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 */
```

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