Red Hat Enterprise Linux Release 9.2 Manual Pages on 'get_kernel_syms.2' command

$ man get_kernel_syms.2

GET_KERNEL_SYMS(2)   Linux Programmer's Manual   GET_KERNEL_SYMS(2)

NAME

  get_kernel_syms - retrieve exported kernel and module symbols

SYNOPSIS

  #include <linux/module.h>

  int get_kernel_syms(struct kernel_sym *table);

  Note: No declaration of this system call is provided in glibc headers;

  see NOTES.

DESCRIPTION

  Note: This system call is present only in kernels before Linux 2.6.

  If table is NULL, get_kernel_syms() returns the number of symbols

  available for query. Otherwise, it fills in a table of structures:

    struct kernel_sym {

      unsigned long value;

      char   name[60];

    };

  The symbols are interspersed with magic symbols of the form #module-

  name with the kernel having an empty name. The value associated with a

  symbol of this form is the address at which the module is loaded.

  The symbols exported from each module follow their magic module tag and

  the modules are returned in the reverse of the order in which they were

  loaded.

RETURN VALUE

On success, returns the number of symbols copied to table. On error, -1 is returned and errno is set appropriately.

ERRORS

There is only one possible error return:

ENOSYS get_kernel_syms() is not supported in this version of the ker‐
       nel.

VERSIONS

This system call is present on Linux only up until kernel 2.4; it was removed in Linux 2.6.

CONFORMING TO

get_kernel_syms() is Linux-specific.

NOTES

This obsolete system call is not supported by glibc. No declaration is provided in glibc headers, but, through a quirk of history, glibc ver‐ sions before 2.23 did export an ABI for this system call. Therefore, in order to employ this system call, it was sufficient to manually de‐ clare the interface in your code; alternatively, you could invoke the system call using syscall(2).

BUGS

There is no way to indicate the size of the buffer allocated for table. If symbols have been added to the kernel since the program queried for the symbol table size, memory will be corrupted.

The length of exported symbol names is limited to 59 characters.

Because of these limitations, this system call is deprecated in favor of query_module(2) (which is itself nowadays deprecated in favor of other interfaces described on its manual page).

SEE ALSO

create_module(2), delete_module(2), init_module(2), query_module(2)

COLOPHON

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