*assoc*

**Overview:**

**Warning:** This command is for advanced users only!

Displays or modifies filename extension associations.

**Command Variations:**

assoc  
assoc | more

Displays a list of all filename extension associations. Since the list is very long, use assoc | more to view the list one page at a time (press spacebar for next page, Ctrl-C to stop; see: [more](https://www.c3scripts.com/tutorials/msdos/more.html)).

assoc *extension*

Displays the association for the *extension* filename extension.

**help assoc**

Displays or modifies file extension associations

ASSOC [.ext[=[fileType]]]

.ext Specifies the file extension to associate the file type with

fileType Specifies the file type to associate with the file extension

Type ASSOC without parameters to display the current file associations.

If ASSOC is invoked with just a file extension, it displays the current

file association for that file extension. Specify nothing for the file

type and the command will delete the association for the file extension.

*attrib*

**Overview:**

Displays or changes file attributes.

**Quick Guide:**

**Hide/Unhide a Directory:**

attrib -h *directory*

For example, if c:\mystuff\secret\ is hidden then type: attrib -h c:\mystuff\secret\ to unhide it.

To reverse the change and make the directory hidden, type: attrib +h c:\mystuff\secret\

**Hide/Unhide a File:**

attrib -h *filename*

For example, if c:\mystuff\secret.txt is hidden then type: attrib -h c:\mystuff\secret.txt to unhide it.

To reverse the change and make the file hidden, type: attrib +h c:\mystuff\secret.txt

**Command Variations:**

attrib  
attrib *filename*

Display attributes of all the files in the current directory or of only the specified file.

attrib +*attribute* *filename*  
attrib -*attribute* *filename*

For the specified file, either sets (+) or clears (-) the specified *attribute* attribute:

|  |  |
| --- | --- |
| **Attribute** | **Meaning** |
| a | Archive |
| h | Hidden |
| r | Read-only |
| s | System |

Multiple attributes can be specified at the same time, all as part of one attrib command. The order of the attributes does not matter. For example, to simultaneously clear the hidden attribute and set the read-only attribute of the file mystuff.txt, use: attrib -h +r mystuff.txt

**Command Options:**

The following examples demonstrate some of the more useful options of the attrib command. For the complet list of options, type attrib /? or help attrib

**Hide/Unhide a Directory:**

attrib -h *directory*

For example, if c:\mystuff\secret\ is hidden then type: attrib -h c:\mystuff\secret\ to unhide it.

To reverse the change and make the directory hidden, type: attrib +h c:\mystuff\secret\

**Hide/Unhide a File:**

attrib -h *filename*

For example, if c:\mystuff\secret.txt is hidden then type: attrib -h c:\mystuff\secret.txt to unhide it.

To reverse the change and make the file hidden, type: attrib +h c:\mystuff\secret.txt

**help attrib**

Displays or changes file attributes.

ATTRIB [+R | -R] [+A | -A ] [+S | -S] [+H | -H] [drive:][path][filename]

[/S [/D]]

+ Sets an attribute.

- Clears an attribute.

R Read-only file attribute.

A Archive file attribute.

S System file attribute.

H Hidden file attribute.

[drive:][path][filename]

Specifies a file or files for attrib to process.

/S Processes matching files in the current folder

and all subfolders.

/D Processes folders as well.

# *call*

## Overview:

Calls one batch program file (*file*.bat) from another.

## help call

Calls one batch program from another.

CALL [drive:][path]filename [batch-parameters]

batch-parameters Specifies any command-line information required by the

batch program.

If Command Extensions are enabled CALL changes as follows:

CALL command now accepts labels as the target of the CALL. The syntax

is:

CALL :label arguments

A new batch file context is created with the specified arguments and

control is passed to the statement after the label specified. You must

"exit" twice by reaching the end of the batch script file twice. The

first time you read the end, control will return to just after the CALL

statement. The second time will exit the batch script. Type GOTO /?

for a description of the GOTO :EOF extension that will allow you to

"return" from a batch script.

In addition, expansion of batch script argument references (%0, %1,

etc.) have been changed as follows:

%\* in a batch script refers to all the arguments (e.g. %1 %2 %3

%4 %5 ...)

Substitution of batch parameters (%n) has been enhanced. You can

now use the following optional syntax:

%~1 - expands %1 removing any surrounding quotes (")

%~f1 - expands %1 to a fully qualified path name

%~d1 - expands %1 to a drive letter only

%~p1 - expands %1 to a path only

%~n1 - expands %1 to a file name only

%~x1 - expands %1 to a file extension only

%~s1 - expanded path contains short names only

%~a1 - expands %1 to file attributes

%~t1 - expands %1 to date/time of file

%~z1 - expands %1 to size of file

%~$PATH:1 - searches the directories listed in the PATH

environment variable and expands %1 to the fully

qualified name of the first one found. If the

environment variable name is not defined or the

file is not found by the search, then this

modifier expands to the empty string

The modifiers can be combined to get compound results:

%~dp1 - expands %1 to a drive letter and path only

%~nx1 - expands %1 to a file name and extension only

%~dp$PATH:1 - searches the directories listed in the PATH

environment variable for %1 and expands to the

drive letter and path of the first one found.

%~ftza1 - expands %1 to a DIR like output line

In the above examples %1 and PATH can be replaced by other

valid values. The %~ syntax is terminated by a valid argument

number. The %~ modifiers may not be used with %\*

# *chkdsk*

## Overview:

**Warning:** This command is for advanced users only!

Checks a volume (a hard drive or disk) for logically errors and displays a status report. If instructed to do so, chkdsk will fix logical errors. Can also be instructed to locate physical errors ("bad sectors") and attempt to recover readable information.

Depending upon the size of the volume and the number of files on the volume, the chkdsk command can take take several minutes to 2 hours or more to finish. If the command is run in read-only mode (the default), you can continue working in Windows but no errors will be fixed.

To stop chkdsk before it finishes, press Ctrl-C.

**Tip:** Since chkdsk may take a long time to finish, run it (with the /f flag) overnight rather than waiting for it to finish.

**Tip:** See: How to perform disk error checking in Windows XP (KB315265)

As the check progresses, status information is dispalyed, such as:

The type of the file system is NTFS.

Volume label is S1A2345D678.

WARNING! F parameter not specified.

Running CHKDSK in read-only mode.

CHKDSK is verfying files (stage 1 of 3)...

File verification completed.

CHKDSK is verifying indexes (step 2 of 3)...

Index verification completed.

CHKDSK is verifying security descriptors (stage 3 of 3)...

Security descriptor verification completed.

Windows found problems with the file system.

Run CHKDSK with the /F (fix) option to correct these.

## Command Variations:

chkdsk  
chkdsk  *drive*:

Performs a read-only check of the current drive or the specified *drive:* drive. If any errors are found, they are merely displayed on the output; they are not fixed (contrary to what some error messages may indicate, e.g.: "Deleting an index entry from index $0 of file 25.").

**Note:** In read-only mode, chkdsk is prone to reporting false positive errors (e.g.: "Correcting errors in the Volume Bitmap") when, in fact, there may not be any real errors. This known issue happens because the state of the volume is changing while the check is being performed. Run chkdsk with the /f or /r flag.

chkdsk  /f  
chkdsk  *drive*:  /f

Performs a check of the specified drive and fixs any logcal errors that are found. Does not attempt to locate physical errors ("bad sectors"). If the drive is in use (e.g.: because you're using Windows), chkdsk will display the following prompt:

Chkdsk cannot run because the volume is in use by another process. Would you like to schedule this volume to be checked the next time the system restarts? (Y/N)

In that case, reply with Y and press Enter. Restart your computer. chkdsk will be run during system startup. **Note:** It may take considerable time for chkdsk to finish.

chkdsk  /r  
chkdsk  *drive*:  /r

Similar to the chkdsk /f variation shown above. In addition, checks for physical errors ("bad sectors") and attempts to recover readable information.

## help chkdsk

Checks a disk and displays a status report.

CHKDSK [volume[[path]filename]]] [/F] [/V] [/R] [/X] [/I] [/C] [/L[:size]]

volume Specifies the drive letter (followed by a colon),

mount point, or volume name.

filename FAT/FAT32 only: Specifies the files to check for fragmentation.

/F Fixes errors on the disk.

/V On FAT/FAT32: Displays the full path and name of every file

on the disk.

On NTFS: Displays cleanup messages if any.

/R Locates bad sectors and recovers readable information

(implies /F).

/L:size NTFS only: Changes the log file size to the specified number

of kilobytes. If size is not specified, displays current

size.

/X Forces the volume to dismount first if necessary.

All opened handles to the volume would then be invalid

(implies /F).

/I NTFS only: Performs a less vigorous check of index entries.

/C NTFS only: Skips checking of cycles within the folder

structure.

The /I or /C switch reduces the amount of time required to run Chkdsk by

skipping certain checks of the volume.

# *chkntfs*

## Overview:

**Warning:** This command is for advanced users only!

Displays or modifies the checking of disk at startup.

## help chkntfs

Displays or modifies the checking of disk at boot time.

CHKNTFS volume [...]

CHKNTFS /D

CHKNTFS /T[:time]

CHKNTFS /X volume [...]

CHKNTFS /C volume [...]

volume Specifies the drive letter (followed by a colon),

mount point, or volume name.

/D Restores the machine to the default behavior; all drives are

checked at boot time and chkdsk is run on those that are

dirty.

/T:time Changes the AUTOCHK initiation countdown time to the

specified amount of time in seconds. If time is not

specified, displays the current setting.

/X Excludes a drive from the default boot-time check. Excluded

drives are not accumulated between command invocations.

/C Schedules a drive to be checked at boot time; chkdsk will run

if the drive is dirty.

If no switches are specified, CHKNTFS will display if the specified drive is

dirty or scheduled to be checked on next reboot.

# *color*

## Overview:

Sets the text and background colors.

**Tip:** The font (and color) can be changed by clicking on the icon at the top-left of the window's title bar (or right-click anywhere on the title bar). From the menu that appears, select "Properties". To change the font, select the "Font" tab and select a font. To change the color, select the "Color" tab, click on the radio button of the color property you want to change and select a color. Click OK to save changes.

## help color

Sets the default console foreground and background colors.

COLOR [attr]

attr Specifies color attribute of console output

Color attributes are specified by TWO hex digits -- the first

corresponds to the background; the second the foreground. Each digit

can be any of the following values:

0 = Black 8 = Gray

1 = Blue 9 = Light Blue

2 = Green A = Light Green

3 = Aqua B = Light Aqua

4 = Red C = Light Red

5 = Purple D = Light Purple

6 = Yellow E = Light Yellow

7 = White F = Bright White

If no argument is given, this command restores the color to what it was

when CMD.EXE started. This value either comes from the current console

window, the /T command line switch or from the DefaultColor registry

value.

The COLOR command sets ERRORLEVEL to 1 if an attempt is made to execute

the COLOR command with a foreground and background color that are the

same.

Example: "COLOR fc" produces light red on bright white

# *comp*

## Overview:

Compares the contents of two files or sets of files.

## help comp

Compares the contents of two files or sets of files.

COMP [data1] [data2] [/D] [/A] [/L] [/N=number] [/C] [/OFF[LINE]]

data1 Specifies location and name(s) of first file(s) to compare.

data2 Specifies location and name(s) of second files to compare.

/D Displays differences in decimal format.

/A Displays differences in ASCII characters.

/L Displays line numbers for differences.

/N=number Compares only the first specified number of lines in each file.

/C Disregards case of ASCII letters when comparing files.

/OFF[LINE] Do not skip files with offline attribute set.

To compare sets of files, use wildcards in data1 and data2 parameters.

# *copy*

## Overview:

Copies one or more files to another location. See also: [xcopy](https://www.c3scripts.com/tutorials/msdos/xcopy.html)

## help copy

Copies one or more files to another location.

COPY [/D] [/V] [/N] [/Y | /-Y] [/Z] [/A | /B ] source [/A | /B]

[+ source [/A | /B] [+ ...]] [destination [/A | /B]]

source Specifies the file or files to be copied.

/A Indicates an ASCII text file.

/B Indicates a binary file.

/D Allow the destination file to be created decrypted

destination Specifies the directory and/or filename for the new file(s).

/V Verifies that new files are written correctly.

/N Uses short filename, if available, when copying a file with a

non-8dot3 name.

/Y Suppresses prompting to confirm you want to overwrite an

existing destination file.

/-Y Causes prompting to confirm you want to overwrite an

existing destination file.

/Z Copies networked files in restartable mode.

The switch /Y may be preset in the COPYCMD environment variable.

This may be overridden with /-Y on the command line. Default is

to prompt on overwrites unless COPY command is being executed from

within a batch script.

To append files, specify a single file for destination, but multiple files

for source (using wildcards or file1+file2+file3 format).

# *date*

## Overview:

Displays or sets the computer's date. See also: [time](https://www.c3scripts.com/tutorials/msdos/time.html)

**Tip:** If you want to set your computer's internal clock, it is recommended that you do that task via the Date and Time Control Panel (Start > Settings > Control Panel > Date and Time).

## help date

Displays or sets the date.

DATE [/T | date]

Type DATE without parameters to display the current date setting and

a prompt for a new one. Press ENTER to keep the same date.

If Command Extensions are enabled the DATE command supports

the /T switch which tells the command to just output the

current date, without prompting for a new date.

# *del (or erase)*

## Overview:

**Warning:** This command is for advanced users only!

Deletes one or more files. The specified file (or files) is deleted immediately deleted without any confirmation.

**Tip:** It is recommended that you delete files using Windows rather than MS-DOS. If you do use the del command, it is recommeded that you use the */p* parameter so that a confirmation prompt is displayed before doing the deletion, such as: del /? \*.txt

**DANGER:** Do not delete anything unless you know *exactly* what you are doing. MS-DOS does not have a "Recycle Bin" so you cannot recover files deleted with the "del" command.

**DANGER:** The character \* (an asterisk) is the wildcard character and allows you to delete all matching files by using one command, such as "del \*.tmp" deletes all files that end with ".tmp" in their filename. All matching files are immediately deleted without any confirmation and cannot be recovered.

**DANGER:** It is extremely dangerous to use "del \*" since that would delete everything in the directory. In this one case, MS-DOS realizes the danger and prompts you to confirm.

## help del

Deletes one or more files.

DEL [/P] [/F] [/S] [/Q] [/A[[:]attributes]] names

ERASE [/P] [/F] [/S] [/Q] [/A[[:]attributes]] names

names Specifies a list of one or more files or directories.

Wildcards may be used to delete multiple files. If a

directory is specified, all files within the directory

will be deleted.

/P Prompts for confirmation before deleting each file.

/F Force deleting of read-only files.

/S Delete specified files from all subdirectories.

/Q Quiet mode, do not ask if ok to delete on global wildcard

/A Selects files to delete based on attributes

attributes R Read-only files S System files

H Hidden files A Files ready for archiving

- Prefix meaning not

If Command Extensions are enabled DEL and ERASE change as follows:

The display semantics of the /S switch are reversed in that it shows

you only the files that are deleted, not the ones it could not find.

*defrag*

**Overview:**

**Warning:** This command is for advanced users only!

The defrag command defragments the specified drive. **Note:** Depending upon the capacity of the drive and the amount of fragmentation, the defragmentation process can take a considerable amount of time to finish (e.g.: hours).

**Tip:** Unless you have a reason for using the defrag command, instead use the defragmentation tool of Windows Explorer.

**Tip:** If you want to defragment an individual file (or a group of files) rather than an entire drive, use [config](http://technet.microsoft.com/en-ca/sysinternals/bb897428.aspx) instead.

**Command Options:**

There are a few options you can use with the defrag command. For the complet list of options, type: defrag /?

The following examples demonstrate some of the more useful options:

defrag *drive*: -v

Defragment the specified drive. Displays verbose information about the analysis and defragmentation. For example, to defragment the c: drive, use: defrag c: -v

defrag *drive*: -a  
defrag *drive*: -a -v

Do not perform defragmentation, but merely perform an analysis of the current state of the drive's fragmentation. Include the -v option to display verbose information during the analysis. For example, to analyze the fragmentation of the c: drive, use: defrag c: -a -v

**defrag /?**

Windows Disk Defragmenter

Copyright (c) 2001 Microsoft Corp. and Executive Software International, Inc.

Usage:

defrag [-a] [-f] [-v] [-?]

volume drive letter or mount point (d: or d:\vol\mountpoint)

-a Analyze only

-f Force defragmentation even if free space is low

-v Verbose output

-? Display this help text

**Related Commands:**

[config](http://technet.microsoft.com/en-ca/sysinternals/bb897428.aspx)

Defragment the specified file or group of files (e.g.: \*.exe) rather than an entire drive.

# *doskey*

## Overview:

Displays a history of previously entered commands (similar to the history command in Linux). It also enables you to create command macros.

Press the following keys to navigate the history:

* **Up arrow:** Recall older commands.
* **Down arrow:** Recall newer commands.
* **Esc:** Stop recalling and clear the command line.
* **F7:** Display history in popup. Arrow keys to scroll; Enter to select
* **Alt-F7:** Immediately erases command history.
* **F8:** Search history (e.g.: type copy then F8 for commands starting with copy). F8 again to find next.

## Command Variations:

doskey *macro* = *text*

Creates a command macro named *macro* and sets its value to *text*. After the macro is defined, you can run that macro simply by typing its name at the command prompt and pressing Enter. **Note:** Spaces before/after the = character are optional.

The *text* can contain the following special meaning characters:

* **$\*** : Equals verything on the command line after the macro name.
* **$1, $2, ... $9** : Batch parameters. Similar to %1-%9 in batch files.
* **$T** : Command separate to allow multiple commands in one macro.

doskey ls = dir /w /o:ne $\*

Creates a macro command named ls that displays a wide directory listing sorted by filename and filename extension (this is similar to the Linux ls directory listing command). If you type ls then a listing of the current directory is display; if you type ls *directory* then a listing of the specified directoy is displayed; if you type ls \*.txt then a listing of all .txt files in the current directory is displayed.

doskey = dir /w /o:ne $\*

## Command Options:

The following examples demonstrate some of the more useful options of the doskey command. For the complet list of options, type doskey /? or help doskey

doskey /history

Displays the history.

doskey /macros

Displays the defined macros.

doskey /reinstall

Restarts the doskey program. As a sideeffect, erases the command history as well as the defined macros. If you find that doskey has stopped responding to history keys (e.g.: up/down arrow keys) then simply restart it with this command option.

## help doskey

Edits command lines, recalls Windows XP commands, and creates macros.

DOSKEY [/REINSTALL] [/LISTSIZE=size] [/MACROS[:ALL | :exename]]

[/HISTORY] [/INSERT | /OVERSTRIKE] [/EXENAME=exename] [/MACROFILE=filename]

[macroname=[text]]

/REINSTALL Installs a new copy of Doskey.

/LISTSIZE=size Sets size of command history buffer.

/MACROS Displays all Doskey macros.

/MACROS:ALL Displays all Doskey macros for all executables which have

Doskey macros.

/MACROS:exename Displays all Doskey macros for the given executable.

/HISTORY Displays all commands stored in memory.

/INSERT Specifies that new text you type is inserted in old text.

/OVERSTRIKE Specifies that new text overwrites old text.

/EXENAME=exename Specifies the executable.

/MACROFILE=filename Specifies a file of macros to install.

macroname Specifies a name for a macro you create.

text Specifies commands you want to record.

UP and DOWN ARROWS recall commands; ESC clears command line; F7 displays

command history; ALT+F7 clears command history; F8 searches command

history; F9 selects a command by number; ALT+F10 clears macro definitions.

The following are some special codes in Doskey macro definitions:

$T Command separator. Allows multiple commands in a macro.

$1-$9 Batch parameters. Equivalent to %1-%9 in batch programs.

$\* Symbol replaced by everything following macro name on command line.