# Static Call Graph for image .\Objects\spi master.axf

#<CALLGRAPH># ARM Linker, 5060750: Last Updated: Tue Mar 26 09:55:48 2019

### Maximum Stack Usage = 64 bytes + Unknown(Functions without stacksize, Cycles, Untraceable Function Pointers)

### Call chain for Maximum Stack Depth:

\_\_rt\_entry\_main ⇒ main ⇒ SPI2\_Init ⇒ GPIO\_Init

### Functions with no stack information

* [\_\_user\_initial\_stackheap](#3s49zyc)

### Mutually Recursive functions

* [NMI\_Handler](#1mrcu09)   ⇒   [NMI\_Handler](#1mrcu09)
* [HardFault\_Handler](#46r0co2)   ⇒   [HardFault\_Handler](#46r0co2)
* [MemManage\_Handler](#2lwamvv)   ⇒   [MemManage\_Handler](#2lwamvv)
* [BusFault\_Handler](#111kx3o)   ⇒   [BusFault\_Handler](#111kx3o)
* [UsageFault\_Handler](#3l18frh)   ⇒   [UsageFault\_Handler](#3l18frh)
* [SVC\_Handler](#206ipza)   ⇒   [SVC\_Handler](#206ipza)
* [DebugMon\_Handler](#4k668n3)   ⇒   [DebugMon\_Handler](#4k668n3)
* [PendSV\_Handler](#2zbgiuw)   ⇒   [PendSV\_Handler](#2zbgiuw)

### [ADC1\_2\_IRQHandler](#1egqt2p)   ⇒   [ADC1\_2\_IRQHandler](#1egqt2p) Function Pointers

* + [ADC1\_2\_IRQHandler](#1egqt2p) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [BusFault\_Handler](#111kx3o) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [CAN1\_RX1\_IRQHandler](#3ygebqi) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [CAN1\_SCE\_IRQHandler](#2dlolyb) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [DMA1\_Channel1\_IRQHandler](#sqyw64) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [DMA1\_Channel2\_IRQHandler](#3cqmetx) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [DMA1\_Channel3\_IRQHandler](#1rvwp1q) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [DMA1\_Channel4\_IRQHandler](#4bvk7pj) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [DMA1\_Channel5\_IRQHandler](#2r0uhxc) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [DMA1\_Channel6\_IRQHandler](#1664s55) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [DMA1\_Channel7\_IRQHandler](#3q5sasy) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [DebugMon\_Handler](#4k668n3) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [EXTI0\_IRQHandler](#25b2l0r) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [EXTI15\_10\_IRQHandler](#kgcv8k) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [EXTI1\_IRQHandler](#34g0dwd) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [EXTI2\_IRQHandler](#1jlao46) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [EXTI3\_IRQHandler](#43ky6rz) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [EXTI4\_IRQHandler](#2iq8gzs) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [EXTI9\_5\_IRQHandler](#xvir7l) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [FLASH\_IRQHandler](#3hv69ve) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [HardFault\_Handler](#46r0co2) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [I2C1\_ER\_IRQHandler](#1x0gk37) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [I2C1\_EV\_IRQHandler](#4h042r0) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [I2C2\_ER\_IRQHandler](#2w5ecyt) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [I2C2\_EV\_IRQHandler](#1baon6m) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [MemManage\_Handler](#2lwamvv) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [NMI\_Handler](#1mrcu09) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [PVD\_IRQHandler](#3vac5uf) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [PendSV\_Handler](#2zbgiuw) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [RCC\_IRQHandler](#2afmg28) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [RTCAlarm\_IRQHandler](#pkwqa1) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [RTC\_IRQHandler](#39kk8xu) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [Reset\_Handler](#37m2jsg) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [SPI1\_IRQHandler](#1opuj5n) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [SPI2\_IRQHandler](#48pi1tg) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [SVC\_Handler](#206ipza) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [SysTick\_Handler](#47hxl2r) from main.o(i.SysTick\_Handler) referenced from startup\_stm32f10x\_md.o(RESET)
  + [SystemInit](#11si5id) from system\_stm32f10x.o(i.SystemInit) referenced from startup\_stm32f10x\_md.o(.text)
  + [TAMPER\_IRQHandler](#2nusc19) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [TIM1\_BRK\_IRQHandler](#1302m92) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [TIM1\_CC\_IRQHandler](#3mzq4wv) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [TIM1\_TRG\_COM\_IRQHandler](#2250f4o) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [TIM1\_UP\_IRQHandler](#haapch) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [TIM2\_IRQHandler](#319y80a) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [TIM3\_IRQHandler](#1gf8i83) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [TIM4\_IRQHandler](#40ew0vw) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [USART1\_IRQHandler](#2fk6b3p) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [USART2\_IRQHandler](#upglbi) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [USART3\_IRQHandler](#3ep43zb) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [USBWakeUp\_IRQHandler](#1tuee74) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [USB\_HP\_CAN1\_TX\_IRQHandler](#4du1wux) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [USB\_LP\_CAN1\_RX0\_IRQHandler](#2szc72q) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [UsageFault\_Handler](#3l18frh) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [WWDG\_IRQHandler](#184mhaj) from startup\_stm32f10x\_md.o(.text) referenced from startup\_stm32f10x\_md.o(RESET)
  + [\_\_main](#gjdgxs) from \_\_main.o(!!!main) referenced from startup\_stm32f10x\_md.o(.text)

Global Symbols**\_\_main** (Thumb, 8 bytes, Stack size 0 bytes, \_\_main.o(!!!main))  
  
[Calls]

* + [>>](#41mghml)   \_\_rt\_entry
  + [>>](#30j0zll)   \_\_scatterload

**\_\_scatterload** (Thumb, 0 bytes, Stack size unknown bytes, \_\_scatter.o(!!!scatter))  
  
[Called By]

* + [>>](#gjdgxs)   \_\_main

**\_\_scatterload\_rt2** (Thumb, 44 bytes, Stack size unknown bytes, \_\_scatter.o(!!!scatter), UNUSED)  
  
[Calls]

* + [>>](#41mghml)   \_\_rt\_entry

**\_\_scatterload\_rt2\_thumb\_only** (Thumb, 0 bytes, Stack size unknown bytes, \_\_scatter.o(!!!scatter), UNUSED)**\_\_scatterload\_null** (Thumb, 0 bytes, Stack size unknown bytes, \_\_scatter.o(!!!scatter), UNUSED)**\_\_scatterload\_copy** (Thumb, 26 bytes, Stack size unknown bytes, \_\_scatter\_copy.o(!!handler\_copy), UNUSED)  
  
[Calls]

* + [>>](#tyjcwt)   \_\_scatterload\_copy

[Called By]

* + [>>](#tyjcwt)   \_\_scatterload\_copy

**\_\_scatterload\_zeroinit** (Thumb, 28 bytes, Stack size unknown bytes, \_\_scatter\_zi.o(!!handler\_zi), UNUSED)**\_\_rt\_lib\_init** (Thumb, 0 bytes, Stack size unknown bytes, libinit.o(.ARM.Collect$$libinit$$00000000))  
  
[Called By]

* + [>>](#3fwokq0)   \_\_rt\_entry\_li

**\_\_rt\_lib\_init\_alloca\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000002E))**\_\_rt\_lib\_init\_argv\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000002C))**\_\_rt\_lib\_init\_atexit\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000001B))**\_\_rt\_lib\_init\_clock\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000021))**\_\_rt\_lib\_init\_cpp\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000032))**\_\_rt\_lib\_init\_exceptions\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000030))**\_\_rt\_lib\_init\_fp\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000002))**\_\_rt\_lib\_init\_fp\_trap\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000001F))**\_\_rt\_lib\_init\_getenv\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000023))**\_\_rt\_lib\_init\_heap\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000000A))**\_\_rt\_lib\_init\_lc\_collate\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000011))**\_\_rt\_lib\_init\_lc\_ctype\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000013))**\_\_rt\_lib\_init\_lc\_monetary\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000015))**\_\_rt\_lib\_init\_lc\_numeric\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000017))**\_\_rt\_lib\_init\_lc\_time\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000019))**\_\_rt\_lib\_init\_preinit\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000004))**\_\_rt\_lib\_init\_rand\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000000E))**\_\_rt\_lib\_init\_return** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000033))**\_\_rt\_lib\_init\_signal\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000001D))**\_\_rt\_lib\_init\_stdio\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$00000025))**\_\_rt\_lib\_init\_user\_alloc\_1** (Thumb, 0 bytes, Stack size unknown bytes, libinit2.o(.ARM.Collect$$libinit$$0000000C))**\_\_rt\_lib\_shutdown** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown.o(.ARM.Collect$$libshutdown$$00000000))  
  
[Called By]

* + [>>](#3tbugp1)   \_\_rt\_exit\_ls

**\_\_rt\_lib\_shutdown\_cpp\_1** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$00000002))**\_\_rt\_lib\_shutdown\_fp\_trap\_1** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$00000007))**\_\_rt\_lib\_shutdown\_heap\_1** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$0000000F))**\_\_rt\_lib\_shutdown\_return** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$00000010))**\_\_rt\_lib\_shutdown\_signal\_1** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$0000000A))**\_\_rt\_lib\_shutdown\_stdio\_1** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$00000004))**\_\_rt\_lib\_shutdown\_user\_alloc\_1** (Thumb, 0 bytes, Stack size unknown bytes, libshutdown2.o(.ARM.Collect$$libshutdown$$0000000C))**\_\_rt\_entry** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry.o(.ARM.Collect$$rtentry$$00000000))  
  
[Called By]

* + [>>](#gjdgxs)   \_\_main
  + [>>](#1fob9te)   \_\_scatterload\_rt2

**\_\_rt\_entry\_presh\_1** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry2.o(.ARM.Collect$$rtentry$$00000002))**\_\_rt\_entry\_sh** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry4.o(.ARM.Collect$$rtentry$$00000004))  
  
[Stack]

* + Max Depth = 8 + Unknown Stack Size
  + Call Chain = \_\_rt\_entry\_sh ⇒ \_\_user\_setup\_stackheap

[Calls]

* + [>>](#1ljsd9k)   \_\_user\_setup\_stackheap

**\_\_rt\_entry\_li** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry2.o(.ARM.Collect$$rtentry$$0000000A))  
  
[Calls]

* + [>>](#1t3h5sf)   \_\_rt\_lib\_init

**\_\_rt\_entry\_postsh\_1** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry2.o(.ARM.Collect$$rtentry$$00000009))**\_\_rt\_entry\_main** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry2.o(.ARM.Collect$$rtentry$$0000000D))  
  
[Stack]

* + Max Depth = 64 + Unknown Stack Size
  + Call Chain = \_\_rt\_entry\_main ⇒ main ⇒ SPI2\_Init ⇒ GPIO\_Init

[Calls]

* + [>>](#3ls5o66)   main
  + [>>](#45jfvxd)   exit

**\_\_rt\_entry\_postli\_1** (Thumb, 0 bytes, Stack size unknown bytes, \_\_rtentry2.o(.ARM.Collect$$rtentry$$0000000C))**\_\_rt\_exit** (Thumb, 0 bytes, Stack size unknown bytes, rtexit.o(.ARM.Collect$$rtexit$$00000000))  
  
[Called By]

* + [>>](#45jfvxd)   exit

**\_\_rt\_exit\_ls** (Thumb, 0 bytes, Stack size unknown bytes, rtexit2.o(.ARM.Collect$$rtexit$$00000003))  
  
[Calls]

* + [>>](#49x2ik5)   \_\_rt\_lib\_shutdown

**\_\_rt\_exit\_prels\_1** (Thumb, 0 bytes, Stack size unknown bytes, rtexit2.o(.ARM.Collect$$rtexit$$00000002))**\_\_rt\_exit\_exit** (Thumb, 0 bytes, Stack size unknown bytes, rtexit2.o(.ARM.Collect$$rtexit$$00000004))  
  
[Calls]

* + [>>](#1yyy98l)   \_sys\_exit

**Reset\_Handler** (Thumb, 8 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**NMI\_Handler** (Thumb, 2 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
  
[Calls]

* + [>>](#1mrcu09)   NMI\_Handler

[Called By]

* + [>>](#1mrcu09)   NMI\_Handler

[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**HardFault\_Handler** (Thumb, 2 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
  
[Calls]

* + [>>](#46r0co2)   HardFault\_Handler

[Called By]

* + [>>](#46r0co2)   HardFault\_Handler

[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**MemManage\_Handler** (Thumb, 2 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
  
[Calls]

* + [>>](#2lwamvv)   MemManage\_Handler

[Called By]

* + [>>](#2lwamvv)   MemManage\_Handler

[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**BusFault\_Handler** (Thumb, 2 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
  
[Calls]

* + [>>](#111kx3o)   BusFault\_Handler

[Called By]

* + [>>](#111kx3o)   BusFault\_Handler

[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**UsageFault\_Handler** (Thumb, 2 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
  
[Calls]

* + [>>](#3l18frh)   UsageFault\_Handler

[Called By]

* + [>>](#3l18frh)   UsageFault\_Handler

[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**SVC\_Handler** (Thumb, 2 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
  
[Calls]

* + [>>](#206ipza)   SVC\_Handler

[Called By]

* + [>>](#206ipza)   SVC\_Handler

[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**DebugMon\_Handler** (Thumb, 2 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
  
[Calls]

* + [>>](#4k668n3)   DebugMon\_Handler

[Called By]

* + [>>](#4k668n3)   DebugMon\_Handler

[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**PendSV\_Handler** (Thumb, 2 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
  
[Calls]

* + [>>](#2zbgiuw)   PendSV\_Handler

[Called By]

* + [>>](#2zbgiuw)   PendSV\_Handler

[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**ADC1\_2\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
  
[Calls]

* + [>>](#1egqt2p)   ADC1\_2\_IRQHandler

[Called By]

* + [>>](#1egqt2p)   ADC1\_2\_IRQHandler

[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**CAN1\_RX1\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**CAN1\_SCE\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**DMA1\_Channel1\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**DMA1\_Channel2\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**DMA1\_Channel3\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**DMA1\_Channel4\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**DMA1\_Channel5\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**DMA1\_Channel6\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**DMA1\_Channel7\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**EXTI0\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**EXTI15\_10\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**EXTI1\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**EXTI2\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**EXTI3\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**EXTI4\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**EXTI9\_5\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**FLASH\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**I2C1\_ER\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**I2C1\_EV\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**I2C2\_ER\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**I2C2\_EV\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**PVD\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**RCC\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**RTCAlarm\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**RTC\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**SPI1\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**SPI2\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**TAMPER\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**TIM1\_BRK\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**TIM1\_CC\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**TIM1\_TRG\_COM\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**TIM1\_UP\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**TIM2\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**TIM3\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**TIM4\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**USART1\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**USART2\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**USART3\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**USBWakeUp\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**USB\_HP\_CAN1\_TX\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**USB\_LP\_CAN1\_RX0\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**WWDG\_IRQHandler** (Thumb, 0 bytes, Stack size 0 bytes, startup\_stm32f10x\_md.o(.text))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**\_\_user\_initial\_stackheap** (Thumb, 0 bytes, Stack size unknown bytes, startup\_stm32f10x\_md.o(.text))  
  
[Called By]

* + [>>](#1ljsd9k)   \_\_user\_setup\_stackheap

**\_\_use\_two\_region\_memory** (Thumb, 2 bytes, Stack size 0 bytes, heapauxi.o(.text), UNUSED)**\_\_rt\_heap\_escrow$2region** (Thumb, 2 bytes, Stack size 0 bytes, heapauxi.o(.text), UNUSED)**\_\_rt\_heap\_expand$2region** (Thumb, 2 bytes, Stack size 0 bytes, heapauxi.o(.text), UNUSED)**\_\_user\_setup\_stackheap** (Thumb, 74 bytes, Stack size 8 bytes, sys\_stackheap\_outer.o(.text))  
  
[Stack]

* + Max Depth = 8 + Unknown Stack Size
  + Call Chain = \_\_user\_setup\_stackheap

[Calls]

* + [>>](#3s49zyc)   \_\_user\_initial\_stackheap
  + [>>](#zu0gcz)   \_\_user\_perproc\_libspace

[Called By]

* + [>>](#vx1227)   \_\_rt\_entry\_sh

**exit** (Thumb, 18 bytes, Stack size 8 bytes, exit.o(.text))  
  
[Stack]

* + Max Depth = 8 + Unknown Stack Size
  + Call Chain = exit

[Calls]

* + [>>](#19c6y18)   \_\_rt\_exit

[Called By]

* + [>>](#4f1mdlm)   \_\_rt\_entry\_main

**\_\_user\_libspace** (Thumb, 8 bytes, Stack size 0 bytes, libspace.o(.text), UNUSED)**\_\_user\_perproc\_libspace** (Thumb, 0 bytes, Stack size 0 bytes, libspace.o(.text))  
  
[Called By]

* + [>>](#1ljsd9k)   \_\_user\_setup\_stackheap

**\_\_user\_perthread\_libspace** (Thumb, 0 bytes, Stack size 0 bytes, libspace.o(.text), UNUSED)**\_sys\_exit** (Thumb, 8 bytes, Stack size 0 bytes, sys\_exit.o(.text))  
  
[Called By]

* + [>>](#nmf14n)   \_\_rt\_exit\_exit

**\_\_I$use$semihosting** (Thumb, 0 bytes, Stack size 0 bytes, use\_no\_semi.o(.text), UNUSED)**\_\_use\_no\_semihosting\_swi** (Thumb, 2 bytes, Stack size 0 bytes, use\_no\_semi.o(.text), UNUSED)**\_\_semihosting\_library\_function** (Thumb, 0 bytes, Stack size unknown bytes, indicate\_semi.o(.text), UNUSED)**DelayInit** (Thumb, 84 bytes, Stack size 16 bytes, main.o(i.DelayInit))  
  
[Stack]

* + Max Depth = 24
  + Call Chain = DelayInit ⇒ SystemCoreClockUpdate

[Calls]

* + [>>](#2mn7vak)   SystemCoreClockUpdate

[Called By]

* + [>>](#3ls5o66)   main

**DelayMs** (Thumb, 24 bytes, Stack size 4 bytes, main.o(i.DelayMs))  
  
[Stack]

* + Max Depth = 4
  + Call Chain = DelayMs

[Calls]

* + [>>](#rjefff)   DelayUs

[Called By]

* + [>>](#3ls5o66)   main

**DelayUs** (Thumb, 16 bytes, Stack size 0 bytes, main.o(i.DelayUs))  
  
[Called By]

* + [>>](#3u2rp3q)   SPI2\_StrTransfer
  + [>>](#2ce457m)   DelayMs

**GPIO\_Init** (Thumb, 278 bytes, Stack size 24 bytes, stm32f10x\_gpio.o(i.GPIO\_Init))  
  
[Stack]

* + Max Depth = 24
  + Call Chain = GPIO\_Init

[Called By]

* + [>>](#3ls5o66)   main
  + [>>](#1a346fx)   SPI2\_Init

**GPIO\_WriteBit** (Thumb, 10 bytes, Stack size 0 bytes, stm32f10x\_gpio.o(i.GPIO\_WriteBit))  
  
[Called By]

* + [>>](#3ls5o66)   main

**RCC\_APB1PeriphClockCmd** (Thumb, 26 bytes, Stack size 0 bytes, stm32f10x\_rcc.o(i.RCC\_APB1PeriphClockCmd))  
  
[Called By]

* + [>>](#1a346fx)   SPI2\_Init

**RCC\_APB2PeriphClockCmd** (Thumb, 26 bytes, Stack size 0 bytes, stm32f10x\_rcc.o(i.RCC\_APB2PeriphClockCmd))  
  
[Called By]

* + [>>](#3ls5o66)   main
  + [>>](#1a346fx)   SPI2\_Init

**RCC\_DeInit** (Thumb, 64 bytes, Stack size 0 bytes, stm32f10x\_rcc.o(i.RCC\_DeInit))  
  
[Called By]

* + [>>](#1nia2ey)   SetSysClockTo72

**RCC\_GetFlagStatus** (Thumb, 56 bytes, Stack size 8 bytes, stm32f10x\_rcc.o(i.RCC\_GetFlagStatus))  
  
[Stack]

* + Max Depth = 8
  + Call Chain = RCC\_GetFlagStatus

[Called By]

* + [>>](#1vsw3ci)   RCC\_WaitForHSEStartUp
  + [>>](#1nia2ey)   SetSysClockTo72

**RCC\_GetSYSCLKSource** (Thumb, 10 bytes, Stack size 0 bytes, stm32f10x\_rcc.o(i.RCC\_GetSYSCLKSource))  
  
[Called By]

* + [>>](#1nia2ey)   SetSysClockTo72

**RCC\_HCLKConfig** (Thumb, 18 bytes, Stack size 0 bytes, stm32f10x\_rcc.o(i.RCC\_HCLKConfig))  
  
[Called By]

* + [>>](#1nia2ey)   SetSysClockTo72

**RCC\_HSEConfig** (Thumb, 70 bytes, Stack size 0 bytes, stm32f10x\_rcc.o(i.RCC\_HSEConfig))  
  
[Called By]

* + [>>](#1nia2ey)   SetSysClockTo72

**RCC\_PCLK1Config** (Thumb, 18 bytes, Stack size 0 bytes, stm32f10x\_rcc.o(i.RCC\_PCLK1Config))  
  
[Called By]

* + [>>](#1nia2ey)   SetSysClockTo72

**RCC\_PCLK2Config** (Thumb, 20 bytes, Stack size 0 bytes, stm32f10x\_rcc.o(i.RCC\_PCLK2Config))  
  
[Called By]

* + [>>](#1nia2ey)   SetSysClockTo72

**RCC\_PLLCmd** (Thumb, 6 bytes, Stack size 0 bytes, stm32f10x\_rcc.o(i.RCC\_PLLCmd))  
  
[Called By]

* + [>>](#1nia2ey)   SetSysClockTo72

**RCC\_PLLConfig** (Thumb, 24 bytes, Stack size 0 bytes, stm32f10x\_rcc.o(i.RCC\_PLLConfig))  
  
[Called By]

* + [>>](#1nia2ey)   SetSysClockTo72

**RCC\_SYSCLKConfig** (Thumb, 18 bytes, Stack size 0 bytes, stm32f10x\_rcc.o(i.RCC\_SYSCLKConfig))  
  
[Called By]

* + [>>](#1nia2ey)   SetSysClockTo72

**RCC\_WaitForHSEStartUp** (Thumb, 56 bytes, Stack size 16 bytes, stm32f10x\_rcc.o(i.RCC\_WaitForHSEStartUp))  
  
[Stack]

* + Max Depth = 24
  + Call Chain = RCC\_WaitForHSEStartUp ⇒ RCC\_GetFlagStatus

[Calls]

* + [>>](#3oy7u29)   RCC\_GetFlagStatus

[Called By]

* + [>>](#1nia2ey)   SetSysClockTo72

**SPI2\_DisableSlave** (Thumb, 10 bytes, Stack size 0 bytes, main.o(i.SPI2\_DisableSlave))  
  
[Called By]

* + [>>](#3ls5o66)   main
  + [>>](#1a346fx)   SPI2\_Init

**SPI2\_EnableSlave** (Thumb, 10 bytes, Stack size 0 bytes, main.o(i.SPI2\_EnableSlave))  
  
[Called By]

* + [>>](#3ls5o66)   main

**SPI2\_Init** (Thumb, 172 bytes, Stack size 32 bytes, main.o(i.SPI2\_Init))  
  
[Stack]

* + Max Depth = 56
  + Call Chain = SPI2\_Init ⇒ GPIO\_Init

[Calls]

* + [>>](#38czs75)   SPI\_Init
  + [>>](#odc9jc)   SPI\_Cmd
  + [>>](#2pta16n)   RCC\_APB2PeriphClockCmd
  + [>>](#4anzqyu)   RCC\_APB1PeriphClockCmd
  + [>>](#3bj1y38)   GPIO\_Init
  + [>>](#4fsjm0b)   SPI2\_DisableSlave

[Called By]

* + [>>](#3ls5o66)   main

**SPI2\_StrTransfer** (Thumb, 28 bytes, Stack size 4 bytes, main.o(i.SPI2\_StrTransfer))  
  
[Stack]

* + Max Depth = 4
  + Call Chain = SPI2\_StrTransfer

[Calls]

* + [>>](#2981zbj)   SPI2\_Transfer
  + [>>](#rjefff)   DelayUs

[Called By]

* + [>>](#3ls5o66)   main

**SPI2\_Transfer** (Thumb, 64 bytes, Stack size 0 bytes, main.o(i.SPI2\_Transfer))  
  
[Called By]

* + [>>](#3ls5o66)   main
  + [>>](#3u2rp3q)   SPI2\_StrTransfer

**SPI\_Cmd** (Thumb, 24 bytes, Stack size 0 bytes, stm32f10x\_spi.o(i.SPI\_Cmd))  
  
[Called By]

* + [>>](#1a346fx)   SPI2\_Init

**SPI\_Init** (Thumb, 60 bytes, Stack size 8 bytes, stm32f10x\_spi.o(i.SPI\_Init))  
  
[Stack]

* + Max Depth = 8
  + Call Chain = SPI\_Init

[Called By]

* + [>>](#1a346fx)   SPI2\_Init

**SetSysClockTo72** (Thumb, 94 bytes, Stack size 8 bytes, main.o(i.SetSysClockTo72))  
  
[Stack]

* + Max Depth = 32
  + Call Chain = SetSysClockTo72 ⇒ RCC\_WaitForHSEStartUp ⇒ RCC\_GetFlagStatus

[Calls]

* + [>>](#1vsw3ci)   RCC\_WaitForHSEStartUp
  + [>>](#3gnlt4p)   RCC\_SYSCLKConfig
  + [>>](#wnyagw)   RCC\_PLLConfig
  + [>>](#2hio093)   RCC\_PLLCmd
  + [>>](#42ddq1a)   RCC\_PCLK2Config
  + [>>](#1idq7dh)   RCC\_PCLK1Config
  + [>>](#338fx5o)   RCC\_HSEConfig
  + [>>](#j8sehv)   RCC\_HCLKConfig
  + [>>](#243i4a2)   RCC\_GetSYSCLKSource
  + [>>](#3oy7u29)   RCC\_GetFlagStatus
  + [>>](#14ykbeg)   RCC\_DeInit

[Called By]

* + [>>](#3ls5o66)   main

**SysTick\_Handler** (Thumb, 18 bytes, Stack size 0 bytes, main.o(i.SysTick\_Handler))  
[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(RESET)

**SystemCoreClockUpdate** (Thumb, 142 bytes, Stack size 8 bytes, system\_stm32f10x.o(i.SystemCoreClockUpdate))  
  
[Stack]

* + Max Depth = 8
  + Call Chain = SystemCoreClockUpdate

[Called By]

* + [>>](#3x8tuzt)   DelayInit

**SystemInit** (Thumb, 78 bytes, Stack size 8 bytes, system\_stm32f10x.o(i.SystemInit))  
  
[Stack]

* + Max Depth = 28
  + Call Chain = SystemInit ⇒ SetSysClock ⇒ SetSysClockTo72

[Calls]

* + [>>](#20xfydz)   SetSysClock

[Address Reference Count : 1]

* + startup\_stm32f10x\_md.o(.text)

**main** (Thumb, 108 bytes, Stack size 8 bytes, main.o(i.main))  
  
[Stack]

* + Max Depth = 64
  + Call Chain = main ⇒ SPI2\_Init ⇒ GPIO\_Init

[Calls]

* + [>>](#2pta16n)   RCC\_APB2PeriphClockCmd
  + [>>](#1qoc8b1)   GPIO\_WriteBit
  + [>>](#3bj1y38)   GPIO\_Init
  + [>>](#1nia2ey)   SetSysClockTo72
  + [>>](#2981zbj)   SPI2\_Transfer
  + [>>](#3u2rp3q)   SPI2\_StrTransfer
  + [>>](#1a346fx)   SPI2\_Init
  + [>>](#2uxtw84)   SPI2\_EnableSlave
  + [>>](#4fsjm0b)   SPI2\_DisableSlave
  + [>>](#2ce457m)   DelayMs
  + [>>](#3x8tuzt)   DelayInit

[Called By]

* + [>>](#4f1mdlm)   \_\_rt\_entry\_main

Local Symbols**SetSysClock** (Thumb, 8 bytes, Stack size 8 bytes, system\_stm32f10x.o(i.SetSysClock))  
  
[Stack]

* + Max Depth = 20
  + Call Chain = SetSysClock ⇒ SetSysClockTo72

[Calls]

* + [>>](#4kx3h1s)   SetSysClockTo72

[Called By]

* + [>>](#11si5id)   SystemInit

**SetSysClockTo72** (Thumb, 214 bytes, Stack size 12 bytes, system\_stm32f10x.o(i.SetSysClockTo72))  
  
[Stack]

* + Max Depth = 12
  + Call Chain = SetSysClockTo72

[Called By]

* + [>>](#20xfydz)   SetSysClock

Undefined Global Symbols