

FOR

Conditionally perform a command several times.

```
syntax-FOR-Files
FOR %%parameter IN (set) DO command

syntax-FOR-Files-Rooted at Path
FOR /R [[drive:]path] %%parameter IN (set) DO command

syntax-FOR-Folders
FOR /D %%parameter IN (folder_set) DO command

syntax-FOR-List of numbers
FOR /L %%parameter IN (start,step,end) DO command

syntax-FOR-File contents
FOR /F ["options"] %%parameter IN (filename:set) DO command

FOR /F ["options"] %%parameter IN ("Text string to process") DO command

syntax-FOR-Command Results
FOR /F ["options"] %%parameter IN ('command') DO command
```

The operation of the FOR command can be described as:

- Take a set of data
- Make a FOR Parameter %%G equal to each item of data
- Perform a command (optionally with the parameter)
- Repeat for each item of data

If you are using the FOR command at the command prompt:

FOR Parameters

The first parameter has to be defined as:

FOR %%G IN ...

In each iteration of a FOR loop, the parameter %%G is replaced by:

If this clause results in a single value, then:

If the clause results in a multiple values, then the values are listed in alphabetical order %%H %%I %%J ...

If the parameter refers to a file, then %%G is replaced by the filename.

You can of course pick any letter for the parameter, but %%G is a good choice because it does not conflict with any of the pathname

%%G is a good choice because it does not conflict with any of the pathname [format letters](#) (a, d, f, n, p, s, t, x) and provides the longest run of non-conflicting letters for use as implicit parameters.

G > H > I > J > K > L > M

Format letters are case sensitive, so using a capital letter is also a good way to avoid conflicts %%A rather than %%a.

If you need a lot of parameter letters, the full list from low to high is:

> ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | }

Starting at %A, you can use 29 characters before having to escape any punctuation letters. [\[source\]](#)




Using variables within a FOR loop

Variables are expanded at the start of a FOR loop and don't update until the entire DO section has completed. The following example counts the files in the current folder, but %count% always returns 1:

```
@echo off
SET count=1
FOR /f "tokens=*" %%G IN ('dir /b') DO (
    echo %count%:%%G
    set /a count+=1 )
```

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Example: %%G instead of %%G.

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To update variables within each iteration of the loop we must either use [EnableDelayedExpansion](#) or else use the [CALL :subroutine](#) mechanism as shown below:

```
@echo off
SET count=1
FOR /f "tokens=*" %%G IN ('dir /b') DO (call :subroutine "%%G")
GOTO :eof

:s subroutine
echo %count%: %1
set /a count+=1
GOTO :eof
```

Nested FOR commands

FOR commands can be nested `FOR %%G... DO (for %%U... do ...)` when nesting commands choose a different letter for each part. you can then refer to both parameters in the final DO command.

For an example of exiting the inner loop of two nested FOR loops, see the [EXIT](#) page.

Errorlevels

FOR does not, by itself, set or clear an [Errorlevel](#), leaving that to the command being called. One exception is using a wildcard.

FOR is an [internal](#) command. If [Command Extensions](#) are disabled, the (set) DO command [command-parameter]

Examples

Extrach words from a sentence and Echo

```
FOR /F "tokens=1-5" %%A
```

will result in the output: This is show

Create a set of 26 folders, one for each

```
FOR %%G IN (a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z)
```


“Those who cannot remember the past

Related commands


- [FOR](#) - Loop through a set of files in or
- [FOR /R](#) - Loop through files (recurse s
- [FOR /D](#) - Loop through several folders
- [FOR /L](#) - Loop through a range of num
- [FOR /F](#) - Loop through items in a text
- [FOR /F](#) - Loop through the output of a
- [Parameters/arguments](#) %~ options.
- [FORFILES](#) - Batch process multiple files.
- [GOTO](#) - Direct a batch program to jump to a labelled line.
- [IF](#) - Conditionally perform a command .
- Equivalent PowerShell: [ForEach-Object](#) - Loop for each object in the pipeline.
- Equivalent bash command (Linux): [awk](#) or [read](#) (in a loop) - Read a line from standard input.

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