

# Batch File Programming

There are three ways to create a batch file:

- 1 - COPY CON filename.bat
- 2 - DOS EDITOR (EDIT command)
- 3 - Word processor that generates ASCII files such as NotePad

Basic batch file commands:

ECHO (@echo off)

PAUSE

REM

Extended ASCII characters (ALT+ASCII value)

CALL ... running a batch file from within a batch file

START launches the program and immediately returns to the batch file

Sound created by ECHO Ctrl-G at DOS prompt, or Ctrl-P, Ctrl-G in EDIT.

(Ctrl+P tells edit to look at next character literally rather than as a control character)

In DOS Editor, ASCII characters 0-31 are special control characters. They must be represented by using:

CTRL+P followed by CTRL+\_\_\_\_\_ or

CTRL+P followed by ALT+ #

## Passing parameters to your batch files:

%0 represents name of batch file  
%1 thru %9 represents parameters

Example:

```
COPY CON Showall.bat
```

```
@echo off
```

```
ECHO This batch file is %0.
```

```
ECHO The parameters are %1 %2 %3 %4 %5 %6 %7 %8 %9.
```

Showall A B C displays...

This batch file is Showall.

The parameters are A B C.

# The IF Command

## IF EXIST filename DOS command

Example: IF EXIST c:\autoexec.bat TYPE c:\autoexec.bat

## IF NOT EXIST filename DOS command

Example: IF NOT EXIST a:\autoexec.bat COPY c:\autoexec.bat a:

Example: @echo off  
IF EXIST A:autoexec.bat ECHO autoexec.bat exists on drive A  
IF NOT EXIST A:autoexec.bat COPY c:\autoexec.bat A:

## IF ERRORLEVEL number DOS command

Exit status must be greater than or equal to number  
Checks errorlevel of previous DOS command

Example: @echo off  
FORMAT A:  
IF NOT ERRORLEVEL 3 ECHO Format Successful!

## IF ERRORLEVEL n IF NOT ERRORLEVEL n+1 DOS command

Used to check for a specific errorlevel value of n

Example: @echo off  
Diskcopy A: B:  
IF ERRORLEVEL 0 IF NOT ERRORLEVEL 1 ECHO Successful disk copy!  
IF ERRORLEVEL 1 IF NOT ERRORLEVEL 2 ECHO Recoverable disk error  
IF ERRORLEVEL 2 IF NOT ERRORLEVEL 3 ECHO User Ctrl-C termination  
IF ERRORLEVEL 3 IF NOT ERRORLEVEL 4 ECHO Fatal disk read or format  
IF ERRORLEVEL 4 ECHO Invalid disk drive, syntax, or memory error

## **IF string 1 = = string 2 DOS command**

The strings are case sensitive.

Quotes are not necessary. However, if no parameter is specified, no test is executed. Instead a syntax error results. Quotes ensure a test is performed.

Example:     @echo off  
              IF '%1' = = 'BLUE' ECHO The color is BLUE  
              IF '%1' = = 'RED' ECHO The color is RED  
              IF '%1' = = ' ' ECHO No color is specified

## **CHOICE command**

Waits for the user to choose one of a set of choices.

**CHOICE /C:choices /N /S /T:c,nn text**

/C[:]choices Specifies allowable keys. Default is YN  
/N            Do not display choices and ? at end of prompt string.  
/S            Treat choice keys as case sensitive.  
/T[:]c,nn     Default choice to c after nn seconds  
text          Prompt string to display

ERRORLEVEL is set to offset of key user presses in choices.

Example:     CHOICE /C:YN Do you want to print CONFIG.SYS?  
              IF ERRORLEVEL 1 IF NOT ERRORLEVEL 2 PRINT CONFIG.SYS

or...        CHOICE Do you want to print CONFIG.SYS?  
              IF ERRORLEVEL 1 IF NOT ERRORLEVEL 2 PRINT CONFIG.SYS

              CHOICE /T:N,15 Do you want to print CONFIG.SYS?

## **GOTO label name**

Labels may be any length...but DOS only looks at first eight characters.

Labels are preceded by a colon :

GOTO is usually used in the IF command as follows:

## **IF ... GOTO label name**

Example:    @echo off  
          IF '%1' == 'CLS' GOTO CLS  
          IF '%1' == 'DIR' GOTO DIR  
          IF '%1' == 'VER' GOTO VER  
          GOTO DONE  
          :CLS  
          ECHO CLS command  
          ECHO Function: Clears the screen display.  
          ECHO Format: CLS  
          GOTO DONE  
          :DIR  
          ECHO DIR command  
          ECHO Function: Displays a directory listing.  
          ECHO Format: DIR [filename] [switches]  
          GOTO DONE  
          :VER  
          ECHO VER command  
          ECHO Function: Displays DOS version number.  
          ECHO Format: VER  
          :DONE

## **CALL command**

CALL batchfile

Used to call a batch file from within another batch file.