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

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

_____
Containers mailing list
Containers@lists.linux-foundation.org
https://lists.linux-foundation.org/mailman/listinfo/containers

---

Subject: [PATCH][RFC] freezer : add the TIF_FREEZE flag to all archs
Posted by Cedric Le Goater on Fri, 07 Dec 2007 13:50:04 GMT
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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.

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 */
```

_____

Containers mailing list
Containers@lists.linux-foundation.org
https://lists.linux-foundation.org/mailman/listinfo/containers

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Subject: Re: [PATCH][RFC] freezer : add the TIF_FREEZE flag to all archs
Posted by rjw on Mon, 10 Dec 2007 16:36:29 GMT
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On Friday, 7 of December 2007, Cedric Le Goater wrote:
> From: Cedric Le Goater <clg@fr.ibm.com>

Sorry for the delay, I somehow managed to overlook your message.

> 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.

Hm, sounds interesting, but ...

> If you think this is safe and not utterly stupid, I'll send the rest
> of the patchset exporting the refrigerator to all arches.

... you will need to provide some details, I think.

I also think that it's safe to define TIF_FREEZE for all architectures, but
the usefulness of it will very much depend on the purpose. :-)

Greetings,

Rafael

Subject: Re: [PATCH][RFC] freezer : add the TIF_FREEZE flag to all archs
Posted by dev on Mon, 10 Dec 2007 16:38:02 GMT
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>>From: Cedric Le Goater <clg@fr.ibm.com>
>
>
> Sorry for the delay, I somehow managed to overlook your message.
>
>
>>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.
>
>
> Hm, sounds interesting, but ...
>
>
>>If you think this is safe and not utterly stupid, I'll send the rest
>>of the patchset exporting the refrigerator to all arches.
>
>
> ... you will need to provide some details, I think.
>
> I also think that it's safe to define TIF_FREEZE for all architectures, but
> the usefulness of it will very much depend on the purpose. :-)

refrigerator() can be used (and is actually used in OpenVZ containers) to freeze
container processes for checkpointing (live migration).
So this can be used regardless system suspend and on all archs.

Thanks,
Kirill

Subject: Re: [PATCH][RFC] freezer : add the TIF_FREEZE flag to all archs
Posted by Cedric Le Goater on Tue, 11 Dec 2007 12:31:40 GMT
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Kirill Korotaev wrote:
>>> From: Cedric Le Goater <clg@fr.ibm.com>
>>
>> Sorry for the delay, I somehow managed to overlook your message.
>>
>>
>>> 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.
>>
>> Hm, sounds interesting, but ...
>>
>>
>>> If you think this is safe and not utterly stupid, I'll send the rest
>>> of the patchset exporting the refrigerator to all arches.
>>
>> ... you will need to provide some details, I think.
>>
>> I also think that it's safe to define TIF_FREEZE for all architectures, but
>> the usefulness of it will very much depend on the purpose. :-)

I'm sending the full patchset, asap

> refrigerator() can be used (and is actually used in OpenVZ containers) to freeze
> container processes for checkpointing (live migration).
> So this can be used regardless system suspend and on all archs.

Exactly !

Thanks,

C.

_____
Containers mailing list
Containers@lists.linux-foundation.org
https://lists.linux-foundation.org/mailman/listinfo/containers