NAME

sysconf – get configurable system variables

SYNOPSIS

#include <unistd.h>

long sysconf(int *name***);**

MT-LEVEL

MT-Safe, Async-Signal-Safe

DESCRIPTION

The **sysconf()** function provides a method for an application to determine the current value of a configurable system limit or option (variable).

The *name* argument represents the system variable to be queried. The following table lists the minimal set of system variables from **<limits.h>** and **<unistd.h>** that can be returned by **sysconf()**, and the symbolic constants, defined in **<unistd.h>** that are the corresponding values used for *name*.

Name	*Return Value*	*Meaning*
_SC_ARG_MAX	ARG_MAX	Max size of **argv[ ]** plus **envp[ ]**.
_SC_CHILD_MAX	CHILD_MAX	Max processes allowed to a UID.
_SC_CLK_TCK	CLK_TCK	Ticks per second (**clock_t**).
_SC_NGROUPS_MAX	NGROUPS_MAX	Max simultaneous groups to which one may belong.
_SC_OPEN_MAX	OPEN_MAX	Max open files per process.
_SC_PASS_MAX	PASS_MAX	
_SC_PAGESIZE	PAGESIZE	System memory page size.
_SC_JOB_CONTROL	_POSIX_JOB_CONTROL	Job control supported?
_SC_SAVED_IDS	_POSIX_SAVED_IDS	Saved IDs (**seteuid()**) supported?
_SC_VERSION	_POSIX_VERSION	POSIX.1 version supported.
_SC_XOPEN_VERSION	_XOPEN_VERSION	
_SC_LOGNAME_MAX	LOGNAME_MAX	
_SC_NPROCESSORS_CONF		Number of processors configured.
_SC_NPROCESSORS_ONLN		Number of processors online.
_SC_PHYS_PAGES		Total number of pages of physical memory in system.
_SC_AVPHYS_PAGES		Number physical memory pages not currently in use by system.
_SC_AIO_LISTIO_MAX	AIO_LISTIO_MAX	Max number of I/O operations in a single list I/O call supported by implementation.
_SC_AIO_MAX	AIO_MAX	Max number of outstanding asynchronous I/O operations supported by implementation.
_SC_AIO_PRIO_DELTA_MAX	AIO_PRIO_DELTA_MAX	Max amount by which a process can decrease its asynchronous I/O priority level from its own scheduling priority.

_SC_DELAYTIMER_MAX	DELAYTIMER_MAX	Max number of timer expiration overruns.
_SC_MQ_OPEN_MAX	MQ_OPEN_MAX	Max number of open message queues a process may hold.
_SC_MQ_PRIO_MAX	MQ_PRIO_MAX	Max number of message priorities supported by implementation.
_SC_RTSIG_MAX	RTSIG_MAX	Max number of realtime signals reserved for application use in this implementation.
_SC_SEM_NSEMS_MAX	SEM_NSEMS_MAX	Max number of semaphores that a process may have.
_SC_SEM_VALUE_MAX	SEM_VALUE_MAX	Max value a semaphore may have.
_SC_SIGQUEUE_MAX	SIGQUEUE_MAX	Max number of queued signals that a process may send and have pending at receiver(s) at a time.
_SC_TIMER_MAX	TIMER_MAX	Max number of timers per process supported by implementation.
_SC_ASYNCHRONOUS_IO	_POSIX_ASYNCHRONOUS_IO	Supports Asynchronous I/O.
_SC_FSYNC	_POSIX_FSYNC	Supports File Synchronization.
_SC_MAPPED_FILES	_POSIX_MAPPED_FILES	Supports Memory Mapped Files.
_SC_MEMLOCK	_POSIX_MEMLOCK	Supports Process Memory Locking.
_SC_MEMLOCK_RANGE	_POSIX_MEMLOCK_RANGE	Supports Range Memory Locking.
_SC_MEMORY_PROTECTION	_POSIX_MEMORY_PROTECTION	Supports Memory Protection.
_SC_MESSAGE_PASSING	_POSIX_MESSAGE_PASSING	Supports Message Passing.
_SC_PRIORITIZED_IO	_POSIX_PRIORITIZED_IO	Supports Prioritized I/O.
_SC_PRIORITY_SCHEDULING	_POSIX_PRIORITY_SCHEDULING	Supports Process Scheduling
_SC_REALTIME_SIGNALS	_POSIX_REALTIME_SIGNALS	Supports Realtime Signals.
_SC_SEMAPHORES	_POSIX_SEMAPHORES	Supports Semaphores.
_SC_SHARED_MEMORY_ OBJECTS	_POSIX_SHARED_MEMORY_ OBJECTS	Supports Shared Memory Objects.
_SC_SYNCHRONIZED_IO	_POSIX_SYNCHRONIZED_IO	Supports Synchronized I/O.
_SC_TIMERS	_POSIX_TIMERS	Supports Timers.
_SC_GETGR_R_SIZE_MAX		
_SC_GETPW_R_SIZE_MAX		
_SC_LOGIN_NAME_MAX	LOGIN_NAME_MAX	Max length of login name.
_SC_THREAD_DESTRUCTOR_ ITERATIONS	PTHREAD_DESTRUCTOR_ ITERATIONS	Number attempts made to destroy thread-specific data upon exit.
_SC_THREAD_KEYS_MAX	PTHREAD_KEYS_MAX	Max number of data keys per process.
_SC_THREAD_STACK_MIN	PTHREAD_STACK_MIN	Min byte size of thread stack storage.
_SC_THREAD_THREADS_MAX	PTHREAD_THREADS_MAX	Max number of threads per process.
_SC_TTY_NAME_MAX	TTY_NAME_MAX	Max length of terminal device name.
_SC_THREADS	POSIX_THREADS	Supports Threads option.

_SC_THREAD_ATTR_STACKADDR	POSIX_THREAD_ATTR_STACKADDR	Supports Thread Stack Address Attribute option.
_SC_THREAD_ATTR_STACKSIZE	POSIX_THREAD_ATTR_STACKSIZE	Supports Thread Stack Size Attribute option.
_SC_THREAD_PRIORITY_SCHEDULING	POSIX_THREAD_PRIORITY_SCHEDULING	Supports Thread Execution Scheduling option.
_SC_THREAD_PRIO_INHERIT	POSIX_THREAD_PRIO_INHERIT	Supports Priority Inheritance option.
_SC_THREAD_PRIO_PROTECT	POSIX_THREAD_PRIO_PROTECT	Supports Priority Protection option.
_SC_THREAD_PROCESS_SHARED	POSIX_THREAD_PROCESS_SHARED	Supports Process-Shared Synchronization option.
_SC_THREAD_SAFE_FUNCTIONS	POSIX_THREAD_SAFE_FUNCTIONS	Supports Thread-Safe Functions option.

RETURN VALUES

If *name* is an invalid value, **sysconf( )** will return −1 and set **errno** to indicate the error. If **sysconf( )** fails due to a value of *name* that is not defined on the system, the function will return a value of −1 without changing the value of **errno**.

SEE ALSO

fpathconf(2), **seteuid**(2), **setrlimit**(2)

NOTES

A call to **setrlimit( )** may cause the value of **OPEN_MAX** to change.

Multiplying **sysconf(_SC_PHYS_PAGES)** or **sysconf(_SC_AVPHYS_PAGES)** by **sysconf(_SC_PAGESIZE)** to determine memory amount in bytes can exceed the maximum values representable in a long or unsigned long.

_SC_PHYS_PAGES and **_SC_AVPHYS_PAGES** are specific to Solaris 2.3 and later releases.

The value of **CLK_TCK** may be variable and it should not be assumed that **CLK_TCK** is a compile-time constant.