Note: the project has been add workaround , if want to reproduce the issue , just remove the work around in step4.

1. ADD macro in tx\_port.h and IAR options of assembler.

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1. Let’s check the priority of systick and pendsv

Systick priority = 0x40

Pendsv priority = 0xf0 , both of them are masked when BASEPRI= 0x30

Armv7 docmument:

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1. Get the TIM interrupt number and check the priority = 0 , it is not masked by BASEPRI, so we changed it to 0x40 in debug register. Then we can found that the whole application can’t exit low power mode,

A screenshot of a computer

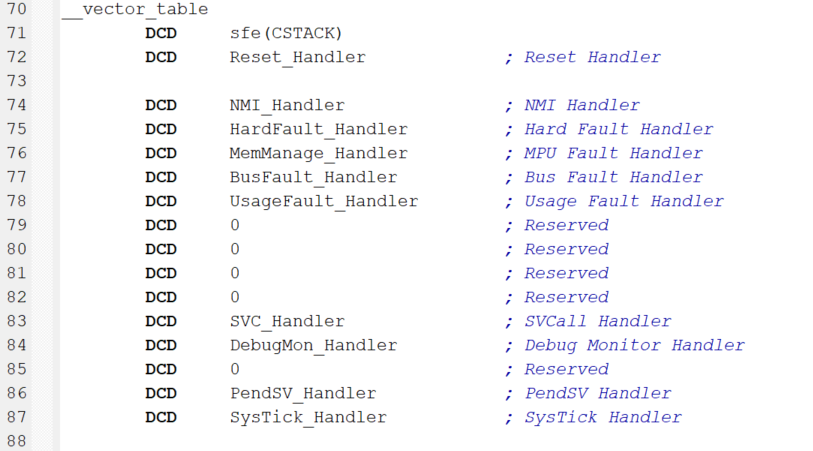
Description automatically generated

Get the TIM6 interrupt priority and set the priority masked by BASEPRI(0x30).

Interrupt number = 70 (0x46)

And 70 -16 = 54 (16 means the special priorities setting in SCB: SHPR1,2,3. And other reserved value:

0 is stack, 1 is reset handler.)



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1. Add work around :

#ifdef TX\_ENABLE\_WFI

#ifdef TX\_PORT\_USE\_BASEPRI

CPSID i

MOV r1, #0

MSR BASEPRI, r1

#endif

DSB // Ensure no outstanding memory transactions

WFI // Wait for interrupt

ISB // Ensure pipeline is flushed

#ifdef TX\_PORT\_USE\_BASEPRI

LDR r1, =TX\_PORT\_BASEPRI

MSR BASEPRI, r1

CPSIE i

#endif

#endif