Subject: Re: [linux-pm] [PATCH][RFC] freezer : add the TIF_FREEZE flag to all archs
Posted by Pavel Machek on Wed, 05 Dec 2007 20:27:49 GMT
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On Fri 2007-12-07 14:50:04, Cedric Le Goater wrote:
> From: Cedric Le Goater <clg@fr.ibm.com>
>
> This patch is the first step in making the refrigerator() available
> to all architectures, even for those without power management.
>
> The purpose of such a change is to be able to use the refrigerator()
> in a new control group subsystem which will implement a control group
> freezer.
>
> If you think this is safe and not utterly stupid, I'll send the rest
> of the patchset exporting the refrigerator to all arches.

I guess you should talk to Linus/akpm. Refrigertor is not going awa
anytime soon, but there's shadow of deprecation over it; when people wanted to use it outside suspend (cpu
hotplug), it turned out to be bad idea.

Pavel

> Thanks,
>
> C.
>
> Signed-off-by: Cedric Le Goater <clg@fr.ibm.com>
> ---
> include/asm-alpha/thread_info.h | 2 ++
> include/asm-avr32/thread_info.h | 2 ++
> include/asm-cris/thread_info.h | 2 ++
> include/asm-h8300/thread_info.h | 2 ++
> include/asm-m68k/thread_info.h | 1 +
> include/asm-m68knommu/thread_info.h | 2 ++
> include/asm-parisc/thread_info.h | 2 ++
> include/asm-s390/thread_info.h | 2 ++
> include/asm-sparc/thread_info.h | 2 ++
> include/asm-sparc64/thread_info.h | 2 ++
> include/asm-um/thread_info.h | 2 ++
> include/asm-v850/thread_info.h | 2 ++
> include/asm-xtensa/thread_info.h | 2 ++
> 13 files changed, 25 insertions(+)
>
> Index: 2.6.24-rc4-mm1/include/asm-alpha/thread_info.h
> ===

> --- 2.6.24-rc4-mm1.orig/include/asm-alpha/thread_info.h
> +++ 2.6.24-rc4-mm1/include/asm-alpha/thread_info.h
> @@ -76,12 +76,14 @@ register struct thread_info *__current_t
> #define TIF_UAC_SIGBUS 7
> #define TIF_MEMDIE 8
> #define TIF_RESTORE_SIGMASK 9 /* restore signal mask in do_signal */
> +#define TIF_FREEZE 19 /* is freezing for suspend */
>
> #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
> #define _TIF_SIGPENDING (1<<TIF_SIGPENDING)
> #define _TIF_NEED_RESCHED (1<<TIF_NEED_RESCHED)
> #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
> #define _TIF_RESTORE_SIGMASK (1<<TIF_RESTORE_SIGMASK)
> +#define _TIF_FREEZE (1<<TIF_FREEZE)
>
> /* Work to do on interrupt/exception return. */
> #define _TIF_WORK_MASK (_TIF_SIGPENDING | _TIF_NEED_RESCHED)
> Index: 2.6.24-rc4-mm1/include/asm-avr32/thread_info.h
> ===
> --- 2.6.24-rc4-mm1.orig/include/asm-avr32/thread_info.h
> +++ 2.6.24-rc4-mm1/include/asm-avr32/thread_info.h
> @@ -88,6 +88,7 @@ static inline struct thread_info *curren
> #define TIF_MEMDIE 6
> #define TIF_RESTORE_SIGMASK 7 /* restore signal mask in do_signal */
> #define TIF_CPU_GOING_TO_SLEEP 8 /* CPU is entering sleep 0 mode */
> +#define TIF_FREEZE 19 /* is freezing for suspend */
> #define TIF_DEBUG 30 /* debugging enabled */
> #define TIF_USERSPACE 31   /* true if FS sets userspace */
>
> @@ -99,6 +100,7 @@ static inline struct thread_info *curren
> #define _TIF_MEMDIE (1 << TIF_MEMDIE)
> #define _TIF_RESTORE_SIGMASK (1 << TIF_RESTORE_SIGMASK)
> #define _TIF_CPU_GOING_TO_SLEEP (1 << TIF_CPU_GOING_TO_SLEEP)
> +#define _TIF_FREEZE (1 << TIF_FREEZE)
>
> /* Note: The masks below must never span more than 16 bits! */
>
> Index: 2.6.24-rc4-mm1/include/asm-cris/thread_info.h
> ===
> --- 2.6.24-rc4-mm1.orig/include/asm-cris/thread_info.h
> +++ 2.6.24-rc4-mm1/include/asm-cris/thread_info.h
> @@ -86,6 +86,7 @@ struct thread_info {
> #define TIF_RESTORE_SIGMASK 9 /* restore signal mask in do_signal() */
> #define TIF_POLLING_NRFLAG 16 /* true if poll_idle() is polling TIF_NEED_RESCHED */
> #define TIF_MEMDIE 17
> +#define TIF_FREEZE 19 /* is freezing for suspend */
>
> #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)

> #define _TIF_NOTIFY_RESUME (1<<TIF_NOTIFY_RESUME)
> @@ -93,6 +94,7 @@ struct thread_info {
> #define _TIF_NEED_RESCHED (1<<TIF_NEED_RESCHED)
> #define _TIF_RESTORE_SIGMASK (1<<TIF_RESTORE_SIGMASK)
> #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
> +#define _TIF_FREEZE (1<<TIF_FREEZE)
>
> #define _TIF_WORK_MASK 0x0000FFFE /* work to do on interrupt/exception return */
> #define _TIF_ALLWORK_MASK 0x0000FFFF /* work to do on any return to u-space */
> Index: 2.6.24-rc4-mm1/include/asm-h8300/thread_info.h
> ===
> --- 2.6.24-rc4-mm1.orig/include/asm-h8300/thread_info.h
> +++ 2.6.24-rc4-mm1/include/asm-h8300/thread_info.h
> @@ -92,6 +92,7 @@ static inline struct thread_info *curren
>   TIF_NEED_RESCHED */
> #define TIF_MEMDIE 4
> #define TIF_RESTORE_SIGMASK 5 /* restore signal mask in do_signal() */
> +#define TIF_FREEZE 19 /* is freezing for suspend */
>
> /* as above, but as bit values */
> #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
> @@ -99,6 +100,7 @@ static inline struct thread_info *curren
> #define _TIF_NEED_RESCHED (1<<TIF_NEED_RESCHED)
> #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
> #define _TIF_RESTORE_SIGMASK (1<<TIF_RESTORE_SIGMASK)
> +#define _TIF_FREEZE (1<<TIF_FREEZE)
>
> #define _TIF_WORK_MASK 0x0000FFFE /* work to do on interrupt/exception return */
>
> Index: 2.6.24-rc4-mm1/include/asm-m68k/thread_info.h
> ===
> --- 2.6.24-rc4-mm1.orig/include/asm-m68k/thread_info.h
> +++ 2.6.24-rc4-mm1/include/asm-m68k/thread_info.h
> @@ -58,5 +58,6 @@ struct thread_info {
> #define TIF_DELAYED_TRACE 14 /* single step a syscall */
> #define TIF_SYSCALL_TRACE 15 /* syscall trace active */
> #define TIF_MEMDIE 16
> +#define TIF_FREEZE 19
>
> #endif /* _ASM_M68K_THREAD_INFO_H */
> Index: 2.6.24-rc4-mm1/include/asm-m68knommu/thread_info.h
> ===
> --- 2.6.24-rc4-mm1.orig/include/asm-m68knommu/thread_info.h
> +++ 2.6.24-rc4-mm1/include/asm-m68knommu/thread_info.h
> @@ -88,12 +88,14 @@ static inline struct thread_info *curren
> #define TIF_POLLING_NRFLAG 3 /* true if poll_idle() is polling
>   TIF_NEED_RESCHED */
> #define TIF_MEMDIE 4

> +#define TIF_FREEZE 19 /* is freezing for suspend */
>
> /* as above, but as bit values */
> #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
> #define _TIF_SIGPENDING (1<<TIF_SIGPENDING)
> #define _TIF_NEED_RESCHED (1<<TIF_NEED_RESCHED)
> #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
> +#define _TIF_FREEZE (1<<TIF_FREEZE)
>
> #define _TIF_WORK_MASK 0x0000FFFE /* work to do on interrupt/exception return */
>
> Index: 2.6.24-rc4-mm1/include/asm-parisc/thread_info.h
> ===
> --- 2.6.24-rc4-mm1.orig/include/asm-parisc/thread_info.h
> +++ 2.6.24-rc4-mm1/include/asm-parisc/thread_info.h
> @@ -62,6 +62,7 @@ struct thread_info {
> #define TIF_32BIT   4   /* 32 bit binary */
> #define TIF_MEMDIE 5
> #define TIF_RESTORE_SIGMASK 6 /* restore saved signal mask */
> +#define TIF_FREEZE 19 /* is freezing for suspend */
>
> #define _TIF_SYSCALL_TRACE (1 << TIF_SYSCALL_TRACE)
> #define _TIF_SIGPENDING (1 << TIF_SIGPENDING)
> @@ -69,6 +70,7 @@ struct thread_info {
> #define _TIF_POLLING_NRFLAG (1 << TIF_POLLING_NRFLAG)
> #define _TIF_32BIT (1 << TIF_32BIT)
> #define _TIF_RESTORE_SIGMASK (1 << TIF_RESTORE_SIGMASK)
> +#define _TIF_FREEZE (1 << TIF_FREEZE)
>
> #define _TIF_USER_WORK_MASK   (_TIF_SIGPENDING | \
>   _TIF_NEED_RESCHED | _TIF_RESTORE_SIGMASK)
> Index: 2.6.24-rc4-mm1/include/asm-s390/thread_info.h
> ===
> --- 2.6.24-rc4-mm1.orig/include/asm-s390/thread_info.h
> +++ 2.6.24-rc4-mm1/include/asm-s390/thread_info.h
> @@ -101,6 +101,7 @@ static inline struct thread_info *curren
>   TIF_NEED_RESCHED */
> #define TIF_31BIT 18 /* 32bit process */
> #define TIF_MEMDIE 19
> +#define TIF_FREEZE 20 /* is freezing for suspend */
>
> #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
> #define _TIF_RESTORE_SIGMASK (1<<TIF_RESTORE_SIGMASK)
> @@ -113,6 +114,7 @@ static inline struct thread_info *curren
> #define _TIF_USEDFPU (1<<TIF_USEDFPU)
> #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
> #define _TIF_31BIT (1<<TIF_31BIT)
> +#define _TIF_FREEZE (1<<TIF_FREEZE)

>
> #endif /* __KERNEL__ */
>
> Index: 2.6.24-rc4-mm1/include/asm-sparc/thread_info.h
> ===
> --- 2.6.24-rc4-mm1.orig/include/asm-sparc/thread_info.h
> +++ 2.6.24-rc4-mm1/include/asm-sparc/thread_info.h
> @@ -137,6 +137,7 @@ BTFIXUPDEF_CALL(void, free_thread_info,
> #define TIF_POLLING_NRFLAG 9 /* true if poll_idle() is polling
>   * TIF_NEED_RESCHED */
> #define TIF_MEMDIE 10
> +#define TIF_FREEZE 19 /* is freezing for suspend */
>
> /* as above, but as bit values */
> #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
> @@ -145,6 +146,7 @@ BTFIXUPDEF_CALL(void, free_thread_info,
> #define _TIF_RESTORE_SIGMASK (1<<TIF_RESTORE_SIGMASK)
> #define _TIF_USEDFPU (1<<TIF_USEDFPU)
> #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
> +#define _TIF_FREEZE (1<<TIF_FREEZE)
>
> #endif /* __KERNEL__ */
>
> Index: 2.6.24-rc4-mm1/include/asm-sparc64/thread_info.h
> ===
> --- 2.6.24-rc4-mm1.orig/include/asm-sparc64/thread_info.h
> +++ 2.6.24-rc4-mm1/include/asm-sparc64/thread_info.h
> @@ -236,6 +236,7 @@ register struct thread_info *current_thr
> #define TIF_ABI_PENDING 12
> #define TIF_MEMDIE 13
> #define TIF_POLLING_NRFLAG 14
> +#define TIF_FREEZE 19 /* is freezing for suspend */
>
> #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
> #define _TIF_SIGPENDING (1<<TIF_SIGPENDING)
> @@ -249,6 +250,7 @@ register struct thread_info *current_thr
> #define _TIF_RESTORE_SIGMASK (1<<TIF_RESTORE_SIGMASK)
> #define _TIF_ABI_PENDING (1<<TIF_ABI_PENDING)
> #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
> +#define _TIF_FREEZE (1<<TIF_FREEZE)
>
> #define _TIF_USER_WORK_MASK ((0xff << TI_FLAG_WSAVED_SHIFT) | \
>   (_TIF_SIGPENDING | _TIF_RESTORE_SIGMASK | \
> Index: 2.6.24-rc4-mm1/include/asm-um/thread_info.h
> ===
> --- 2.6.24-rc4-mm1.orig/include/asm-um/thread_info.h
> +++ 2.6.24-rc4-mm1/include/asm-um/thread_info.h
> @@ -83,6 +83,7 @@ static inline struct thread_info *curren

> #define TIF_MEMDIE   5
> #define TIF_SYSCALL_AUDIT 6
> #define TIF_RESTORE_SIGMASK 7
> +#define TIF_FREEZE 19 /* is freezing for suspend */
>
> #define _TIF_SYSCALL_TRACE (1 << TIF_SYSCALL_TRACE)
> #define _TIF_SIGPENDING (1 << TIF_SIGPENDING)
> @@ -91,5 +92,6 @@ static inline struct thread_info *curren
> #define _TIF_MEMDIE (1 << TIF_MEMDIE)
> #define _TIF_SYSCALL_AUDIT (1 << TIF_SYSCALL_AUDIT)
> #define _TIF_RESTORE_SIGMASK (1 << TIF_RESTORE_SIGMASK)
> +#define _TIF_FREEZE (1 << TIF_FREEZE)
>
> #endif
> Index: 2.6.24-rc4-mm1/include/asm-v850/thread_info.h
> ===
> --- 2.6.24-rc4-mm1.orig/include/asm-v850/thread_info.h
> +++ 2.6.24-rc4-mm1/include/asm-v850/thread_info.h
> @@ -82,12 +82,14 @@ struct thread_info {
> #define TIF_POLLING_NRFLAG 3 /* true if poll_idle() is polling
>   TIF_NEED_RESCHED */
> #define TIF_MEMDIE 4
> +#define TIF_FREEZE 19 /* is freezing for suspend */
>
> /* as above, but as bit values */
> #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
> #define _TIF_SIGPENDING (1<<TIF_SIGPENDING)
> #define _TIF_NEED_RESCHED (1<<TIF_NEED_RESCHED)
> #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)
> +#define _TIF_FREEZE (1<<TIF_FREEZE)
>
>
> /* Size of kernel stack for each process. */
> Index: 2.6.24-rc4-mm1/include/asm-xtensa/thread_info.h
> ===
> --- 2.6.24-rc4-mm1.orig/include/asm-xtensa/thread_info.h
> +++ 2.6.24-rc4-mm1/include/asm-xtensa/thread_info.h
> @@ -117,6 +117,7 @@ static inline struct thread_info *curren
> #define TIF_MEMDIE 5
> #define TIF_RESTORE_SIGMASK 6 /* restore signal mask in do_signal() */
> #define TIF_POLLING_NRFLAG 16 /* true if poll_idle() is polling TIF_NEED_RESCHED */
> +#define TIF_FREEZE 19 /* is freezing for suspend */
>
> #define _TIF_SYSCALL_TRACE (1<<TIF_SYSCALL_TRACE)
> #define _TIF_SIGPENDING (1<<TIF_SIGPENDING)
> @@ -125,6 +126,7 @@ static inline struct thread_info *curren
> #define _TIF_IRET (1<<TIF_IRET)
> #define _TIF_POLLING_NRFLAG (1<<TIF_POLLING_NRFLAG)

> #define _TIF_RESTORE_SIGMASK (1<<TIF_RESTORE_SIGMASK)
> +#define _TIF_FREEZE (1<<TIF_FREEZE)
>
> #define _TIF_WORK_MASK 0x0000FFFE /* work to do on interrupt/exception return */
> #define _TIF_ALLWORK_MASK 0x0000FFFF /* work to do on any return to u-space */
> _____
> linux-pm mailing list
> linux-pm@lists.linux-foundation.org
> https://lists.linux-foundation.org/mailman/listinfo/linux-pm

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(english) http://www.livejournal.com/~pavelmachek
(cesky, pictures) http://atrey.karlin.mff.cuni.cz/~pavel/picture/horses/blog.html

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