

**NAME**

get\_robust\_list, set\_robust\_list - get/set list of robust futexes

**SYNOPSIS**

```
#include <linux/futex.h>
```

```
#include <sys/types.h>
```

```
#include <syscall.h>
```

```
long get_robust_list(int pid, struct robust_list_head **head_ptr,  
                    size_t *len_ptr);
```

```
long set_robust_list(struct robust_list_head *head, size_t len);
```

*Note:* There are no glibc wrappers for these system calls; see NOTES.

**DESCRIPTION**

The robust futex implementation needs to maintain per-thread lists of the robust futexes which are to be unlocked when the thread exits. These lists are managed in user space; the kernel is notified about only the location of the head of the list.

The `get_robust_list()` system call returns the head of the robust futex list of the thread whose thread ID is specified in *pid*. If *pid* is 0, the head of the list for the calling thread is returned. The list head is stored in the location pointed to by *head\_ptr*. The size of the object pointed to by *\*\*head\_ptr* is stored in *len\_ptr*.

Permission to employ `get_robust_list()` is governed by a `ptrace` access mode `PTTRACE_MODE_READ_REALCREDS` check; see [ptrace\(2\)](#).

The `set_robust_list()` system call requests the kernel to record the head of the list of robust futexes owned by the calling thread. The *head* argument is the list head to record. The *len* argument should be `sizeof(*head)`.

**RETURN VALUE**

The `set_robust_list()` and `get_robust_list()` system calls return zero when the operation is successful, an error code otherwise.

**ERRORS**

The `set_robust_list()` system call can fail with the following error:

**EINVAL**

*len* does not equal `sizeof(struct robust_list_head)`.

The `get_robust_list()` system call can fail with the following errors:

**EPERM**

The calling process does not have permission to see the robust futex list of the thread with the thread ID *pid*, and does not have the `CAP_SYS_PTRACE` capability.

**ESRCH**

No thread with the thread ID *pid* could be found.

**EFAULT**

The head of the robust futex list can't be stored at the location *head*.

**VERSIONS**

These system calls were added in Linux 2.6.17.

**NOTES**

These system calls are not needed by normal applications. No support for them is provided in glibc. In the unlikely event that you want to call them directly, use [syscall\(2\)](#).

A thread can have only one robust futex list; therefore applications that wish to use this functionality should use the robust mutexes provided by glibc.

**SEE ALSO**

[futex\(2\)](#)

*Documentation/robust-futexes.txt* and *Documentation/robust-futex-ABI.txt* in the Linux kernel source tree

## COLOPHON

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