NAME

kvm_read, kvm_write, kvm_uread, kvm_uwrite, kvm_kread, kvm_kwrite – copy data to or from a kernel image or running system

SYNOPSIS

#include <kvm.h>

int kvm_read(kvm_t **kd*, **unsigned long** *addr*, **char** **buf*, **unsigned** *nbytes***);**

int kvm_write(kvm_t **kd*, **unsigned long** *addr*, **char** **buf*, **unsigned** *nbytes***);**

int kvm_uread(kvm_t **kd*, **unsigned long** *addr*, **char** **buf*, **unsigned** *nbytes***);**

int kvm_uwrite(kvm_t **kd*, **unsigned long** *addr*, **char** **buf*, **unsigned** *nbytes***);**

int kvm_kread(kvm_t **kd*, **unsigned long** *addr*, **char** **buf*, **unsigned** *nbytes***);**

int kvm_kwrite(kvm_t **kd*, **unsigned long** *addr*, **char** **buf*, **unsigned** *nbytes***);**

MT-LEVEL

Unsafe

DESCRIPTION

kvm_read( ) transfers data from the kernel image specified by *kd* (see **kvm_open**(3K)) to the address space of the process. *nbytes* bytes of data are copied from the kernel virtual address given by *addr* to the buffer pointed to by *buf*.

kvm_write( ) is like **kvm_read( )**, except that the direction of data transfer is reversed. In order to use this function, the **kvm_open**(3K) call that returned *kd* must have specified write access. If a user virtual address is given, it is resolved in the address space of the process specified in the most recent **kvm_getu**(3K) call.

kvm_uread( ) transfers data from the address space of the processes specified in the most recent **kvm_getu**(3K) call. *nbytes* bytes of data are copied from the user virtual address given by addr to the buffer pointed to by *buf*.

kvm_uwrite( ) is like **kvm_uread( )**, except that the direction of the transfer is reversed. In order to use this function, the **kvm_open**(3K) call that returned *kd* must have specified write access. The address is resolved in the address space of the process specified in the most recent **kvm_getu**(3K) call.

kvm_kread( ) transfers data from the kernel address space to the address space of the process. *nbytes* bytes of data are copied from the kernel virtual address given by *addr* to the buffer pointed to by *buf*.

kvm_kwrite( ) is like **kvm_kread( )**, except that the direction of the transfer is reversed. In order to use this function, the **kvm_open**(3K) call that returned *kd* must have specified write access.

Note: The use of **kvm_uread( )**, **kvm_uwrite( )**, **kvm_kread( )** and **kvm_kwrite( )** is encouraged over the use of **kvm_read( )** and **kvm_write( )** since these are more clearly defined interfaces.

RETURN VALUES

All the above functions return the following values:

<*number of bytes actually transferred***>**	Success.
–1	Failure.

SEE ALSO

kvm_getu(3K), **kvm_nlist**(3K), **kvm_open**(3K)