

中断向量(vector)取值

Usage	中断向量(vector)取值		含义	Exception handler [NOTE #1]	Signal
	Dec	Hex			
Nonmaskable interrupts and exceptions	0	00	Divide Error (DIV and IDIV instructions) [Fault]	divide_error()	SIGFPE
	1	01	Debug (Any code or data reference) [Trap or Fault]	debug() [NOTE #2]	SIGTRAP
	2	02	非屏蔽中断(NMI)	nmi()	None
	3	03	Breakpoint (INT 3 instruction) [Trap]	int3() [NOTE #2]	SIGTRAP
	4	04	Overflow (INT0 instruction) [Trap]	overflow()	SIGSEGV
	5	05	BOUND Range Exceeded (BOUND instruction) [Fault]	bounds()	SIGSEGV
	6	06	Invalid Opcode (UnDefined Opcode) [Fault]	invalid_op()	SIGILL
	7	07	Device Not Available (No Math Coprocessor) [Fault]	device_not_available()	None
	8	08	Double Fault [Abort]	double_fault()	None
	9	09	CoProcessor Segment Overrun (reserved) [Abort]	coprocessor_segment_overrun()	SIGFPE
	10	0A	Invalid TSS [Fault]	invalid_TSS()	SIGSEGV
	11	0B	Segment Not Present [Fault]	segment_not_present()	SIGBUS
	12	0C	Stack Segment Fault [Fault]	stack_segment()	SIGBUS
	13	0D	General Protection [Fault]	general_protection()	SIGSEGV
	14	0E	Page Fault [Fault]	page_fault() [NOTE #2] [Section Page Fault/do_page_fault()]	SIGSEGV
	15	0F	Reserved	None	None
	16	10	Floating-Point Error (Math Fault) [Fault]	coprocessor_error()	SIGFPE
	17	11	Alignment Check [Fault]	alignment_check()	SIGBUS
	18	12	Machine Check (MCE VECTOR) [Abort]	machine_check()	None
19	13	SIMD Floating-Point Exception [Fault]	simd_coprocessor_error()	SIGFPE	
Intel-reserved	20	14	Reserved		
	21	15	Reserved		
	22	16	Reserved		
	23	17	Reserved		
	24	18	Reserved		
	25	19	Reserved		
	26	1A	Reserved		
	27	1B	Reserved		
	28	1C	Reserved		
	29	1D	Reserved		
	30	1E	Reserved		
External interrupts (IRQs)	31	1F	Reserved		
	32	20	Device Interrupts		
	...	...	...		
	48	30	IRQ0_VECTOR (ISA interrupts, Industrial Standard Architecture, 工业标准结构总线) - Timer		
	49	31	IRQ1_VECTOR (ISA interrupts) - Keyboard		
50	32	IRQ2_VECTOR (ISA interrupts)			
51	33	IRQ3_VECTOR (ISA interrupts) - TTY2			

	52	34	IRQ4_VECTOR (ISA interrupts) - TTY1		
	53	35	IRQ5_VECTOR (ISA interrupts) - XT Winchester		
	54	36	IRQ6_VECTOR (ISA interrupts) - Floppy		
	55	37	IRQ7_VECTOR (ISA interrupts) - Printer		
	56	38	IRQ8_VECTOR (ISA interrupts) - Realtime Timer		
	57	39	IRQ9_VECTOR (ISA interrupts) - 重定向的 IRQ2		
	58	3A	IRQ10_VECTOR (ISA interrupts)		
	59	3B	IRQ11_VECTOR (ISA interrupts)		
	60	3C	IRQ12_VECTOR (ISA interrupts)		
	61	3D	IRQ13_VECTOR (ISA interrupts) - FPU_IRQ		
	62	3E	IRQ14_VECTOR (ISA interrupts) - AT Winchester		
	63	3F	IRQ15_VECTOR (ISA interrupts)		
	...				
	127	7F	Device Interrupts		
<b>Programmed exception for system calls</b>	128	80	SYSCALL_VECTOR	system_call()	
	129	81			
	...				
<b>External interrupts (IRQs)</b>	INVALIDATE_TLB_VECTOR_END - NUM_INVALIDATE_TLB_VECTORS + 1	...	INVALIDATE_TLB_VECTOR_START		
	...	...	...		
	238	EE	INVALIDATE_TLB_VECTOR_END		
<b>Local APIC timer interrupt</b>	239	EF	LOCAL_TIMER_VECTOR	apic_timer_interrupt() 参见 apic_intr_init() 节	
<b>Local APIC thermal interrupt</b>	240	F0			
	241	F1			
	242	F2			
	243	F3	XEN_HVM_EVTCHN_CALLBACK		
	244	F4			
	245	F5	UV_BAU_MESSAGE		
	246	F6	IRQ_WORK_VECTOR		
	247	F7	X86_PLATFORM_IPI_VECTOR		
	248	F8	REBOOT_VECTOR		
	249	F9	THRESHOLD_APIC_VECTOR		
	250	FA	THERMAL_APIC_VECTOR		
	251	FB	CALL_FUNCTION_SINGLE_VECTOR		
<b>Interprocessor interrupts</b>	252	FC	CALL_FUNCTION_VECTOR	call_function_interrupt() 参见 apic_intr_init() 节的 smp_intr_init()	
	253	FD	RESCHEDULE_VECTOR		
<b>Local APIC error interrupt</b>	254	FE	ERROR_APIC_VECTOR		

Local APIC spurious interrupt	255	FF	SPURIOUS_APIC_VECTOR		
	256	100	NR_VECTORS		

**NOTE #1:**

See start\_kernel()->trap\_init(), and section trap\_init().

**NOTE #2:**

See start\_kernel()->setup\_arch()->early\_trap\_init()