

Windows command	Unix command	Notes
arp	<a href="#"><u>arp</u></a>	
assign	<a href="#"><u>ln</u></a>	Create a file link
assign	<a href="#"><u>ln</u></a> -s	On Unix, a directory may not have multiple links, so instead a symbolic link must be created with <b>ln -s</b> .
assoc	<a href="#"><u>file</u></a>	
at	<a href="#"><u>at</u></a> <a href="#"><u>batch</u></a> <a href="#"><u>cron</u></a>	
attrib	<a href="#"><u>chown</u></a> <a href="#"><u>chmod</u></a>	Sets ownership on files and directories
cd	<a href="#"><u>cd</u></a>	On Windows, <b>cd</b> alone prints the current directory, but on Unix <b>cd</b> alone returns the user to his home directory.
cd	<a href="#"><u>pwd</u></a>	On Windows, <b>cd</b> alone prints the current directory.
chkdsk	<a href="#"><u>fsck</u></a>	Checks filesystem and repairs filesystem corruption on hard drives.
cls	<a href="#"><u>clear</u></a>	Clear the terminal screen
copy	<a href="#"><u>cp</u></a>	
date time	<a href="#"><u>date</u></a>	<b>Date</b> on Unix prints the current date and time. <b>Date</b> and <b>time</b> on Windows print the date and time respectively, and prompt for a new date or time.
del	<a href="#"><u>rm</u></a>	
deltree	<a href="#"><u>rm</u></a> -r	Recursively deletes entire directory tree

<code>dir</code>	<a href="#"><u>ls</u></a>	"dir" also works on some versions of Unix.
<code>doskey /h</code> <code>F7 key</code>	<a href="#"><u>history</u></a>	The Unix <b>history</b> is part of the Bash shell.
<code>edit</code>	<code>vi</code> <code>emacs</code> <code>etc.</code>	<b>edit</b> brings up a simple text editor in Windows. On Unix, the environment variable <b>EDITOR</b> should be set to the user's preferred editor.
<code>exit</code>	<a href="#"><u>exit</u></a> <code>Control-D</code>	On Unix, pressing the control key and D simultaneously logs the user out of the shell.
<code>explorer</code>	<code>nautilus</code> <code>etc.</code>	The command <b>explorer</b> brings up the file browser on Windows.
<code>fc</code>	<a href="#"><u>diff</u></a>	
<code>find</code>	<a href="#"><u>grep</u></a>	
<code>ftp</code>	<a href="#"><u>ftp</u></a>	
<code>help</code>	<a href="#"><u>man</u></a>	"help" by itself prints all the commands
<code>hostname</code>	<a href="#"><u>hostname</u></a>	
<code>ipconfig /all</code>	<a href="#"><u>ifconfig</u></a> -a	The /all option lets you get the MAC address of the Windows PC
<code>mem</code>	<a href="#"><u>top</u></a>	Shows system status
<code>mkdir</code>	<a href="#"><u>mkdir</u></a>	
<code>more</code>	<a href="#"><u>more</u></a> <a href="#"><u>less</u></a>	
<code>move</code>	<a href="#"><u>mv</u></a>	
<code>net session</code>	<a href="#"><u>w</u></a> <a href="#"><u>who</u></a>	
<code>net statistics</code>	<a href="#"><u>uptime</u></a>	
<code>nslookup</code>	<a href="#"><u>nslookup</u></a>	
<code>ping</code>	<a href="#"><u>ping</u></a>	

<code>print</code>	<code>lpr</code>	Send a file to a printer.
<code>reboot</code> <code>shutdown -r</code>	<a href="#"><u>shutdown</u></a> -r	
<code>regedit</code>	<code>edit /etc/*</code>	The Unix equivalent of the Windows registry are the files under <code>/etc</code> and <code>/usr/local/etc</code> . These are edited with a text editor rather than with a special-purpose editing program.
<code>rmdir</code>	<a href="#"><u>rmdir</u></a>	
<code>rmdir /s</code>	<a href="#"><u>rm</u></a> -r	Windows has a y/n prompt. To get the prompt with Unix, use <code>rm -i</code> . The <code>i</code> means "interactive".
<code>set</code>	<a href="#"><u>env</u></a>	<code>set</code> on Windows prints a list of all environment variables. For individual environment variables, <code>set &lt;variable&gt;</code> is the same as <code>echo \$&lt;variable&gt;</code> on Unix.
<code>set Path</code>	<code>echo \$PATH</code>	Print the value of the environment variable using <code>set</code> in Windows.
<code>shutdown</code>	<a href="#"><u>shutdown</u></a>	Without an option, the Windows version produces a help message
<code>shutdown -s</code>	<a href="#"><u>shutdown</u></a> -h	Also need -f option to Windows if logged in remotely
<code>sort</code>	<a href="#"><u>sort</u></a>	
<code>start</code>	<code>&amp;</code>	On Unix, to start a job in the background, use <code>command &amp;</code> . On Windows, the equivalent is <code>start command</code> . See <a href="#">How to run a Windows command as a background job like Unix ?</a> .
<code>systeminfo</code>	<a href="#"><u>uname</u></a> -a	
<code>tasklist</code>	<a href="#"><u>ps</u></a>	"tasklist" is not available on some versions of Windows. See also <a href="#">this article on getting a list of processes in Windows using Perl</a>

<b>title</b>	?	In Unix, changing the title of the terminal window is possible but complicated. Search for "change title xterm".
<b>tracert</b>	<u><a href="#">tracert</a></u>	
<b>tree</b>	<u><a href="#">find</a></u> <u><a href="#">ls</a></u> -R	On Windows, use tree   find "string"
<b>type</b>	<u><a href="#">cat</a></u>	
<b>ver</b>	<u><a href="#">uname</a></u> -a	
<b>xcopy</b>	<u><a href="#">cp</a></u> -R	Recursively copy a directory tree

Purpose	DOS	UNIX/Linux
display list of files	dir/w dir	ls
display contents of file	type	cat
display file with pauses	type filename   more	more
copy file	copy	cp
find string in file	find	grep
compare files	comp	diff
rename file	rename OR ren	mv
delete file	erase OR del	rm
delete directory	rmdir OR rd	rmdir
change file protection	attrib	chmod
create directory	mkdir OR md	mkdir
change working directory	chdir OR cd	cd
get help	help	man
display date and time	date, time	date
display free disk space	chkdsk	df
print file	print	lpr
display print queue	print	lpq
clears screen	cls	clear
closes prompt window	exit	exit

<b>Command's Purpose</b>	<b>MS-DOS</b>	<b>Linux</b>	<b>Basic Linux Example</b>
Copies files	copy	cp	<code>cp thisfile.txt /home/thisdirectory</code>
Moves files	move	mv	<code>mv thisfile.txt /home/thisdirectory</code>
Lists files	dir	ls	<code>ls</code>
Clears screen	cls	clear	<code>clear</code>
Closes prompt window	exit	exit	<code>exit</code>
Displays or sets date	date	date	<code>date</code>
Deletes files	del	rm	<code>rm thisfile.txt</code>
"Echoes" output on the screen	echo	echo	<code>echo this message</code>
Edits files with simple text editor	edit	pico <a href="#">[a]</a>	<code>pico thisfile.txt</code>
Compares the contents of files	fc	diff	<code>diff file1 file2</code>
Finds a string of text in a file	find	grep	<code>grep this word or phrase thisfile.txt</code>
Formats a floppy	format a: (if floppy's in A:)	mke2fs (or mformat <a href="#">[b]</a> )	<code>/sbin/mke2fs /dev/fd0 (/dev/fd0 is the Linux equivalent of A:)</code>
Displays command help	<code>command /?</code>	man <a href="#">[c]</a>	<code>man command</code>
Creates a directory	mkdir	mkdir	<code>mkdir directory</code>

<b>Command's Purpose</b>	<b>MS-DOS</b>	<b>Linux</b>	<b>Basic Linux Example</b>
Screens through a file	more	less <a href="#">[d]</a>	less <i>thisfile.txt</i>
Renames a file	ren	mv	mv <i>thisfile.txt thatfile.txt</i> <a href="#">[e]</a>
Shows your location in the file system	chdir	pwd	pwd
Changes directories with a specified path ( <i>absolute path</i> )	cd <i>pathname</i>	cd <i>pathname</i>	cd <i>/directory/directory</i>
Changes directories with a <i>relative path</i>	cd ..	cd ..	cd ..
Displays the time	time	date	date
Shows amount of RAM and use	mem	free	procinfo

DOS Command	UNIX or Bash Command	Action
DIR	ls -l (or use ls -lF)(-a all files) (df -k Space remaining on filesystem)	List directory contents
DIR *.* /o-d DIR *.* /v /os DIR /s DIR /aa	ls -tr ls -ls ls -R ls -a	List directory contents by reverse time of modification/creation. List files and size List directory/sub-directory contents recursively. List hidden files.
TREE	ls -R	List directory recursively
CD	cd	Change directory
MKDIR MD	mkdir	Make a new directory
ASSIGN	ln	Create a file or directory link
RMDIR RD	rmdir	Remove a directory
CHDIR	pwd	Display directory location
DEL ERASE	rm -iv	Remove a file
RMDIR /S (NT) DELTREE (Win 95...)	rm -R	Remove all directories and files below given directory
COPY	cp -piv	Copy a file
XCOPY	cp -R	Copy all file of directory recursively
RENAME or MOVE	mv -iv	Rename/move a file
TYPE	cat	Dump contents of a file to users screen
MORE	more	Pipe output a single page at a time
HELP or COMMAND /?	man	Online manuals
CLS	clear ctrl-l	Clear screen
EXIT EXIT0	exit exit 0	Exit a shell

FIND FINDSTR	<a href="#">grep</a>	Look for a word in files given in command line
COMP	<a href="#">diff</a>	Compare two files and show differences. Also see comm, cmp, mgdiff and tkdiff.
FC	<a href="#">diff</a>	Compare two files and show differences. Also see comm, cmp, mgdiff and tkdiff.
SET	set and env	List all environment variables
SET <i>variable=value</i> echo % <i>variable</i> %	set  export <i>variable=value</i> echo \$ <i>variable</i>	Set environment variables Show environment variables
ECHO <i>text</i>	echo <i>text</i>	Echo text to screen
SET <i>variable</i>	setenv (for C shell) or export <i>VAR=val</i> (for Korn shell. Also <i>VAR=val</i> )	Set environment variables
PATH PATH %PATH%;C:\DIR	echo \$PATH PATH=\$PATH:/dir	Display search path for executables. Set PATH environment variable.
PROMPT \$p\$g	export PS1='\h(\u)\W> '	Set user command prompt.
DATE or TIME	<a href="#">date</a>	Show date. (also set date - DOS only)
DOSKEY /h	<a href="#">history</a>	List command history
DOSKEY <i>NAME=command</i>	<a href="#">alias</a> <i>NAME=command</i>	Set command alias
BREAK ON	trap	Trap ctrl-break / Trap signals.
SORT	<a href="#">sort</a>	Sort data alphabetically/numerically
EDLIN	<a href="#">ed</a>	Line mode editor
EDIT <i>filename.txt</i>	<a href="#">pico</a> , <a href="#">gnp</a> , <a href="#">vi</a> , <a href="#">xedit</a> , <a href="#">xemacs</a> , <a href="#">dt</a> <a href="#">pad</a>	Edit a file. The Linux editor which looks most like DOS edit is



		probably Pico. (Not a recommendation!)
BACKUP files A:\	<code>tar -cvf /dev/fd0 files</code> <code>mdir, mcopy</code> <code>doswrite -a file (AIX only)</code>	Save files to floppy. See <a href="#">Using DOS floppies</a>
RESTORE A:\ files	<code>tar -xvf /dev/fd0 files</code> <code>mdir, mcopy</code> <code>dosread -a file (AIX only)</code>	Read files from floppy. See <a href="#">Using DOS floppies</a>
ATTRIB [+r -r] [+a -a] [+s -s] [path\file] /s	<code>chmod</code>	Change file permissions. DOS: +:set to -:remove r:Read only a:Archive s:System /s:recursively
ATTRIB +h or -h	<code>mv file .file</code>	Change file to a hidden file - rename file with prefix "."
PRINT	<code>lpr</code>	Print a file
CALL COMMAND /C (DOS), CMD (NT)	<code>source script (cshrc)</code> <code>. script (bash)</code> <code>sh script</code>	Execute script from within batch shell.
MEM	<code>free</code> <code>top</code>	Show free memory on system
TASKLIST (WIN2K, XP)	<code>ps -aux</code> <code>top</code>	List executable name, process ID number and memory usage of active processes
MSD	<code>lsdev</code>	Show system info (Command borrowed from AIX)
SCANDISK DEFRAG C:	<code>fsck</code> <code>debugfs</code>	Check and repair hard drive file system
CHDISK	<code>du -s</code>	Disk usage.
FDISK	<code>fdisk</code>	Tool to partition a hard drive.
SUBST V: C:\directory\path	<code>mount</code>	Mount a drive letter to a folder/directory on your hard drive.
FORMAT	<code>mke2fs</code> See: <code>fdformat</code> and <code>mformat</code> for floppies	Format drive file system. For floppy drive use see <a href="#">YoLinux Tutorial</a>

		Using DOS Floppies with Linux
VER	uname -a echo \$SHELL cat /etc/issue	Operating system/shell version
pkzip	tar and zip	Compress and uncompress files/directories. Use tar to create compilation of a directory before compressing. Linux also has compress, gzip
HOSTNAME	hostname	Print host name of computer
PING	ping	Send packets to a network host
TRACERT	tracert	Show routes and router hops to given network destination.
IPCONFIG (NT) WINIPCFG (Win 95...)	ifconfig	Display/configure network interface
NBTSTAT (Netbios info: -n, -c) NBTSTAT -A IP-address	nslookup host-name host host-name	Print DNS info for host.
NBTSTAT -a hostname	nmblookup -A hostname	lookup NetBIOS names.
ROUTE PRINT	route -n	Print routing table.
NET HELP START	chkconfig --list  grep on	List services.
NET START service-name NET STOP service-name	service service-name start service service-name stop	Start/stop service/daemon.
NET SHARES	df	Show mounted shares/filesystems.
NET SEND <node-name> <message> (NT)	smbclient -M MS-Windows-host-name talk	Send pop-up to a MS/Windows PC Send message to another Unix/Linux

		user. See <a href="#">YoLinux tutorial</a>
WIN	<a href="#">startx</a>	Start X-Windows.
REBOOT	<a href="#">shutdown</a> -r now	Reboot system.

To find out how to do something on UNIX simply type "**man -k subject\_matter**". This will do a key word search for all commands dealing with the subject matter. Then use the appropriate command. Online manuals are available on all the commands by typing "**man command\_name**".

MS/Windows info:

- <http://www.mcmcse.com/>
- <http://www.techtutorials.net/>

## Shell Descriptor/Operators:

DOS Descriptor/Operator	UNIX or Bash Descriptor/Operator	Description
\	/	Directory path delimiter
.\	./	Current directory
..\	../	Parent directory
ctrl-z	ctrl-d	End of file/close shell
ctrl-c	ctrl-c	Interrupt/process break
*	*	file name wild card
?	?	Single character wild card
%VAR%	\$VAR	Variable prefix
%1 %2 %3	\$1 \$2 \$3	First, second and third shell command line arguments.
/	-	Command line option flag prefix
		Pipe
>	>	stdout redirection
>>	>>	stdout redirection overwrite
<	<	stdin redirection

## Shell Script Operators:

DOS Operator	UNIX or Bash Operator	Description
@ ECHO OFF	set +v	Set verbose mode off. -v: Echo each line of shell script as it is executed.
%	\$	command line argument prefix. DOS: %1 Bash: \$1 for first argument.
REM	#	Comment. (Not processed.)
==	=	string "equal to" comparison
!=	!=	string "not equal to" comparison
NOT	!	negative of test expression
CHOICE	case	case/switch statement
IF IF EXIST C:\filename  IF NOT EXIST C:\filename	if [[ <i>test-resulting-in-bool</i> ]]; then ... elif ...; then ... else ... fi  if [ -e /dir/filename ]; then  if [ ! - e /dir/filename ]; then	if-test  If file exists  If file does not exist.
GOTO ABC ... :ABC	goto ABC ... :ABC	Branch
FOR ... IN ... DO  FOR %%ff IN (C:\dir\*.*) DO echo %%ff	for ffile in llist; do ...; done  for (( expr1; expr2; expr3; )) do ...; done	For loop
ERRORLEVEL	\$?	exit status/return code

PAUSE
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sleep
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sleep for specified interval
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## Bash shell aliases for DOS users:

The following are bash shell aliases which can be added to the system profile or the user's personal profile (`$HOME/.bashrc`) to correct and help DOS users on Linux.

```
alias dir="echo 'Use the command: ls -lF'"
alias tree="echo 'Use the command: ls -R'"
alias del="echo 'Use the command: rm -iv'"
alias move="echo 'Use the command: mv -iv'"
alias rename="echo 'Use the command: mv -iv'"
alias copy="echo 'Use the command: cp -piv'"
alias type="echo 'Use the command: cat'"
alias cls="echo 'Use the command: clear'"
alias mem="echo 'Use the command: free'"
alias ver="echo 'Use the command: uname -a'"
alias A="echo 'Use the command: mdir a:'"
alias a="A:"
alias C="echo 'No C drive in Linux. Go to your home directory with the command: cd"
alias c="C:"
```

## Devices:

DOS Device	Linux Device	Description
NUL	/dev/null	Send into nothingness
CON	stdin	stdin from console
PRN LPT1	/dev/lp0	First printer device
COM1	/dev/ttyS0	Firsst serial port

## Equivalent Linux and MS/Windows GUI Applications:

MS/Windows Command	Linux Command	Description
C:\WINDOWS\cmd	gnome-terminal konsole	Command Text Terminal
C:\WINDOWS\explorer	nautilus --no- desktop	File browser
c:\Program Files\Internet Explorer\iexplore	firefox mozilla	Web browser

C:\WINDOWS\ <b>notepad</b> C:\Program Files\Windows NT\Accessories\ <b>wordpad</b>	gedit	Text editor
C:\Program Files\Microsoft Office\Office10\ <b>winword</b> <b>excel</b> <b>powerpnt</b>	oowriter oocalc ooimpress	MS/Office and Open Office suites (ooffice)
C:\Program Files\Adobe\Acrobat 7.0\Reader\ <b>acrord32</b>	acroread	Adobe PDF viewer
<b>mspaint</b>	tuxpaint xfig gimp	Graphics and painting program
C:\Program Files\WinZip\ <b>winzip32</b>	file-roller	File compress / decompress / pack / unpack
<b>taskmgr</b>	ksysguard qps gnome-system-monitor xosview	Process and system load monitor