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### 1. Commands and Application Programs

intro	introduction to commands and application programs
abort	remove previously queued line printer jobs
ac	login accounting
accton	turn accounting on/off
adb	debugger
addscs	add SCCS keywords to a file
admin	administer SCCS files
ar	archive and library maintainer
arcv	convert archives to new format
as	assembler
at	execute commands at a later time
atgex	convert ascii file to GEX format
awk	pattern scanning and processing language
banner	make headlines
basename	deliver portions of pathnames
bc	arbitrary-precision arithmetic language
bclk	reads and sets the battery clock
bd	binary dump of a file
bdiff	big diff
bdump	read from block device
bload	write on block device
bs	a compiler/interpreter for modest-sized programs
cal	print calendar
calendar	reminder service
cat	concatenate and print files
cb	C program beautifier
cc	C compiler
chdir	change working directory
check	file system consistency check and repair
chess	the game of chess
chghist	change the history entry of an SCCS delta
chkold	file system consistency check
chmod	change mode of file
chown	change owner or group of a file
chroot	change root directory for a command
clri	clear inode
cmp	compare two files
cmpfs	compare and archive file systems
cmt	insert the delta commentary for an initial SCCS delta
col	filter reverse line-feeds
comb	combine SCCS deltas
comm	select or reject lines common to two sorted files
cp	copy, link, or move files
cpio	copy file archives in and out
cpmv	copy move
cref	make cross reference listing
cron	clock daemon
crypt	encode/decode
ct	call terminal
cu	call another UNIX system
cubic	three dimensional tic-tac-toe
cut	cut out selected fields of each line of a file
date	print and set the date

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dc	desk calculator
dcheck	file system directory consistency check
dd	convert and copy a file
dead	crash analysis
delta	to an SCCS file
deroff	remove nroff, troff, tbl and eqn constructs
df	disk free
diff	differential file comparator
diff3	3-way differential file comparison
diffmk	mark differences between files
dircmp	directory comparison
dmpdfs	dump logical file system to tape
dsw	delete interactively
du	summarize disk usage
echo	echo arguments
ed	text editor
env	set environment for command execution
epoch	print and set system backup date
eqn	typeset mathematical text
errdead	extract error records from dump
errdemon	error-logging daemon
errpt	process a report of logged errors
expr	evaluate arguments as an expression
f77	FORTRAN 77 compiler
factor	factor a number, generate large primes
fed	edit associative memory for form letter
festoon	turgid memorandum composition
file	determine file type
file_log	log an input string in a logfile.
find	find files
flog	speed up a process
form	form letter generator
g_find	locate and identify a source file
gadd	add a file to SCCS
gadmin	admin a file in SCCS
gcat	send phototypesetter output to the HONEYWELL 6000
gcon	convert GEX file to HIS format
gdelta	delta a file from SCCS
gdiff	diff an SCCS file with named file
gdump	prints a gex graphic file
get	get a version of an SCCS file
getpc	get Program Counter data on running processes
getty	set terminal type, modes, speed, and line discipline
gex	Graphic EXerciser for Tektronix 4014
gget	get a file from SCCS
gis	list the directory \$SCCSOURCE with input args appended
gmark	mark a subsystem of SCCS files.
gpvt	pvt a file in SCCS
graph	draw a graph
grep	search a file for a pattern
gsplit	filter to break gex files into pieces
gtty	get terminal line options
hatch	filter to hatch GEX files
help	ask for help
hex	translate binary file to ascii hexadecimal
hold	suspend printing of queued line printer jobs

hyphen	find hyphenated words
id	print user and group id
idump	dump an inode
infect	Give a virus to another UNIX system
init	reinitialize line printer demon
init	process control initialization
inode	find inode on disk
install	install commands
iostat	report I/O and system statistics
join	relational database operator
kasb	assembler for the KMC11 microprocessor
kill	send a signal to a process or process group
kunb	un-assembler for the KMC11/DMC11 microprocessor
ld	link editor
ldrboot	load floppy disk second level boot
lex	generate programs for simple lexical tasks
lfcheck	consistency check and repair
lfmount	mount logical file system (LFS)
lfsync	update modified LFS data
lfumount	unmount the logical file system (LFS)
lfupdate	update modified LFS data repetitively
line	get line identification
lint	a C program verifier
load	load
login	sign on
lorder	find ordering relation for an object library
lpr	line printer spooling program
ls	list contents of directory
m4	macro processor
mail	send mail to users or read mail
make	maintain program groups
man	print pages of this manual
mesg	permit or deny messages
mhdump	incremental file system dump
mhrestor	incremental file system restore
mhstty	set the options for a terminal
mkconf	create configuration table and low core
mkdir	make a directory
mkfs	construct a file system
mkfst	construct a file system on mag tape
mk-lfs	construct a Logical File System (LFS)
mknod	build special file
mkpt	make proto
mm	type out documents that use the PWB/MM macros
mmkdir	made path names
mo	nroff, nnroff mm interface for preprinted letterhead
moo	guessing game
mount	mount file system
move	move a file and set the mode
mtm	magnetic tape manipulation
mvdir	move a directory
nar	new format archive and library maintainer
ncheck	generate names from i-numbers
newgrp	log in to a new group
news	print news items
nice	run a command at specified priority

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nm	print name list
nnroff	format text
nohup	run a command immune to hangups
nroff	format or typeset text
occ	old C compiler
od	octal dump
over	overstrike optimizer
pack	compress files
padm	program administration system
passwd	change login password
paste	merge same lines of several files or subsequent lines of one file
pcat	expand compressed file to standard output
pcstat	report statistics on output of getpc command
plot	graphics filters
pr	print file
prof	display profile data
prs	print an SCCS file
prt	print SCCS file
ps	process status
ptx	permuted index
pwd	working directory name
quot	summarize file system ownership
ratfor	rational FORTRAN dialect
readl	read one line
reboot	replace current UNIX with new program or system
reform	reformat text file
release	restore printing of queued line printer jobs
restrain	suspend printing of queued line printer jobs
rew	rewind tape
rm	remove files or directories
rmDEL	remove a delta from an SCCS file
rsh	restricted shell (command interpreter)
rstlf5	restore logical file system from tape
sa	shell accounting
savdate	save and restore modification date
sccsclean	remove unwanted files in SCCS directories
sccsdiff	compare two versions of an SCCS file
scstring	echo SCCS keywords to standard output
sdiff	side-by-side difference program
sed	stream editor
sema	semaphore operations
setpggrp	execute program with new process group
sh	shell, the standard/restricted command programming language
size	size of an object file
sleep	suspend execution for an interval
sno	SNOBOL interpreter
sort	sort or merge files
spell	find spelling errors
spline	interpolate smooth curve
split	split a file into pieces
spr	special print command
sprof	system profile
sps	detail process status
stack	stack trace from crash file
stamp	version stamp utility
start	restore printing of queued line printer jobs

startrek	clobber klingons
strip	remove symbols and relocation bits
stty	set teletype options
su	become super-user or another user
sum	sum and count blocks in a file
sync	update the super block
tail	deliver the last part of a file
talk	allow user to listen and talk to one or more other users
tar	tape archiver
tbl	format tables for nroff or troff
tc	phototypesetter simulator
tcmp	text comparison for crash dump
tee	pipe fitting
tek	graphics filters
telinit	user communication with init
test	condition evaluation command
time	time a command
tk	paginator for the Tektronix 4014
tkdump	prints a Tektronix file
tm	meditate
touch	change modification time of a file
tp	manipulate tape archive
tr	translate characters
true	provide truth values
tsort	topological sort
ttt	tic-tac-toe
tty	get the terminal's name
turbo	encabulator
typo	find possible typos
ucore	turn on or off the unique core dumping feature.
umount	dismount file system
uname	print name of current UNIX
unhex	translate hexed file to binary
uniq	report repeated lines in a file
units	conversion program
unpack	expand compressed files
update	periodically update the super block
updfs	update file system
uuclean	uucp spool directory clean-up
uucp	unix to unix copy
uunames	list names of UNIX systems known to uucp
uustat	uucp status inquiry and job control
uusub	monitor uucp network
uux	unix to unix command execution
val	validate SCCS file
v crt	filter nroff output for virtual crt
vpmc	compiler for the virtual protocol machine
vpm save	save and print VPM event traces
vpm set	connect VPM drivers and KMCs; load the KMC11-B.
wait	await completion of process
wall	write to all users
wc	word count
what	identify files
who	who is on the system
whodo	who is doing what
write	write to another user

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wump	.....	hunt the wumpus
x25pvc	.....	install, remove, or get status for a PVC or BX.25 link
xargs	.....	construct argument lists and execute command
xref	.....	cross reference for C programs
yacc	.....	yet another compiler-compiler

**2. System Calls**

intro	.....	introduction to system calls
access	.....	determine accessibility of file
acct	.....	turn accounting on/off
alarm	.....	schedule signal after specified time
break	.....	change memory allocation
chdir	.....	change working directory
chgrp:o	.....	change group
chmod	.....	change mode of file
chown	.....	change owner and group of a file
chown:o	.....	change owner
chroot	.....	change root directory
close	.....	close a file
creat	.....	create a new file
dup	.....	duplicate an open file descriptor
exec	.....	execute a file
exec:o	.....	execute a file
exit	.....	terminate process
fcntl	.....	file control
fork	.....	spawn new process
fstat	.....	get status of open file
ftime	.....	get date and time
getcsw	.....	read console switches
getgid:o	.....	get group identification
getpid	.....	get process identification
getu	.....	get selected user block information
getuid	.....	get user and group identity
getuid:o	.....	get user identification
indir	.....	indirect system call
ioctl	.....	control device
kill	.....	send signal to a process
link	.....	link to a file
lseek	.....	move read/write pointer
maus	.....	multiple access user space operations
mdate:o	.....	set modified date on file
message	.....	send and receive messages
mknod	.....	make a directory or a special file
mount	.....	mount or remove file system
mpx	.....	create and manipulate multiplexed files
nice	.....	set program priority
open	.....	open for reading or writing
pause	.....	stop until signal
pipe	.....	create a pipe
plock	.....	lock process or text in memory
profil	.....	execution time user profile
ptrace	.....	process trace
read	.....	read from file
reboot	.....	transfer control to DEC rom and reboot
seek:o	.....	move read/write pointer
sema	.....	semaphore operations

setgid	set process group ID
setpgrp	set process group
setuid	set process user ID
shmem	shared memory operations
signal	catch or ignore signals
sprofil	turn on/off system profiling
stat	get file status
stat:o	get file status
stime	set time
stty:o	set and retrieve terminal modes
sync	update super-block
tell:o	get file offset
time	get date and time
times	get process times
ucore	enable/disable unique core dumping feature.
umask	set and get creation mask
umount	dismount file system
uname	get name of current UNIX system
unlink	remove directory entry
utime	update times in file
wait	wait for process to die
write	write on a file

### 3. Subroutines

intro	introduction to subroutines and libraries
a64l	convert between long and base-64 ASCII
abort	generate an IOT fault
abs	integer absolute value
alloc:o	core allocator
alarm	audible alarm
assert	program verification
atof	convert ASCII to numbers
atof:o	convert ASCII to numbers
bessel	bessel functions
call:o	create and execute a new process
calloc:o	core memory allocator
clearer:o	stream error reset
cvttime	convert string to internal time
conns	connect to a remote system
conv	character translation
crypt	DES encryption
cspeed	convert baud to speed number
ctermid	generate file name for terminal
ctime	convert date and time to ASCII
ctime:o	convert date and time to ASCII
ctype	character classification
cuserid	character user ID
dtol:o	double precision integer to floating point conversion
ecvt	output conversion
end	last locations in program
exp	exponential, logarithm, power, square root
exprog:o	perform standard Shell execute sequence
fclose	close or flush a stream
ferror	stream status inquiries
floor	absolute value, floor, ceiling, remainder functions
fopen	open a stream

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fopen:o	open a stream
fpemul	floating point interpreter
fread	buffered binary input/output
frexp	split into mantissa and exponent
fseek	reposition a stream
gamma	log gamma function
getc	get character or word from stream
getc:o	buffered input
getchar:o	read character
getenv	value for environment name
getgrent	get group file entry
getlogin	get login name
getopt	get option letter from argv
getpass	read a password
getpw	get name from UID
getpwent	get password file entry
gets	get a string from a stream
getut	access utmp file entry
hmul:o	high-order product
hypot	euclidean distance
itol:o	integer to long integer conversion
l3tol	convert between 3-byte integers and long integers
ldiv:o	long division
lfs	Logical File System operations
lib7	Version 7 library
libil	CB UNIX Release 1 Conversion Library
lnxx:o	return name of current terminal
locv:o	long output conversion
lpdata	decode line printer data files (printers and qmap)
lpropen	open pipe to the line printer
ltod:o	double precision integer to floating point conversion
ltoi:o	long integer to integer conversion
malloc	main memory allocator
malloc:o	core memory allocator
mkdir:o	make directory
mktemp	make a unique file name
mktemp:o	make temporary file name
mkttmp:o	make a temporary file
monitor	prepare execution profile
msg	old message veneer for sending and receiving messages.
nargs:o	argument count
nlist	get entries from name list
nlist:o	get entries from name list
perror	system error messages
plot	graphics interface
popen	initiate I/O to/from a process
printf	formatted output conversion
printf:o	formatted print
putc	put character or word on a stream
putc:o	buffered output
putchar:o	write character
putpwent	write password file entry
puts	put a string on a stream
qsort	quicker sort
rand	random number generator
reset:o	execute non-local goto

rmdir:o	remove directory
scanf	formatted input conversion
setbuf	assign buffering to a stream
setjmp	non-local goto
sinh	hyperbolic functions
sleep	stop execution for interval
ssignal	software signals
stdio	standard buffered input/output package
stdio:o	standard buffered input/output package
string	string operations
stty	set and retrieve the modes of a terminal
swab	swap bytes
system	issue a shell command
tell	get file offset
tmpnam	create a name for a temporary file
trig	trigonometric functions
ttyname	find name of a terminal
ttyslot	find the slot in the utmp file of the current user
ungetc	push character back into input stream
utindx	access routines for utmp file

#### 4. Device Interfaces Special Files

intro	introduction to special files
dh	asynchronous multiplexers
dn	DN-11 ACU interface
err	error-logging interface
hp	RP04/RP05/RP06 moving-head disk
kl	KL-11 or DL-11 asynchronous interface
kmc	KMC11/DMC11 microprocessor
lp	line printer
mem	core memory
mt	TE16/TU16 magnetic tape interface
nc	network control
null	the null file
pcs	program counter sampling device
pipe	named pipe
rk	RK11/RK03 or RK05 disk
rootdev	root file system
rx	floppy disk
swapdev	location for swapping
tm	TM11/TU10 magnetic tape interface
trace	event-tracing driver
tty	general interface for terminals
vp	Versatec printer-plotter
vpm	Virtual Protocol Machine Protocol and Interface
vt	graphics interface
vtp	virtual terminal protocol
x25	BX.25 network interface

#### 5. File Formats, Tables, and Macros

intro	file format description
L-devices	auto-dialer device table
L-dialcodes	uucp system dialcodes
L.sys	table of connecting uucp systems
a.out	assembler and link editor output

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acct . . . . .	accounting file
ar . . . . .	archive file format
cpio . . . . .	format of cpio archive
crontab . . . . .	table of chronological events to be executed.
d_passwd . . . . .	dial up password file
dialups . . . . .	list of dialup lines
dir . . . . .	format of directories
dump . . . . .	incremental dump tape format
errfile . . . . .	error-log file format
fs . . . . .	format of system volume
gettydefs . . . . .	speed and terminal settings used by getty
group . . . . .	group file
inittab . . . . .	script for the init process
inode . . . . .	format of an inode
issue . . . . .	issue identification file
lfs . . . . .	format of Logical File System disk area
manmac . . . . .	macros to print CB-UNIX manual sections
mountpts . . . . .	general user mount point table
mpxio . . . . .	multiplexed I/O
mtab . . . . .	mounted file system table
nar . . . . .	file format
passwd . . . . .	password file
plot . . . . .	graphics interface
powerfail . . . . .	commands to be executed following powerfail
printers . . . . .	defines printer options to /etc/lpd
profile . . . . .	setting up an environment at login time
qmap . . . . .	queue to printers map
sccsfile . . . . .	format of SCCS file
tp . . . . .	magnetic tape format
utmp . . . . .	utmp and wtmp entry formats

**6. Unix System Explanations**

intro . . . . .	introduction to UNIX system explanations
bproc . . . . .	UNIX startup
crash . . . . .	what to do when the system crashes
uemess . . . . .	description of UNIX console messages

**7. Kinks and Conventions**

intro . . . . .	introduction to miscellany
ascii . . . . .	map of ASCII character set
environ . . . . .	user environment
greek . . . . .	graphics for extended TTY-37 type-box
regexp . . . . .	regular expression compile and match routines
stat . . . . .	data returned by stat system call
types . . . . .	primitive system data types

**8. Stand-Alone Utilities**

intro . . . . .	introduction to stand-alone utilities
mmtest . . . . .	PDP 11/70 memory management test
sacopy . . . . .	stand-alone copy/verify