Index

Special Characters
_lwp_cond_broadcast() — signal a condition variable, 2-29
_lwp_cond_signal() — signal a condition variable, 2-29
_lwp_cond_timedwait() — wait on a condition variable, 2-30
_lwp_cond_wait() — wait on a condition variable, 2-30
_lwp_continue() — continue LWP execution, 2-42
_lwp_create() — create a new light-weight process, 2-32
_lwp_exit() — terminate the calling LWP, 2-34
_lwp_getprivate() — get LWP specific storage address, 2-41
_lwp_info — return the time-accounting information of a single LWP, 2-35
_lwp_kill() — send a signal to an LWP, 2-36
_lwp_makecontext — initialize an LWP context, 2-37
_lwp_makecontext() — initialize an LWP context, 2-37
_lwp_mutex_lock() — acquire an LWP mutual exclusion lock, 2-38
_lwp_mutex_trylock() — acquire an LWP mutual exclusion lock, 2-38
_lwp_mutex_unlock() — release an LWP mutual exclusion lock, 2-38
_lwp_self() — get LWP identifier, 2-39
_lwp_sema_init() — initialize an LWP semaphore, 2-40
_lwp_sema_post() — increment an LWP semaphore, 2-40
_lwp_sema_wait() — decrement an LWP semaphore, 2-40
_lwp_setprivate() — set LWP specific storage, 2-41
_lwp_sigredirect() — redirect signal to LWP, 2-44
_lwp_suspend() — suspend LWP execution, 2-42
_lwp_wait() — wait for a LWP to terminate, 2-43
_signotifywait() — wait for signal notification, 2-44

A
access — determine accessibility of a file, 2-46
access permission mode of file
  change — chmod, 2-63
accounting
  enable or disable process accounting — acct, 2-48
acct — enable or disable process accounting, 2-48
adjtime — correct the time to allow synchroniza-

tion of the system clock, 2-51
alarm — set a process alarm clock, 2-52
audit — write an audit record, 2-53
auditon() function, 2-54
auditsvc() function, 2-57

B

bind LWPs to a processor — processor_bind, 2-160
brk — change the amount of space allocated for the calling process's data segment, 2-59

C

chdir — change working directory, 2-61
child processes
allows a parent process to control the execution of a child process — ptrace, 2-164
get time — times, 2-226
wait for child process to change state — waitid, 2-245, 2-247
wait for child process to stop or terminate — wait, 2-243
chmod — change access permission mode of file, 2-63
chown — change owner and group of a file, 2-66
chroot — change root directory, 2-68
close — close a file descriptor, 2-70
CPU-use
process execution time profile — profil, 2-162
creat — create a new file or rewrite an existing one, 2-72
create a new process — fork, 2-87
fork1, 2-87

D

devices
I/O control functions — ioctl, 2-109
directories
change working directory — chdir, 2-61
create a new one — mknod, 2-123
get configurable pathname variables — pathconf, 2-90
directories, *continued*
make a new one — mkdir, 2-121
read directory entries and put in a file system independent format — getdents, 2-95
remove — rmdir, 2-177
door — Solaris 2.5 internal implementation detail, 2-74
dup — duplicate an open file descriptor, 2-75

E

effective group ID
set — setregid(), 2-189
effective user ID
set — setreuid(), 2-190
exec — execute a file, 2-76
execl — execute a file, 2-76
execle — execute a file, 2-76
execlp — execute a file, 2-76
execv — execute a file, 2-76
execve — execute a file, 2-76
execvp — execute a file, 2-76
exit — terminate process, 2-80

F

fchdir — change working directory, 2-61
fchmod — change access permission mode of file, 2-63
fchown — change owner and group of a file, 2-66
fcntl — file control, 2-82
file descriptor
— close, 2-70
duplicate an open one — dup, 2-75
file pointer, read/write
move — lseek, 2-115, 2-116
file status
get — stat, lstat, fstat, 2-210
file system
determine accessibility of a file — access, 2-46
get information — statvfs, fstatvfs, 2-213
get statistics — ustat, 2-235

file system, *continued*
make a symbolic link to a file — `symlink`, 2-218
read the value of a symbolic link — `readlink`, 2-173
remove link — `unlink`, 2-233
returns information about the file system types configured in the system — `sysfs`, 2-221
unmount — `umount`, 2-231
update super block — `sync`, 2-220
files
change access permission mode of file — `chmod`, 2-63
change owner and group of a file — `chown`, 2-66
change the name of a file — `rename`, 2-174
control — `fcntl`, 2-82
create a new file or rewrite an existing one — `creat`, 2-72
execute — `exec`, 2-76
get configurable pathname variables — `pathconf`, 2-90
link to a file — `link`, 2-113
move read/write file pointer — `lseek`, 2-115, 2-116
open file for reading or writing — `open`, 2-140
set access and modification times of file — `utimes`, 2-238
set file access and modification times — `utime`, 2-236
`fork` — create a new process, 2-87
spawn new process in a virtual memory efficient way — `vfork`, 2-240
`fork1` — create a new process, 2-87
`fpathconf` — get configurable pathname variables, 2-90
`fstat` — get status on open file known by file descriptor, 2-210
`fstatvfs` — get file system information, 2-213

G

`getaudit` get process audit information, 2-92
`getauid` — get user audit identity, 2-93
`getcontext` — get current user context, 2-94
`getdents` — read directory entries and put in a file system independent format, 2-95
`getegid` — get effective group ID, 2-108
`geteuid` — get effective user ID, 2-108
`getgid` — get real group ID, 2-108
`getgroups` — get supplementary group access list IDs, 2-96
`getitimer` — get value of interval timer, 2-97
`getmsg` — get next message off a stream, 2-101
`getpgid` — get process group IDs, 2-104
`getpgrp` — get process group IDs, 2-104
`getpid` — get process IDs, 2-104
`getpmsg` — get next message off a stream, 2-101
`getppid` — get parent process IDs, 2-104
`getrlimit` — control maximum system resource consumption, 2-105
`getsid` — get session ID, 2-107
`getuid` — get real user ID, 2-108
group ID
set real and effective — `setregid()`, 2-189
group IDs
get — `getgid, getegid`, 2-108
set — `setgid`, 2-191
supplementary group access list IDs — `getgroups, setgroups`, 2-96

H

halt system
— `uadmin`, 2-227
hangup signal
the current controlling terminal — `vhangup`, 2-242

I

I/O
audit — `audit`, 2-53
multiplexing — `poll`, 2-147
initialize an LWP context — `_lwp_makecontext`, 2-37

interprocess communication
— pipe, 2-146
interval timer
get or set value of interval timer — getitimer, setitimer, 2-97
ioctl — control device, 2-109

K

kill — send a signal to a process or a group of processes, 2-111

L

lchown — change owner and group of a file, 2-66
link — link to a file, 2-113
remove — unlink, 2-233
link, symbolic
make one to a file — symlink, 2-218
lseek — move extended read/write file pointer, 2-115
lseek — move read/write file pointer, 2-116
lstat — get status on symbolic link file, 2-210
LWP
scheduler control — priocntl, 2-149

M

make a directory, or a special or ordinary file — mknod, 2-123
masks
set and get file creation mask — umask, 2-230
memcntl — memory management control, 2-117
memory
management control — memcntl, 2-117
memory management
change the amount of space allocated for the calling process's data segment — brk, sbrk, 2-59
memory mapping
set protection — mprotect, 2-131
memory pages
determine residency — mincore, 2-120
map — mmap, 2-125
unmap — munmap, 2-138
memory, shared
memory, shared, *continued*
control operations — shmctl, 2-193
get segment identifier — sjmget, 2-195
operations — shmop, 2-197
message control operations
— msgctl, 2-132
message operations
— msgop, 2-135
— msgrcv, 2-135
— msgsnd, 2-135
message queue
get — msgget, 2-134
messages
send a message on a stream — putmsg, 2-166
mincore — determine residency of memory pages, 2-120
mkdir — make a directory, 2-121
mknod — make a directory, or a special or ordinary file, 2-123
mmap — map pages of memory, 2-125
mount — mount a file system, 2-129
mount a file system — mount, 2-129
mprotect — set protection of memory mapping, 2-131
msgctl — message control operations, 2-132
msgget — get message queue, 2-134
munmap — unmap pages of memory, 2-138

N

nice — change priority of a time-sharing process, 2-139

O

open — open file for reading or writing, 2-140
open for reading or writing — open, 2-140
operating system
get name of current one — uname, 2-232
owner of file
change — chown, 2-66

P

p_online — change processor online or offline status, 2-144
pathconf — get configurable pathname variables, 2-90
pathname
  get configurable variables — pathconf, 2-90
pause — suspend process until signal, 2-145
pipe — create an interprocess channel, 2-146
poll — input/output multiplexing, 2-147
pread — read from file, 2-169
priocntl — process scheduler control, 2-149
priocntlset — generalized process scheduler control, 2-158
process accounting
  enable or disable — acct, 2-48
process alarm clock
  set — alarm, 2-52
process audit information
  get process audit information — getaudit, 2-92
  set process audit information — setaudit, 2-92
process group ID
  set — setpgid, 2-187, 2-188
process scheduler
  control — priocntl, 2-149
  generalized control — priocntlset, 2-158
process statistics
  process execution time profile — profil, 2-162
process, time-sharing
  change priority — nice, 2-139
processes
  allows a parent process to control the execution of a child process — ptrace, 2-164
  change priority of a time-sharing process — nice, 2-139
  create a new one — fork, 2-87
  create an interprocess channel — pipe, 2-146
  execute a file — exec, 2-76
  execution time profile — profil, 2-162
  generalized scheduler control — priocntlset, 2-158
processes, *continued*
  get and set current user context — getcontext, setcontext, 2-94
  get and set limits — ulimit, 2-229
  get identification — getpid, getpgrp, getppid, getpgid, 2-104
  get next message off a stream — getmsg, 2-101
  get or set session ID — getsid, setsid, 2-107
  get or set value of interval timer — getitimer, setitimer, 2-97
  get real user, effective user, real group, and effective group IDs — getuid, geteuid, getgid, getegid, 2-108
  get time — times, 2-226
  read directory entries and put in a file system independent format — getdents, 2-95
  read from file — read, 2-169
  read the value of a symbolic link — readlink, 2-173
  send a signal to a process or a group of processes — kill, 2-111
  set a process alarm clock — alarm, 2-52
  set and get file creation mask — umask, 2-230
  set process group ID — setpgid, 2-187, 2-188
  spawn new process in a virtual memory efficient way — vfork, 2-240
  supplementary group access list IDs — getgroups, setgroups, 2-96
  suspend process until signal — pause, 2-145
  terminate — exit, 2-80
  the current controlling terminal — vhangup, 2-242
  wait for child process to change state — waitid, 2-245, 2-247
  wait for child process to stop or terminate — wait, 2-243
processes and protection
  — setregid(), 2-189
  — setreuid(), 2-190
processor_bind — bind LWPs to a processor, 2-160
processor_info — determine type and status of

a processor, 2-161
`profil` — process execution time profile, 2-162
profiling utilities
execution time profile — `profil`, 2-162
`ptrace` — allows a parent process to control the execution of a child process, 2-164
`putmsg` — send a message on a stream, 2-166
`putpmsg` — send a message on a stream, 2-166
`pwrite` — write on a file, 2-249

R

read from file — `read`, 2-169
pread, 2-169
readv, 2-169
read/write file pointer
move — `lseek`, 2-115, 2-116
`readlink` — read the value of a symbolic link, 2-173
`read` — read from file, 2-169
real group ID
set — `setregid()`, 2-189
real user ID
set — `setreuid()`, 2-190
reboot system
— `uadmin`, 2-227
remount root file system
— `uadmin`, 2-227
`rename` — change the name of a file, 2-174
`rmdir` — remove a directory, 2-177
root directory
change — `chroot`, 2-68

S

`sbrk` — change the amount of space allocated for the calling process's data segment, 2-59
semaphores
control operations — `semctl`, 2-179
get a set — `semget`, 2-182
operations — `semop`, 2-184
`semctl` — semaphore control operations, 2-179
`semget` — get set of semaphores, 2-182
`semop` — semaphore operations, 2-184
session ID
session ID, *continued*
get or set — `getsid, setsid`, 2-107
`setaudit` set process audit information, 2-92
`setauid` — set user audit identity, 2-93
`setcontext` — set current user context, 2-94
`setegid` — set effective group ID, 2-191
`seteuid` — set effective user ID, 2-191
`setgid` — set group ID, 2-191
`setgroups` — set supplementary group access list IDs, 2-96
`setitimer` — set value of interval timer, 2-97
`setpgid` — set process group ID, 2-187
`setpgrp` — set process group ID, 2-188
`setregid()` — set real and effective group ID, 2-189
`setreuid()` — set real and effective user IDs, 2-190
`setrlimit` — control maximum system resource consumption, 2-105
`setsid` — set session ID, 2-107
`setuid` — set user ID, 2-191
shared memory
control operations — `shmctl`, 2-193
get segment identifier — `sjmget`, 2-195
operations — `shmop`, 2-197
`shmctl` — shared memory control operations, 2-193
`shmget` — get shared memory segment identifier, 2-195
`shmop` — shared memory operations, 2-197
shutdown
— `uadmin`, 2-227
`sigaction` — detailed signal management, 2-199
`sigaltstack` — set or get signal alternate stack context, 2-202
signal alternate stack
set or get context — `sigaltstack`, 2-202
signal management
detailed — `sigaction`, 2-199
signal mask
change and/or examine — `sigprocmask`, 2-205

signal mask, *continued*
install, and suspend process until signal — sigsuspend, 2-208
signals
examine blocked and pending ones — sig-pending, 2-204
sigpending — examine signals that are blocked and pending, 2-204
sigprocmask — change and/or examine calling process's signal mask, 2-205
sigsend — send a signal to a process or a group of processes, 2-206
sigsendset — provides an alternate interface to sigsend for sending signals to sets of processes, 2-206
sigsuspend — install a signal mask and suspend process until signal, 2-208
sigwait() — wait until a signal is posted, 2-209
Solaris 2.5 internal implementation detail — door, 2-74
special files
create a new one — mknod, 2-123
stat — get file status, 2-210
statistics
get for mounted file system — ustat, 2-235
statvfs — get file system information, 2-213
stime — set system time and date, 2-215
STREAMS
get next message off a stream — getmsg, 2-101
I/O control functions — ioctl, 2-109
send a message on a stream — putmsg, 2-166
super block
update — sync, 2-220
swap space
manage — swapctl, 2-216
swapctl — manage swap space, 2-216
symbolic link
make one to a file — symlink, 2-218
read the value — readlink, 2-173
symlink — make a symbolic link to a file, 2-218
sync — update super block, 2-220
system administration
system administration, *continued*
administrative control — uadmin, 2-227
system clock
synchronization — adjtime, 2-51
system information
get and set strings — sysinfo, 2-222
system operation
update super block — sync, 2-220
system resources
control maximum system resource consumption — getrlimit, setrlimit, 2-105

T

terminate process
— exit, 2-80
time — get time, 2-225
correct the time to allow synchronization of the system clock — adjtime, 2-51
set system time and date — stime, 2-215
time-accounting
single LWP — _lwp_info, 2-35
times — get process and child process times, 2-226

U

umask — set and get file creation mask, 2-230
umount — unmount a file system, 2-231
uname — get name of current operating system, 2-232
unlink — remove directory entry, 2-233
unmount a file system — umount, 2-231
user audit identity
get user audit identity — getauid, 2-93
set user audit identity — setauid, 2-93
user context
— getcontext, 2-94
— setcontext, 2-94
user ID
set real and effective — setreuid(), 2-190
user IDs
get — getuid, geteuid, 2-108
set — setuid, 2-191
utime — set file access and modification times,

2-236
`utimes` — set access and modification times of file, 2-238

V

`vfork` — spawn new process in a virtual memory efficient way, 2-240
`vhangup` — the current controlling terminal, 2-242

W

`wait` — wait for child process to stop or terminate, 2-243
`waitid` — wait for child process to change state, 2-245
`waitpid` — wait for child process to change state, 2-247
write on a file
— `write`, 2-249
— `write`, 2-249
— `write`, 2-249
`write` — write on a file, 2-249

Y

`yield` — yield execution to another lightweight process, 2-254
yield execution to another lightweight process — `yield`, 2-254