Cheatography

Batch Cheat Sheet
by ChaosJD (ChaosJD) via cheatography.com/99440/cs/21487/

Help

help commandName	
commandName /?	
help --> show all system commands	

All System Commands

help

Clear Screen

Clear **S**creen	cls

Shortcuts

Tab	Autocomplete
arrow keys up/down	back/forward history commands
Control + C	stops current command
ALT + F7	clears the history
F7	shows the history

Directory Make & Remove

mkdir subdirectory	creates new subdirectory
mkdir subdir/subsubdir	creates subdir & subdir/subsubdir **Hint:** creates it, if they aren't existing
rmdir	removes an **empty** dir
rmdir /s directory	removes directory **with** content
rmdir /s /q directory	removes directory **with** content & **skips y/n** question

Directory copy

copy src dst	copy files
copy /Y src dest	copy files overwrites **without** quesiton
xcopy /s src dest	copies dirs **and** subdirs **except** empty ones

Directory copy (cont)

xcopy /YS src dest	as above **without** ask to overwrite
xcopy /YS src \\server\share	copy to network share
robocopy /S src dest	copies dirs and subdirs except empty ones
robocopy /YS src dest	as above without ask to overwrite

Parameters

%0	Name of Script
%1 ... %9	Parameter 1 ... Parameter 9
%*	prints all parameters as a string
(**one line**) for %%x in (%*) do echo %%x	access it through a for loop works with > 10 parameters

Pass Parameters to sub script

parameters_script.bat	@echo off call parameters_subscript.bat %* EXIT /B %errorlevel%
parameters_subscript.bat	@ECHO off echo subscript called with %* EXIT /B 0

EXIT /B specifies to exit the current batch scropt instead of cmd.exe. If executed from outside a batch script, it will quit cmd.exe

Arrays Way2

set array[0]=0 set array[1]=1 ...	set value to a specific array element
echo %array[0]% echo %array[1]%	access to array elements

Arrays Way2 (cont)

missing loop over elements: indexed

Functions: label and goto

echo "Hi:" goto :good
:bad echo "I don't like scripting" goto :eof
:good echo "I like scripting" goto :eof

DoubleClickExecution

@ECHO off setlocal REM check for interactive sesseion SET interactive=0 ECHO %CMDCMDLINE% | FINDSTR /L %COMSPEC% >NUL 2>&1 IF %ERRORLEVEL% EQ SET interactive=1 ECHO do work REM pause if interactive (double-clicked execution) IF "%ineractive%" == "0" PAUSE EXIT /B 0

FINDSTR /L is use search string literally

Navigation

realative	parent directory	cd .., cd..
	subdirectory	cd subdirectoy
absolute	cd C:\Windows	
	cd \Windows	
change drive	Z:	

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cheatography.com/chaosjd/

Wildcards

?	one arbitary character (file?.txt)
* (*.bat)	arbitary characters (0,1 or more)

File Show

type file	show file content
more	show file content **pagewise**
sort file	show file content sorted

Directory show Content

current folder	dir
absolute path	dir C:\Windows
dir Y:	different drive
dir /B	only show file names and directory names

Batch Files User Input

@ echo off set /P name="Input yor name: "	Syntax: set /P var=prompt:
echo Hi %name%	variable call

Batch Files File Input

@echo off echo Bill > file echo Gate >> file	
set /P filecontent =< file echo First Line: %filecontent%	set /P var=< file
FOR /f %%f in (file) Do (echo %%f)	REM print each line in file

Variables

setlocal set MY_ENV=abc endlocal	Only active in the current batch file (local)
set MY_ENV=abc	creates or changes an environment variable that is active in the cmd. (global)
set	shows the active environment variables
echo %USERNAME%	print variable out
defined MY_VAR	returns 0 => Execution was successful >0 => Execution failed

IF Control Structures

IF test (command) ELSE (command)	Syntax

Control structures For

for {%%|%}<Variable> in (<Set>) do <Co­mmand> [<CommandLineOptions>]
cmd.exe use ->**%**
batch script use ->**%%**

Functions

call :print_name Florian
echo print_name exitst with %errorlevel%
goto :eof
:printname echo Hit %1 exit /B 0 <- REM sets exit status of :print_name

File Rename & Move

rename file1 file2	renamef filte1 to file2
move file1 dir	move file 1 to dir (path dir/file1)

File Rename & Move (cont)

move file1 dir/file2	moves and renames file1 to file2 (path: dir/file2) file2 is overwritten from file1
move /Y file1 file2	moves and overwrites file1 to file2 **without** asking

File Names

Case-Insensitive
Max. 260 characters incl. invisible terminating null character
spaces and character set 128 - 255 allowed
Never <, >, :, ", /, \, |, ?, *
Hint: A-Z, a-z, 0-9, _, spaces, (underscore as space)
*.bat & *.cmd
dir /B --> only show file names and directory Names

Directory Rename & Move

rename dir1 dir2	renames dir1 in dir2
move dir1 dir2	if **dir2 exist:** dir1 into dir2 (path: dir2/dir1), **else** rename dir1 to dir2
move file1 dir/file2	file 2 is deleted. file1 get the name of file2 ans is set at the position of file2 **with** asking (Yes/No/All)
move /Y file1 file2	file 2 is deleted. file1 get the name of file2 ans is set at the position of file2 **without** asking.

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cheatography.com/chaosjd/

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File Redirects

type file.txt | sort	give **output of** type to sort
sort < file.txt	give content (stdin) of file.txt
echo "hi" > file.txt	**write** "hi" (stout) **to** file.txt
type NUL > file.txt	**create empty file**⚠
rm file 2> errors.txt	**redirects** errors(stderr) ro errors.txt
rm file 2> NUL	**discard** errors
rm file 2>&1	**redirect** stderr to stdout
echo "you" >> file.txt	**append** "you" to file.txt

Comment

REM	Präfix after them the text

Calculation

set /a i=0 echo i=%i%
set /a **i=1+1** Operatoren +, -, *, /
set /a **i+=1** Operatoren +, -, *, /

Arrays Way1

set **array=1** 2 3 4	
%array%	(echo) all Array elements
for %%a in (%array%) do (echo%%a)	loop over elements
set array=**(and nothing else)**	unset **variable** or **array**

Control Structures: Comparison Operators

Operator	Info	Equal
Operator	Info	Equal
EQU	==	Equal
NEQ	!=	Not equal
LSS	<	Less
LEQ	<=	Less than or equal to
GTR	>	Greater than
GEQ	>=	Greater than or equal
NOT	!	Not

Editors

Notepad
Notepad++
VisualStudioCode

Editors

Notepad
Notepad++
VisualStudioCode
Atom

Terminals

cmd.exe
Windows Terminal
ConEmu
cmder

Batch Filex Exit / Return

Specify exit code:	echo "abc" exit 0
Query error level	echo %ERRORLEVEL%
Exit/Return codes	0 => Execution was successful >0 => Execution fiales with code X

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