What is the purpose of the NVIC peripheral?

The purpose of the NVIC is to enable and disable interrupts, indicate requests waiting for service, cancel pending interrupt requests, and to establish how multiple interrupts interact through configurable priorities.

What is the difference between interrupt tail-chaining and nesting?

Interrupt tail-chaining means that one interrupt handler will complete before the other starts if one happens during a handle. Nesting means that if a higher priority interrupt happens during a handler. The higher priority handler will immediately execute then return to the lower priority one that was in progress.

In what file are the CMSIS libraries that control the NVIC? core cm0.h

What is the purpose of the EXTI peripheral?

The purpose of the EXTI is so that you can have non-peripheral sources trigger interrupts.

What is the purpose of the SYSCFG pin multiplexers?

It allows you to control which pins trigger the EXTI lines. For example the SYSCFG_EXTICR1 register controls a MUX that can have EXTI0 be driven by PA0, PB0, PC0, PD0, PE0, and PF0.

What file has the defined names for interrupt numbers? stm32f0xb.h

What file has the Vector table implementation? startup stm32f072xb.s