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UNIX Shell: Shells (ash, bash, bsh, csh, ksh, sh, tcsh, zsh)

Description:	Used to make comments in a shell script or tells witch shell to use as an interpreter for the script.
Syntax:	*# { comment }* *#!shell*

comment	Is any text that is a comment in the script.
shell	Specifies the shell to use as interpreter for the script. NOTE: This has to be the first line in a script.

TIP:	Use comment a lot, It is more easy to figure out what a script does if it has comment.	
Common:	# This is a comment	Is a comment in a script
Common:	#!/usr/bin/csh	If this is the first line. Use csh as the shell interpreter for the script

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UNIX Shell: Shells (ash, bash, bsh, ksh, sh, zsh)

Description:	Reads commands from a script and execute them in your current environment.
Syntax:	*. filename { arguments... }* sh: *. filename*

filename	Specifies the file containing the commands that you want to execute.
arguments...	Specifies any needed arguments for the file or command. Can't be used in sh.

Common:	. .profile	Run the commands in .profile

/etc/hosts

UNIX Shell: N/A

Description:	Configures names and aliases of IP-addresses. Fields should be separated with Tab or white space.
Syntax:	*IP-address hostname { aliases... }* *# { comment }*

IP-address	Specifies the IP-address of the hostname or alias.
hostname	Specifies the hostname of the IP-address or alias.
aliases...	Specifies aliases for the IP-address or hostname.
comment	Specifies a comment in the configuration file.
Example	**Below is a sample `hosts` file and will work in a flavors of UNIX.** # sample host file comment 192.168.1.1 gw.ucgbook.com gw firewall 192.168.1.3 webserver

File Name:	`hosts`	**Directory:**	/etc/	**Type:**	Text File

/etc/resolv.conf

UNIX Shell: N/A

Description:	Configures DNS name servers to use for hostname lookups.
Syntax:	*keyword value*

nameserver *IP-address*	Specifies one name server to use. This can be used three times.
domain *domain*	Specifies the systems domain name, this is everything after the first dot.
search *list*	Searches list for host-name lookup.
sortlist *addresslist*	Causes addresses returned by gethostbyname to be sorted in accordance.
options *options...*	The following options can be used:
debug	Sets RES_DEBUG in _res.options.
ndots:*number*	Sets a threshold of dots which must appear in a name given to res_query().
BSD:	
options *options...*	The following options can be used under BSD only:
inet6	Tries an AAAA query before an A query inside the gethostbyname function.
lookup *list*	Specifies which databases should be searched, and the order to do so.
bind	Uses the Domain Name server by querying named.
file	Searches for entries in `/etc/hosts`.
yp	Talks to the YP system if ypbind is running.
Linux	
options *options...*	The following options can be used under Linux only:
timeout:*number*	Sets the amount of time the resolve will wait for timeout.
attempts:*number*	Sets the timeout before sending an error to the calling application.

rotate	Causes round robin selection of name servers from among those listed.
no-check-names	Disables the checking of incoming host names and mail names for invalid characters.
inet6	Tries an AAAA query before an A query inside the gethostbyname function.
Solaris:	
retry:*number*	Sets the number of attempts made to connect to each name server.
retrans:*number*	Sets the basic retransmit timeout, in seconds.
	Below is a sample `resolv.conf` file and will work in a flavors of UNIX.
	search ucgbook.com
	nameserver 192.168.1.10
	nameserver 192.169.1.11

File Name:	`resolv.conf`	**Directory:**	/etc/	**Type:**	Text File

a2p

UNIX Shell: Shells (bash,tcsh,sh,ksh,csh,zsh)

Description:	Transforms `awk` scripts to `perl` scripts, and shows the result on STDOUT.
Syntax:	a2p [options...] *file*

-D*number*	Sets the specified debug flag number.
-F*switch*	Specifies the awk script to always run with the specified switch.
-n*name*	Sets the names of the input fields if input doesn't have to be split into an array.
-o	Uses old awk behavior.
-number	Specifies the required amount of arguments for the script.
file	Specifies the input file to use.

File Name:	`a2p`	**Directory:**	/usr/bin/,**AIX:** /usr/opt/perl5/bin/, **Solaris 8:** /usr/perl5/5.00503/bin/	**Type:**	External

NOTE:	This command only exist in Solaris 8, not in Solaris 7.	
Common:	a2p -3 -ngroup.type.gid group	Transforms the awk script to a perl script with an input of three fields.
Common:	a2p awk_script.awk > perl_script.pl	As above - writes to perl_script but accepts the entire file.

alias

UNIX Shell: Shells (bash, ksh, csh, tcsh, zsh)

Description:	Creates an alias for a command. If options aren't specified it will show all aliases.
Syntax:	alias [options...]

bash:	
-p	Lists all aliases.
name	Shows the alias for name if it exist.
name=value	Defines the alias name to value.
ksh:	
name	Shows the alias for name if it exist.
name=value	Defines the alias name to value.
-t	Sets and shows tracked aliases.
-x	Sets and shows exported aliases.
csh, tcsh:	
name	Shows the alias for name if it exist.
name value	Defines the alias name to value.
zsh:	
-g	Shows or defines global aliases
-m	Uses patten matching for aliases.
-r	Shows regular aliases.
-L	Shows aliases in a way that can be used in a shell script.
name	Shows the alias for name if it exist.
name=value	Defines the alias name to value.

NOTE:	It is often used to change the default behavior of commands.	
Common:	alias ls "ls -lia"	Makes an alias for ls to be ls -lia (csh)
Common:	alias df="df -k"	Makes an alias for df to be df -k (ksh)

apropos

UNIX Shell: Shells (ash, bash, bsh, csh, ksh, sh, tcsh, zsh)

Description:	Shows all manual pages that contain the specified keywords, including the section number and a short description.
Syntax:	apropos [options...] *keywords...*

keywords...		Specifies keywords to search for.				
AIX:						
-M *path*		Specifies a different search path. Directories must be separated by colons.				
BSD:						
-M *path*		Specifies a different search path. Directories must be separated by colons.				
-m *path*		Adds to the search path. Directories must be separated by colons.				
File Name:	`apropos`	**Directory:**	/usr/bin/		**Type:**	External
NOTE:	In AIX and Solaris you can run `catman -w` to create the database `apropos` uses.					
Common:	apropos password	Shows manual pages containing the word password.				
Common:	apropos apropos man pwd	Shows manual pages containing the words apropos, man and pwd.				
AIX:	apropos -M /usr/share/ucgman pwd	Searches only the specified path.				

ar

UNIX Shell: Shells (ash, bash, bsh, csh, ksh, sh, tcsh, zsh)

Description:	Creates and updates library files. It combines files into a single archive file.
Syntax:	ar option [options...] *{ pos } { archive } { files... }* Linux: ar option [options...] *{ pos } { count } { archive } { files... }*

	The following options can´t be combined:
-d	Deletes files from the archive.
-m	Gives the file a new position or move it to the end of the archive.
-p	Shows the content of an archive on STDOUT.
-q	Appends files to the end of the archive.
-r	Replaces files in archive.
-t	Shows the archives table of contents.
-x	Extracts files from archive.
	The following options can be combined:
-a	Places new files in the archive after the position specified by `pos`.
-b	Places new files in the archive before the position specified by `pos`.
-c	Doesn't show messages during archive creation.
-i	Places new files in the archive before the position specified by `pos`.
-u	Replaces older files with newer.
-v	Verbose mode. Shows more information.
pos	Names a file in the archive to use relative positioning.
archive	Specifies the path and name of the archive.
files...	Specifies files to add to archive or files inside archive to modify.
AIX:	
-C	Doesn't replace existing files.
-g	Orders the members of the archive for maximum loader efficiency with minimum space.
-h	Sets the modification times in the member headers to the current date and time.
-l	Stores temporary files in the current directory instead of `/tmp`.
-o	Orders the members of the archive for maximum loader efficiency with minimum space.
-s	Restores the symbol table if it has been broken.
-T	Truncates files with unsupported file name length.
-w	Shows the archive symbol table.
-X *mode*	Specifies the type of object file to examine. Mode are on of 32, 64 or 32_64
BSD:	
-C	Doesn't replace existing files.
-o	Sets the modification times of extracted files to the time when it was archived.
-T	Truncates files with unsupported file name length.
Linux:	
-f	Truncates names in the archive.
-l	Used for compatibility, is ignored.
-N	Extracts or delete instance of the given name from the archive, uses count parameter.
-o	Sets the modification times of extracted files to the time when it was archived.
-P	Uses the full path name when matching names in the archive.
-s	Will restore the symbol table if it has been broken.

-S	Doesn't generate the symbol table for the archive. The archive can't be used for linking.
-V	Shows version information.
name	Specifies a file to extract from the archive.
count	Specifies a number to be used with option -N.
Solaris:	
-C	Doesn't replace existing files.
-s	Restores the symbol table if it has been broken.
-T	Truncates files with unsupported file name length.
-V	Shows version information.

File Name:	`ar`	**Directory:**	/usr/bin/, **Solaris:** /usr/ccs/bin/	**Type:**	External
Common:	ar -r newarchive *		Creates a new archive holding all files in current directory.		
Common:	ar -x archive		Extracts all files from archive.		

arp

UNIX Shell: Shells (ash, bash, bsh, csh, ksh, sh, tcsh, zsh)

Description:	Shows and alters the ARP table which is used to map MAC addresses to their assigned IP addresses.
Syntax:	arp options... arp *hostname* AIX: arp -t atm options... AIX: arp -t atm *hostname*

hostname	Shows the ARP entry for the specified hostname.
AIX:	
-a	Shows all current ARP entries.
n	Doesn't try to translate the IP-addresses to hostnames.
/dev/kmem	Shows information from the kernel memory.
-d *hostname*	Deletes the the ARP entry for the specified hostname.
-s *type host MAC-address*	Creates a static ARP entry into the ARP table.
	type can be one of the following four:
ether	Specifies MAC-address to use.
802.3	Specifies 802.3 interface.
fddi	Specifies Fiber Distributed Data interface (FDDI) .
802.5	Specifies Token-Ring (T/R) interface
	NOTE: host is the IP-address or hostname to set.
	NOTE: MAC-address is the MAC-address to set for the host.
	The following three options may be used with -s:
Route	Adds a route for a T/R or FDDI interface. As defined in T/R or FDDI header.
temp	Adds an ARP entry to the table temporarily.
pub	Adds an entry that will be published for others.
-f *filename { type }*	Reads information from a file to create ARP entries. For type please see -s .
	The following options are used for ATM networks.
-t atm	Specifies that ATM networks option will be altered. Must be used with the following.
-a	Shows all current ARP entries.
n	Doesn't try to translate the IP-addresses to hostnames.
/dev/kmem	Shows information from the kernel memory.
virtual	Specifies which specification to show. Only one can be used of the following two.
pvc	Specifies Permanent Virtual Circuits.
svc	Specifies Switched Virtual Circuits
-d pvc *vpi:vci* if *ifname*	Deletes an PVC ARP. vpi:vci specifies the circuit. ifname is the interface name
-s *type host ether* [temp]	Creates a static ARP entry for SVC into the arp table. Se above for parameters
-s *type* pvc *vpi:vci* if *ifname aopt*	Creates a static ARP entry for PVC into the arp table. Se above for parameters
vpi:vci	Specifies the circuit.
ifname	Specifies the interface name.
aopt	Specifies extra options.
no-llc	Doesn't use LLC/SNAP encapsulation on this virtual circuit.
no-arp	Doesn't use ARP protocol on this virtual circuit.
temp	Adds an ARP entry to the table temporarily

BSD:	
-a	Shows all current ARP entries.
-n	Doesn't look up hostnames. Show only numeric addresses.
-d *hostname*	Deletes the ARP entry for the specified hostname. Super-users only
-s	Creates a static ARP entry into the arp table.
host	Specifies the hostname or ip-address.
MAC-address	Specifies the Ethernet address in the form xx:xx:xx:xx:xx:xx .
opt	Specifies options when setting entries.
temp	Adds an ARP entry to the table temporarily.
permanent	Adds an ARP entry to the table permanent.
pub	Adds an entry that will be published for others.
Linux:	
-a	Shows all current ARP entries, or for the specified host.
-v	Verbose mode. Shows more information.
-n	Shows host ip-address instead of hostnames.
-H *type*	Specifies the class of entries it should check for. (Default is ether)
-d *hostname*	Deletes the ARP entry for the specified hostname. Super-users only
-D	Uses the ifa hardware address for the interface.
-i *interface*	Selects an interface to use.
-s *host MAC-address*	Creates a static ARP entry into the arp table.
-f *filename*	Reads information from a file to create ARP entries.
Solaris:	
-a	Shows all current ARP entries.
-d *hostname*	Deletes the ARP entry for the specified hostname. Super-users only
-s *host MAC-address opt*	Creates a static ARP entry into the arp table.
host	Specifies the hostname or IP-address.
MAC-address	Specifies the Ethernet address in the form xx:xx:xx:xx:xx:xx .
opt	Specifies options.
temp	Adds an ARP entry to the table temporarily
pub	Adds an entry that will be published for others.
trail	Indicates that this host will allow trailer encapsulations.
-f *filename*	Reads information from a file to create ARP entries.

File Name:	`arp`	**Directory:**	/usr/sbin/, **Linux:** /sbin	**Type:**	External

TIP:	Is very useful for troubleshooting.	
Common:	arp -s sun 08:00:20:7c:4e:29	Sets the specified ether address to host sun.
Common:	arp -d sun	Deletes ARP entry for host sun.
AIX:	arp -t atm -a	Shows arp table for ATM interface
Solaris:	arp -s sun 08:00:20:7c:4e:29 pub	Sets the specified ether address to host sun and make it public.

as

UNIX Shell: Shells (ash, bash, bsh, csh, ksh, sh, tcsh, zsh)

Description:	Is an assembler that will create object files using assembly language source files as input.
Syntax:	as [options...] *file*

AIX:	
-a*mode*	Specifies the mode to operate in, can be 32 or 64 (Default is 32).
-o *outfile*	Outputs the assembly to outfile.
-n *name*	Specifies the name that appears in the header of the assembler listing.
-u	Accepts an undefined symbol as an extern so that an error messages is not shown.
-l *{ file }*	Produces an assembler listing to `infile`.lst or file if specified.
-W	Turns all warning messages off.
-w	Turns warning messages on.
-x *{ file }*	Produces cross reference output to `infile`.xref or file if specified
-s *{ file }*	Includes a mnemonics cross-reference for POWER and PowerPC.
-m *mode*	Specifies the assembly mode, mode can be any of: " , s., com or g.
file	Specifies the file to assemble.
BSD:	

	Only one of the following 3 option cab be used.
-a	Turns on all assembly listing.
-al	Turns on listing only.
-as	Turns on symbol only listing
-D	Uses for compatibility with calls to other assemblers.
-f	Assumes source is compiler output, skips preprocessing.
-I*path*	Inserts a directory path to the file that is being processed.
-k	Handles position independent code, generated by program `gcc`.
-K	Handle position independent code for ns32k architectures.
-L	Saves all symbols in the symbol table.
-o *outfile*	Outputs the assembly to outfile.
-R	Folds data sections into text section.
-v	Shows version information.
-W	Suppresses warning messages.
	The following options is only available when configured for Intel 960:
-A*var*	Specifies which variant of the 960 architectures is the target.
-b	Adds code to collect statistics about branches taken.
-norelax	Specifies that com-pare-and-branche instructions for long displacements are disabled.
	The following options is only available when configured for Motorola 68000:
-l	Shortens references to undefined symbols to one word instead of two.
	Only one of the following 3 option cab be used.
-mc68000	Specifies the 68000 processor is the target.
-mc68010	Specifies the 68010 processor is the target.
-mc68020	Specifies the 68020 processor is the target, this is the default.
file	Specifies the file or files to assemble.
Linux:	
-a*{ options...*	Turns on assembly listing. The following sub option can be specified.
d	Omits debugging directives.
h	Includes the high level source code if available.
l	Includes assembly listing
n	Doesn't process forms.
s	Includes symbol listing
=*file*	Specifies the file to write to.
-D	Uses for compatibility with calls to other assemblers.
--defsym *sym=value*	Defines a symbol sym and sets it to value.
-f	Assumes source is compiler output, skips preprocessing.
-I*path*	Inserts a directory path to the file that is being processed.
--gstabs	Generates stabs debugging information.
-K	Handles position independent code, generated by program `gcc`.
-L	Saves all symbols in the symbol table.
-M	Uses MIR compability mode
-o *outfile*	Outputs the assembly to outfile.
-R	Folds data sections into text section.
--traditional-format	Uses as native assembler format.
-v	Shows version information.
-W	Suppresses warning messages.
--fatal-warnings	Treats a warning as fatal.
--warn	Shows warnings messages.
	The following options is only available when configured for Intel 960:
-A*var*	Specifies which variant of the 960 architectures is the target.
-b	Adds code to collect statistics about branches taken.
-norelax	Specifies that com-pare-and-branche instructions for long displacements are disabled.
	The following options is only available when configured for Motorola 68000:
-l	Shortens references to undefined symbols to one word instead of two.
	Only one of the following 3 option cab be used.
-mc68000	Specifies the 68000 processor is the target.

-mc68010	Specifies the 68010 processor is the target.
-mc68020	Specifies the 68020 processor is the target, this is the default.
file	Specifies the file or files to assemble.
Solaris:	
-b	Creates some extra information about symbol tables for the Sun SourceBrowser.
-K PIC	Generates position-independent code
-L	Saves all symbols in the symbol table.
-m	Runs the m4 macro processor on the input file or files.
-n	Doesn't show messages during processing.
-o *outfile*	Outputs the assembly to outfile.
-P	Runs the C preprocessor on the input file or files.
-D*name=def*	Defines a name to the source file that is being processed.
-I*path*	Inserts a directory path to the file that is being processed.
-U*name*	Removes a defined name from the file that is being processed.
-Q y	Doesn't create any assembler messages in the output file.
-Q n	Creates assembler messages in the output file.
-s	Moves all stabs into the .stabs section to prevent the static linker ld from removing them.
-S[*options*]	Disassembles and show source code on STDOUT. Use any of these options:
a	Disassembles and shows source code sorted by address. Capital A turns switch off.
b	Disassembles and shows source code from start of file. Capital B turns switch off.
c	Disassembles and shows source code with comments. Capital C turns switch off.
l	Disassembles and shows source code with line numbers. Capital L turns switch off.
-T	Is used for migration between 4.x and 5.x assembly files.
-V	Shows version information.
-xF	Creates some performance information that can be analyzed.
-q	Assembles quick without error check.
-xarch=v7	Accepts instructions from SPARC version 7.
-xarch=v8	Accepts instructions from SPARC version 8.
-xarch=v8a	Accepts instructions from SPARC version 8 without the `fsmuld` instructions.
-xarch=v8plus	Accepts instructions from SPARC version 9.
-xarch=v8plusa	Accepts instructions from SPARC version 9 and VIS.
-xarch=v9	Accepts only SPARC version 9 instruction sets.
-xarch=v9a	Accepts only SPARC version 9 and VIS instruction sets.
file	Specifies the file or files to assemble.

File Name:	`as`	**Directory:**	/usr/bin/, **Solaris:** /usr/ccs/bin/	**Type:**	External
Common:	as -o hello hello.s	Assemble the file hello.s to object file hello			
Solaris:	as -K PIC -o hello.o hello.s	Assemble the file hello.s to position independent object file hello.o			