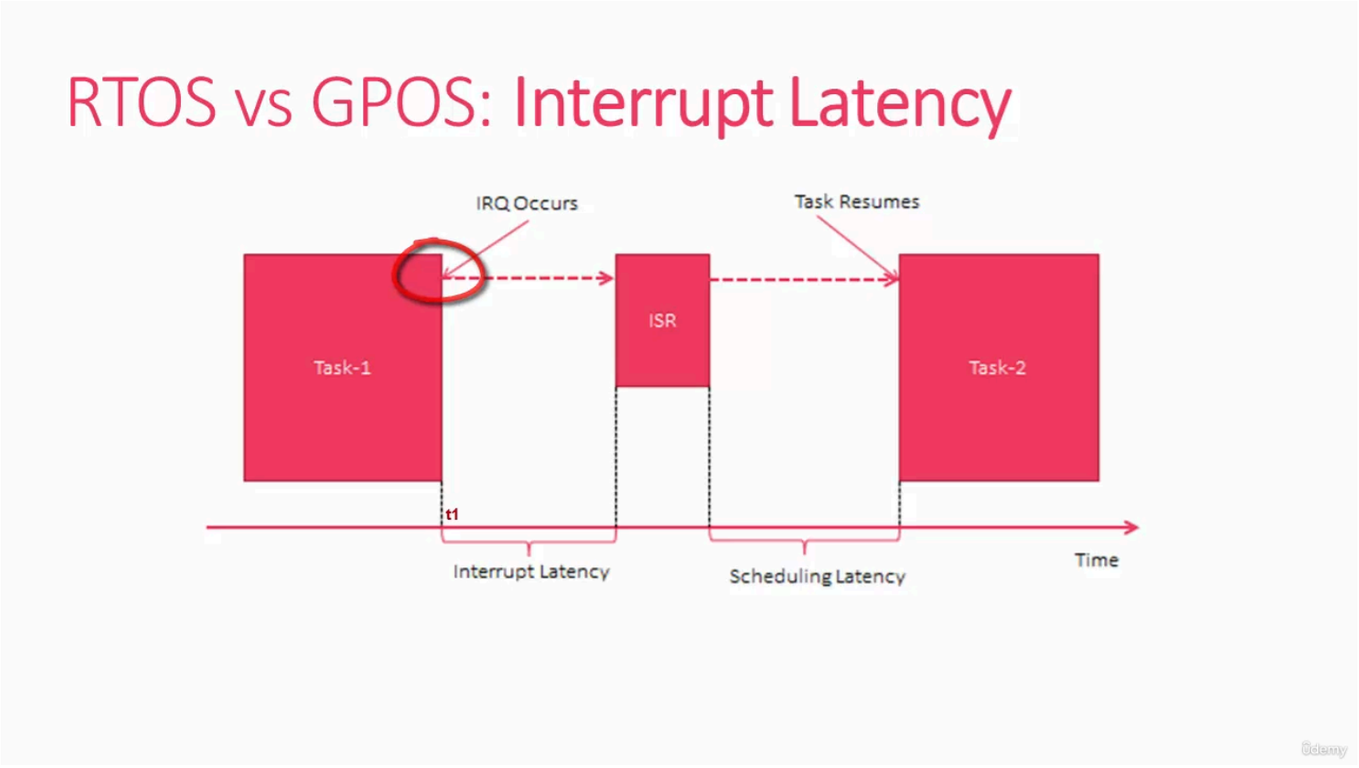

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JS

Patch for cm7

21

Jason · Lecture 36 · 2 years ago

My dev board has m7 core, will I need a different patch file? If I can use the provided patch, is there anything that needs to be modified?

12 replies **Follow replies**

Shishir — Teaching Assistant

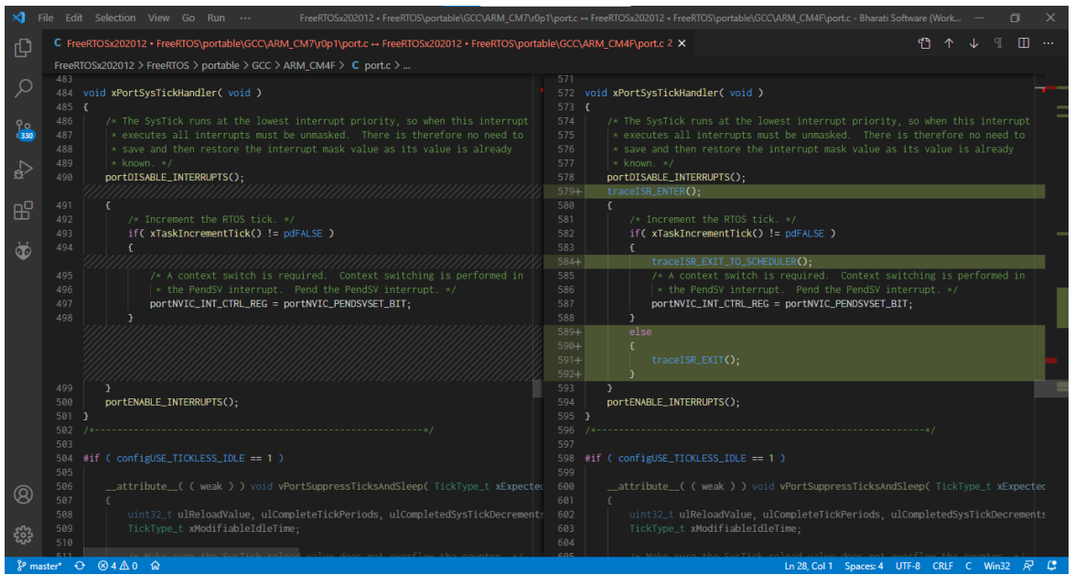
6

2 years ago

Jason,

The same patch might not work as the paths are different.

As *Section 4.7.5.1* of the SEGGER SystemView User Guide mentions, you can manually add the SystemView APIs.



Feel free to revert if you face issues.

MJ

Martynas

0

2 years ago

Jason, have you been able to modify patch for m7? Or manually add SystemView APIs, as Shishir suggested?

JS

Jason

0

2 years ago

Thanks Shishir.

JS

Jason

11

2 years ago

Hi Martynas,

Yes I ended up just changing the paths in the patch and it worked.

line 1 FreeRTOS/portable/GCC/ARM_CM7/r0p1/port.c

line 116 FreeRTOS/portable/GCC/ARM_CM7/r0p1/portmacro.h

You also have to add the following defines to port.c

/* Constants used to detect a Cortex-M7 r0p1 core, which should use the ARM_CM7

r0p1 port. */

#define portCPUID (* ((volatile uint32_t *) 0xE000ED00))

#define portCORTEX_M7_r0p1_ID (0x410C271)

#define portCORTEX_M7_r0p0_ID (0x410C270)

After doing that I couldn't get the timestamps working in SystemView even though I enabled the DWT_CTRL. I found that to have access to the DWT CYCCNT you need to add code below in main.c to enable the DWT (place after SystemClock_Config()) You need to unlock registers to gain access to them.

// Enable the CYCCNT counter

CoreDebug->DEMCR |= CoreDebug_DEMCR_TRCENA_Msk;

DWT->LAR = 0xC5ACCE55;

DWT->CYCCNT = 0;

DWT->CTRL |= DWT_CTRL_CYCCNTENA_Msk;

Here's the link where I got the code:

https://github.com/stm32duino/Arduino_Core_STM32/issues/371

Hope that helps.

MJ

Martynas

2 years ago

0

This helps a lot.

I changed paths to ARM_CM3 port files, added the defines and it worked.

Timestamps also seem to work, no additional unlocking of registers was required.

I owe you a beer.

JS

Jason

2 years ago

0

No Problem, happy to hear it helped.

DR

Darien Savio

2 years ago

0

Thanks a lot Jason. Worked like a charm

JS

Jason

2 years ago

0

No problem, good to hear Darien.

CR

Christian

2 years ago

0

```
Thank you Jason for your very valuable comments. It works fine with my NUCLEO-STM
```

KA

Kamil ★ Answer

2 years ago

0

At the moment when I'm writing this SEGGER company already has published patch for latest LTS version: FreeRTOS 202112.03-LTS. It works well with STM32F7 family. There is no need to integrate it manually. Just search for "FreeRTOSV10.4.zip" on SEGGER Wiki page (I cant paste direct link).

SM

Sourabh

7 months ago

0

@Jason , this definition worked for me

#define portCORTEX_M7_r0p1_ID (0x410FC271)

#define portCORTEX_M7_r0p0_ID (0x410FC270)

RD

Rene

3 months ago

0

Hi, guys! I'm using an STM Nucleo board with a Cortex M0 and I've realized that the M0 doesn't have DWT. Do you know if it's possible to use SEGGER Viewer with the M0?

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RA

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