TOOLS WHICH MAKE
THE JOB EASIER

by

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INTRODUCTION

During the last two decades there has been a tremendous growth in computing power in India. All private sectors, Government departments, public utilities and business organisations have now been using computers without exceptions. Today's common man has suffcent acquaitance with the power and capability of this new descipline. Agriculture, education, health, water sector, banking, railways, industry and all other fields of science and economic sectors whose well-being today is linked up with more and more efficient use of incoming and existing information and computing power.

Computer can be defined as a device which carried out computations in a sequence determined by human commands, without external intervention using the available hardware facilities. Basically, computer technology can be considered to be made up of two basic elements, equipments (the hardware) and the data and the programmes (the software). All software is a representation of reality in a form that a computer can work with.

The utility programmes are those used to perform functions common to operating system environments. Some of such programmes come with the operating system. There are system utilities, which are used to manipulate collections of data and operating system control information. System software is that which is necessary to direct computer configurations in the performance of their basic tasks. System software may include : operating systems; data transfer programmes; telecommunication monitors; database management systems; communication network programmes; programming language compilers; and utilities. Application software is that which is acquired or developed and applied to meet the needs of an indivudial or organisation. The list of possible applications is virtually limitless. The canned or ready-made software, in most of the cases consists of programmes in executable form, modification of which is extremely difficult, and, in addition, changing programmes may invalidate warranties on the product. If our requirements are such that they cannot be met by canned application software, we can develop our own, using an operating system and one of the available programming languages.

In this lecture, two common utility programmes one is Norton editor and other is Norton utility, have been discussed.

1.0 NORTON EDITOR

The Norton Editor has been published by the Symantec Corporation while the copyright of the version 2.0, 1990 lies with S. Reifel & Co. It is a tool used for creating and modifying text files such as letters, memos and computer programs and computer generated data. While a number of word processing softwares are available, the most important application of the NE lies in writing computer programs and analysing the results thereof.

A number of operations like File operations, Block operations, Text layout operations, Search operations, Print operations etc. are helpful in writing and editing a document. These operations along with the various sub-options are described in the following.

1.1 File Operations

A number of file operations are possible in the Norton Editor. These include opening a file, saving a file, changing name of file, merging two files, opening two files at a time, reaching at the top of a file, entering DOS shell without exiting NE etc. Pressing the **Alt** key and **F** key together activates the File Operations. Major options under these operations are explained below:

1.1.1 Creating a File

Alt-F N creates an empty untitled file. **N** represents a **New** file. After the work is completed, the name is to be given to the file.

1.1.2 Opening a File

Alt-F O loads an existing file. **O** represents **O**pening a file before exiting NE.

1.1.3 Saving a File

Alt-F S saves the file being edited. **S** represents **S**aving a file. It is advantageous to keep saving a file while working so as to avoid any work loss due to power failure or otherwise.

1.1.4 Renaming a File

Alt-F A saves the file being edited with a new name. **A** represents Save **A**s.

1.1.5 Merging Files

Alt-F M merges another file into the one being edited at the location of the cursor. **M** stands for **M**erging.

1.1.6 Opening Second File

F2 function key opens a new window on the screen to edit a second file. If two windows are already open, this key moves the cursor from one window to other activating that particular window. This option is highly useful for analysing the results and testing the computer programs.

1.1.7 Closing Second File

Alt-F C closes the second window. **C** represents **C**losing the second window.

1.1.8 Exiting a File

Alt-F X exits the editor and returns to DOS. **X** stands for e**X**iting.

1.1.9 Entering DOS Shell

Alt-F D enters a DOS shell for executing some DOS commands. After executing the DOS commands, it returns to the existing file in the NE.

1.2 Block Operations

In editing or creating a text file or a computer program, it is often required to type a part of the file or program at some other place. Block Operations perform this important task thereby avoiding the need of retyping. In addition, they also help in printing a certain part of a long text or in copying certain part in a new file. Block operations are activated by pressing the **ALT** and **B** keys simultaneously. Various important Block operation options are described below:

1.2.1 Setting a Block

Alt-B S sets a block marker at the cursor. **S** stands for **S**etting the marker. For selecting a block, two markers are required, one at the beginning and the other at the end of the selected block. Markers may also be set by dragging the mouse with the left button

pressed.

1.2.2 Copying a Block

Alt-B C copies a block of text to the cursor. After setting a block, the cursor is moved to a place where the block is required to be copied and then the command is pressed. **C** stands for **C**opying.

1.2.3 Moving a Block

Alt-B M moves a block of text to the cursor. In copying, the block at the original place remains as such while in moving, the block shifts from original to the new place. **M** stands for **M**oving.

1.2.4 Deleting a Block

Alt-B D deletes a block of text. **D** represents **D**elete.

1.2.5 Writing Block to a File

Alt-B O writes the block of text into a file. **O** stands for **O**utput to file.

1.2.6 Finding a Block

Alt-B F moves the curser to the next block marker. **F** represents **F**ind.

1.2.7 Removing Block Settings

Alt-B R removes the block markers. **R** stands for **R**emove.

1.3 Text Layout Operations

The usefulness of these operations is mostly in preparing a text document rather than in writing a computer program. These operations are activated by pressing the **ALT** and **T** keys together. Some major options in these operations are described below:

1.3.1 Document Formatting

Alt-T P formats a paragraph of the document in accordance with the settings. **P** stands for **P**aragraph. **Alt-T D** formats all paragraphs of the document. **D** represents **D**ocument. **Alt-T**

<u>C</u> centers a line in accordance with the set left margin and line length.

1.3.2 <u>Setting up</u>

Alt-T S sets the left margin and line length used to format paragraphs and centering lines. Settings are also used for word wrap.

1.3.3 <u>Word wrap</u>

Alt-T W toggles word wrap On and Off. Word wrap automatically places a new line into the file after typing past the set line length. "WW=On" is displayed on the status line when enabled.

1.3.4 <u>Inserting or Removing Page Breaks</u>

Alt-T I inserts page breaks for printing. Text following the page break is printed at the top of the next page. The setup dialog box under the Print menu sets the page length. **Alt-T B** removes page break characters from the file.

1.3.5 <u>Tabs</u>

Alt-T T replaces spaces at the beginning of all lines in the file with tabs. **Alt-T E** replaces all tabs in a file with spaces.

1.3.6 <u>Auto Indent</u>

Alt-T A toggles automatic indent On and Off. Pressing Enter with this enabled creates a new line and indents the cursor to the same level as the line above. "Auto" is shown on the status line when enabled.

1.4 Search Operations

Especially in writing or editing a computer program, Search Operations are of immense use. These operations are activated by pressing together the **Alt** and **S** keys. Various important options under these operations are discussed below:

1.4.1 <u>Finding a String</u>

Ctrl-F searches for a string. **Alt-C** continues the previous find in the forward direction

while **Ctrl-C** continues the search in the reverse direction.

1.4.2 Finding & Replacing

Ctrl-R searches for a string and optionally replaces those found.

1.4.3 Searching Line Number

Alt-S L moves the cursor to the given line number of a file. Dialog box prompts for line number.

1.4.4 Matching Brackets

Ctrl-] moves the cursor to the opening or closing bracket that mates with the (<{[ ]}>) under the cursor.

1.4.5 Search for a Text in Block

Alt-S B searches forward for other copies of the text inside a marked block. **Alt-S M** moves the cursor to the next block marker.

1.4.6 Difference Comparison

Alt-S D compares the text between two files. Search begins at the location of each cursor in the two files. This option is used when both the windows are On.

1.5 Print Operations

Print operations are useful in printing a document. It is activated with the **Alt** and **P** keys pressed together. Various options are as under:

1.5.1 Printing the Text

Alt-P P prints all the text in a file.

1.5.2 Printing a Block

Alt-P B prints the text in a marked block only. It is useful when only a part of a long document or program is to be printed.

1.5.3 Setting up Printing

Alt-P S sets the left margin and page length for printing.

1.6 View Operations

These operations display variety of information. These are activated by Alt and V keys and works with the following options:

1.6.1 Information Display

Alt-V I displays a variety of data including name of file being edited; length of file in characters, words and lines; current directory; todays' date and time; amount of unused memory and disk; and ASCII code of character under cursor.

1.6.2 Outline Display

Alt-V O displays the file in an outline format. Only lines that begin with a number or letter in the left most column are shown. The arrow keys are used to quickly scroll to the desired line of the file. This command is most commonly used by C and Pascal programmers.

1.6.3 Information about NE

Alt-V A displays information about the editor.

1.7 Configuration Operations

These operations sets or alters the configuration of the Norton Editor. Various configurations are possible and the user can set a configuration in accordance with the requirements. Various options under these operations are as follows:

1.7.1 Setting Display Configuration

Alt-O D sets display configuration including colour, number of screen lines, tab width, enables the scroll bar, zoom display of dialog boxes, and blinking of matching bracket when cursor right of)}] character.

1.7.2 Setting Mouse

Alt-O M sets mouse configuration including selecting active mouse button, scroll speed etc.

1.7.3 Setting Editor

Alt-O E sets editor configuration including naming of backup files and operation of Ins and Tab keys.

1.7.4 Saving Configuration

Alt-O S saves current configuration settings.

1.8 Getting Help

Dialog boxes presenting help information are controlled by software buttons. Each button is located near the bottom of the dialog box and is labeled with a word describing its function. A button is pushed by either clicking on it using a mouse, or by pressing a key. The key for most buttons is its first letter. Cancel buttons, which remove dialog boxes, are always pushed with the Esc key.

Every dialog box has a default button that can be pushed with the Enter key. Some dialog boxes have several fields where information can be set. The Tab and Shift Tab keys are used to move the cursor to the field to modify. Then the space & arrows are used to make the changes.

On the top line of the screen is a menu bar. To select an item in a menu, hold the Alt key down while pressing the first letter of the menu name. Then press the highlighted letter of the desired menu item.

2.0 THE NORTON UTILITIES

It is a popular and powerful tool used for Data Recovery, Protection and System Diagnostics.

The Norton Utilities version 8.0 provides basic facilities required to keep the entire computer system running reliably at peak performance. It can increase system speed and productivity. The new Windows configuration utilities and background Windows Speed Disk and Disk Doctor help to get comprehensive solution for advanced data recovery, protection and diagnostics for any PC.

New version of Norton Utilities improves on its legendary data recovery and diagnostics capabilities with background data recovery and disk optimization under Windows and new Windows configuration utilities for trouble-shooting, repairing and optimizing Windows specific problems. These new utilities plus continued support for all popular compressed drive formats provides the absolute safest computing environment available anywhere.

2.1 Main utilities

Main utilities can be grouped under four categories described as under in the form of a Table

GROUP	FUNCTION
RECOVERY	* Recover deleted files and repair damaged ones. * Restore formatted disks. * Protect disks against data loss. * Diagnose problems with computer hardware.
SECURITY	* Secure data from unauthorized use or examination. * Guard against viral infection.
SPEED	* Soup up computer to improve performance. * Tune up disks to protect data.
TOOLS	Programs to make computing faster and easier: * Control display and keyboard * Set timers * Find files * Navigate through directories quickly * Format diskettes safely * Get information about computer system * And much more...

Command	Switch	Description
1. Disk Doctor 2. NDD 3. NDD[drive:][drive:]... [SWITCHES]		Automatically detect and correct physical and logical disk errors. NDD.EXE runs in DOS and NDDW.EXE runs in Windows
	/QUICK	Just test System Area
	/COMPLETE	Test System and Data Areas
	/R:file	Write a report to file
	/RA:file	Append a report to file
	/X:d	Exclude drive from testing
1. Disk Editor 2. DISKEDIT 3. DISKEDIT [drive:][path][file] [SWITCHES]		View and edit the entire contents of a diskette or hard disk, including disks that DOS cannot recognize or access. Repair or rescue damaged files or their data.
	/M	Maintenance mode —— bypass DOS and examine disk directly
1. Disk Tools 2. DISKTOOL 3. DISKTOOL		A set of four utilities to make disks bootable, recover from the DOS RECOVER command, revive defective diskettes, and mark clusters as bad or good.

2.2 RECOVERY

Under this group following facilities are available:

1. Utility	Description	Commonly used Switches	
2. Command			
3. DOS Command			
1. Diagnostics	Tests the hardware and identifies problems with	/AUTO:	Auto mode, seconds/
2. Diagnostics	computer hardware.		screen
3. NDIAGS		/BURNIN:Repeat	tests N times
		/SPEC:file	Run tests specified by file
		/REP1file	Output results to file
		/RESET	Reset saved hardware
			config

1. Utility	2. Command	3. DOS Command	Description	Commonly used Switches
File Fix	FILEFIX	FILEFIX [filename]	Diagnose and repair damaged Lotus 1-2-3, Symphony, Excel, Quattro Pro, dBASE and WordPerfect files. "UnZap" dBase files.	
Image	IMAGE	IMAGE [drive:][drive:]... [/NOBACK]	Take a "snapshot" of a disk's vital bookkeeping information to ensure that accidentally formatted disks can be recovered.	/NOBACK * Overwrite current IMAGE.DAT file (IMAGE.BAK backup file is not created)
INI Tracker	INITRAKD	INITRAKD [SWITCHES]	Take a snapshot of your DOS and/or Windows system or INI files. Also, recover previous snapshots. (Use Windows INITRACK to configure).	/B Snapshot files being tracked /L:file Output change log to file /R:Restore Nth previous snapshot /S:name Label the startup snapshot

Rescue Disk		Create or restore from a Rescue Disk, which contains		
RESCUE	/CREATE	vital information about how your computer is set up.	Create a rescue disk
RESCUE [/CREATE	/RESTORE	Recovery is easy if CMOS data, partition tables, or boot	Restore from a rescue disk
/RESTORE]		sectors are lost.	
SmartCan		Protect against accidentally deleted files. Guarantees	
SMARTCAN	/STATUS	future recovery of deleted data	Display SmartCan status
SMARTCAN [SWITCHES]	/ON		Enable SmartCan
	/OFF		Unload SmartCan
UnErase		Search for and recover erased (deleted) files.	
UNERASE		Automatically recover intact files ------- use manual	
UNERASE [filename]		mode to recover data from files that have been partially	
		overwritten or fragmented.	

UnFormat	Recover from an accidental format of a hard disk or a
UNFORMAT	floppy disk formatted with Safe Format —— the data is
UNFORMAT [drive:]	back.
	A near-perfect recovery of a hard disk is possible if
	you've used Image to take a "snapshot" of your disk's
	vital system information.

2.3 SECURITY

Under this group following facilities are available:

Utility	Description	Commonly used Switches
1. Utility		
2. Command		
3. DOS Command		

Disk Monitor DISKMON DISKMON [SWITCHES]	Prevent data from being written to disk without your approval; display letter of drive currently being accessed; park hard disk heads.	/STATUS	On-screen status summary
		/PROTECT+	Turn protect features on
		/LIGHT+	Turn DiskLight feature on
		/PARK	Park disk drive heads
		/UNINSTALL	Remove DISKMON from memory
Diskreet DISKREET DISKREET [SWITCHES]	Encrypt and password-protect files. Create password-protected "virtual" disk drives (NDisks) on which all files are encrypted.	/ENCRYPT:file	Encrypt specified file
		/DECRYPT:file	Decrypt specified file
		/PASSWORD:xxxxxx	Set password to xxxxxx
		/STATUS	Display NDisk status

WipeInfo	Totally obliterate single files, entire disks, or erased data, so that they cannot be recovered by any means ——— not even the Norton Utilities.
WIPEINFO WIPEINFO [drive] [SWITCHES] WIPEINFO [filename] [SWITCHES]	/E Wipe erased/unused space on disk /N Delete files DOS-style without wiping /K Wipe slack space at end of file

2.4 SPEED

Under this group following facilities are available:

1. Utility 2. Command 3. DOS Command	Description	Commonly used Switches
Calibrate CALIBRAT CALIBRAT [drive] [SWITCHES]	Optimize the speed and reliability of data transfer to and from your hard disk.	/BATCH — Skip all prompts, exit to DOS when done /NOSEEK — Do not perform seek tests /NOFORMAT — Do pattern testing only, do not format /X:drives — Don't test listed drives
Norton Cache NCACHE2 /STATUS NCACHE2 [SWITCHES]	Improve performance by holding recently read data in RAM — frequently-needed data can be accessed faster. Also, buffer data so that disk writes are performed in the background. (See the Users Guide for complete information.)	

Speed Disk	Improve hard disk performance by optimizing the physical	/F	Optimize complete disk
SPEEDISK	placement of all directories and files on the disk.	/Q	Compress free space only
SPEEDISK [drive:]	Unfragment files and consolidate free space.	/U	Unfragment files only
[SWITCHES]		/B	Reboot after optimization

2.5 TOOLS

Under this group following facilities are available:

1. Utility 2. Command 3. DOS Command	Description	Commonly used Switches
Batch Enhancer BE /? BE subcommand(s)	Automate procedures by creating batch files that can be controlled in real time. Draw demonstration and sign-on screens. B ——→ Use in batch files.	
Configuration NUCONFIG NUCONFIG [/BW]	Reconfigure Norton Utilities setup options. Install or remove device drivers and programs run at system startup	/BW Use black and white for the display

Command	Description	Switches
Control Center NCC NCC [pathname] [SWITCHES]	Control PC's hardware settings. Set the cursor size, change DOS colors, set palette colors, select video mode, change keyboard settings, set mouse speed, and more.	/SET Set options saved in pathname /CO80 Set display to 25x80 color /50 Set display to 50 lines (VGA) /START: Start watch number

Directory Sort
DS [path]
DS sortkeys [path] [/S]
	Sort directories for easier viewing.
	SORT KEYS
	   N name Append a dash to the
	   D date sort key to reverse
	   E extension the sort order.
	   S size
	   T time
		/S Sort subdirectories

Duplicate Disk DUPDISK DUPDISK [source-drive: [target-drive:]]	Fast diskette copying —— especially when making multiple copies.	

1. Utility 2. Command 3. DOS Command	Description	Commonly used Switches	
File Attributes FA [filename] [SWITCHES]	Display files by attribute; change attributes of files and directories. ——► FA is a command line utility.	/A archive /R read-only /HID hidden /SYS system	Use + or - after switch to set or clear attribute.
File Date FD FD filename [SWITCHES]	Change file time and date information. FD without /D and /T will stamp the current date and time on the file. ——► FD is a command-line utility.	/D:date /T:time /S	Set date to mm-dd-yy Set time to hh:mm:ss Include files in Subdirectories
File Find FILEFIND FILEFIND [wildcard] [text] [SWITCHES]	Locate misplaced files by searching for their data or names through all available drives (including network drives) and directories. Change file attributes.	/S /CS /CLEAR /NOW	Include files in subdirectories Case-sensitive search Clear all file attributes Set time & date to current time

File Locate			
FL	Locate a file. FL by itself lists all files on the default drive.		
FL [drive:] [filename] –		/A	Search All drives
		/P	Pause after each screen
[SWITCHES]		/W	List files in Wide format
	——• FL is a command-line utility.	/T	Search the PATH only
		/F	Find first N files (default=1)
File Size			
FS	Display the size of files and directories. Find out if a	/P	Pause after each screen
FS [pathname]	group of files will fit on another drive.	/S	Include Subdirectories
[target-drive:]	Target-drive: Test for enough space	/T	Display Totals only
[SWITCHES]			
	——• FS is a command-line utility.		

1. Utility 2. Command 3. DOS Command	Description	Commonly used Switches	
Line Print LP	Print text files to printer or disk.	/CONFIG:	Description Printer configuration (created with NUCONFIG)
LP filename [output] [SWITCHES]	→ LP is a command-line utility.	/T /Bn /Ln /Rn /Wn /Hn /HEADERn /PR:la /PR:po	Margins Page Width/Height Type of header (1,2,3) Laserjet output Postscript output
Norton Change Directory NCD	Navigate through and manage the directory structure on the disk, no matter how complex. Rename, move, copy, and delete directories.	/R /N	Rescan disk directory Do not write or update TREEINFO.NCD
NCD [directory name] [SWITCHES]	Switch to any directory, no matter how deep, with a few keystrokes.		

Command	Description	Switch	Switch meaning
Safe Format SFORMAT SFORMAT [drive] [SWITCHES]	Safely and quickly format a disk. Data is not overwritten so that recovery is possible if a disk is formattd by mistake.	/F:size /Q /S /V:label	Specify size (360, 720, etc.) Quick format Copy DOS system files Add a volume label
System Information SYSINFO SYSINFO [SWITCHES]	Reports on all facets of your computer system: hardware, memory, networks, disks, TSRs, device drivers, and so on. Includes benchmarks and performance ratings.	/AUTO:n /SPEC:file /REP:file /TSR	Auto mode, n seconds/screen Use report specs in file Output report to file Show only active TSRs
Text Search TS TS [pathname [text]] /S]/T] [SWITCHES] TS [drive: [text]] /D:/E /Cn][SWITCHES]	Search for text in files, disks, or erased space on disks. ———► TS is a command-line utility	/S /T /D /E /Cn	Include subdirectories List filenames only Search entire Disk Search Erased space Start search at cluster n

3.0 USE OF NORTON UTILITY MENUS AND HELP

Type NORTON at the DOS prompt. The Norton Utilities main screen appears, from which any of the Norton Utilities - DOS programmes can be executed.

3.1 Use of help

Whenever we are using a dialog box and we want instructions on how to proceed, by pressing F1 key a pull down menu is displayed. Now, move the highlight to any item and press F1 for help on that item.

When we are first getting familiar with a Tool, we will find it helpful to select the [Index] button at the bottom of any help screen. It displays a list of topics, at least one of which provides background and introductory material.

Each potential hyperlink is displayed in a contrasting color or intensity. When selected, the hyperlink text is reversed. After selecting [Go To] (press G) or double-clicking the hyperlink itself, we are in the expanded topic. The links can go several levels deep. If we become hyperactive and get lost, we can always select [Index] (press I). To return to previous topic, select [Go Back] (press B).

Use of some common keys for help :

With the Keyboard	With a Mouse
To access help: * Press F1	* Press F1 for context- sensitive help
To exit help: * Press Esc or select [Cancel] or press C	* Click [Cancel]
To select a help topic: * Select [Index] or press I * Press Tab or Shift+Tab to highlight a topic * Select [Go To] or press G	* Click [Index] * Double-click the topic
To scroll through a topic: * Use ↑ and ↓ or press Home End PgUp PgDn	* Drag the slide on the scroll bar or click the arrows at top and bottom
To select a button: * Press the accented letter in the button or use → and ← to highlight the button and press Enter	* Click the button
To expand a hyperlink: * Press Tab or Shift+Tab to highlight text in contrasting color or intensity * Select [Go To] or press G * Select [Go Back] or press B to return	* Double-click the hyperlink text * Click [Go Back] to return

3.2 Use of Mouse

The Norton Utilities are easy to work with a mouse.

Click	Move the mouse cursor to the specified location on the screen. Then press and release either mouse button.
Click-right	Click a specific mouse button.
Drag	Press a button and while keeping it pressed, move the mouse. Release at desired position.
Double-click	Click, release, click, release. Be quick.
Key+action	Hold down the specified key such as Alt, and then perform the mouse action, such Drag. Release the key.

3.2.1 To Use Menus

Drop a menu down	Click the menu title in the menu bar.
Select from a menu	Click the menu item. (It's easiest to Drag down from the menu bar and release on the desired item.)

3.2.1 To use dialog boxes:

Scroll a list	Use scroll bars or Drag any item.
Select any item	Double-click. Occasionally, you have to Click-Right.
Execute a command	Click command button.
Drop down a list box	Click prompt button.
Move dialog box	Drag the title bar.
Check option	Click check box. Repeat to uncheck.
Choose option	Click option button.

3.3 Use of key board

A few simple rules govern most operations:

* Press F1 for help at any time.
* Navigate with the cursor control keys: ↑ ↓ Home End PgUp PgDn
* Press Enter to make whatever is highlighted happen.

* Press Tab or Shift+Tab to jump from group to group.
* Press and hold Alt and then press any highlighted letter for an Alt+key accelerator sequence.

3.3.1 To use menus:

Alt+letter   Activate menu with first letter of Menu name.

letter   Activate menu command with highlighted Letter.

→ and ←   Move from menu to menu.

↑ and ↓   Choose command within a menu.

Enter   Activate highlighted menu command.

3.3.2 To use dialog boxes:

Esc	Close and cancel changes.
Tab	Move to next component in a dialog box.
Alt+letter	Execute [Command] button with highlighted letter.
Alt+letter	Choose control Option with highlighted letter.
Spacebar	Check or uncheck check box.
Spacebar	Cycle through mutually exclusive options.
Ctrl+↓	Open a drop-down list box.
Spacebar or Ins	Select file or item in scrolling list box.
Enter	Activate default or highlighted command button.
↓ ↑	Next item in a list box
PgUp PgDn	Scroll list box up or down one full box.
Home End	Move to first or last item in list box.

3.4 Norton Program Pull-down Menus and Dialog Boxes

The Norton Utilities main screen has three pull-down menus: Menu, Configuration, and Help.This section covers these menus.

3.4.1 Dialog boxes

With the mouse, dialog boxes are a breeze to use; just point to anything and Click. With the keyboard, there are a few things to learn, but the two basics rules are:

*   Press Tab or Shift+Tab to move between groups.

*   Press and hold Alt and then press any highlighted Letter for an Alt+key accelerator sequence.

There are several different types of controls used in the dialog boxes. They come in groups. One group is always the focus (the area where the keyboard will have an effect). Command buttons are the action controls. They cause things to happen right away. The command button with the highlight is the [OK] default action. Regardless of the cursor position, that button will execute when you [Cancel] press Enter. All command buttons are always in the same group; use Tab to get to any one [Edit] of them, then use ↑ ↓ & → and ← to highlight one and press Enter. With a mouse, just click the button.

Tip: Don't bother moving to the [Cancel] button. Just press Esc; it's exactly the same. Every control, including command buttons, contains an emphasized letter. Press Alt+Letter to immediately activate the control.

3.4.2 Pull down menus

A menu bar is displayed at the top of each interactive screen. All commands and options are available either from the main dialog box or the menu.

It is easy to use the keyboard to get to these commands. All menu titles have a unique Accelerator key. Press Alt and then the accelerator key to directly access a menu. Furthermore, each item within a menu has its own accelerator. Press that key to directly execute the menu command. Or, use → and ← to move from menu to menu. Use ↑ and ↓ to highlight an item within a menu and then press Enter to select it. Press Esc if we change our mind. While looking at the menu, for in-depth help on that item, just press F1. Or press F1 at any time and then press I to get to the Help Index. With a mouse, point to any menu name of the menu bar and click to drop down its menu and click on the desired command. Or, we can be very Mac-like and drag to pull down the menu then release the button on the desired command.

3.5 The Norton Utilities Menu Commands

All commands and options are available either from the main dialog box or the menu.

Sort by Name	Alt+N
Sort by Topic	Alt+T
Add Menu Item...	
Edit Menu Item...	
Delete Menu Item...	
Exit	Alt+X

3.5.1 Configuration Commands

Video and Mouse...
Printer Configuration...
Startup Programs...
Alternate names...
Passwords...
Menu editing...
Help Commands
The Norton Advisor
Index
Using the Keyboard
Using a Mouse
Using Dialog Boxes
Using Pull-down Menus
How to use Help
About...

3.5.2 The Utilities

Batch Enhancer	BE
Calibrate	CALIBRAT
Configuration	NUCONFIG
Control Center	NCC

Diagnostics	NDIAGS
Directory Sort	DS
Disk Doctor	NDD
Disk Editor	DISKEDIT or DE
Disk Monitor	DISKMON
Diskreet	DISKREET.SYS
Disk Tools	DISKTOOL
Duplicate Disk	DUPDISK or DD (or DISKCOPY)
File Attributes	FA
File Date	FD
File Find	FILEFIND or FF
File Fix	FILEFIX
File Locate	FL
File Size	FS
Image	IMAGE
Line Print	LP
NDOS	NDOS
Norton Cache	NCACHE2
Change Directory	NCD
Rescue	RESCUE
Speed Disk	SPEEDISK or SD
Safe Format	SFORMAT or SF (or FORMAT)
SmartCan	SMARTCAN
System Info	SYSINFO or SI
Text Search	TS
UnErase	UNERASE or UE
UnFormat	UNFORMAT
Wipe Information	WIPEINFO
Other	

This section gives an easy access to all of the Norton Utilities

Use → and ← to move the highlight bar and scroll the selections in the ——Commands—— list. The line at the bottom of the window shows the DOS command that will be executed when we press Enter (or double-click with the mouse).

The ——Description—— box describes the utility and shows some or all of the options and switches (parameters) we can use. To add parameters to a command, just type them in before pressing Enter.

Note: Virtually ALL the utilities are interactive; we rarely need command-line options except when using a batch file. For a list of options for any of the Norton Utilities, use /? as the only parameter. We can do this from the DOS command line as well, for example:

FILEFIND /?

NORTON is also a First Aid center for disk ailments and a consultant with answers to many questions. The Norton Advisor in the Help menu (Alt+H,V) provides general help for common computer problems and will run the right utility to help fix them.

Finally, NORTON is an interactive "shell" or menu program. We can execute any DOS command by typing it into the input box near the bottom of the screen. And we can create custom commands and descriptions, making it easy to execute often- used application programs and DOS commands. In fact, we can even customize the default commands and descriptions displayed for the Norton Utilities.

3.5.3 Sort by name
This menu command redisplays the items in the ——Commands—— list in alphabetical order. The topics entries are hidden from view.

Tip: Use Alt+T to get back to the "Sort by Topics" display.

3.5.4 Sort by Topic
In this format, the menu items shown as TOPIC have no associated command

displayed in the command input box; they are subheadings for groups of commands.

Tip: Use Alt+N to remove the TOPIC lines and display only the command names, in alphabetical order.

3.5.5. Add menu Item

This menu command lets us add a new command to the ——Commands—— list. Use this feature to customize Norton, and use it as a general-purpose menu utility for easy access to applications and often-used DOS commands. In the initial dialog, select the [Command] button to add a command or [Topic] to create a new topic. Topics are displayed in the form, TOPIC, in the Commands list box; they are passive headings and are not associated with a DOS command.

Note: To add a topic, the ——Commands—— list must be Sorted by Topic.

3.5.6 Edit Menu Item

This lets you modify any item in the ——Commands—— list as well as change its associated DOS command line and description text. It also lets us rearrange the order in which topic groups are displayed.

Note: The initial dialog box varies, depending upon whether we are changing a topic or a command.

This feature lets system administrators customize the text shown by Norton. For instance, we can keep a novice user out of hot water by adding special warnings to a command description.

Note: To remove an item altogether, choose Delete menu item...in the Menu Menu (Alt+M,D).

3.5.7 Delete Menu Item

This command lets us delete a command or topic from the ——Commands—— list.

Note: To delete a topic, the ——Commands—— list must be Sorted by Topic.

When a menu item is deleted, its name, DOS command, and description are permanently removed from the NORTON.CMD file. We may wish to make a backup of that file before doing any deletions. If items from the Norton Utilities are accedently deleted, we can start over with the default setup by running the Install program.

This feature lets system administrators control the text shown by Norton. For instance, we can delete some of the default commands to keep novice users from trying things they shouldn't.

Tip: If we don't want anyone to delete or modify commands, we may wish to make the NORTON.CMD file a read-only file.

4.0 CONFIGURATION COMMANDS

4.1 Video & Mouse

This command lets us modify the configuration that was set up when we installed the Norton Utilities. We can paint the screen with any colors, change the number of screen lines, specify graphical effects, or train the mouse to behave.

Note: Changes made here affect colors and options for ALL programs that comprise the Norton Desktop.

4.2 Printer Configuration

This command lets us create or modify printer configuration files, used with the Line Print (LP) utility. If we don't use LP, we don't have to concern yourself further. If we use LP on more than one printer, we may want to create separate configuration files for each printer. Or, we may want to set up different configurations for a single printer, such as one for double-spaced printing and one for single-spaced printing.

Tip: For basic printing chores, we don't really need a printer configuration file as the defaults are appropriate for most situations. We can also control LP options from the

command line. Type LP /? for a summary of command-line options.

5.0 **STARTUP PROGRAMMS**

This command lets us specify which programs are run from AUTOEXEC.BAT and CONFIG.SYS files at system startup. We have the following options:

Use NDOS command processor
Diagnose Disk Problems (NDD /Q)
Save Disk Format Data (IMAGE)
Start SmartCan
Start Norton Cache
Start Disk Monitor
Start Norton Cache
Start DISKREET Encryption Driver
Start Keystack (requires NDOS)

If we don't know what any of these options mean, make sure to select at least choose Save Disk Format Data to protect against an accidental format of the hard disk. Another wise choice is Start SmartCan which guarantees that deleted files can be recovered.

5.1 Alternate names

This command lets us shorten the command-line names for several of the most frequently used utilities to save a few keystrokes.

Tip: We also can rename Safe Format to make sure it's always used instead of the DOS FORMAT command.

5.2 Passwords

The Norton Utilities have the power to do great good, but if not used properly, great harm. With this option, we can prevent the utilities that could possibly do damage from being used. This may be of particular importance if other people will be using the computer, or if we oversee other people's computer use.

Note: Only one password can be set for all protected programs.

5.3 Menu editing

This command allows to control editing of the Norton program menu. A powerful capability of the Norton program is that the menu can be edited to add new programs or delete ones that might be dangerous for non-technical users. After setting up the menu to our liking, we can prevent any further changes.

6.0 THE UTILITIES

6.1 Batch Enhancer

Normally, BE commands are used only in batch files, but we can experiment by typing them directly at the DOS command prompt. For instance:

BE WINDOW 1 1 24 78 bright green ON red ZOOM

Or, we can execute a series of BE commands by placing them in a text file and telling BE where to find them; for example:

BE MYFILE.TXT

will cause BE to read MYFILE.TXT and execute each of its lines as a BE command (Note: Don't start the lines with "BE").

Use BE /? to get a quick summary of BE command names. Use BE command /? to see the syntax of a specific command.

Note: BE's color-setting capabilities depend on having the ANSI.SYS device driver installed.

6.2 Norton Cache

Most disk access time is spent waiting for data to come from the disk. If we have recently read that same data, Norton Cache eliminates the delay entirely. The basic idea is to use part of the system memory as a disk buffer, that is, as a temporary holding pen for disk

data. In fact, Norton Cache anticipates future data needs and has the data ready, even before we ask for it! The speed increase is quite dramatic. If we have no extended or expanded memory, we probably should not use a disk cache. Many applications require 500K to run, while the minimum size for an effective cache is at least 64K (the more, the better). Exceptions include performing disk intensive activities or using a laptop with an auto-power-down hard disk.

6.3 Calibrate

This utility provides three very useful hard disk functions:

Corrects (calibrates) interleave inefficiencies:

Many hard disks have been "low-level" formatted with an inefficient interleave setting. This means that we must wait longer for data to be read from the disk than isnecessary. Calibrate performs sophisticated tests to find out the best interleave for the hard disk when attached to the computer. It then fixes the interleave, often with a data transfer rate increase of 66% or more.

Note: The online help for Calibrate provides details of what disk interleave is and why it's important.

Performs "deep" surface testing:

This feature scans the disk for surface defects which might go undetected in a less thorough testing. It executes a scientifically accurate analysis of the ability of the disk surface to accept various magnetic flux combinations. If we have ever thought that some part of the hard disk was "a little shaky," use Calibrate's test to flush-out the bad and nearly-bad parts.

Firms up sector ID marks:

As a disk ages, the read/write heads may tend to drift slightly from their original positions. Calibrate's non-destructive, low-level formatting ensures that the head will be positioned exactly, directly over each track, and that the low-level track-and- sector markings are easily read by the hard disk controller.

6.4 Norton Control Center

Norton Control Center (NCC) provides a potpourri of useful hardware configuration services. It is an interactive program in which we can configure system devices the way we like them, then save the settings for quick setup later. The optional command-line "Quick Switches" provide a convenient way to set the screen mode or keyboard rate.

Note: Some NCC services are not available on some computers.

NCC provides a variety of screen control services. It can set cursor size, customize the colors at the DOS prompt, select a 25-, 40-, or 50-line video mode, and set up a custom color palette to force uncooperative programs to use our favorite colors.

NCC can speed up keyboard and make the mouse more responsive. It also provides an interactive way to set the configuration of the serial ports.

NCC also provides several timer functions. It has up to four timers which we can start and stop to help us track daily activities or to make a record of how long some operation took. It can print a "Time Mark" to the standard output device for later reference.

6.5 Duplicate Disk

Dup Disk makes an exact copy of a floppy disk to another floppy disk of the same capacity —— including the DOS system files and other hidden files. If the target disk is not formatted, Dup Disk can format the target disk during the copy operation. Dup Disk uses extended or expanded memory, if available, so that we swap disks only once when using a single floppy drive. For multiple copies of the same disk, Dup Disk saves even more time because it holds the disk contents in memory rather than rereading the disk for each copy made.

6.6 Directory Sort

This utility arranges the order in which files and directories are listed. Directory Sort can be used either from the command line or in full-screen mode. Sort by name, extension, time, date, or size. We can combine any number of sort keys, so that files that are the same

by one key can be arranged in order by the next key. When a directory is sorted, all subdirectories are grouped first, followed by all files. In full-screen mode, a file can be placed at any location in the sort order. We can make finding frequently accessed files easier by placing them first in their directories.

Use DS /? for help with the command-line options.

6.7 Disk Editor

This utility lets us see and modify any part of the disk, including the highly sensitive partition table, file allocation tables, and directories. It lets us examine any part of any file and make changes. Disk Editor is safe for even non-technical users. It starts out in a "read-only" mode which lets us explore any disk without fear of making a data-threatening mistake.

6.8 Disk Monitor

This utility provides three disk security features:

(a)   Disk Protection installs a TSR (RAM-resident program) that keeps an eye on all attempts to write to any of our disks. It provides safety from viruses and it can avoid accidental deletion or overwriting of specific types of files. When Disk Protect is ON, we will be warned whenever the disk is about to be modified. We can choose to block the attempted write or let it continue.

(b)   Disk Light also installs a TSR that keeps an eye on ther disk activity. It displays a tiny flashing "light" in the top right corner of your screen whenever any disk is read or written to. This is handy for monitoring RAM-disk activities, to give indication of disk activity if the system unit is on the floor and out of sight, or if a network drive is being accessed.

(c)   Disk Park is an important safety measure we should take whenever we turn off the computer. It moves the read/write heads of all hard disk drives into a safe location. It is especially important when we intend to move our system.

6.9 Diskreet

This utility protects confidential files by encrypting them so that only we can read them. We can encrypt files individually or can create something called an NDisk. It has a drive ID just like a regular disk, but is actually a designated area on a physical disk. The operation of an NDisk is transparent. Every file gets encrypted as it put down on the disk. And it is decrypted when it is read back into memory (or copied, etc.). Along the way, we will be asked to enter a password, so only we can have "clear text" access to the file.

6.10 Disk Tools

This utility provides a set of automated procedures which protect disk data, simplify some technical operations, and recover from certain types of data disasters. Since these are safe, totally automated procedures, there is no need for an novice user to use the complex and powerful Disk Editor utility for these problems.

Make a Disk Bootable takes all the necessary steps to make it possible to use a disk as a DOS system or "boot" disk. The DOS SYS command is supposed to do this, but it often fails with a message, "No room for system files." Well, Disk Tools makes room, then copies the files correctly onto the disk (including COMMAND.COM). It can even adjust a hard disk partition table, in case that got scrambled somehow.

Recover from DOS's RECOVER fixes the mess that the DOS RECOVER utility makes of a disk. If someone does accidentally "recover" a disk, use Disk Tools to put the disk back into a state where a real utility can recover data from it.

Revive a Defective Diskette: When we see "Bad sector reading drive A: Abort, Retry...," the problem is often related to the "sector ID" marks BETWEEN the sectors. This tool rewrites the sector marks, without wiping the data.

Mark a Cluster provides a simple way to tell DOS not to allocate data on a particular part of a disk OR we can perform the reverse operation (tell DOS to go ahead and use an area which is currently marked as "bad").

Note: The "Create Rescue Disk" and "Restore Rescue Disk" procedures from previous versions of the Norton Utilities Disk Tools are now part of a separate utility called Rescue Disk.

6.11 Smartcan

This is one of the smartest safety inventions since strings on mittens. SmartCan is a small TSR program that installs into memory and watches for commands that delete files. Instead of deleting a file, it moves it into a special hidden directory named SMARTCAN. When the SMARTCAN gets full or a specified number of days have passed, SmartCan automatically purges files to make room for other "delayed deletions." Use the UnErase utility to recover (with 100% reliability) one or more of the deleted files. This is one of those very-low-cost safety nets; it's a great addition to the AUTOEXEC.BAT file.

Tip: Choose Startup Programs from the Configuration menu to automatically place the command to start SmartCan in your AUTOEXEC.BAT file.

6.12 File Attributes

The file attributes are: hidden, system, read-only, and archive. We can protect a file from accidental erasure or overwriting, or hide it from prying eyes. We can even hide a subdirectory.

6.13 File Date

File Date is useful if we use backup software that backs up files based on their date and time, or the MAKE program that comes with many compilers. We could also give a group of files a "generic" look by giving them all the same date and time —— or removing the date and time completely.

6.14 File Find

As hard disk capacities multiply, it can be a certifiable nuisance to find a file lost in a spaghetti of directories. File Find uses a super-fast technique to search all directories of all drives to unearth a buried file. But this versatile utility does a lot more than just look for filenames. If we can't remember the filename, all we need to know is some text in the file. File

Find lists the files that contain the text as it scans the disk, and we can browse the contents of any file while File Find continues searching. We can even search for text or Hex values and replace it with something else wherever found. We can limit the search by file date, size, or attribute (for instance, we can list all hidden files). Moreover, we can set any file attribute, or change the date and time of the matching files.

File Find can output a list of the matching files (with all kinds of options), and it can format that list into a batch file. We can easily create a batch file which does something (edit, copy, delete, you name it) with every file that contains any string of text, such as "printf" or "itemCount" or "DosOpen".

6.15 File Fix

This utility is handy for users of Lotus 1-2-3, Symphony, dBASE, Excel, Quattro Pro, and WordPerfect (and other programs that use identical file formats). File Fix knows all about the file headers and data layout in these types of files and can repair files that the application is unable to use. For instance, if a single sector is lost, File Fix performs a "smart" recovery, so that only the missing data is lost (rather than losing the entire file). File Fix also provides a convenient "UnZap" procedure to restore data lost by an accidental use of the dBASE Zap command.

6.16 File Locate

File Locate is ideal for those times when we can't find a file or remember where it is. We can locate lost or missing files, and even find buried directories, by searching through all of the directories of one or more disks. We can also search just the DOS path, which is useful when we are trying to find multiple filenames or programs that we know are somewhere in the path.

6.17 File Size

It reports the total size of the group as well as the percentage of slack space the files occupy (unused space in the last disk cluster of a file). File Size is very handy when copying files to another drive, especially a floppy disk. It will determine if the group of files will fit on the other disk drive —— before you try to copy them. We can also determine the total size

of files for a branch of the directory tree.

6.18 Image

To prevent thr total disaster that may otherwise occur when a novice user formats the hard disk? One way is to remove the DOS FORMAT command and use Norton's Safe Format utility. But even that doesn't ensure that someone won't later use FORMAT (say, from a floppy disk) to wipe out the disk. Also, Norton's UnFormat utility will usually recover most of the files without any help. But how to be 100% sure?

Image takes a "snapshot" of the data that would get wiped during a DOS FORMAT, including the boot record, file allocation table, and root directory. Then, if the worst happens, the UnFormat utility will provide a 100% recovery of the data. Image works quickly and without fanfare and uses up only a small amount of disk space. It is an excellent addition to the AUTOEXEC.BAT file.

Tip: Choose Startup Programs from the Configuration menu to automatically place the command to run Image in the AUTOEXEC.BAT file.

6.19 Line print

Having to call up the word processor or editor, use Line Print for a quick print of AUTOEXEC.BAT, CONFIG.SYS, or any batch file. Line Print is a print formatter capable of printing text files to a file, printer, or device (such as COM1:). It is especially useful when we need files printed with line numbers (such as program listings or legal references). Line Print has flexible options to set up the output page with headers and footers, margins, line spacing columns, and so forth. We can even print a file to a PostScript printer. If we use multiple printers or require several standard print formats for the same printer, we can create a series of printer description files for use with Line Print. Choose Printer Configuration from the Configuration menu or the NUCONFIG program to create the description files. Then use LP filename /CONFIG:description to print. For example,

LP c:\autoexec.bat /CONFIG:wideprt

6.20 Norton Change Directory

One of the all-time favorite utilities, this will save a lot of wear-and-tear on the finger muscles. It's a replacement for the DOS CD command, and a whole lot more. The interactive program (when we just type NCD) is a great visual way to find the way around a complex directory structure. It lets us create and rename directories and change a disk's volume label. It also provides a Print Tree function to give a printed map of the directories.

But the real value of Norton Change Directory is the time it saves at the keyboard. For instance, rather than typing:

```
C:\> D:                 (change drive)
D:\> CD \wordproc\daisy\ltrs\may    (change directory)
D:\WORDPROC\DAISY\LTRS\MAY>_
```

we can simply type the first part of the endpoint name:

```
C:\> NCD D:MAY          (change default drive & directory)
D:\WORDPROC\DAISY\LTRS\MAY>_
```

to get to the same place. This example saves about 20 keystrokes.

6.21 Norton Diagnostics

Norton Diagnostics is a comprehensive hardware diagnostics utility. Use Norton Diagnostics to pinpoint hardware problems when they occur, or as a routine diagnostics tool to locate marginally defective components. MIS personnel can use Norton Diagnostics to diagnose computer problems and generate reports of each computer's operating status.

6.22 Configuration

After we have the Norton Utilities up and running, there may come a time when we want to change our configuration. This utility is the tool to do it. All in one program, we can:

Set or remove passwords for the utilities that can do damage if used carelessly or

improperly.
Control editing of the Norton program menu.
Remove utilities that can be dangerous for non-technical users.
Set screen and graphics options.
Set mouse options.
Customize screen colors.
Install, remove, or configure the Norton Cache.
Install or remove device drivers from your CONFIG.SYS file.
Install or remove programs from your AUTOEXEC.BAT file.
Select alternate names for certain of the utilites.

Note: We can also access these options directly from the Norton program Configuration menu.

6.23 Norton Disk Doctor
This utility performs a comprehensive analysis of the logical structure of a floppy or hard disk. The Doctor diagnoses disk problems and, with impeccable bedside manner, tells us what's wrong and offers to correct the problem immediately and can Undo any operation. This keeps the malpractice insurance to a minimum and lets us get plenty of untroubled bed rest.

6.24 Rescue Disk
Rescue provides the best possible insurance policy for the system. Create Rescue Disk reads critical system information from a healthy system and copies it to a floppy disk (CMOS configuration settings, hard disk partition tables, and so forth). Restore Rescue Disk can be used to reset the computer back to those known-to-be- good settings.

6.25 Speed Disk
This utility optimizes the way data is arranged on a floppy disk or hard disk. It eliminates file fragmentation which can degrade disk performance. See the online help in Speed Disk for a detailed explanation of fragmentation. Speed Disk also gives finer control over how things are organized. For instance, we can specify the physical ordering of directories, so certain often- used directories are close together and near the front of the disk

(for fastest access).

As a bonus, Speed Disk can sort filenames as they are listed in the directory (so we can more-easily find something when we use the DOS DIR command).

6.26 Safe Format

This utility is a fast-working replacement for the DOS FORMAT command. In fact, when we installed the Norton Utilities, we may have chosen to have Safe Format substituted in place of the DOS FORMAT command (which gets renamed as XXFORMAT.COM). The most important features of Safe Format are its all-around safety and its reformatting speed. Safe Format will never format a hard disk unless you expressly ask it to (several times!). And when it does, it still saves a copy of all the information it will need to restore the disk entirely. Even on a floppy disk, Safe Format warns if the disk contains readable data (in case we put the wrong disk in the drive by accident).

The speed increase is seen when we reformat a floppy disk which was already formatted. Safe Format skips the time-consuming part of a format and just clears out the system area (saving recovery data, of course) and then tests to make sure that the disk is fully usable. This is much faster than a standard format. There is even a quicker version, /Q, which just cleans out the system area without checking the media.

6.27 System Information

This utility is an exceptionally comprehensive source of information about the computer's configuration and it provides disk and system benchmarks that we can use in comparing the performance of one computer to another. In addition to the expected disk and CPU speed tests, we wll get a current memory-usage summary (including precise details on TSRs, device drivers, and memory blocks), a complete up-to- the-minute list of interrupt vectors and IRQ values, a CMOS configuration settings and status report, network information and performance test. Disk partition table information is listed and we can see the contents of startup files.

System Information can generate printed reports (a full report can run to 15 pages) or it can send the report to a text file.

Tip: Don't overlook the SYSINFO /TSR Quick Switch. It's a convenient way to get a list of currently-installed RAM- resident software without leaving the comfort of the DOS command line on the disk, including erased space.

6.28 Text Search

Text Search is a life saver when we can't remember a file's name, but do remember a unique word or some text from the file. Use it also to locate that part of an erased file that contains the text (if it hasn't been overwritten in the meantime). We might even get lucky with UnErase.

6.29 Unerase

This utility makes it simple to recover a deleted or erased file. For quick recovery, just type UnErase filename.ext as soon as possible after the file gets deleted. Or type UnErase (without a filename) to use the interactive mode. UnErase, by itself, is as reliable as is technically possible. And when it's impossible to know where part of a deleted file is, UnErase provides powerful tools to help in finding and recovering the entire file or whatever parts have not been overwritten.

Tip: If we install the SmartCan utility as a memory-resident "safety net," UnErase is 100% reliable. UnErase will use information provided by SmartCan to achieve a flawless recovery, even if we deleted the file several days ago!

6.30 Unformat

When we use the DOS FORMAT command to format a hard disk or use Norton Safe Format to re-initialize a floppy disk, only the system area (the bookkeeping information) gets wiped —— the data areas of the disk remain intact. Since the data is still there, UnFormat is able to recover most or all of it by re-creating the bookkeeping information. If we occasionally use the Image utility to save a snapshot of the system area, UnFormat can recover everything from a formatted hard disk.

6.31 Wipe Information

When a file gets deleted or a hard disk gets formatted, the data on the disk is not

actually erased. Anyone with UnErase or a disk editor can snoop around and locate data which we may prefer to keep from prying eyes. Wipe Information's job is to cleanse data totally from a file or disk. One place not to overlook is the "slack space" at the end of each file. It may contain old information that we are not even aware is there (some word processors, for instance, create temporary files which never appear in the directory). Wipe Information can carefully scrub this area without damaging the file data.

Warning: Whatever data we wipe will be lost forever. For instance, be aware that wiping "unused" space will eliminate any chance of ever recovering any erased file data that's in there (except for currently SmartCan-protected files).

7.0 NORTON ADVISOR

The Norton Advisor is designed to help in understanding computer usage problems and then correct them. The Advisor, drawing from the ample armament of the Norton Utilities, determines if a diagnostic or remedial program is required, and runs it.

Assistance is divided into four general areas:

7.1 Common Disk Problems

These are situations that frequently occur. Browse through the listing to see if any match our dilemma.

7.2 DOS Error Messages

A listing of error messages that result from file and disk operations. If we receive a DOS error message that we do not understand, we can find it here and follow the recommended action.

7.3 CHKDSK Error Messages

CHKDSK (Check Disk) is a program provided by DOS to test the condition of your disks; however, it often generates cryptic messages when run. If you use CHKDSK, find the message and again follow the recommended action.

7.4 Application Error Messages

Help is here for users of Lotus 1-2-3, Symphony, dBASE, Excel, Quattro Pro, and WordPerfect (and other programs that use identical file formats). Choose from a listing of error messages generated by these applications to correct file problems.

Tip: It's always easiest to press F1 for context-sensitive help whenever we need a hand, rather than using the Index.

Use ↓ and ↑ to highlight one of the four problem areas and select [Go To] (press G). A listing of topics or error messages appears. Highlight the desired entry and again select [Go To]. Each entry expands to an explanation and recommended course of action.

Each entry appears in the following format:

Explanation
The selected item in the listings expands to a simple explanation and a recommended course of action. Technical terms, like hyperlink, are displayed in a contrasting color or intensity. Press Tab or Shift+Tab to highlight the word or phrase and select the [Go To] button (press G) for a brief definition. With a mouse, simply double-click on the hyperlink text.

The Norton Utilities provide ample armament to remedy problems that may occur.

■   Steps to take are displayed on lines beginning with a square bullet.
■   The Norton Advisor determines if a diagnostic or remedial program, such as the "Norton Disk Doctor," should be run.

For our convenience, the Norton Advisor can automatically run the appropriate corrective program. In these cases, highlight the recommended program and note that the [Go To] button changes to [Run]. Select [Run] and help is on the way. In a few situations, the problems cannot be corrected without the aid of Norton AntiVirus. If we have this program as well, the Norton Advisor will run the proper tool for us. If not, we will have to seek outside assistance. Also see : How to use Search.

7.5 How to use Search

If we don't remember the exact error message we received, or forgot where it came from, then type in any part of the error message that we know —— or any of the words that appeared in the message. Check the box below what we have typed if we want to include application error messages as well.

The [Start Search] button brings up a list box with all the possible messages. Use ↑ and ↓ to scroll through the list. Select [Expand] to see the explanation and recommended action when we see the message of interest.

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