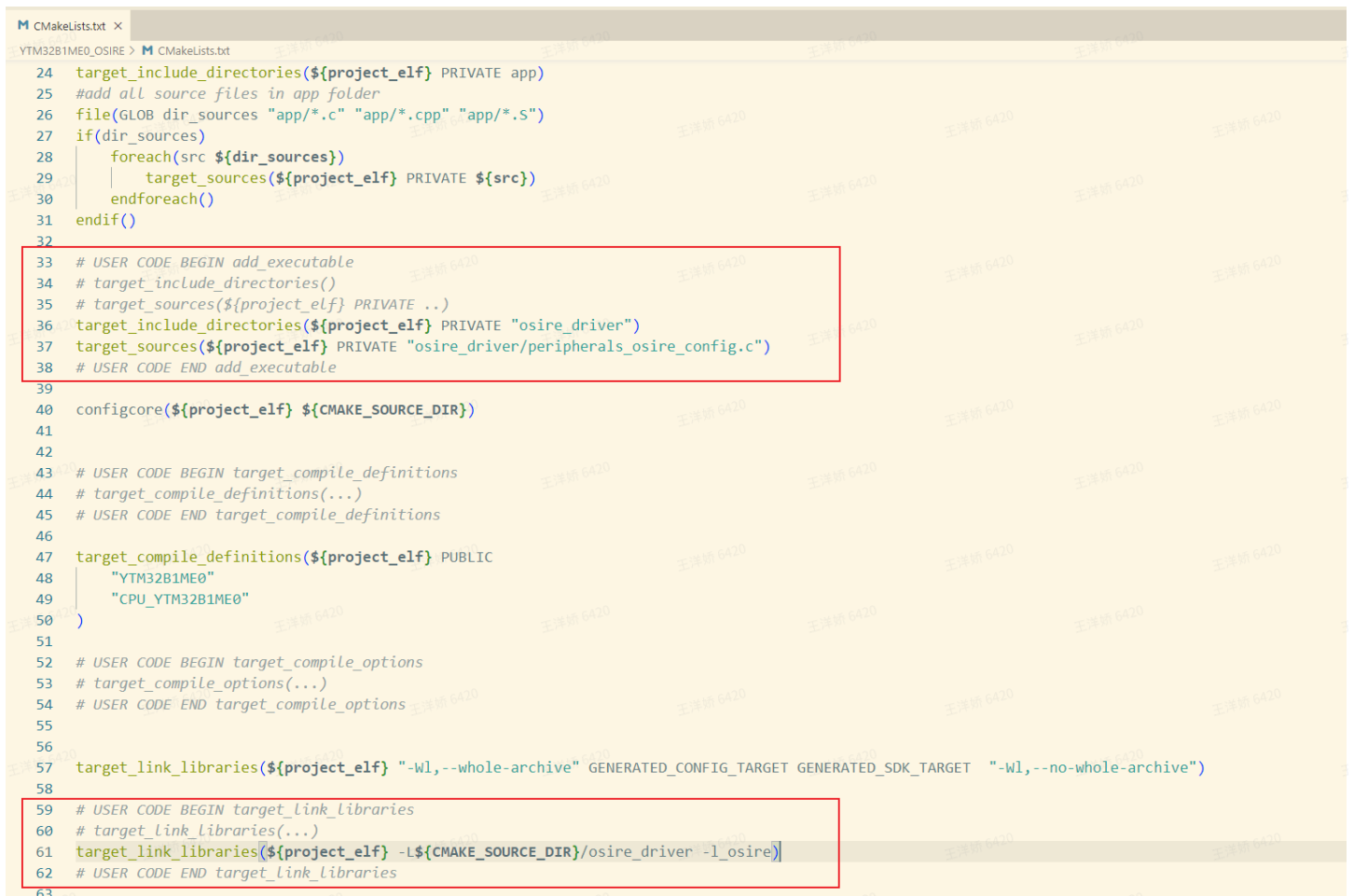
添加编译路径，增加 **osire_driver**



随后正常编译即可

CMakeGCC

通过使用文件夹内的 CMakeLists.txt ，直接编译。



关于软件调试的注意事项

避免在 **FreemasterStateMachine()** 函数中的那部调试。为提高利用率，OSIRE 的通信控制采用异步方式，且设有超时机制，当程序在 FreemasterStateMachine() 函数中单步调试时，可能会导致通信来不及响应，导致 OSIRE 灯珠控制失败。

硬件连接

驱动板上的 CANH 与 灯板上的 CANH 连接，驱动板上的 CANL 与 灯板上的 CANL 连接，驱动板上的 GND 与 灯板上的 GND 连接。

若希望驱动板与灯板统一上电，可将驱动板上的 VDD 与 灯板上的 VDD 连接；否则不要将驱动板上的 VDD 与 灯板上的 VDD 连接。