BATCH Special characters ◆ Remember: < > : " / \ | ? *

- - Consumed by CMD
 - Used for **NAME** separation or redirection or expansion
- ♦ Meet: , ; & && || ^ ()
 - Consumed by Commands
 - Used for COMMAND parameters or sequence or group
 - → parameter separators • , ;

 - & && || → command sequences
 - \rightarrow set & | ^<> () back to character
 - → "eat" the following <EOL>
 - → multi-line command(s) • ()

BATCH Multiple commands

- ◆ Type echo AA & echo BB
 - Character "&" is a BATCH command separator
 - Type md CC/C & MD DD → fails because first fails
- ♦ Type md CC/C && md DD
 - Keyword "&&" is a BATCH command separator
 - Will only execute 2nd command on **success** of 1rst
- ◆ Type md CC/C || md DD
 - Keyword " | | " is a BATCH command separator
 - Will only execute 2nd command on **failure** of 1rst

Commands on multiple lines **BATCH**

- ◆ Type (md AA
 - Will not execute command
 - Asks for more commands until we type)
 - May be nested
- ◆ To split a command on multiple lines
 - Escape final <EOL> with /
 - Type (md ^ ← beware the space separator
 - Type AA,^
 - Type **BB^**
 - Type cc) ← beware the space separator

Var Content modification BATCH

- ◆ Use %VAR:str1=str2% substitution pattern
 - str1 may start with "*"
 - str2 may be empty
- ◆ Use %VAR: ~index, gty% reduction pattern
 - index & qty are decimals (i.e. %PATH:~50,100%)
 - index starts at 0 (~0 means beginning)
 - qty may be empty (rest of the string)
 - -3 means (VAR_length 3)

Several numeric bases **BATCH**

- Default is decimal
 - Type SET /A TEN=10
 - Displays 10
- ♦ Hexadecimal with 0x prefix
 - Type SET /A TEN=0x10
 - Displays 16 (...the Hex 10)
- ◆ Octal with 0 prefix
 - Type SET /A TEN=010
 - Displays 8 (...the Octal 10)
 - Beware 08 and 09 are not allowed

Script argument filters **BATCH**

- Pathnames filtering expressions
 - is full pathname • %~f
 - is drive letter • %~d
 - is folder pathname • %~p
 - %~f is file name
 - %~x is file extension

Example:

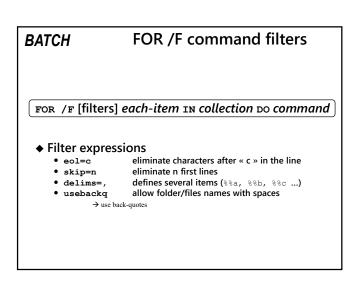
• %~dpnx0 or %~f0 is full name of the script file

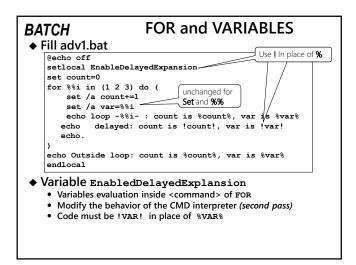
IF command **BATCH** IF condition (Commands ELSE (Commands ◆ Condition keywords NOT inverse the boolean result files & folders • EXIST • DEFINED variables • ERRORLEVEL errors in commands identical values (!!strings or numbers) • A==B Extended comparison operators • EOU != • NEO • LSS • LEQ <= GTR • GEQ

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IF and VARIABLES
BATCH
◆ Fill adv2.bat
    @echo off
    setlocal enabledelayedexpansion
                                             Use ! In place of %
    set /a num1=%1
    if %num1% LEQ %num2% (
      set /a offset=!num2!-!num1!
    ) else (
      set /a offset=!num1!-!num2!
    echo offset is %offset%
◆ Variable EnabledDelayedExplansion
    • Variables evaluation inside <command> of IF
    • Modify the behavior of the CMD interpreter (second pass)

    Code must be !VAR! in place of %VAR%
```

FOR [options] each-item IN collection Do command ◆ Command structure • /D to filter folder names (i.e. not file names) • /R to explore recursively a following root folder (i.e. /R root) • /L to iterate on numbers, collection is (start, step, stop) • /F to set the collection as a file or a command output ◆ modifiers • /A to genetate each-item as a number • /I to make processing NOT case sensitive • /Q no error messages (i.e Quiet) • /T introduces a delay at each iteration • /c command is a string containing spaces





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Command FINDSTR
BATCH
 ◆ Fill adv4.bat
     @echo off
     Echo foo > text.txt
                                                Lines starting with f or F
     Echo Bar >> text.txt
     Echo FooBar >> text.txt
     type text.txt | findstr ^[fF] ~
     Del /Q text.txt
 ◆ FINDSTR accepts metacharacters
                 One of Any character
                 Zero or any number of any character
Start of line
                 End of line
        [class] Any character in the group i.e [Aez12]
[^class] Any character NOT in the group [^ezEZ]
         [x-y] Any character in the interval [0-9]
         \x escape for literal usage of metachar 'x' 
\<xyz « xyz » at start of word
                « xyz » at end of word
```