NAME

sysinfo – get and set system information strings

SYNOPSIS

#include <sys/systeminfo.h>

long sysinfo(int *command***, char** **buf***, long** *count***);**

DESCRIPTION

sysinfo( ) copies information relating to the operating system on which the process is executing into the buffer pointed to by *buf*. **sysinfo( )** can also set certain information where appropriate *commands* are available. *count* is the size of the buffer.

The POSIX P1003.1 interface **sysconf**(3C) provides a similar class of configuration information, but returns an integer rather than a string.

The *command*s available are:

SI_SYSNAME Copy into the array pointed to by *buf* the string that would be returned by **uname**(2) in the *sysname* field. This is the name of the implementation of the operating system, for example, **SunOS** or **UTS**.

SI_HOSTNAME Copy into the array pointed to by *buf* a string that names the present host machine. This is the string that would be returned by **uname**(2) in the *nodename* field. This hostname or nodename is often the name the machine is known by locally.

The *hostname* is the name of this machine as a node in some network. Different networks may have different names for the node, but presenting the nodename to the appropriate network directory or name-to-address mapping service should produce a transport end point address. The name may not be fully qualified.

Internet host names may be up to **256** bytes in length (plus the terminating null).

SI_SET_HOSTNAME Copy the null-terminated contents of the array pointed to by *buf* into the string maintained by the kernel whose value will be returned by succeeding calls to **sysinfo( )** with the command **SI_HOSTNAME**. This command requires that the effective-user-id be super-user.

SI_RELEASE Copy into the array pointed to by *buf* the string that would be returned by **uname**(2) in the *release* field. Typical values might be **5.2** or **4.1**.

SI_VERSION Copy into the array pointed to by *buf* the string that would be returned by **uname**(2) in the *version* field. The syntax and semantics of this string are defined by the system provider.

SI_MACHINE Copy into the array pointed to by *buf* the string that would be returned by **uname**(2) in the *machine* field, for example, **sun4c**, **sun4d**, or **sun4m**.

SI_ARCHITECTURE Copy into the array pointed to by *buf* a string describing the instruction set architecture of the current system, for example, **sparc**, **mc68030**, **m32100**, or **i386**. These names may not match predefined names in the C language compilation system.

SI_PLATFORM Copy into the array pointed to by *buf* a string describing the specific model of the hardware platform, for example, **SUNW,Sun_4_75**, **SUNW,SPARCsystem-600**, or **i86pc**.

SI_HW_PROVIDER Copies the name of the hardware manufacturer into the array pointed to by *buf*.

SI_HW_SERIAL Copy into the array pointed to by *buf* a string which is the ASCII representation of the hardware-specific serial number of the physical machine on which the function is executed. Note that this may be implemented in Read-Only Memory, using software constants set when building the operating system, or by other means, and may contain non-numeric characters. It is anticipated that manufacturers will not issue the same "serial number" to more than one physical machine. The pair of strings returned by **SI_HW_PROVIDER** and **SI_HW_SERIAL** is likely to be unique across all vendor's SVR4 implementations.

SI_SRPC_DOMAIN Copies the Secure Remote Procedure Call domain name into the array pointed to by *buf*.

SI_SET_SRPC_DOMAIN
Set the string to be returned by **sysinfo( )** with the **SI_SRPC_DOMAIN** command to the value contained in the array pointed to by *buf*. This command requires that the effective-user-id be super-user.

RETURN VALUES

Upon successful completion, the value returned indicates the buffer size in bytes required to hold the complete value and the terminating null character. If this value is no greater than the value passed in *count*, the entire string was copied. If this value is greater than *count*, the string copied into *buf* has been truncated to *count −1* bytes plus a terminating null character.

Otherwise, a value of −**1** is returned and **errno** is set to indicate the error.

ERRORS

sysinfo( ) will fail if one or more of the following are true:

EFAULT *buf* does not point to a valid address.

EINVAL The data for a SET command exceeds the limits established by the implementation.

EPERM The effective user of the calling process is not super-user.

USAGE

In many cases there is no corresponding programmatic interface to set these values; such strings are typically settable only by the system administrator modifying entries in the **/etc/system** directory or the code provided by the particular OEM reading a serial number or code out of read-only memory, or hard-coded in the version of the operating system.

A good starting guess for *count* is 257, which is likely to cover all strings returned by this interface in typical installations.

SEE ALSO

uname(2), **gethostid**(3C), **gethostname**(3C), **sysconf**(3C)