

Event type [hex]	Category	Mnemonic	Description of events	where to hook	filename	data recorded as "log_arg1"	data recorded as "log_arg2"	data recorded as "log_arg3"	data recorded as "log_arg4"	remarks	
01	Process management	PROCESS_CONTEXTSWITCH	Process context switching	schedule()	/kernel/sched.c	address of the task_struct of "prev"	address of the task_struct of "next"	prev. process state (value after switch)	prev. process count (value before switch)	from log_arg3, log_arg4, can determine why processes were switched	
02		PROCESS_WAKEUP	WAKEUP	try_to_wake_up()		value of "p" in the function	synchronous				
03		PROCESS_SIGSEND	sending signal	send_sig_info()	/kernel/signal.c	value of "sig" in the function	value of "t" in the function	pointer to info (info)			
04		PROCESS_LTHREADDGEN	creating a kernel thread	kernel_thread()	/arch/ia64/kernel/process.c	value of "fn" in the function	pointer to argument of kernel thread (arg)	flag			
10	Interrupts	INT_HARDWARE_ENTRY	hardware	entrance	do_IRQ()	/arch/ia64/kernel/irq.c	value of "irq" in the function	interrupt status (status)			
12		INT_TASKLETHI_ENTRY	software	entrance	tasklet_hi_action()	/kernel/softirq.c	value of "t->func" in the function				
14		INT_TASKLET_ENTRY	software	entrance	tasklet_action()		value of "t->func" in the function				
16		INT_BH_ENTRY	software	entrance	bh_action()		value of "nr" in the function	address of action (bh_base)			
20	Exceptions	EXCEPT_PGFLT_ENTRY	vhpt_miss itlb_miss dtlb_miss	entrance	ia64_do_page_fault()	/arch/ia64/mm/fault.c	fault address(ifa)	isr	ipsr	iip	
21		EXCEPT_PGFLT_EXIT	alt_itlb_miss alt_dtlb_miss nested_dtlb_miss	exit							
22		EXCEPT_ILLOP_ENTRY	general_exception	entrance	ia64_illegal_op_fault()		ec		ipsr	iip	
23		EXCEPT_ILLOP_EXIT		exit							
24		EXCEPT_BADBRK_ENTRY	break_instruction	entrance	ia64_bad_break()		break number(iim)		ipsr	iip	
25		EXCEPT_BADBRK_EXIT		exit							
26		EXCEPT_FAULT_ENTRY	general_exception disabled_fp_reg instruction_key_miss data_key_miss nat_consumption debug_vector unsupported_data_reference fp_fault fp_trap lower_privilege_transfer_trap taken_branch_trap single_step_trap ia32_exception ia32_intercept ia32_interrupt	entrance	ia64_fault()	/arch/ia64/kernel/traps.c	fault vector number	isr	ipsr	iip	
27		EXCEPT_FAULT_EXIT		exit							
28		EXCEPT_UNALIGN_ENTRY	unaligned_access	entrance	ia64_handle_unaligned()	/arch/ia64/kernel/unaligned.c	ifa		ipsr	iip	
29		EXCEPT_UNALIGN_EXIT		exit							
30	System calls	SYSCALL_ENTRY	entrance	beginning of system_call()	/arch/ia64/kernel/ivt.S	system call function address	the number of this system call			recording arguments of system calls is optional feature	
31		SYSCALL_EXIT	exit	ending of system_call()		system call function address	errno				
40	Filesystems	FS_DEVRW	device IO	creation of request for device	ll_rw_block()	/drivers/block/ll_rw_blk.c	buffer (bh)	READ/WRITE (rw)	num of blocks to transfer (nr)		
41		FS_DEVEND	device IO	completion of request for device	end_buffer_io_sync()	/fs/buffer.c	buffer (bh)	uptodate			
42		FS_BUFBUSY	device IO	buffer busy wait	wait_on_buffer()	/fs/buffer.c	buffer (bh)				
50	Memory Management	MEM_SWAPOUT	swap out	exit	try_to_swap_out()	/mm/vmscan.c	pointer to page swapped out (page)				
51		MEM_SWAPIN	swap in	exit	do_swap_page()	/mm/memory.c	pointer to page swapped in (page)				
52		MEM_DO_NOPAGE	mem_do_nopage	exit	do_no_page()	/mm/memory.c	pointer to page allocated (new_page)				
53		MEM_DO_WPPAGE	mem_do_wppage	exit	do_wp_page()	/mm/memory.c	pointer to page (new page)				
54		MEM_WAIT_PAGE	mem_wait_page	entrance	wait_on_page()	/mm/filemap.c	pointer to page (page)				
55		MEM_GET_FREEPAGE	mem_get_freepage	exit	get_free_page()	/mm/page_alloc.c	pointer to page (paddr)	type of page (gfp_mask)	the number of page (order)	call address	
56		MEM_GET_ZEROPAGE	mem_get_zeropage	exit	get_zeroed_page()	/mm/page_alloc.c	pointer to page (address)	type of page (gfp_mask)	call address		
57		MEM_FREEPAGE	mem_freepage	entrance	free_pages()	/mm/page_alloc.c	pointer to (addr)	the number of page (order)	call address		
58		MEM_VMALLOC	mem_vmalloc	exit	vmalloc()	/mm/vmalloc.h	address (addr)	size	call address		
59		MEM_VFREE	mem_vfree	entrance	vfree()	/mm/vmalloc.c	address (addr)				
5a	MEM_CACHE_CREATE	mem_cache_create	exit	kmem_cache_create()	/mm/slab.c	name	size	cachep			
5b	MEM_CACHE_ALLOC	mem_cache_alloc	exit	kmem_cache_alloc()	/mm/slab.c	cachep	flags	objp	call address		
5c	MEM_MALLOCC	mem_malloc	exit	kmalloc()	/mm/slab.c	cachep	flags	objp	call address		
5d	MEM_CACHE_FREE	mem_cache_free	entrance	kmem_cache_free()	/mm/slab.c	cachep	objp	call address			
5e	MEM_FREE	mem_free	entrance	kfree()	/mm/slab.c	objp	call address				
60	Networking	NET_PKTSEND	sending packets	entrance	dev_queue_xmit()	/net/core/dev.c	skb				
61		NET_PKTSENDI	interrupt on sending packets	entrance	net_tx_action()	/net/core/dev.c	h				
62		NET_PKTRECVC	receiving packets	entrance	netif_rx()	/net/core/dev.c	skb				
63		NET_PKTRECVI	interrupt on receiving packets	entrance	net_rx_action()	/net/core/dev.c	h				
64	NET_SOCKETIF	socket()	entrance	sys_socketcall	/net/socket.c	call	args			exit is recorded as exit of system call.	
70	SysV IPC	SYSV_IPC_SEMOP	IPC functions	entrance	sys_semop()	/ipc/sem.c	semid	isops	nsops		
71		SYSV_IPC_SEMGET		entrance	sys_semget()		key	nsops	semflg		
72		SYSV_IPC_SEMCTL		entrance	sys_semctl()		semid	semnum	cmd		
73		SYSV_IPC_MSGSEND		entrance	sys_msgsnd()	/ipc/msg.c	msqid	msgp	msgsz	argument for the function	
74		SYSV_IPC_MSGRCV		entrance	sys_msgrcv()		msqid/msgflg	msgp	msgsz	msgflg	
75		SYSV_IPC_MSGGET		entrance	sys_msgget()		key	msgflg	msgsz	msgtyp	
76		SYSV_IPC_MSGCTL		entrance	sys_msgctl()		msqid	cmd	buf		
77		SYSV_IPC_SHMAT		entrance	sys_shmat()	/ipc/shm.c	shmid	shmaddr	shmflg	raddr	
78		SYSV_IPC_SHMDT		entrance	sys_shmdt()		key	shmaddr			
79		SYSV_IPC_SHMGET		entrance	sys_shmget()		key	size	shmflg		
80	LK_SPINLOCK	spin lock	lock	spin_lock()		address where it was called	lock		inline		
81	LK_SPINTRYLOCK	spin lock	lock	spin_trylock()		address where it was called	lock	return value	inline		
82	LK_SPINUNLOCK	spin lock	unlock	spin_unlock()		address where it was called	lock		inline		
83	LK_WRLock	read/write lock	write lock	write_lock()		address where it was called	rwlock		inline		
84	LK_WRTRYLOCK	read/write lock	write try lock (exit)	write_trylock()	/include/asm-ia64/spinlock.h	address where it was called	rwlock	return value	inline		
85	LK_WRUNLOCK	read/write lock	write unlock	write_unlock()		address where it was called	rwlock		define		
86	LK_RDLOCK	read lock	read lock	read_lock()		address where it was called	rwlock		inline		
87	LK_RDUNLOCK	read lock	read unlock	read_unlock()		address where it was called	rwlock		define		
a0	Timer	TIMER_RUN	run timer list	run_timer_list()		function address(fn)	argument for the function(data)				
a1		TIMER_ADD	add to timer list	add_timer()	/kernel/timer.c	pointer to timer list (timer)	unexpired term (timer->expires)	function address (timer->function)	argument for the function (timer->data)		
a2		TIMER_MOD	modify timer list	mod_timer()		pointer to timer list (timer)	unexpired term (timer->expires)	function address (timer->function)	argument for the function (timer->data)		
a3		TIMER_DEL	delete from timer list	del_timer()		pointer to timer list (timer)	unexpired term (timer->expires)	function address (timer->function)	argument for the function (timer->data)		
a4	TIMER_DEL_SYNC	delete from timer list with synchronous		del_timer_sync()		pointer to timer list (timer)	unexpired term (timer->expires)	function address (timer->function)	argument for the function (timer->data)		
90	Others	O_PORTIN	io commands	port input	ia64_inb() ia64_inw() ia64_inl() ia64_insb() ia64_insw() ia64_insl()	/include/asm-ia64/io.h	port address/byte width	value to input	address where it was called	inline	
91		O_PORTOUT	io commands	port output	ia64_outb() ia64_outw() ia64_outl() ia64_outsb() ia64_outsw() ia64_outsl()	/include/asm-ia64/io.h	port address/byte width	value to output	address where it was called	inline	
92	O_PANIC	panic	panic	panic()	/kernel/panic.c	address of argument	address where it was called				
93	O_PRINTK	printk	printk	printk()	/kernel/printk.c	address of argument	address where it was called				
b0	Oops	OOPS_PGFAULT	oops in page fault handler	just before the oops operation	do_page_fault()	/arch/ia64/mm/fault.c	address where it was accessed	address where exception occurred	exception error code		
f00	LKST internal event	LKST_INIT	Progress of LKST initialization process	lkst_init_stage(0-1)()	/driver/lkst/lkst.c	initialization status					
f08		LKST_MSET_XCHG	LKST switches the masksets	lkst_evhandlerprim_maskset_xchg_inlinet	/driver/lkst/lkst.c	old maskset ID	new maskset ID	pointer to old maskset	pointer to new maskset	Recorded 2 times; before/after	
f10		LKST_BUFF_SHIFT	LKST shifts the buffers	lkst_evhandlerprim_buffer_shift_inlinet	/driver/lkst/lkst.c	old buffer ID	new buffer ID	pointer to old buffer	pointer to new buffer	Recorded 2 times; before/after	
f11		LKST_BUFF_OVFLOW	overrun occurred in the current buffer.	lkst_evhandlerprim_entry_next()	/include/linux/lkst_private.h	pointer to the buffer				Used for automatically shifting buffer. If masked, LKST stops it.	
f19	LKST_SYNC_UID	Synchronization with UID	sys_*uid(), set_user()	/kernel/timer.c, sys.c	UID			pointer to the process table	for compensation of dropped log data		
f1a	LKST_SYNC_GID	Synchronization with GID	sys_*gid()	/kernel/timer.c, sys.c	GID			pointer to the process table	for compensation of dropped log data		
f1b	LKST_SYNC_PGID	Synchronization with PGID	sys_*pgid(), sys_setsid()	/kernel/sys.c	PID	PGRP		pointer to the process table	session leader flag		
f1c	LKST_SYNC_TID	Synchronization with TID	sys_gettid()	/kernel/timer.c, sys.c	TID(pid)			pointer to the process table	for compensation of dropped log data		