

[patch 02/14] remap_file_pages protection support: add needed macros

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 - *Date:* Sun, 30 Apr 2006 19:29:55 +0200
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From: Paolo 'Blaisorblade' Giarrusso <blaisorblade@xxxxxxxx>

Add `pte_to_pgprot()` and `pgoff_prot_to_pte()` macros, in generic versions; so we can safely use it and keep the kernel compiling. For some architectures real definitions of the macros are actually provided.

Also, add the `MAP_CHGPROT` flag to all arch headers (was `MAP_NOINHERIT`, changed on Hugh Dickins' suggestion).

Signed-off-by: Paolo 'Blaisorblade' Giarrusso <blaisorblade@xxxxxxxx>

Index: linux-2.6.git/include/asm-generic/pgtable.h

```
=====
--- linux-2.6.git.orig/include/asm-generic/pgtable.h
+++ linux-2.6.git/include/asm-generic/pgtable.h
@@ -241,4 +241,16 @@ static inline int pmd_none_or_clear_bad(
 }
#endif /* !__ASSEMBLY__ */

+#ifndef __HAVE_ARCH_PTE_TO_PGPROT
+/* Wrappers for architectures which don't support yet page protections for
+ * remap_file_pages. */
+
+/* Dummy define – if the architecture has no special support, access is denied
+ * in VM_MANYPROTS vma's. */
+#define pte_to_pgprot(pte) __P000
+
+#define pgoff_prot_to_pte(off, prot) pgoff_to_pte(off)
+
+#endif
+
#endif /* _ASM_GENERIC_PGTABLE_H */
Index: linux-2.6.git/include/asm-alpha/mman.h
=====
--- linux-2.6.git.orig/include/asm-alpha/mman.h
+++ linux-2.6.git/include/asm-alpha/mman.h
@@ -28,6 +28,9 @@
#define MAP_NORESERVE 0x10000 /* don't check for reservations */
#define MAP_POPULATE 0x20000 /* populate (prefault) pagetables */
```

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```
#define MAP_NONBLOCK 0x40000 /* do not block on IO */
+#define MAP_CHGPROT 0x80000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */
```

```
#define MS_ASYNC 1 /* sync memory asynchronously */
```

```
#define MS_SYNC 2 /* synchronous memory sync */
```

```
Index: linux-2.6.git/include/asm-arm26/mman.h
```

```
----- linux-2.6.git.orig/include/asm-arm26/mman.h
```

```
+++ linux-2.6.git/include/asm-arm26/mman.h
```

```
@@ -10,6 +10,9 @@
```

```
#define MAP_NORESERVE 0x4000 /* don't check for reservations */
```

```
#define MAP_POPULATE 0x8000 /* populate (prefault) page tables */
```

```
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
```

```
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */
```

```
#define MCL_CURRENT 1 /* lock all current mappings */
```

```
#define MCL_FUTURE 2 /* lock all future mappings */
```

```
Index: linux-2.6.git/include/asm-arm/mman.h
```

```
----- linux-2.6.git.orig/include/asm-arm/mman.h
```

```
+++ linux-2.6.git/include/asm-arm/mman.h
```

```
@@ -10,6 +10,9 @@
```

```
#define MAP_NORESERVE 0x4000 /* don't check for reservations */
```

```
#define MAP_POPULATE 0x8000 /* populate (prefault) page tables */
```

```
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
```

```
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */
```

```
#define MCL_CURRENT 1 /* lock all current mappings */
```

```
#define MCL_FUTURE 2 /* lock all future mappings */
```

```
Index: linux-2.6.git/include/asm-cris/mman.h
```

```
----- linux-2.6.git.orig/include/asm-cris/mman.h
```

```
+++ linux-2.6.git/include/asm-cris/mman.h
```

```
@@ -12,6 +12,9 @@
```

```
#define MAP_NORESERVE 0x4000 /* don't check for reservations */
```

```
#define MAP_POPULATE 0x8000 /* populate (prefault) pagetables */
```

```
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
```

```
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */
```

```
#define MCL_CURRENT 1 /* lock all current mappings */
```

```
#define MCL_FUTURE 2 /* lock all future mappings */
```

```
Index: linux-2.6.git/include/asm-frv/mman.h
```

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```
--- linux-2.6.git.orig/include/asm-frv/mman.h
+++ linux-2.6.git/include/asm-frv/mman.h
@@ -10,6 +10,9 @@
#define MAP_NORESERVE 0x4000 /* don't check for reservations */
#define MAP_POPULATE 0x8000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */

#define MCL_CURRENT 1 /* lock all current mappings */
#define MCL_FUTURE 2 /* lock all future mappings */
Index: linux-2.6.git/include/asm-h8300/mman.h
=====
--- linux-2.6.git.orig/include/asm-h8300/mman.h
+++ linux-2.6.git/include/asm-h8300/mman.h
@@ -10,6 +10,9 @@
#define MAP_NORESERVE 0x4000 /* don't check for reservations */
#define MAP_POPULATE 0x8000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */

#define MCL_CURRENT 1 /* lock all current mappings */
#define MCL_FUTURE 2 /* lock all future mappings */
Index: linux-2.6.git/include/asm-i386/mman.h
=====
--- linux-2.6.git.orig/include/asm-i386/mman.h
+++ linux-2.6.git/include/asm-i386/mman.h
@@ -10,6 +10,9 @@
#define MAP_NORESERVE 0x4000 /* don't check for reservations */
#define MAP_POPULATE 0x8000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */

#define MCL_CURRENT 1 /* lock all current mappings */
#define MCL_FUTURE 2 /* lock all future mappings */
Index: linux-2.6.git/include/asm-ia64/mman.h
=====
--- linux-2.6.git.orig/include/asm-ia64/mman.h
+++ linux-2.6.git/include/asm-ia64/mman.h
@@ -18,6 +18,9 @@
#define MAP_NORESERVE 0x04000 /* don't check for reservations */
#define MAP_POPULATE 0x08000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */
```

[patch 02/14] remap_file_pages protection support: add needed macros

```
#define MCL_CURRENT 1 /* lock all current mappings */
#define MCL_FUTURE 2 /* lock all future mappings */
Index: linux-2.6.git/include/asm-m32r/mman.h
=====
--- linux-2.6.git.orig/include/asm-m32r/mman.h
+++ linux-2.6.git/include/asm-m32r/mman.h
@@ -12,6 +12,9 @@
#define MAP_NORESERVE 0x4000 /* don't check for reservations */
#define MAP_POPULATE 0x8000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */

#define MCL_CURRENT 1 /* lock all current mappings */
#define MCL_FUTURE 2 /* lock all future mappings */
Index: linux-2.6.git/include/asm-m68k/mman.h
=====
--- linux-2.6.git.orig/include/asm-m68k/mman.h
+++ linux-2.6.git/include/asm-m68k/mman.h
@@ -10,6 +10,9 @@
#define MAP_NORESERVE 0x4000 /* don't check for reservations */
#define MAP_POPULATE 0x8000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */

#define MCL_CURRENT 1 /* lock all current mappings */
#define MCL_FUTURE 2 /* lock all future mappings */
Index: linux-2.6.git/include/asm-mips/mman.h
=====
--- linux-2.6.git.orig/include/asm-mips/mman.h
+++ linux-2.6.git/include/asm-mips/mman.h
@@ -46,6 +46,9 @@
#define MAP_LOCKED 0x8000 /* pages are locked */
#define MAP_POPULATE 0x10000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x20000 /* do not block on IO */
+#define MAP_CHGPROT 0x40000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */

/*
 * Flags for msync
Index: linux-2.6.git/include/asm-parisc/mman.h
=====
--- linux-2.6.git.orig/include/asm-parisc/mman.h
+++ linux-2.6.git/include/asm-parisc/mman.h
@@ -22,6 +22,9 @@
#define MAP_GROWSDOWN 0x8000 /* stack-like segment */
```

[patch 02/14] remap_file_pages protection support: add needed macros

```
#define MAP_POPULATE 0x10000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x20000 /* do not block on IO */
+#define MAP_CHGPROT 0x40000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */
```

```
#define MS_SYNC 1 /* synchronous memory sync */
#define MS_ASYNC 2 /* sync memory asynchronously */
Index: linux-2.6.git/include/asm-powerpc/mman.h
```

```
----- linux-2.6.git.orig/include/asm-powerpc/mman.h
+++ linux-2.6.git/include/asm-powerpc/mman.h
@@ -23,5 +23,8 @@
```

```
#define MAP_POPULATE 0x8000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */
```

```
#endif /* _ASM_POWERPC_MMAN_H */
Index: linux-2.6.git/include/asm-s390/mman.h
```

```
----- linux-2.6.git.orig/include/asm-s390/mman.h
+++ linux-2.6.git/include/asm-s390/mman.h
@@ -18,6 +18,9 @@
```

```
#define MAP_NORESERVE 0x4000 /* don't check for reservations */
#define MAP_POPULATE 0x8000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */
```

```
#define MCL_CURRENT 1 /* lock all current mappings */
#define MCL_FUTURE 2 /* lock all future mappings */
Index: linux-2.6.git/include/asm-sh/mman.h
```

```
----- linux-2.6.git.orig/include/asm-sh/mman.h
+++ linux-2.6.git/include/asm-sh/mman.h
@@ -10,6 +10,9 @@
```

```
#define MAP_NORESERVE 0x4000 /* don't check for reservations */
#define MAP_POPULATE 0x8000 /* populate (prefault) page tables */
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */
```

```
#define MCL_CURRENT 1 /* lock all current mappings */
#define MCL_FUTURE 2 /* lock all future mappings */
Index: linux-2.6.git/include/asm-sparc64/mman.h
```

[patch 02/14] remap_file_pages protection support: add needed macros

```
--- linux-2.6.git.orig/include/asm-sparc64/mman.h
+++ linux-2.6.git/include/asm-sparc64/mman.h
@@ -21,6 +21,9 @@
```

```
#define MAP_POPULATE 0x8000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */
```

```
/* XXX Need to add flags to SunOS's mctl, mlockall, and madvise system
* XXX calls.
```

```
Index: linux-2.6.git/include/asm-sparc/mman.h
```

```
=====
--- linux-2.6.git.orig/include/asm-sparc/mman.h
+++ linux-2.6.git/include/asm-sparc/mman.h
@@ -21,6 +21,9 @@
```

```
#define MAP_POPULATE 0x8000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */
```

```
/* XXX Need to add flags to SunOS's mctl, mlockall, and madvise system
* XXX calls.
```

```
Index: linux-2.6.git/include/asm-x86_64/mman.h
```

```
=====
--- linux-2.6.git.orig/include/asm-x86_64/mman.h
+++ linux-2.6.git/include/asm-x86_64/mman.h
@@ -12,6 +12,9 @@
```

```
#define MAP_NORESERVE 0x4000 /* don't check for reservations */
#define MAP_POPULATE 0x8000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x10000 /* do not block on IO */
+#define MAP_CHGPROT 0x20000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */
```

```
#define MCL_CURRENT 1 /* lock all current mappings */
#define MCL_FUTURE 2 /* lock all future mappings */
```

```
Index: linux-2.6.git/include/asm-xtensa/mman.h
```

```
=====
--- linux-2.6.git.orig/include/asm-xtensa/mman.h
+++ linux-2.6.git/include/asm-xtensa/mman.h
@@ -53,6 +53,9 @@
```

```
#define MAP_LOCKED 0x8000 /* pages are locked */
#define MAP_POPULATE 0x10000 /* populate (prefault) pagetables */
#define MAP_NONBLOCK 0x20000 /* do not block on IO */
+#define MAP_CHGPROT 0x40000 /* don't inherit the protection bits of
+ the underlying vma, to be passed to
+ remap_file_pages() only */
```

[patch 02/14] remap_file_pages protection support: add needed macros

/*

* Flags for msync

--

Inform me of my mistakes, so I can keep imitating Homer Simpson's "Doh!".
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