1. 将demo目录\sdk\plactform\driver下的uart2文件复制到客户工程对应的目录下。
2. 将demo目录\sdk\plactform\reg下的reg_uart2.h文件复制到客户工程对应的文件，如果客户工程对应的目录已经有reg_uart2.h文件，则直接替换。
3. 在BK3435_reg.h添加 宏定义

```
#define REG_APB3_UART2_CFG            (*((volatile unsigned long *)  0x00806A00))
#define REG_APB3_UART2_FIFO_CFG       (*((volatile unsigned long *)  0x00806A04))
#define REG_APB3_UART2_FIFO_STAT      (*((volatile unsigned long *)  0x00806A08))
#define REG_APB3_UART2_PORT           (*((volatile unsigned long *)  0x00806A0C))
#define REG_APB3_UART2_INT_ENABLE     (*((volatile unsigned long *)  0x00806A10))
#define REG_APB3_UART2_INT_STAT       (*((volatile unsigned long *)  0x00806A14))
#define REG_APB3_UART2_FLOW_CFG       (*((volatile unsigned long *)  0x00806A18))
#define REG_APB3_UART2_WAKE_CFG       (*((volatile unsigned long *)  0x00806A1C))
```

```
// UART
//============================================================================
#if UART_ONE_ENBLE
#define REG_APB3_UART_CFG             (*((volatile unsigned long *)   0x00806300))
#define REG_APB3_UART_FIFO_CFG        (*((volatile unsigned long *)   0x00806304))
#define REG_APB3_UART_FIFO_STAT       (*((volatile unsigned long *)   0x00806308))
#define REG_APB3_UART_PORT            (*((volatile unsigned long *)   0x0080630C))
#define REG_APB3_UART_INT_ENABLE      (*((volatile unsigned long *)   0x00806310))
#define REG_APB3_UART_INT_STAT        (*((volatile unsigned long *)   0x00806314))
#define REG_APB3_UART_FLOW_CFG        (*((volatile unsigned long *)   0x00806318))
#define REG_APB3_UART_WAKE_CFG        (*((volatile unsigned long *)   0x0080631c))
#endif

#if 1//UART_ONE_ENBLE
#define REG_APB3_UART2_CFG            (*((volatile unsigned long *)   0x00806A00))
#define REG_APB3_UART2_FIFO_CFG       (*((volatile unsigned long *)   0x00806A04))
#define REG_APB3_UART2_FIFO_STAT      (*((volatile unsigned long *)   0x00806A08))
#define REG_APB3_UART2_PORT           (*((volatile unsigned long *)   0x00806A0C))
#define REG_APB3_UART2_INT_ENABLE     (*((volatile unsigned long *)   0x00806A10))
#define REG_APB3_UART2_INT_STAT       (*((volatile unsigned long *)   0x00806A14))
#define REG_APB3_UART2_FLOW_CFG       (*((volatile unsigned long *)   0x00806A18))
#define REG_APB3_UART2_WAKE_CFG       (*((volatile unsigned long *)   0x00806A1C))
#endif
```

```
#define INT_STATUS_UART2_bit    (0x01<<16)
```

```
#define INT_STATUS_ADC_bit      (0x01<< 8)
#define INT_STATUS_I2C_bit      (0x01<< 7)
#define INT_STATUS_SPI_bit      (0x01<< 6)
#if UART_ONE_ENBLE
#define INT_STATUS_UART_bit     (0x01<< 5)
#endif
#define INT_STATUS_UART2_bit    (0x01<<16)

#define INT_STATUS_PWM4_bit     (0x01<< 4)
```

4. 在int.h文件添加宏定义

```
#define INT_STATUS_UART2_bit    (0x01<<16)
#define INT_UART2_bit    (0x01<<16)
```

```
#define INT_STATUS_SPI_bit      (0x01<< 6)
#if UART_ONE_ENBLE
#define INT_STATUS_UART_bit     (0x01<< 5)
#endif
#define INT_STATUS_UART2_bit    (0x01<<16)

#define INT_STATUS_PWM4_bit     (0x01<< 4)
#define INT_SPI_bit      (0x01<< 6)
#if UART_ONE_ENBLE
#define INT_UART_bit     (0x01<< 5)
#endif
#define INT_UART2_bit    (0x01<<16)

#define INT_PWM4_bit     (0x01<< 4)
```

5. 在int.c文件修改void intc_init(void)函数

```
void intc_init(void)
{
     // Clear all interrupts
    intc_enable_clear(INT_IRQ_BIT | FIQ_IRQ_BIT);

    // enable the supported interrupts
    intc_enable_set(INT_IRQ_BIT | FIQ_IRQ_BIT);

    intc_module_enable_set(INT_BLE_bit | INT_UART_bit| INT_UART2_bit);
}
```

在void IRQ_Exception(void)函数调用中断函数uart2_isr();

```
    #if (UART_DRIVER)
    // call the function handler
    if(IntStat & INT_STATUS_UART_bit)
    {
        irq_status |= INT_STATUS_UART_bit;
        uart_isr();
    }
    #endif
    #if (UART_DRIVER)
    // call the function handler
    if(IntStat & INT_STATUS_UART2_bit)
    {
        irq_status |= INT_STATUS_UART2_bit;
        uart2_isr();
    }
    #endif
```

6. 在arch_main.c文件rw_main()函数里调用uart2_init(115200);初始化函数和uart2_cb_register(uart2_rx_handler);函数

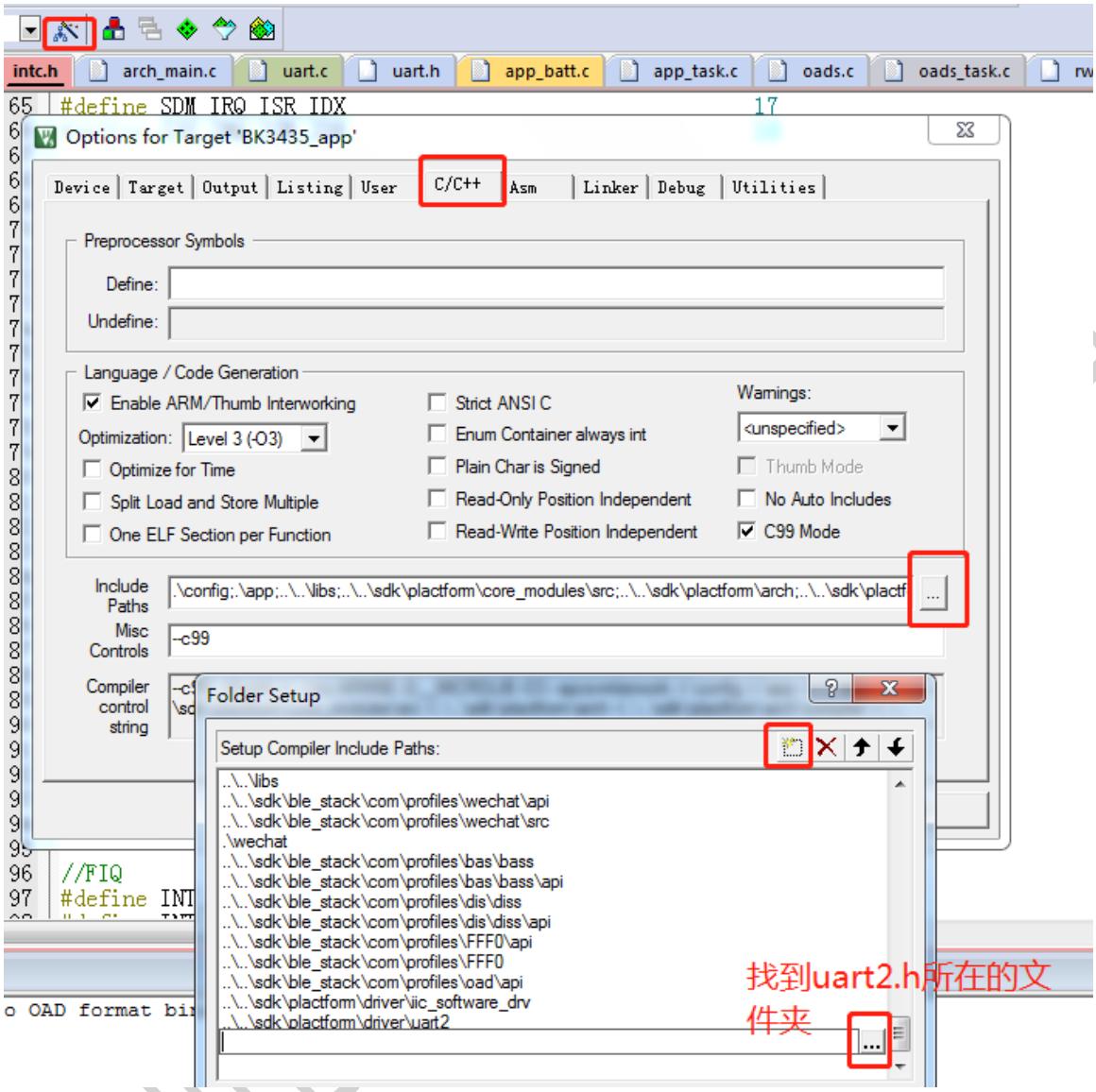
```
    intc_init();
    // Initialize UART component
#if (UART_DRIVER)
    uart_init(115200);
    uart_cb_register(uart_rx_handler);
    uart2_init(115200);
    uart2_cb_register(uart2_rx_handler);//uart2.
#endif
    uart_stack_register(uart_printf);
    flash_advance_init();
```

7. 增加static void uart2_rx_handler(uint8_t *buf, uint8_t len)并且声明

```
#if (UART_DRIVER)
static void uart_rx_handler(uint8_t *buf, uint8_t len)
{
    for(uint8_t i=0; i<len; i++)
    {
        UART_PRINTF("0x%x ", buf[i]);
    }
    UART_PRINTF("\r\n");
}

static void uart2_rx_handler(uint8_t *buf, uint8_t len)//uart2.
{
    for(uint8_t i=0; i<len; i++)
    {
        Uart2_printf("0x%x ", buf[i]);
    }
    Uart2_printf("\r\n");
}

#endif

#if (UART_DRIVER)
void uart_rx_handler(uint8_t *buf, uint8_t len);
void uart2_rx_handler(uint8_t *buf, uint8_t len);//uart2.
#endif
```

函数声明

8. 在相应的文件下调用#include "uart2.h"头文件声明。注意P17、P16不要做任何配置。
9. 在keil工程里添加uart2.c和uart2.h文件。




10. 在arch_main.c文件rw_main()函数里调用Uart2_printf("Uart2_printf Mode Start\r\n");UART2打印函数。

```
else //normal mode
{
    UART_PRINTF("NORMAL Mode Start\r\n");
    Uart2_printf("Uart2_printf Mode Start\r\n")
    rw_app_enter();
}
```

11.
12. 打开串口助手，串口助手发送数据后，芯片会通过UART2将数据原样返回。