
Subject: [PATCH 1/15] The helper functions themselves
Posted by [xemul](#) on Fri, 18 May 2007 09:17:10 GMT
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Many places in kernel use seq_file API to iterate over a regular list_head. The code for such iteration is identical in all the places, so it's worth introducing a common helpers.

Signed-off-by: Pavel Emelianov <xemul@openvz.org>

```
diff --git a/fs/seq_file.c b/fs/seq_file.c
index 0ac22af..49194a4 100644
--- a/fs/seq_file.c
+++ b/fs/seq_file.c
@@ -447,3 +447,37 @@ int seq_puts(struct seq_file *m, const c
    return -1;
}
EXPORT_SYMBOL(seq_puts);
+
+struct list_head *seq_list_start(struct list_head *head, loff_t pos)
+{
+ struct list_head *lh;
+
+ list_for_each(lh, head)
+ if (pos-- == 0)
+ return lh;
+
+ return NULL;
+}
+
+EXPORT_SYMBOL(seq_list_start);
+
+struct list_head *seq_list_start_head(struct list_head *head, loff_t pos)
+{
+ if (!pos)
+ return head;
+
+ return seq_list_start(head, pos - 1);
+}
+
+EXPORT_SYMBOL(seq_list_start_head);
+
+struct list_head *seq_list_next(void *v, struct list_head *head, loff_t *ppos)
+{
+ struct list_head *lh;
+
+

```

```

+ lh = ((struct list_head *)v)->next;
+ ++*ppos;
+ return lh == head ? NULL : lh;
+}
+
+EXPORT_SYMBOL(seq_list_next);
diff --git a/include/linux/seq_file.h b/include/linux/seq_file.h
index 3e3cccb..83783ab 100644
--- a/include/linux/seq_file.h
+++ b/include/linux/seq_file.h
@@ -50,5 +50,16 @@ int seq_release_private(struct inode *,

#define SEQ_START_TOKEN ((void *)1)

+/*
+ * Helpers for iteration over list_head-s in seq_files
+ */
+
+extern struct list_head *seq_list_start(struct list_head *head,
+ loff_t pos);
+extern struct list_head *seq_list_start_head(struct list_head *head,
+ loff_t pos);
+extern struct list_head *seq_list_next(void *v, struct list_head *head,
+ loff_t *ppos);
+
+
#endif
#endif

```
