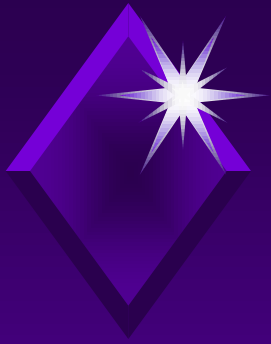




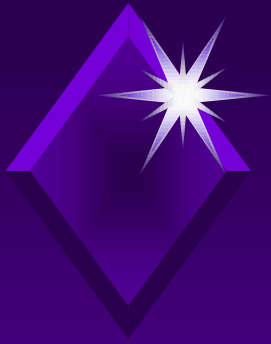
Chapter 7

**Using ATTRIB, SUBST,
XCOPY, DOSKEY, and the
Text Editor**



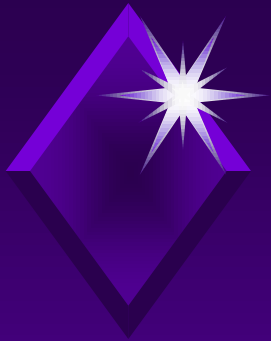
Overview

The purpose and function of file attributes will be explained.



Overview

Utility commands and programs will be used to manipulate files and subdirectories to make tasks at the command line easier to do.



Overview

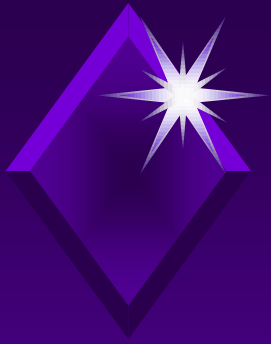
This chapter will focus on the following commands and programs:

- ATTRIB
- XCOPY
- DOSKEY
- EDIT



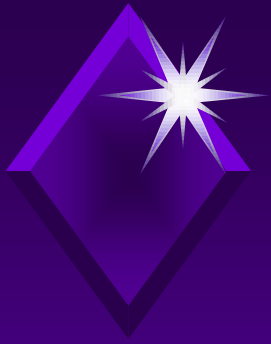
File Attributes and the ATTRIB Command

Root directory keeps track of
information about every file
on a disk.



File Attributes and the ATTRIB Command

Each file in the directory
has attributes.



File Attributes and the ATTRIB Command

Attributes represented by single letter:

- ➔ **S** - System attribute
- ➔ **H** - Hidden attribute
- ➔ **R** - Read-only attribute
- ➔ **A** - Archive attribute



File Attributes and the ATTRIB Command

NTFS file system:

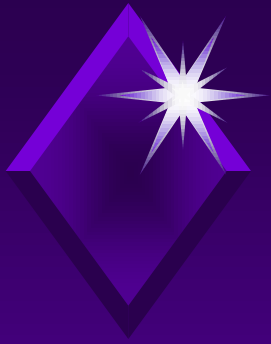
- Has other attributes
- At command line only attributes can change with ATTRIB command are S, H, R, and A



File Attributes and the ATTRIB Command

ATTRIB command:

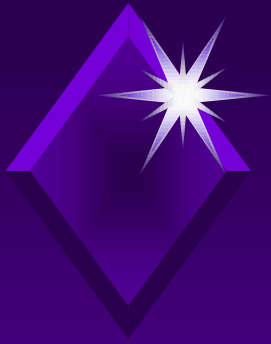
→ Used to manipulate file attributes



File Attributes and the ATTRIB Command

ATTRIB command syntax:

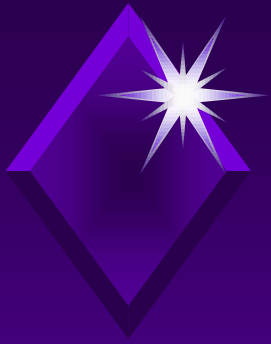
```
ATTRIB [+R | -R] [+A | -A] [+S | -S]  
      [+H | -H] [[drive:] [path] filename]  
              [/S [/D]]
```



File Attributes and the ATTRIB Command

Attributes most useful to set and unset:

- **R** - Read-only
- **H** - Hidden



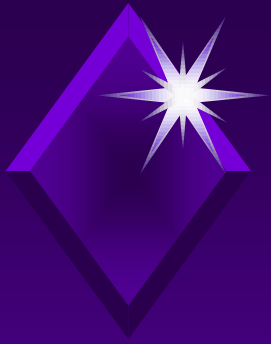
File Attributes and the ATTRIB Command

The A attribute (archive bit)
signals file has not been
backed up.



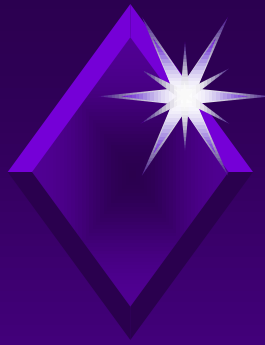
File Attributes and the ATTRIB Command

XCOPY command
can read the archive bit.



File Attributes and the ATTRIB Command

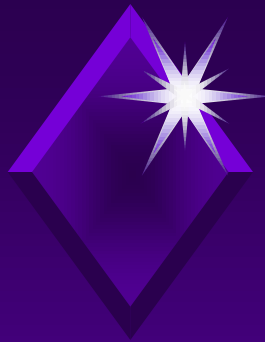
- File attributes can be changed from Windows Explorer.
- Easier to do these tasks from command prompt.



Activity—Using ATTRIB to make Files Read-Only

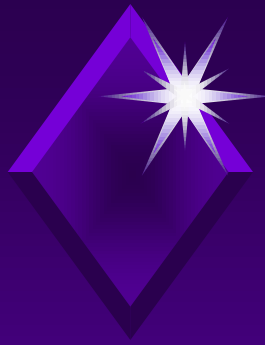
KEY CONCEPTS:

- Using + or - alters attribute
- Cannot overwrite or delete read-only files
- Can delete read-only files with /F parameter with DEL command



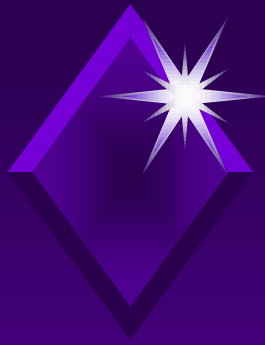
Using Hidden & Archive Attributes with ATTRIB

H attribute used to hide file so when DIR command is used the file name is not displayed.



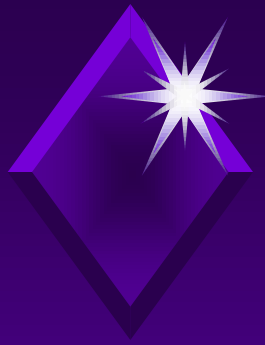
Using Hidden & Archive Attributes with ATTRIB

Using hidden attribute allows
for manipulation of files.



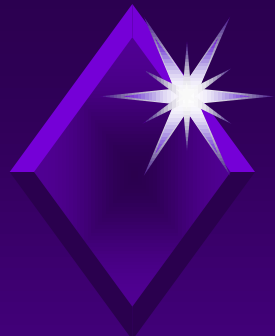
Using Hidden & Archive Attributes with ATTRIB

More difficult to perform file operations on groups of files simultaneously in Windows Explorer.



Using Hidden & Archive Attributes with ATTRIB

- The A attribute can flag a file as changed since the last time it was backed up.
- ATTRIB command can set and unset this flag.



Activity—Using the H and the A Attributes

KEY CONCEPTS:

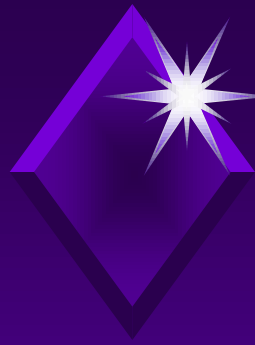
- Reasons for hiding files
- D,R,H,A attributes used to help manage files
- Use attributes with ATTRIB and XCOPY
- Space between each parameter - watch spacing of command syntax carefully



Activity—Using the H and the A Attributes

KEY CONCEPTS:

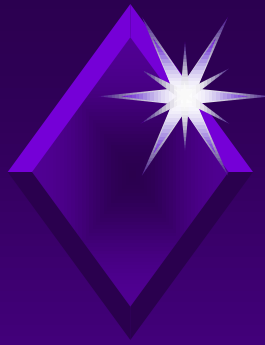
- Rename file - keeps attributes
- Copy file - does not keep attributes
- Use of + and - in setting and unsetting file attributes
- Eliminate/add several file attributes with one command



The SUBST Command

SUBST command:

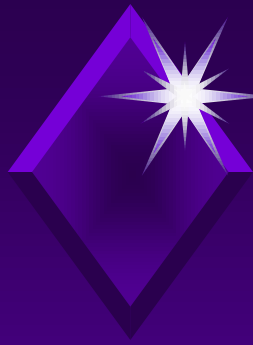
- External command
- Substitutes drive letter for path name
- Alleviates keying in long path name



The SUBST Command

SUBST command:

- Installs programs that recognize disk drive but not the subdirectory
- Derives information from a drive that a program does not recognize



The SUBST Command

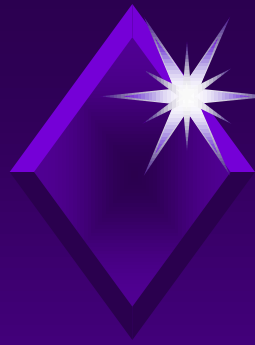
Be cautious when using
SUBST with a network drive.



The SUBST Command

While substitution is in effect, do not use SUBST with the following commands:

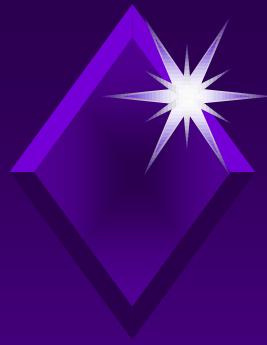
- LABEL
- CHKDSK
- FORMAT
- DISKCOPY
- DISKCOM
- RECOVER
- FDISK



The SUBST Command

SUBST command syntax:

SUBST [drive1: [drive2:]path]



The SUBST Command

To undo a substitution:

→ SUBST drive1: /D

To see what has been substituted:

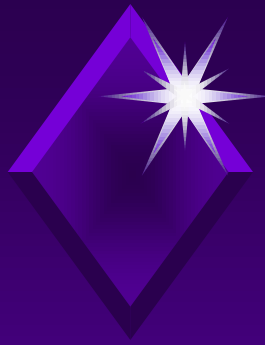
→ SUBST



Activity—Using SUBST

KEY CONCEPTS:

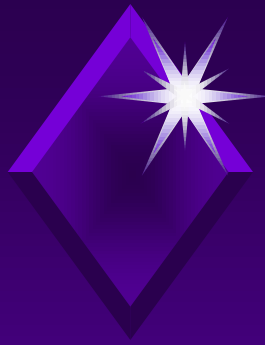
- ➔ Virtual/logical drives
- ➔ SUBST
 - ↙ Uses logical/virtual drive letter
 - ➔ Conceptually how networks operate
 - ↙ Destination - use drive letter and path
 - ➔ SUBST does not recognize drive letter alone as destination
 - ↙ When done - undo SUBST



The XCOPY Command

Drawbacks of COPY command:

- Reads and copies only one file at a time
- Cannot copy subdirectory structure
- Copied file does not retain source file attributes



The XCOPY Command

XCOPY command:

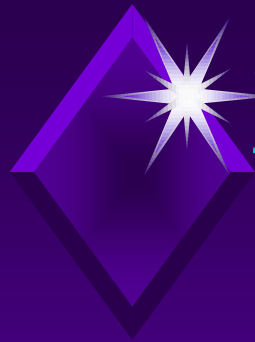
- External command
- Copies files that exist in different subdirectories
- Can specify drive as source to copy all files on drive.
- Provides overwrite protection



The XCOPY Command

XCOPY command:

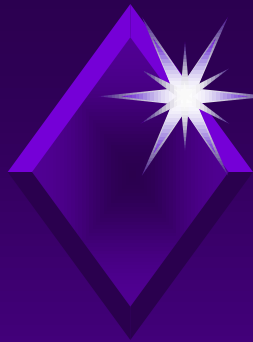
- Can be specific about characteristics of files to be backed up
- Faster than COPY
- By default will not copy system or hidden files



The XCOPY Command

Advantages of command line over using Windows Explorer:

- Drag and drop problems
- Can perform file operations on group of files rather than one file at a time

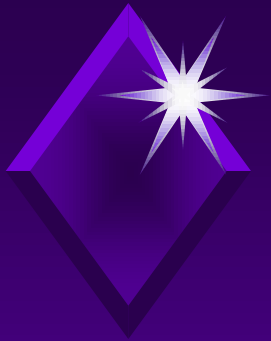


The XCOPY Command

XCOPY syntax:

XCOPY source [destination]

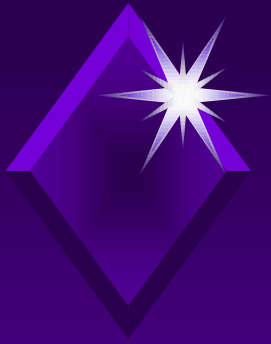
[/A | /M] [/D[:date]] [/P] [/S [/E]] [/V][/W]
[/C] [/I] [/Q] [/F] [/L] [/H] [/R] [/T] [/U]
[/K] [/N] [/O] [/X] [/Y] [/Y] [/Z]
[/EXCLUDE:file1 [+file2] [+file3]...]



Activity—Using the XCOPY Command

KEY CONCEPTS:

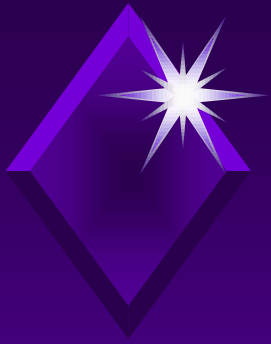
- ➔ Recreating structure on DATA disk
- ➔ Uses of /S, /D, and /M with XCOPY
- ➔ XCOPY
 - ↙ Default confirms overwrite
 - ↙ Can manipulate A attribute
 - ↙ Can copy hidden files



Multiple XCOPY Parameters

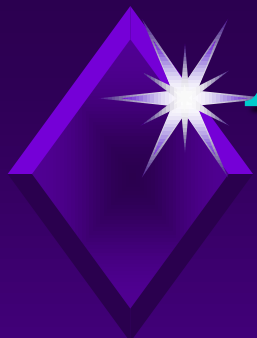
XCOPY command:

- Performs file operations on hidden, system, and read-only files
- Can manipulate files having one or more parameters
- Used to accomplish tasks at command line that cannot be accomplished in GUI



Multiple XCOPY Parameters

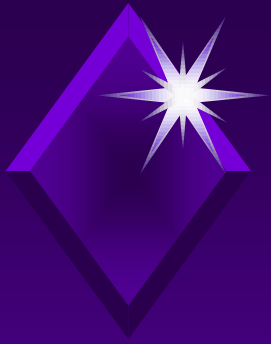
Next activity will copy two files to new directory that had hidden attributes set without removing the H attribute.



Activity—Using Multiple XCOPY Parameters

KEY CONCEPTS:

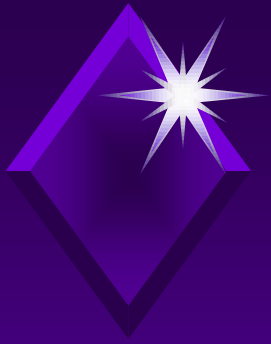
- XCOPY with H and L parameters
- XCOPY with “SHRIEK” parameters
- XCOPY with “SHREK” parameters
- System attributes are hidden
- Changing file attributes
- ATTRIB - order of parameters does not matter



DOSKEY

DOSKEY:

- External, memory-resident command
- Automatically loaded when Command Prompt window opened
- Enhances command line editing



DOSKEY

- DOSKEY remains in memory only during current DOS session.
- DOSKEY acts like an internal command.



DOSKEY

TSR (Terminal Stay Resident):

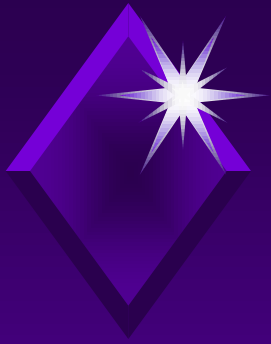
- Memory resident commands
- Initially works like external command
- Does not release memory for duration of Command Prompt work session



DOSKEY

DOSKEY:

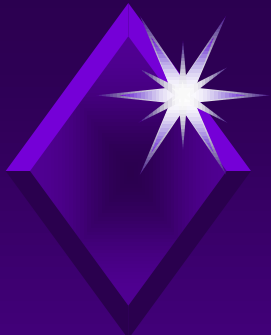
- Recalls and edits command lines
- Keeps command history
- Used to write a macro



DOSKEY

DOSKEY syntax:

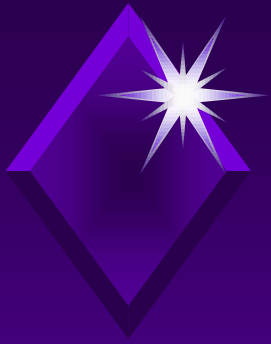
```
DOSKEY [/REINSTALL] [/LISTSIZE=size]  
[/MACROS [:ALL | :exename]] [/HISTORY]  
[/INSERT | /OVERSTRIKE]  
[/EXENAME=exename]  
[/MACROFILE=filename] [macroname=[text]]
```



DOSKEY

Editing Keys Command Summary

KEY	EDITING FUNCTION
Up/down Arrows	Recall commands
ESC	Clears command line
F7	Displays command history
ALT + F7	Clears command history
F8	Searches command history
F9	Selects a command by number
ALT +F10	Clears macro definitions



DOSKEY

Special codes in Doskey macro definitions:

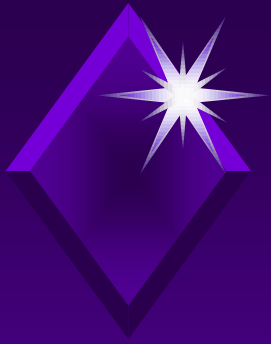
- \$T Command separator
- \$1-\$9 Batch parameters
- \$* Symbol replaced by everything following macro name on command line



Activity—Using DOSKEY

KEY CONCEPTS:

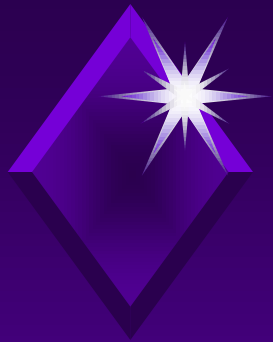
- Using HISTORY parameter with DOSKEY
- Defining batch files and macros
- How to have more than one command on a line in a Command Prompt Window
- Closing Command Prompt window eliminates macros created in this window
 - ↙ Redirecting macros to batch file saves them



The Command Prompt Text Editor

Word-processing program:

- Used for writing needs
- Allows full flexibility in creating and editing documents
- Most permit saving document as ASCII text



The Command Prompt Text Editor

Text or ASCII files are used to give instructions to the operating system.



The Command Prompt Text Editor

Text editor:

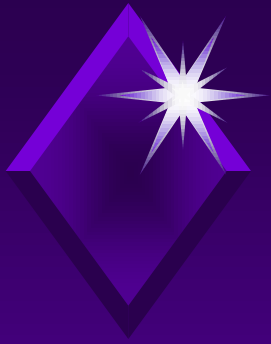
- Used to create text documents
- Used to write batch files
- Not a word processor
 - ↙ Cannot format data in document



The Command Prompt Text Editor

Text editors:

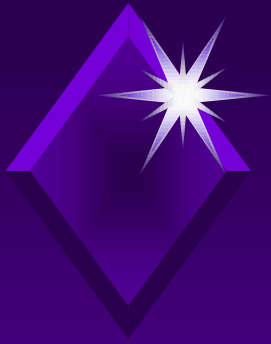
- Every operating system has one
- NOTEPAD used on desktop
- EDIT used at command prompt window



The Command Prompt Text Editor

Edit text editor:

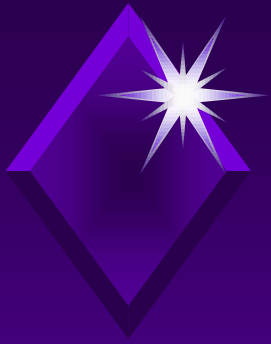
- Command line interface text editor
- Not a word processor
 - ↙ Cannot format data in documents
 - ↙ Cannot manipulate environment



The Command Prompt Text Editor

Edit text editor menus:

- Screen menu
 - ↙ Bar at top
 - ↙ Status bar at bottom
- File menu
 - ↙ Open new or existing document
 - ↙ Save or print a document
 - ↙ Save document under new name
 - ↙ Exit editor



The Command Prompt Text Editor

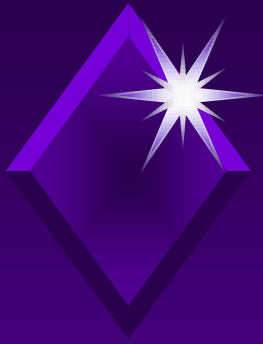
Edit text editor menus:

→ Edit menu

- ↙ Cut, copy, paste, delete selected text

→ Search menu

- ↙ Find a specified string of text
- ↙ Repeat the Last Find
- ↙ Search for specified string of text
- ↙ Replace string of text with another string of text



The Command Prompt Text Editor

Edit text editor menus:

→ View menu

↙ Split, Size, or Close Edit window

→ Options menu

↙ Change Printer Port or tab Stops

↙ Choose Colors for Edit window

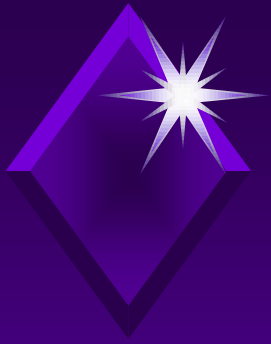


The Command Prompt Text Editor

Edit text editor menus:

→ Help menu

- ↙ Click Commands to get a list of all available Edit commands
- ↙ Click About to view version information for Edit



The Command Prompt Text Editor

A variety of cursor movement keys and shortcuts can be used to edit a text file.



The Command Prompt Text Editor

Table 7.1 Desired Cursor Movement Keys to Use Keyboard Shortcuts p. 348

Cursor Action	Shortcut	Alternate Shortcut
Character left	←	Ctrl + S
Character right	→	Ctrl + D
Word left	Ctrl + →	Ctrl + A
Word right	Ctrl + ←	Ctrl + F
Line up	↑	Ctrl + E
Line down	↓	
Beginning of current line	Home	Ctrl + Q, S
End of current line	End	Ctrl + Q, D
Top of file	Ctrl + Home	
End of file	Ctrl + End	



Activity—Using the Command Prompt Text Editor

KEY CONCEPTS:

- ➔ Making mouse work
- ➔ Insert Vs. overstrike mode
 - ↙ <Insert> key toggles between two modes
- ➔ Full screen editing
 - ↙ Using mouse and keystrokes
 - ↙ Selecting text



Activity—Using the Command Prompt Text Editor

KEY CONCEPTS:

- Viewing two files simultaneously
- Creating macro
- Creating batch files
 - ↙ To execute batch file - key in name



Using Text Data Files

Use of text editor to create data:

- Desired program not available
- Can import text files from many programs
- With recorder can record needed data in text file



Activity - Importing a Text File

KEY CONCEPTS:

- Imported text data into Excel
- Text Import Wizard screen used to define data