Windows 11 Help on 'CMD' command

C:\>HELP CMD

Starts a new instance of the Windows command interpreter

CMD [/A | /U] [/Q] [/D] [/E:ON | /E:OFF] [/F:ON | /F:OFF] [/V:ON | /V:OFF]

   [[/S] [/C | /K] string]

/C   Carries out the command specified by string and then terminates

/K   Carries out the command specified by string but remains

/S   Modifies the treatment of string after /C or /K (see below)

/Q   Turns echo off

/D   Disable execution of AutoRun commands from registry (see below)

/A   Causes the output of internal commands to a pipe or file to be ANSI

/U   Causes the output of internal commands to a pipe or file to be

      Unicode

/T:fg   Sets the foreground/background colors (see COLOR /? for more info)

/E:ON   Enable command extensions (see below)

/E:OFF Disable command extensions (see below)

/F:ON   Enable file and directory name completion characters (see below)

/F:OFF Disable file and directory name completion characters (see below)

/V:ON   Enable delayed environment variable expansion using ! as the

      delimiter. For example, /V:ON would allow !var! to expand the

      variable var at execution time. The var syntax expands variables

      at input time, which is quite a different thing when inside of a FOR

      loop.

/V:OFF Disable delayed environment expansion.

Note that multiple commands separated by the command separator '&&'
are accepted for string if surrounded by quotes. Also, for compatibility
reasons, /X is the same as /E:ON, /Y is the same as /E:OFF and /R is the
same as /C. Any other switches are ignored.

If /C or /K is specified, then the remainder of the command line after
the switch is processed as a command line, where the following logic is
used to process quote (") characters:

  1. If all of the following conditions are met, then quote characters
      on the command line are preserved:

      - no /S switch
      - exactly two quote characters
      - no special characters between the two quote characters,
        where special is one of: &<>()@^|
      - there are one or more whitespace characters between the
        two quote characters
      - the string between the two quote characters is the name
        of an executable file.

  2. Otherwise, old behavior is to see if the first character is
      a quote character and if so, strip the leading character and
      remove the last quote character on the command line, preserving
      any text after the last quote character.

If /D was NOT specified on the command line, then when CMD.EXE starts, it
looks for the following REG_SZ/REG_EXPAND_SZ registry variables, and if
either or both are present, they are executed first.

  HKEY_LOCAL_MACHINE\Software\Microsoft\Command Processor\AutoRun

and/or

    HKEY_CURRENT_USER\Software\Microsoft\Command Processor\AutoRun

Command Extensions are enabled by default. You may also disable

extensions for a particular invocation by using the /E:OFF switch. You

can enable or disable extensions for all invocations of CMD.EXE on a

machine and/or user logon session by setting either or both of the

following REG_DWORD values in the registry using REGEDIT.EXE:

    HKEY_LOCAL_MACHINE\Software\Microsoft\Command Processor\EnableExtensions

        and/or

    HKEY_CURRENT_USER\Software\Microsoft\Command Processor\EnableExtensions

to either 0x1 or 0x0. The user specific setting takes precedence over

the machine setting. The command line switches take precedence over the

registry settings.

In a batch file, the SETLOCAL ENABLEEXTENSIONS or DISABLEEXTENSIONS arguments

takes precedence over the /E:ON or /E:OFF switch. See SETLOCAL /? for details.

The command extensions involve changes and/or additions to the following

commands:

    DEL or ERASE

    COLOR

    CD or CHDIR

    MD or MKDIR

    PROMPT

    PUSHD

    POPD

SET

SETLOCAL

ENDLOCAL

IF

FOR

CALL

SHIFT

GOTO

START (also includes changes to external command invocation)

ASSOC

FTYPE

To get specific details, type commandname /? to view the specifics.

Delayed environment variable expansion is NOT enabled by default. You

can enable or disable delayed environment variable expansion for a

particular invocation of CMD.EXE with the /V:ON or /V:OFF switch. You

can enable or disable delayed expansion for all invocations of CMD.EXE on a

machine and/or user logon session by setting either or both of the

following REG_DWORD values in the registry using REGEDIT.EXE:

   HKEY_LOCAL_MACHINE\Software\Microsoft\Command Processor\DelayedExpansion

      and/or

   HKEY_CURRENT_USER\Software\Microsoft\Command Processor\DelayedExpansion

to either 0x1 or 0x0. The user specific setting takes precedence over

the machine setting. The command line switches take precedence over the

registry settings.

In a batch file the SETLOCAL ENABLEDELAYEDEXPANSION or DISABLEDELAYEDEXPANSION

arguments takes precedence over the /V:ON or /V:OFF switch. See SETLOCAL /?

for details.

If delayed environment variable expansion is enabled, then the exclamation

character can be used to substitute the value of an environment variable

at execution time.

You can enable or disable file name completion for a particular

invocation of CMD.EXE with the /F:ON or /F:OFF switch. You can enable

or disable completion for all invocations of CMD.EXE on a machine and/or

user logon session by setting either or both of the following REG_DWORD

values in the registry using REGEDIT.EXE:

  HKEY_LOCAL_MACHINE\Software\Microsoft\Command Processor\CompletionChar
  HKEY_LOCAL_MACHINE\Software\Microsoft\Command Processor\PathCompletionChar

    and/or

  HKEY_CURRENT_USER\Software\Microsoft\Command Processor\CompletionChar
  HKEY_CURRENT_USER\Software\Microsoft\Command Processor\PathCompletionChar

with the hex value of a control character to use for a particular

function (e.g. 0x4 is Ctrl-D and 0x6 is Ctrl-F). The user specific

settings take precedence over the machine settings. The command line

switches take precedence over the registry settings.

If completion is enabled with the /F:ON switch, the two control

characters used are Ctrl-D for directory name completion and Ctrl-F for

file name completion. To disable a particular completion character in

the registry, use the value for space (0x20) as it is not a valid

control character.

Completion is invoked when you type either of the two control

characters. The completion function takes the path string to the left

of the cursor appends a wild card character to it if none is already present and builds up a list of paths that match. It then displays the first matching path. If no paths match, it just beeps and leaves the display alone. Thereafter, repeated pressing of the same control character will cycle through the list of matching paths. Pressing the Shift key with the control character will move through the list backwards. If you edit the line in any way and press the control character again, the saved list of matching paths is discarded and a new one generated. The same occurs if you switch between file and directory name completion. The only difference between the two control characters is the file completion character matches both file and directory names, while the directory completion character only matches directory names. If file completion is used on any of the built in directory commands (CD, MD or RD) then directory completion is assumed.

The completion code deals correctly with file names that contain spaces or other special characters by placing quotes around the matching path. Also, if you back up, then invoke completion from within a line, the text to the right of the cursor at the point completion was invoked is discarded.

The special characters that require quotes are:
    <space>
    &()[]{}^=;!'+,`~