This custom drawing feature now works in Mozilla/Firefox, in Opera 7.0 or better, and in IE 5 or better. Use click, shift-click, control-click, and the "set" and "clear" buttons to select the desired subset of OSs. Then select "Draw table" to redraw the window with your custom table.

A Sysadmin's Unixersal Translator (ROSETTA STONE) *OR* What do they call that in this world?

Contributions and corrections gratefully accepted. Please help us fill in the blanks. New "tasks" are welcome, too!

The table has grown so large that a PDF version is no longer useful, so is no longer available here.

Framed version.

OS versions in parentheses; e.g. *10+* means version 10 and greater; *9-* means version 9 and previous. $=extra cost. *(obs)* = obsolete

If not specified, commands are in one of the following directories: **/usr/bin**, **/usr/sbin, /bin**, **/sbin**

Files referenced may be either commands, configuration files, or directly-referenced text files. Use the *man* command to read the man pages for details such as command options.

Categories:

hardware, firmware, devices	**disks**	**kernel, boot, swap**	**files, volumes**
networking	**security, backup**	**software, patching, tracing, logging**	**references**

TASK \ OS	AIX	A/UX	DG/UX	FreeBSD	
OS notes	By IBM, with input from System V, BSD, etc. Runs mainly on IBM RS/6000, System p, Power Systems, and related hardware.	Apple 1988-1995. Based on AT&T SysV.2.2 with extensions from V.3, V.4, and BSD 4.2 and 4.3	Data General was aquired by EMC in 1999.	Derived from 4.4BSD-Lite and 386BSD. *This table does not include external packages from /usr/ports*.	Hewlett-P
administrative GUI	smit smitty wsm	Finder	sysadm	sysinstall bsdconfig *(10+)*	sam smh *(11.3*
managing users	useradd *(5+)* userdel *(5+)* usermod *(5+)* lsuser mkuser chuser rmuser usrck	Finder /etc/adduser *edit* /etc/passwd	useradd userdel	adduser chpass rmuser pw vipw bsdconfig *(10+)*	useradd userdel usermod getprpw modprpw pwget
TASK \ OS	AIX	A/UX	DG/UX	FreeBSD	
list hardware configuration	prtconf lscfg lsattr lsdev lspath	?	dg_sysreport -g hardware	uname sysctl -a dmesg cat /var/run/dmesg.boot pciconf -l usbconfig camcontrol *devlist* devinfo	ioscan dmesg *(if* adb model stm *(from* bdf *(like* getconf machinfo print_ma
unique id useful for licensing	uname -u uname -m lsattr -El sys0 -a systemid	?	?	cat /etc/hostid sysctl kern.hostuuid	uname -i
show/set EEPROM/NVRAM values	bootlist -o -m normal	*n/a*	dg_sysctl | grep BOOTPATH	eeprom *(SPARC only)*	setboot stm
add device without reboot	cfgmgr –v mkdev	?	N/A	camcontrol atacontrol kldload /etc/rc.d/devfs restart	inf -e ioscan -fr insf -C *de*
remove device	rmdev	?	?	camcontrol stop camcontrol eject	rmsf
tape device	/dev/rmt0	/dev/rdsk/c8d?s0	/dev/rmt/0	/dev/rsa0 /dev/*wt* /dev/*sa[0-9]*	/dev/rmt/

TASK \ OS	AIX	A/UX	DG/UX	FreeBSD	
stdin/ stdout/ stderr	?	?	?	/dev/fd/*[012]*	?
X kvm config	?	?	?	Xorg -configure xf86config	itemap
TASK \ OS	**AIX**	**A/UX**	**DG/UX**	**FreeBSD**	
read a disk label	lspv	?	admpdisk -o list admvdisk -o list	disklabel -r gpart show *(7.0+)*	scsimgr *(* diskinfo pvdisplay
whole disk in partition	hdisk[0,1,2,...]	?	?	c	?
label a disk	mkvg	?	admpdisk	fdisk disklabel -wr sysinstall gpart add *(7+)* sade *(6.3+)* bsdconfig *(10+)*	pvcreate
partition a disk	mklv	dp Finder: Apple HD SC Setup	admpdisk	fdisk sysinstall gpart add *(7.0+)* sade *(6.3+)* bsdconfig *(10+)*	smh *(11.3* lvcreate sam
TASK \ OS	**AIX**	**A/UX**	**DG/UX**	**FreeBSD**	
kernel	/unix	/unix	/dgux	/boot/kernel/kernel	/hpux *(9)* /stand/vm
show/set kernel parameters	vmo ioo schedo	/etc/kconfig Finder	vi /var/Build/ system.*hostname*;; reboot	/boot/loader.conf sysctl /etc/sysctl.conf kenv	smh *(11.3* sam sysdef kmtune *(* kctune *(1* getconf
limit physical memory	rmss	?	?	hw.physmem (in /boot/loader.conf)	?
loaded kernel modules	genkex vxketadm -s	?	?	kldstat	kmadmin kcmodule
load module	vxketadm *modname* load cfgmgr mkdev -l *devname*	?	?	kldload	kmadmin kcmodule
unload module	rmdev -l *devname*	?	?	kldunload	kmadmin kcmodule
make disk bootable	bosboot -a	?	dg_sysctl	boot0cfg disklabel gpart bootcode *(7+)* sade *(6.3+)*	mkboot
startup scripts	/etc/rc* /etc/inittab	?	/etc/rc*	/etc/rc* *(4-)* /etc/rc.d/* *(5+)* /usr/local/etc/rc.d/*	/etc/rc* *(* /etc/rc.co /sbin/rc* /sbin/init-
start/ stop/ config services	startsrc stopsrc lssrc refresh srcmstr	?	?	service *(8.1+)*	?
shutdown (& power off if possible)	shutdown -Fh	/etc/shutdown -h Finder	?	shutdown -p now poweroff halt -p	shutdown
				0: halt and power off 1: single-user mode	

TASK \ OS	AIX	A/UX	DG/UX	FreeBSD	
run levels [1] ***=normal states** *for more detail* *see* www.phildev.net/runlevels.html	2: multiuser 6: reboot	?	?	6: reboot c: block further logins q: rescan ttys(5) file kernel security levels: -1*: permanently insecure 0: insecure 1: secure 2: highly secure 3: network secure	0: shut do s,S: singl 1: sys adm 2: multiu 3*: share 4*: start 5: user-d 6: user-d
show runlevel [1]	who -r		who -r	sysctl kern.securelevel	who -r
time zone info	/etc/environment ($TZ)	/etc/TIMEZONE	/etc/TIMEZONE	/etc/localtime /usr/share/zoneinfo	/usr/lib/tz
check swap space	lsps -a	/etc/swap -l	admswap -o list -buv dg_sysreport -p freeswap systat -swap	swapinfo pstat -s	swapinfo
core dump management	chcore sysdumpdev			kern.sugid_coredump kern.capmode_coredump kern.coredump kern.nodump_coredump kern.corefile	coreadm
bind process to CPU	bindprocessor	?	?	cpuset rctl *(9+)*	psrset -b mpsched intctl
TASK \ OS	**AIX**	**A/UX**	**DG/UX**	**FreeBSD**	
"normal" filesystem	jfs	ufs	dg/ux	ufs/ffs/ufs2 *(5+)* ext2 zfs *(7+)*	hfs vxfs *(11.0*
volume-based filesystem	jfs2	?	admvdisk	ccd vinum geom *(5+)* zfs *(7+)*	jfs (vxfs) LVM VxVM ($
file system description	/etc/filesystems mount lsfs	/etc/fstab	/etc/fstab	/etc/fstab zfs *(7+)*	/etc/check *(9)* /etc/fstab *(10+)*
volume manipulation	smitty vg smitty lvm smitty jfs smitty storage lsvg; varyonvg; varyoffvg mkvg; chvg; reducevg; extendvg exportvg; importvg mklv; chlv; rmlv mkfs; crfs; rmfs	?	sysadm	vinum ccdconfig geom *(5.3+)* gstripe *(5.3+)* gmirror *(5.3+)* graid3 *(5.3+)* zpool	vg*; lv*; extendfs fsadm
create filesystem	crfs mkfs	/etc/newfs /etc/mkfs	admfilesystem	newfs zfs *(7+)* newfs_msdos	mkfs newfs
file system debugging and recovery	dfsck fsck fsdb	fsck	fsck fsdb clri	fsck fsdb	fsck fsdb
create non-0-length empty file	lmktemp	?	?	truncate -s *size*[K|M|G] *filename* dd if=/dev/zero of=*filename* bs=*size*[b|k|m|g] \ count=*desired*	prealloc
convert DOS-format text to Unix format	strings *dosfile.txt > unixfile.txt*	?	?	tr -d '\r' < *input > output*	dos2ux
mount CDROM	mount -v cdrfs -o ro /dev/cd0 /cdrom smitty cdrom	Finder	mount -t cdrom /dev/pdsk/*disk*/cdrom mount -t cd9960 /dev/cd0 *mountpoint*	mount /cdrom mount_cd9660	pfs_moun pfsd pfs_moun mount /d /SD_CDR mount -o *(requires*

TASK \ OS	AIX	A/UX	DG/UX	FreeBSD	
					patches,
eject CDROM	?	*(manually)*	?	camcontrol eject *devID* cdcontrol eject [-f *device*]	?
create/mount ISO image	mkcd	?	?	mkisofs mdconfig; mount	nohup pf... nohup pf... pfs_mou... *pathToIso...*
ACL management	aclget aclput acledit ls -e	?	?	getfacl setfacl {get,set}{f,p}mac	lsacl chacl getacl setacl
Fibre Channel / SAN	fcstat lscfg -vl *fcs0* lsattr -El *fcs0* lspath	?	?	mptutil *(8.0+)* showmount gmultipath	scsimgr *(* fcmsutil fcdlist tdutil tdlist tddiag

TASK \ OS	AIX	A/UX	DG/UX	FreeBSD	
NFS share definitions	/etc/exports /etc/xtab	/etc/exports	/etc/exports	/etc/exports	/etc/expo... /etc/dfs/d...
NFS share command	exportfs -a mknfsexp	/usr/etc/exportfs -a	exportfs -a	kill -s HUP `cat /var/run/mountd.pid` zfs set sharenfs="..." *zfsdataset* service nfsd start	exportfs -... share *(11...* shareall *(*... share_nfs...
NFS information	nfsstat nfso -as	/usr/etc/nfsstat	nfsstat	nfsstat	nfsstat
name resolution order	/etc/netsvc.conf /etc/resolv.conf	?	/etc/netsvc.conf	/etc/host.conf *(4-)* /etc/nsswitch.conf *(5+)*	/etc/nssw...
show network interface info	ifconfig -a no -a netstat -i netstat -v lsattr -E -l entX entstat	netstat -i /etc/ifconfig -a	netstat -i ifconfig	ifconfig -a	nwmgr *(* lanadmin landiag lanscan netstat -i... ifconfig l...
change IP	smitty chinet chdev -a netaddr= *newIP* -I en# mktcpip rmtcpip	ifconfig *edit* /etc/NETADDRS	sysadm	*edit* /etc/rc.conf *(option ifconfig_interfacename)* ifconfig bsdconfig *(10+)*	/sbin/set_... ifconfig
start DHCP client	dhcpcd	*n/a*	dhcpd	dhclient service dhclient start *interface*	?
ping one packet	ping -c 1 *hostname*	/usr/etc/ping *hostname packetsize* 1	ping -s -c 1 *hostname*	ping -c 1 *hostname*	ping *host...* ping *host...*
sniff network	iptrace ipreport	?	tcpdump	tcpdump	nettl netfmt
route definitions	netstat -r route	netstat -r	sysadm	*edit* /etc/rc.conf *(option defaultrouter)* netstat -r route bsdconfig *(10+)*	/etc/rc.co... netstat -r...

TASK \ OS	AIX	A/UX	DG/UX	FreeBSD	
telnetd, ftpd banner	/etc/security/login.cfg	/etc/issue	?	/etc/ftpwelcome	/etc/inetd
set date/time (from net: ntp or other)	ntpdate	date	?	date adjkerntz ntp tzsetup *(obs)* timed bsdconfig *(10+)* ntpdate	ntpdate
TASK \ OS	**AIX**	**A/UX**	**DG/UX**	**FreeBSD**	
auditing	audit auditpr auditselect lsaudrec	?	?	auditd	audisp audevent audomon audsys
encrypted passwords in	/etc/security/passwd	/etc/shadow	/etc/shadow	/etc/master.passwd	/etc/passw /.secure/e /tcb/files/ *(10+)* /etc/shad
min password length	/etc/security/user	?	?	/etc/login.conf	/etc/defau
allow/deny root logins	/etc/security/user	?	/etc/default/login	/etc/login.access /etc/ttys	/etc/secu
firewall config	genfilt smitty ipsec4 wsm network	?	?	ipfw ipf pfctl	/etc/opt/ip
TASK \ OS	**AIX**	**A/UX**	**DG/UX**	**FreeBSD**	
show installed software	lslpp -L	?	pkginfo	pkg_info ls /var/db/pkg pkg info *(10+)*	rmfn, wh swlist (H swm list
file is in which package	lslpp -w *file* rpm -qif *file* which_fileset	?	?	pkg_info -W *file* pkg which *file (10+)*	swlist -l f
add software	smitty install rpm -ihv installp -acgxYd */sourcedir* *[fileset|ALL]*	*n/a (no package system)*	sysadm	sysinstall /usr/ports make pkg_add pkg install *(10+)* pkg add *(10+)*	swm insta swinstall
precompiled binaries of GPLware and freeware	perzl.org/aix/ bullfreeware.com www.ibm.com/systems/power/software/aix/linux/toolbox/altlic.html	*see FAQ*	http://www.signal42.com/xfree86/4.2.0/binaries/DGUX-ix86/	ftp.freebsd.org/pub/FreeBSD www.freebsd.org	hpux.cs.u hpux.con
C compiler	/usr/ibmcxx/bin/cc /usr/vac/bin/cc *($)*	cc /usr/local/gnu/gcc	/usr/sde/default/usr/bin/cc gcc	/usr/bin/cc *(gcc, 9-)* /usr/bin/gcc *(10+)* /usr/bin/clang *(9.0+)*	/opt/softb /bin/cc *(9* /usr/bin/c *ANSI; ke*
show patch level and/or patches	instfix -ivq oslevel -s emgr -l	?	what /dgux	uname -a freebsd-version *(10+)*	swm list swlist -l p grep PHs
patch tool	installp smitty update_all	?	dg_sysreport -p patches	csup *(6.2+)* freebsd-update *(7+)*	update *(9*

	AIX	A/UX	DG/UX	FreeBSD	
	emgr			cvsup *or* cvs *to update,* *then rebuild* svnlite (10+)	swinstall
configure/show runtime linking [fortran-2000.com/ ArnaudRecipes/ sharedlib.html](http://fortran-2000.com/ArnaudRecipes/sharedlib.html)	dump -H ldd	?	?	ldd ldconfig kldstat	chatr ldd *(11+)* kmadmin
link library path	$LIBPATH	?	$LIBPATH	$LD_LIBRARY_PATH	$LD_LIB *(64-bit)* $SHLIB_ *(32- or 6*
tracing utility	probevue *(6+)* trace syscalls truss watch trcrpt	?	?=dg_strace *(>=4.20MU06)*	ktrace truss dtrace *(8+)* dtruss *(8+)*	caliper fp caliper kt trace *(fre* tusc *(11+*
define user defaults	/etc/security/ mkuser.default /etc/environment	/etc/profile /usr/lib/skel	admuser -o set	/etc/login.conf	/etc/defau /etc/PATH /etc/MAN /etc/defau
csh global .login	/etc/csh.login	?	?	/etc/csh.login	/etc/csh.l
default syslog and messages	/var/adm/syslog /var/adm/messages	?	/var/adm/messages	/var/log/messages	/var/adm/ /var/adm/ /var/spoo
system error reporting tool	errpt errclear	errpt	admsyslog -o report	dmesg send-pr	evmshow smh *(11.* dmesg sysdiag (* stm/cstm/ EMS *(fro*
performance monitoring	[ftp://ftp.software.ibm.com/ aix/tools/perftools/perfpmr](ftp://ftp.software.ibm.com/aix/tools/perftools/perfpmr) vmstat; iostat; sar; filemon; topas; trace; svmon; netpmon; proctree	?	sar netstat uustat	fstat; nfsstat; systat; vmstat; netstat; uustat *(9-)*; top; iostat; gstat	glance gpm caliper top; sar; v iostat; nfs uustat; G ptree *(11.*
match process to file or port	procfiles *(5.2+, files only)*	?	fuser	sockstat -l	lsof fuser
manage various logs	snap	?	?	?	?
X pop-up	/usr/dt/bin/dterror.ds	?	?	/usr/local/bin/xmessage	/usr/dt/bi
[**Wikipedia**](#)	[**AIX**](#)	[**A/UX**](#)	[**DG/UX**](#)	[**FreeBSD**](#)	
FAQs (see also [faqs.org](#))	[www.faqs.org/faqs/ aix-faq/part1/ preamble.html](http://www.faqs.org/faqs/aix-faq/part1/preamble.html)	[christtrekker.users.sourceforge.net/ doc/aux/faq.html](http://christtrekker.users.sourceforge.net/doc/aux/faq.html)	[www-csc.dg.com/csc/ dguxfaqs1.asp](http://www-csc.dg.com/csc/dguxfaqs1.asp)	[www.freebsd.org/doc/ en_US.ISO8859-1/books/faq](http://www.freebsd.org/doc/en_US.ISO8859-1/books/faq)	[www.faq hp/hpux-](#)
blogs	?	?	?	blogs.freebsdish.org	?
mailing list	[AIX-L@pucc. princeton.edu](#) (LISTSERV)	*n/a*	?	lists.freebsd.org/mailman/listinfo	[hpux-adm](#) [dutchwor](#) (majordo [hp-ux-l](#)
mailing list archives	[www.marist. edu/htbin/wlvindex? ADSM-L](http://www.marist.edu/htbin/wlvindex?ADSM-L) [marc.theaimsgroup.com/ ?l=aix-l&r=1&w=2](http://marc.theaimsgroup.com/?l=aix-l&r=1&w=2)	*n/a*	?	lists.freebsd.org/mailman/listinfo	[www.dut works.nl/ htbin/hp](#)
man pages					

TASK / OS	AIX	A/UX	DG/UX	FreeBSD	
www.freebsd.org/ cgi/man.cgi	publib.boulder.ibm.com/infocenter/ aix/v7r1/topic/ com.ibm.aix.cmds/ alphabeticallistofcommands.htm	*n/a*	?	man.freebsd.org	docs.hp.c hpuxman
newsgroup(s) and forums groups.google	comp.unix.aix www.thp.uni-duisburg.de/ cuaix/cuaix.html	comp.unix.aux	comp.os.aos	comp.unix.bsd freebsd.misc forums.freebsd.org	comp.sys
user groups	www.userblue.org	*n/a*	?	www.freebsd.org/ support.html#user	connect-c hp-intere encompa hptechno forums.it HP DSPF
magazines	*n/a*	*n/a*	?	daemonnews.org bsdmag.org freebsdnews.net bsdnow.tv (videos) bsdtalk.blogspot.com (audio podcasts)	www.hpc www.inte www.hpp
vendor home page	www.developer.ibm.com/ tech/map/aixrm.html www-941.ibm.com/ collaboration/ wiki/display/WikiPtype/Home	*n/a*	www-csc.dg.com/ csc/default.asp	www.freebsd.org	hp.com/g
vendor docs and patches (*see also* man pages)	www.redbooks.ibm.com www.ibm.com/ developerworks/aix techsupport.services. ibm.com/ server/support? view=pSeries	?	www-csc.dg.com/csc/ custdocsasp/ custdocs2.asp? category=069docs.asp	www.freebsd.org/handbook www.freebsd.org/releases/ www.freebsd.org/security www.freebsd.org/doc/en/books www.freebsd.org/doc/en/articles	software. docs.hp.c itrc.hp.c
vendor phone (US)	800-426-7378 (800-IBM-SERV)	*(EOL; unsupported)*	?	925-674-0783 (FreeBSD Mall)	800-633-
wikis	www.ibm.com/developerworks/ wikis/display/WikiPtype/Home	?	?	wiki.freebsd.org	?
TASK / OS	**AIX**	**A/UX**	**DG/UX**	**FreeBSD**	

Footnotes

1. In System V-based Unixes, *run level* relates to booting, shutdown, and single-user mode. In BSD, it has to do with security.

2. Freeware or separately downloadable; not part of the base OS. See the precompiled binaries task or web search.

3. Gentoo does not have precompiled packages. It compiles them on your computer. It also has some "overlays" for packages that are not (yet) in the main portage tree. See http://overlays.gentoo.org/

4. `ioscan -funC disk` may be helpful here to determine device path.

5. Architecture-specific. See http://www.openbsd.org/cgi-bin/cvsweb/src/distrib/*/*/install.md for details.

Universal Command Guide is a large book which covers several of the OSs in this table.

UnixGuide.net has a similar table covering fewer Unix versions and a somewhat different set of tasks. See unixguide.net/cgi-bin/unixguide.cgi

Colin Barschel's **Unix Toolbox** cb.vu/unixtoolbox.xhtml is a wonderfully detailed handbook sorted by task area and giving both commands and config file excerpts for Linux and BSD.

coolcommands is a search engine giving one-line command examples: www.coolcommands.com/index.php?option=com_cc&Itemid=28

Solaris / HP-UX / FreeBSD / Linux / AIX: www.unixporting.com/quickguide.html

Solaris / HP-UX: soldc.sun.com/migration/hpux/migissues/. If that page no longer exists, get an archived version from the Internet Archive Wayback Machine at www.archive.org/web/web.php

AIX / Linux: rick.jasperfamily.org/linux/quickstart.html
AIX 4.3.3 / Solaris 8: www.redbooks.ibm.com/redpapers/pdfs/redp0104.pdf
AIX 5.1.0 / Solaris 8: www.ibm.com/servers/aix/products/aixos/whitepapers/aixmapping.html

Unix / DOS: yolinux.com/TUTORIALS/unix_for_dos_users.html

Unix / TSO mainframe: yolinux.com/TUTORIALS/LinuxTutorialLinuxForMainframers.html

Unix history time line: www.levenez.com/unix/

Unix cheat sheet: www.rain.org/~mkummel/unix.html

Unix information: www.computerhope.com/unix.htm

Unix summary: www.math.utah.edu/lab/unix/unix-commands.html

Unix tips and tricks: sysunconfig.net

Heiner Steven's **AWK dialects page**: www.shelldorado.com/articles/awkcompat.html

Ben Zorn's **Debugging Tools for Dynamic Storage Allocation and Memory Management**: www.cs.colorado.edu/homes/zorn/public_html/MallocDebug.html

Most modern Unixes conform to the **POSIX** standards: en.wikipedia.org/wiki/POSIX

en.wikipedia.org/wiki/**Comparison_of_operating_systems**

en.wikipedia.org/wiki/**Comparison_of_Linux_distributions**

USENIX: www.usenix.org/

USENIX System Administrator's Guild: sage.org/

League of Professional System Administrators: lopsa.org/