
Subject: [PATCH 2/8] Add container pointer on struct page

Posted by [xemul](#) on Mon, 09 Apr 2007 12:37:43 GMT

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Each page is supposed to have an owner - the container that touched the page first. The owner stays alive during the page lifetime even if the task that touched the page dies or moves to another container.

This ownership is the forerunner for the "fair" page sharing accounting, in which page has as many owners as it is really used by.

```
diff -upr linux-2.6.20.orig/include/linux/mm.h linux-2.6.20-2/include/linux/mm.h
--- linux-2.6.20.orig/include/linux/mm.h 2007-03-06 19:09:50.000000000 +0300
+++ linux-2.6.20-2/include/linux/mm.h 2007-04-09 11:26:06.000000000 +0400
@@ -220,6 +220,12 @@ struct vm_operations_struct {
    struct mmu_gather;
    struct inode;
```

```
+#ifdef CONFIG_RSS_CONTAINER
+#define page_container(page) (page->rss_container)
+#else
+#define page_container(page) (NULL)
+#endif
+
+#define page_private(page) ((page)->private)
+#define set_page_private(page, v) ((page)->private = (v))
```

```
diff -upr linux-2.6.20.orig/include/linux/mm_types.h linux-2.6.20-2/include/linux/mm_types.h
--- linux-2.6.20.orig/include/linux/mm_types.h 2007-03-06 19:09:50.000000000 +0300
+++ linux-2.6.20-2/include/linux/mm_types.h 2007-04-09 11:26:06.000000000 +0400
@@ -62,6 +62,9 @@ struct page {
    void *virtual; /* Kernel virtual address (NULL if
                   not kmapped, ie. highmem) */
    #endif /* WANT_PAGE_VIRTUAL */
    #ifdef CONFIG_RSS_CONTAINER
    + struct page_container *rss_container;
    #endif
};

#endif /* _LINUX_MM_TYPES_H */
```
