

File Defender Help Index

File Defender is a versatile tool you can use to protect and monitor your system.

To learn to use help, press **F1** or choose **Using Help** from the **Help** menu.

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What Is File Defender ?

File Defender is a versatile tool you can use to protect and monitor your system.

File Defender can:

- Detect the presence of viruses by verifying file checksum.
- Detect the presence of viruses without the need of updating.
- Track down corrupted files caused by system failures (power interruptions, inadvertent reboots and resets, etc.)
- Be configured to run automatically.
- Be configured to run in background mode.
- Monitor a single file or entire disk.

File Defender consists of the three programs:

The **File Defender Workfile Manager** ([FD.EXE](#)) provides all of the commands which allow build, edit, open, save File Defender Workfiles and File Defender Errorfiles, as well as provide a launching platform for the companion program FDefend.

FDefend ([FDEFEND.EXE](#)) is the utility program that performs all of the protection functions (checksums, etc.) on File Defender Workfiles, as well as create File Defender Errorfiles.

The **FD Scheduler** ([FDSCHED.EXE](#)) is a versatile scheduling utility used to launch FDefend at a specified time completely unattended. The scheduler's versatility allows it to be used with any Windows program or non-Windows application and can be configured to run programs by certain intervals, on certain days or one time only. For help using FD Scheduler see FD Scheduler's help system ([FDSCHED.HLP](#))

Using these three programs together you can effectively protect and monitor your system against the disastrous effects of viruses, power interruptions, inadvertent reboots and resets, etc.

To learn how to use File Defender to protect and monitor your system see [File Defender Strategies](#)

File Defender makes use of standard Windows elements such as sizable windows, dialog boxes, scroll bars, and buttons. If you are not familiar with these items, consult your Microsoft Windows documentation or the Program Manager's help system.

File Defender has both mouse and keyboard support, as well as context sensitive help

File Defender Strategies

For help on File Defender strategies, choose one of the following tasks:

[Detecting viruses](#)

[Tracking down corrupted files](#)

Virus Detection

A computer virus is a program designed to replicate and spread on its own, preferably without the user knowing that it exists. The effects of viruses vary. Sometimes they go unnoticed, sometimes your system will display strange messages, or sometimes entire disks are wiped clean!

There are various types of viruses:

- 1 Viruses that attach themselves to an executable file's code. Every time the program runs, the virus spreads itself to other executable files.
- 2 Viruses that attach themselves to the boot sector of a computer's hard or floppy disk. Every time the computer is started, the virus loads itself in to memory and can spread to other disks.
- 3 Viruses that are disguised as legitimate programs. Every time the bogus program runs, the computer is infected and/or is damaged by the virus.

To reduce your chance of attack from a virus and to lessen the casualties if one does occur, use **File Defender 1.00**.

The basic procedure for using File Defender to detect viruses is as follows.

Select Files

- 1 From the File Defender Main Window , using the mouse or menu commands to select the files you want FDefend to scan for viruses..(See Building Workfiles)
- 2 Save your selected files in a File Defender Workfile.(See Opening and Saving Workfiles)

Important: Before selecting files it should be stressed that only virus free files be selected. If there is any doubt about the integrity of your system reload any files that you deem suspect.

Run FDefend Regularly

- 1 From the **File Defender Main Window**, open the FDefend Configuration Dialog Box to configure FDefend. (See Configuring FDefend)
- 2 Run FDefend or schedule FDefend (using FD Scheduler) to run regularly to scan your system for possible corrupted files due to viruses. (See Running FDefend)

Check for Errors

- 1 From the **File Defender Main Window**, open the File Defender Log.(See Opening the File Defender Log)
- 2 Examine the contents of the Log starting with the most recent entry to determine if any viruses were detected.(See Examining the File Defender Log)

Replace Damaged Files

- 1 In the event you find an entry where the **ERRORS=** field is non-zero, from the **File Defender Main Window** open the File Defender Errorfile in the corresponding **ERRORFILE=** field.(See Opening Defender Errorfiles)
- 2 Examine each entry in the Errorfile examine the **FILENAME, ERROR TYPE, OLD VALUE** and **NEW VALUE** fields to determine the appropriate action to take.

- 3** (See Examining File Defender Errorfiles)
Replace any corrupted files and/or update the Workfile as necessary. (See Updating Workfiles)

Tracking down corrupted files

A file may be corrupted by sources other than the deliberate corruption from viruses. These include:

- Unexpected power failures.
- Improperly working disk cache programs.
- Conflicting programs accessing the disk.
- Operating Systems failures causing the machine to hang.

The most common victims are open data files at the time of the incident, which means you should backup your data files frequently minimizing the amount of data lost. Program files (executables) are equally susceptible to these effects, but are less likely to fall prey to corruption because they often are open long enough to read into memory and then be executed.

You may have seen the **MS-DOS Chkdsk** command (**CHKDSK /F**) print the message:
x lost allocation units found in y chains.
Convert lost chains to files?

If you answer **Y** files with the extension '**.CHK**' appear on the current directory. These files are indication that corruption of some type has occurred but does not tell you where it has happened. Many times they may be temporary files used by various programs during execution and will have no adverse effect. Frequently they are a part of a data file use by a program. Less frequently they are actual program code indicating a corrupted program.

For example:

You have just had a power failure. You were working on a document with one of the popular word processors. '**WORDPRO.EXE**' for illustration purposes. When the system comes back up, you run **CHKDSK /F** and it reports:

13 lost allocation units found in 2 chains.
Convert lost chains to files?

You answer **Y**. Now what? You run your program '**WORDPRO.EXE**' hoping no harm has come from the incident. The machine locks up. Oh NO! While this may have never have happened to you. It has happened to many others. This is what prompted the writing of **File Defender 1.00**.

If you have an accurate File Defender Workfile with your program and initialization files and a failure occurred, you would be able to tell what files the fault corrupted. For example, you reboot and run **File Defender** and it reports that '**WORDPRO.EXE**' has a checksum error. You would reload the word processor keeping your personal settings (**File Defender** did not find an error there) and then continue with your work. When you know where (or not where) the problem exists it becomes much easier to correct the problem.

When things are not working right, **File Defender** can be an invaluable tool for tracking down where the fault lies.

The basic procedure for using File Defender to track down corrupted files is as follows.

Select Files

- 1** From the File Defender Main Window, using the mouse or menu commands to select the files you want FDefend protect against corruption. (See Building Workfiles)
- 2** Save your selected files in a File Defender Workfile. (See Opening and Saving WorkFiles)

Run FDefend Regularly

- 1** From the **File Defender Main Window**, open the FDefend Configuration dialog box to configure FDefend. (SeeConfiguring FDefend)
- 2** Run FDefend or schedule FDefend (using FD Scheduler) to run regularly to scan your system for possible corrupted files. (SeeRunning FDefend)

Check for Errors

- 1** From the **File Defender Main Window**, open the File Defender Log.(SeeOpening the File Defender Log)
- 2** Examine the contents of the Log starting with the most recent entry to determine if any checksum errors were detected.(SeeExamining the File Defender Log)

Replace Damaged Files

- 1** In the event you find an entry where the **ERRORS=** field is non-zero, from the **File Defender Main Window** open the File Defender Errorfile in the corresponding **ERRORFILE=** field.(SeeOpening File Defender Errorfiles)
- 2** Examine each entry in the Errorfile examine the **FILENAME, ERROR TYPE, OLD VALUE** and **NEW VALUE** fields to determine the appropriate action to take. (SeeExamining File Defender Errorfiles)
- 3** Replace any corrupted files and/or update the Workfile as necessary.(SeeUpdating Workfiles)

Moving Around in File Defender

For help on moving around in File Defender, choose one of the following tasks:

[Changing Case](#)

[Changing Views](#)

[Changing Directories](#)

[Changing Drives](#)

[Displaying File Properties](#)

[Displaying a Group of Files](#)

[Displaying Subdirectories in the Directory Tree](#)

[Sorting Files](#)

[Updating the Directory Window](#)

Working with File Defender Workfiles

For help on working with [File Defender Workfiles](#), choose one of the following tasks:

[Building Workfiles](#)

[Opening and Saving Workfiles](#)

[Updating Workfiles](#)

Running FDefend

For help on running FDefend choose one of the following tasks:

[Starting FDefend](#)

[Running FDefend Using Menu Commands](#)

[Running FDefend Automatically](#)

[Configuring FDefend](#)

[Exiting Windows While FDefend is Running](#)

Working with the File Defender Log and Errorfiles

For help on working with the File Defender Log and Errorfiles, choose one of the following tasks:

[Opening the File Defender Log](#)

[Examining the File Defender Log](#)

[Opening File Defender Errorfiles](#)

[Examining File Defender Errorfiles](#)

Ordering File Defender

File Defender is currently being marketed as shareware. If you register the program you'll receive these remarkable benefits:

- The latest version of File Defender.
- An end to the nag screens and reminders.
- Limited free technical support by phone.
- Greatly reduced prices on upgrades.

Registration is \$25.00 (CDN funds).

Call us for quantity pricing.

[Order Form](#)

(Select File|Print Topic to print this order form.)

Company: _____
Name: _____
Address: _____
City: _____ State/Prov.: _____ Zip: _____
Phone: (____) _____ Country: _____

Please send me (check desired items or enter number):

___ One license to use File Defender \$25.00
___ One license to use File Defender, with disk \$30.00
Format: [] 3.5" [] 5.25"
___ (enter #) licenses to use File Defender @ \$25 each \$___
___ (enter #) licenses to use File Defender, w/disks @ \$30 each \$___
Format: [] 3.5" [] 5.25"

Shipping & handling: N/S America free
Outside the Western Hemisphere \$5.00 _____
Total \$_____

Enclose a check or money order (payable to B&S Graphical Computer Systems)

B&S Graphical Computer Systems 1-(902)-443-0374
P.O. Box 25053
Halifax, Nova Scotia B3M 4H4

Compuserve ID: 71533,1272

Call us for quantity pricing.

I acquired File Defender from:

Comments and/or suggestions:

Windows Keys

The keyboard topics below come from Help for Windows and are those topics relevant to File Defender.

[Dialog Box Keys](#)

[Help Keys](#)

[Menu Keys](#)

[System Keys](#)

[Window Keys](#)

Dialog Box Keys

Key(s)	Function
TAB	Moves from field to field (left to right and top to bottom).
SHIFT+TAB	Moves from field to field in reverse order.
ALT+letter	Moves to the option or group whose underlined letter matches the one you type.
DIRECTION key	Moves from option to option within a group of options.
ENTER	Executes a command button. Or, chooses the selected item in a list box and executes the command.
ESC	Closes a dialog box without completing the command. (Same as Cancel)
ALT+DOWN ARROW	Opens a drop-down list box.
ALT+UP or DOWN ARROW	Selects item in a drop-down list box.
SPACEBAR	Cancels a selection in a list box. Selects or clears a check box.
CTRL+SLASH	Selects all the items in a list box.
CTRL+BACKSLASH	Cancels all selections except the current selection.
SHIFT+ DIRECTION key	Extends selection in a text box.
SHIFT+ HOME	Extends selection to first character in a text box.
SHIFT+ END	Extends selection to last character in a text box

Help Keys

Key(s)	Function
F1	<p>Gets Help and displays the Help Index for the application. If the Help window is already open, pressing F1 displays the "Using Windows Help" topics.</p> <p>In some Windows applications, pressing F1 displays a Help topic on the selected command, dialog box option, or system message.</p>
SHIFT+F1	<p>Changes the pointer so you can get Help on a specific command, screen region, or key. You can then choose a command, click the screen region, or press a key or key combination you want to know more about.</p> <p>(This feature is not available in all Windows applications.)</p>

Menu Keys

Key(s)	Function
Alt	Selects the first menu on the menu bar.
Letter key	Chooses the menu, or menu item, whose underlined letter matches the one you type.
Alt+letter key	Pulls down the menu whose underlined letter matches the one you type.
LEFT or RIGHT ARROW	Moves among menus.
UP or DOWN ARROW	Moves among menu items.
Enter	Chooses the selected menu item.

System Keys

The following keys can be used from any window, regardless of the application you are using.

Key(s)	Function
Ctrl+Esc	Switches to the Task List.
Alt+Esc	Switches to the next application window or minimized icon, including full-screen programs.
Alt+TAB	Switches to the next application window, restoring applications that are running as icons.
Alt+PrtSc	Copies the entire screen to Clipboard.
Ctrl+F4	Closes the active window.
F1	Gets Help and displays the Help Index for the application. (See Help Keys)

Window Keys

Key(s)	Function
ALT+SPACEBAR	Opens the Control menu for an application window.
ALT+Hyphen	Opens the Control menu for a document window.
Alt+F4	Closes a window.
Alt+Esc	Switches to the next application window or minimized icon, including full-screen programs.
Alt+TAB	Switches to the next application window, restoring applications that are running as icons.
Alt+ENTER	Switches a non-Windows application between running in a window and running full screen.
DIRECTION key	Moves a window when you have chosen Move from the Control menu. Or, changes the size of a window when you have chosen Size from the Control menu.

File Defender Procedures

The procedures topics give you step-by-step instructions for using File Defender.

To learn to use help, press **F1** or choose **Using Help** from the **Help** menu.

Moving Around in File Defender

[Changing Case](#)

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Changing Directories

You can display the contents of a different directory by changing directories in the directory tree. If the directory you want is a subdirectory and does not appear in the directory tree, you can expand the directory so that you can see subdirectories.

To change directories

Click on a directory name in the directory tree window of the [File Defender Main Window](#).

Changing Case

You can change the case that File Defender uses to display the names of your files and directories. Changing the case affects both windows of the [File Defender Main Window](#).

To change the case

From the **Options** menu, choose the **Lowercase** command

Changing Views

When you first start File Defender, the left half of the directory window shows the directory tree, and the right half shows the names of all the files in the current directory. You can choose to display only the directory tree or only the directory contents.

To display only the directory tree

From the **View** menu, choose the **Tree Only** command

To display only the directory contents

From the **View** menu, choose the **Directory Only** command

Changing Drives

If you want to display the contents of a different disk, you can change drives in the directory window of the File Defender Main Window

To change drives

Click on a drive icon from the header bar.

Sorting Files

By default, files are listed alphabetically by name in the File Window of the File Defender Main Window. You can choose to display files alphabetically by their extension, by size (from smallest to largest), or by date, with the least recently modified file listed first.

To sort files

- 1 From the **View** menu, choose the **Sort By** command to display the **Sort By** cascading menu.
- 2 From the **Sort By** cascading menu, choose one of the following commands:

Name	Sorts files alphabetically by name.
Type	Sorts files alphabetically by extension.
Size	Sorts files from smallest to largest
Date	Sorts files from youngest to oldest using last modification date.

Displaying a Group of Files

You can display a group of files in the current directory, such as files with a certain extension or of a particular file type.

To display a group of files

- 1** From the **View** menu, choose the **By File Type...** command. The By File Type dialog box appears.
- 2** Inside the dialog box, specify which files you want to display in the directory window of the File Defender Main Window.
- 3** Choose the **OK** button.

Displaying Subdirectories in the Directory Tree

To display subdirectories

Click the icon of the directory you want to expand.

To hide subdirectories

Click the directory icon you want to collapse.

Note: You cannot collapse a directory if one of its subdirectories is displayed in the File Window of the File Defender Main Window, you must first make the directory you want to collapse the displayed directory.

Note: Directories that have subdirectories are marked with a plus sign (+). After you expand a directory, it is marked with a minus sign (-).

Updating the Directory Window

You may want to update the directory window if you've connected to a network drive outside of File Defender.

To update the directory window

From the **Window** menu, choose the **Refresh** command

Displaying File Properties

You can use File Defender to display file information, such as icon, file size, last modification date, last modification time, and file attributes in the directory window of the File Defender Main Window. By default, only the names of files and directories are displayed.

To display specific file information

- 1** From the **View** menu, choose the **File Details...** command.
The File Details dialog box appears.
- 2** Inside the dialog box, specify which information you want to display.
- 3** Choose the **OK** button.

Building Workfiles

Before you can use FDefend to protect your files, you must first select files to build a File Defender Workfile. There are several ways to select files in File Defender. If the files you want are visible in the File Window of the File Defender Main Window, you can use the mouse to quickly select them. If the files are not visible, or if you want to select a group of files with similar names, use the **Select Files...** command in the **File** menu.

Tip: While dynamic files, like a data base file, are not good candidates for File Defender, your programs and initialization files (such as WIN.INI) are. It is therefore recommended to build Workfiles that contains executable or system files.

To do this,

- 1 Use the **By File Type...** command from the **View** menu to display the By File Type dialog box
- 2 In the **Filename** display box, entering only those extensions you want to select.
- 3 Click the **OK** button to close the dialog box.
- 4 Double click on the directory name to select all of the files displayed.
Or, use the **Select Files...** command from the **File** menu to display the Select Files status box to quickly select files in the current directory and subdirectories.

Important: In order for File Defender to be effective, **the files you select must be free from viruses**. If there is any doubt about the integrity of your system then it is advised that you re-install any files that you feel may be infected before you select them.

For help building Workfiles choose one of the following tasks:

Using the Select Files... Command to Select/Deselect Files
Using a Mouse to Select/Deselect Files

Opening and Saving File Defender Workfiles

To open a File Defender Workfile

- 1 From the **File** menu, choose the **Open...** command. The File Open dialog box appears
- 2 Inside the dialog box select the File Defender Workfile you want to open.
- 3 Click the **OK** button.

Note: Opening a previously saved File Defender Workfile causes all currently selected files to be lost, therefore File Defender automatically prompts you if you want to save the current Workfile.

To save a new File Defender Workfile

- 1 From the **File** menu, choose the **Save As...** command. The File Save As dialog box appears
- 2 Inside the dialog box enter the filename for the File Defender Workfile you want to save.
- 3 Click the **OK** button.

To save a previously saved File Defender Workfile

From the **File** menu, choose the **Save** command

Updating File Defender Workfiles

Updating File Defender Workfiles is required when you want to add or delete files to a currently existing Workfile.

Note: It is recommended that you update the files included in a Workfile if one of the following situations occur:

- Files have been added to you system.
- Files have been moved from one location to another.
- Files have been removed from your system.

To add files to an existing Workfile

- 1 From the **File** menu, choose the **Open...** command. The File Open Dialog Box appears
- 2 Inside the dialog box, select the Workfile you want to update.
- 3 Click the **OK** button.
- 4 Inside the directory window of File Defender Main Window, select the directory name of the of the files you want to add to the Workfile.
- 5 Inside the File Window of the **File Defender Main Window**, select the files you want to add to your Workfile.
- 6 From the **File** menu, choose the **Save** command to save the updated Worklist.

To remove files from an existing Workfile

- 1 From the **File** menu, choose the **Open...** command. The **File Open Dialog Box** appears
- 2 Inside the dialog box, select the Workfile you want to update.
- 3 Click the **OK** button.
- 4 Inside the directory window of **File Defender Main Window**, select the directory name of the of the files you want to add to the Workfile.
- 5 Inside the File Window of the **File Defender Main Window**, deselect the files you want to add to your Workfile.
- 6 From the **File** menu, choose the **Save** command to save the updated Worklist.

Using a Mouse to Select/Deselect Files

You can use a mouse to select a file or group of files. Before you can select files, they must be visible in the directory window of the File Defender Main Window.

To select a single file using the mouse

Click on a filename to select that file.

To deselect a single file using the mouse

Press **Ctrl** and click on a filename to deselect that file.

To select a group of files using the mouse

1. Click on the first file you want to select.
2. Press **Shift** and click on the last file in the group you want to select.

Note: To add\remove one file to\from a group selection, press **Ctrl** while clicking.

To select all the files in a directory using the mouse

Double-click on the directory name.

To deselect all the files in a directory using the mouse

Double-click on the directory name.

Using the **Select Files...** command to **Select/Deselect Files**

Use the **Select Files...** command to quickly select/deselect files in the directory window of the File Defender Main Window

To select files by using the **Select Files... command**

- 1** From the **File** menu, choose **Select Files...** command. The Select Files status box appears.
- 2** Inside the dialog box, type the names of the files you want to select.
- 3** Click the **Select** button.

To deselect files by using the **Select Files... command**

- 1** From the **File** menu, choose **Select Files...** command. The **Select Files status box** appears.
- 2** Inside the dialog box, type the names of the files you want to deselect.
- 3** Click the **Deselect** button.

Starting FDefend

FDefend can be started from Program Manager, File Manager, or any other Windows shell program.

To start an FDefend from Windows File Manager

Double-click the program file ([FDEFEND.EXE](#)) in the File Defender directory.
Or select the program file, and then choose **Open** from the **File** menu (or press **ENTER**).

To start an FDefend from Windows Program Manager

Double-click the FDefend icon from the File Defender program group.
Or select the program file, and then choose **Open** from the **File** menu (or press **ENTER**).

To start an FDefend and open a Workfile from Windows File Manager

Drag a Workfile icon to the program file ([FDEFEND.EXE](#)) in the File Defender directory.

To start an FDefend and open a Workfile from Windows File Manager

- 1** Select the FDefend icon from the File Defender program group.
- 2** From the **File** menu, choose **Run**.
- 3** In the **Run** dialog box, specify the File Defender Workfile you want to open.
- 4** Choose the **OK** button.

Running FDefend Using Menu Commands

FDefend can be started from the File Defender Main Window by using commands from the **FDefend** menu.

To run an existing File Defender Workfile

- 1** From the **FDefend** menu, choose the **Run File...** command. The File Run dialog box appears
- 2** Inside the dialog box select the File Defender Workfile you want to run.
- 3** Click the **OK** button.

To run the current File Defender Workfile

From the **FDefend** menu, choose the **Run All** command

Note: File Defender creates a temporary file called **RUNALL.DAT** when you choose the **Run All** command.

Running FDefend Automatically

In order for File Defender to be effective, it must be used periodically. It is recommended that File Defender be used at least once each Windows session. The simplest way to do this is to run FDefend automatically. One method is to run FDefend on Windows start-up, an alternative method is to schedule FDefend to run at specific times of the day or time intervals.

To run FDefend automatically

- 1** Open your WIN.INI file(WIN.INI is located in your [WINDOWS](#) directory) using a text editor such as Notepad ([NOTEPAD.EXE](#)).
- 2** Find the [**windows**] heading of the file. (it should be located near the beginning of the file.)
- 3** Find the **run** line.
- 4** To install:
Modify the run line are required.
Examples:
 - a. `run=c:\fd\fdefend.exe`
This would bring up a dialog box prompting the user for a File Defender Workfile name on Windows start-up.
 - b. `run=c:\fd\fdsched.exe`
where **FDSCHED.EXE** is the name of the File Defender scheduling program, FD Scheduler.
This example would run **FDEFEND.EXE** at a previously scheduled time as configured in the scheduler program.
 - c. If you are using Windows 3.1 then **FDSCHED.EXE** or **FDEFEND.EXE** can be added to the **Startup Group**, and Windows will start these programs each time you start Windows.

Note: Use care when making changes to any initialization file such as [WIN.INI](#). Incorrect changes can lead to unexpected results when you use Windows. **Always back-up your WIN.INI file before opening it!**

Configuring FDefend

You can configure FDefend to run in one of two modes of operation; normal or background mode_(hidden). In each mode there are various options which let you specify the actions FDefend takes when it encounters errors.

To configure FDefend

- 1** From the **FDefend** menu, choose the **Configuration...** command. The FDefend Configuration Dialog Box appears
- 2** Inside the dialog box, configure FDefend as required.
- 3** Click the **OK** button.

Exiting Windows While FDefend is Running

If you attempt to exit Windows while FDefend is still running, FDefend will ask you if you want to terminate the program.

- If you choose **Yes**, FDefend will terminate and save any error that it has found.
- if you choose **No**, FDefend will continue running and Windows will not close.

Opening the File Defender Log

A summary of the results of running FDefend are recorded in File Defender Log.

To open the File Defender Log:

- 1 From the **FDefend** menu, choose the **Log...** command. The **File Defender Log** appears.
- 2 Examine the Log for possible problems.

See also

Examining the File Defender Log

Examining the File Defender Log

FDefend results are reported in the **File Defender Log** in the following manner;

- Workfile** - The name and path of the File Defender Workfile.
- Status** - One of : Aborted, Completed, User terminated, or Error.(See also FDefend Status)
- Errors** - The number of error found.
- Errorfile** - The name and path of the File Defender Errorfile (if saved).

The following is a typical File Defender Log with comments. These comments do not appear in the normal File Defender Log. They have been added to give meaning to each entry of the log:

LOG OF FDEFEND:

Each entry in the File Defender log begins with the date (yyyy/mm/dd) and time the entry was created.

1992\11\02 03:01:09 WORKFILE=c:\fd\programs.dat; STATUS=Completed; ERRORS=0; ERRORFILE=Not Saved
FDefend ran with the Workfile 'c:\fd\programs.dat'. No errors were found of any kind so no Errorfile was needed.

1992\11\03 16:36:40 WORKFILE=C:\FD\programs.dat; STATUS=User terminated; ERRORS=50; ERRORFILE=c:\fd\programs.err
FDefend ran with the Workfile 'c:\fd\programs.dat'. The user terminated the program before completion. 50 errors were found and the results were save in the Errorfile 'c:\fd\programs.err', an old copy of 'c:\fd\programs.err' may have been overwritten.
Action: Examine the Errorfile 'c:\fd\programs.err' to determine source of errors.

1992\11\04 21:31:40 WORKFILE=c:\fd\temp.dat;STATUS=Error
FDefend was attempted to run with the Workfile 'c:\fd\temp.dat'. FDefend was unable to open the Workfile.
Action: From the File Defender Main Window try to open the Workfile 'c:\fd\temp.dat' to determine if it is a valid File Defender Workfile.

1992\11\05 03:43:03 STATUS=Aborted
FDefend was started with no Workfile. A dialog box was displayed to prompt the user to select a Workfile to run. The user aborted the program by choosing Cancel.

1992\11\06 01:15:29 WORKFILE=C:\FD\programs.dat; STATUS=Completed; ERRORS=34; ERRORFILE=c:\fd\progr000.err
FDefend ran to completion with the Workfile 'c:\fd\programs.dat'. 34 errors were found and the results were save in the newly created Errorfile 'c:\fd\progr000.err'.
Action: Examine the Errorfile 'c:\fd\progr000.err' to determine source of the errors.

1992\11\07 16:36:40 WORKFILE=C:\FD\programs.dat; STATUS=User terminated; ERRORS=50; ERRORFILE=c:\fd\progr001.err
FDefend ran with the Workfile 'c:\fd\programs.dat'. The user terminated the program before completion. 50 errors were found and the results were save in the newly created Errorfile 'c:\fd\progr001.err'.
Action: Examine the Errorfile 'c:\fd\progr001.err' to determine source of the errors.

1992\11\07 16:37:40 STATUS=Aborted, FDefend already running
FDefend attempted to run while FDefend was already running.
Action: If you are running FDefend using FD Scheduler you may have to reschedule FDefend to run with larger intervals.

1992\11\07 22:10:23 WORKFILE=c:\fd\programs.dat; STATUS=Completed but unable to save Errorfile; ERRORS=1
FDefend ran to completion with the Workfile 'c:\fd\programs.dat'. One error was found
and the results were not save.

The File Defender log file is found in the File Defender home directory.

See also
[Examining File Defender Errorfiles](#)

Opening File Defender Errorfiles

FDefend errors are recorded in File Defender Errorfiles.

To open File Defender Errorfiles:

- 1** From the **FDefend** menu, choose the **Errorfile...** command. The File Open dialog box appears.
- 2** Inside the dialog box select the Errorfile you want to open.
- 3** Click the **OK** button.
- 4** Examine the Errorfile for possible viruses or corrupted files.

Note: The **File Open dialog box** does not list File Defender Errorfiles that FDefend has saved as hidden.

See also

Configuring FDefend

Examining File Defender Errorfiles

Examining File Defender Errorfiles

FDefend reports errors in the following manner;

Filename	- Filename (and path) of the file in which an error was found.
Error Type	- One of 4 error types; Checksum, Size, Date/Time, Attribute, or Not Found(See also <u>FDefend Errors</u>)
Old Value	- Previous value
New Value	- Current value

The following is a typical File Defender Errorfile with comments. These comments do not appear in a normal File Defender Errorfile. They have been added to give meaning to each entry:

1992-11-5
1:45:151:45:15

Each File Defender Errorfile begins with the date (yyyy/mm/dd) and time the entry file was created.

RESULTS OF FDEFEND 1.00:

<u>FILENAME</u>	<u>ERROR TYPE</u>	<u>OLD VALUE</u>	<u>NEW VALUE</u>
1. C:\MSW\notepad.exe	Checksum	-2081598602	-623363915
Entry 1 indicates that the contents of the program 'C:\MSW\notepad.exe' has been altered.			
2. C:\FD\FD.EXE	Attribute	---A	HRS-
Entry 2 indicates that the file attributes of the program file 'C:\FD\FD.EXE' has changed. In this case the archive bit has been cleared and the hidden, read-only and system bits have been cleared.			
3. C:\PROGRAMA.EXE	Checksum	-2081598602	-623363915
Entry 3 indicates that the contents of the program 'C:\PROGRAMA.EXE' has been altered.			
4. C:\PROGRAMA.EXE	Size	110848	111872
Entry 4 indicates that the contents of the program 'C:\PROGRAMA.EXE' has been altered. Action: Entries 3 and 4 indicate that the file 'C:\PROGRAMA.EXE' has been altered, if the reason for this change cannot be explained (update, etc) then it may be infected by a virus and hence should be replaced with a virus free copy.			
5. C:\TEMP\~FDE029A.TMP	Checksum	-995273418	-1600916023
Entry 5 indicates that the contents the file 'C:\TEMP\~FDE029A.TMP' has been altered.			
6. C:\TEMP\~FDE029A.TMP	Size	73418	24423
Entry 6 indicates that the size the file 'C:\TEMP\~FDE029A.TMP' has changed from 73,418 bytes to 24,423 bytes.			
7. C:\TEMP\~FDE029A.TMP	Date\Time	1992-11- 5 23:18:54	1992-11- 5 23:28:24
Entry 7 indicates that the last time the file 'C:\TEMP\~FDE029A.TMP' was modified has been altered. Action: Entries 5-7 indicate that the file 'C:\TEMP\~FDE029A.TMP' is a temporary file, hence remove this file from the Worklist to prevent FDefend from generating unwanted errors.			

8. C:\PROGRAMB.EXE Not Found

Entry 8 indicates that the program 'C:\PROGRAMB.EXE' could not be found.

Action: If the file 'C:\PROGRAMB.EXE' does not exist remove it from the Worklist.

File Defender Errorfiles are saved with the extension '**ERR**'.

See also

[Updating Workfiles](#)

File Defender Commands

This topics give you step-by-step instruction for using File Defender commands.

To learn to use help, press **F1** or choose **Using Help** command from the **Help** menu.

Commands

File FDefend View Options Window Help

File Menu

The **File** menu includes commands that enable you to open and save File Defender Workfiles, edit Workfiles, establish a new workspace, and to exit the program.

For more information, select a **File** menu command name.

<u>New</u>	Alt+F,N	Creates a new File Defender Workfile
<u>Open</u>	Alt+F,O	Opens an existing File Defender Workfile
<u>Save</u>	Alt+F,S	Saves the active File Defender Workfile
<u>Save As</u>	Alt+F,A	Saves and names the currently selected group of files as a File Defender Workfile
<u>Select Files</u>	Alt+F,L	Selects or deselects files in the directory window.
<u>Exit</u>	Alt+F,X	Quits File Defender.

FDefend Menu

The **FDefend** menu includes commands that enable you to run File Defender Workfiles., open the File Defender Log and File Defender Errorfiles, and configure how FDefend runs.

For more information, select the **FDefend** menu command name.

<u>Run All</u>	Alt+D,U	Runs FDefend using the currently selected files as the File Defender Workfile.
<u>Run File</u>	Alt+D,F	Runs FDefend using an existing file as the File Defender Workfile.
<u>Log...</u>	Alt+D,G	Opens the File Defender Log.
<u>ErrorFile...</u>	Alt+D,E	Opens an existing File Defender Errorfile.
<u>Configure...</u>	Alt+D,C	Configures FDefend.

View Menu

The **View** menu includes commands to modify the display and specify the information you want to display.

For more information, select the **View** menu command name.

<u>Tree and Directory</u>	Alt+D,R	Displays both the directory tree and the contents of the current directory.
<u>Tree Only</u>	Alt+V,E	Displays only the contents of the current directory.
<u>Directory Only</u>	Alt+V,D	Displays only the directory tree.
<u>File Details</u>	Alt+V,F	Displays specific file information in the file window.
<u>Sort By</u>	Alt+V,S	File sort options.
<u>By File Type</u>	Alt+V,B	Displays a group of files that you specify.

Options Menu

The **Options** menu includes commands that enable you to specify options not associated with the **File Defender File Window**.

For more information, select the **Options** menu command name.

<u>Lower Case</u>	Alt+O,L	Displays all files and directories in lower case.
<u>Save Settings on Exit</u>	Alt+O,S	Saves View and Option Menu settings as when you last quit File Defender.

Window Menu

The Window menu includes commands that enable operation on the File Defender Main Window.

For more information, select the **Window** menu command name.

Refresh **Alt+W,R** Updates the entire File Defender Main Window.

Sort By Cascading Menu

The **Sort By** cascading menu commands enable you to specify the order in which files appear in the File Defender Main Window.

For more information, select the **Sort By** cascading menu command name.

<u>Name</u>	Alt+V,S,N	Sorts files alphabetically by name.
<u>Type</u>	Alt+V,S,T	Sorts files alphabetically by extension.
<u>Size</u>	Alt+V,S,S	Sorts files from smallest to largest
<u>Date</u>	Alt+V,S,D	Sorts files from youngest to oldest using last modification date.

Help Menu

The **Help** menu includes commands associated with the help system plus additional information not required to use the program.

For more information, select the **Help** menu command name.

<u>Index</u>	Alt+H,I	Displays the opening screen of Help
<u>Keyboard</u>	Alt+H,K	Describes how to use the keyboard with File Defender
<u>Commands</u>	Alt+H,C	Shows an index of all the File Defender commands.
<u>Procedures</u>	Alt+H,P	Shows an index of all the File Defender procedures.
<u>Using Help</u>	Alt+H,H	Describes how to use Help.
<u>Register</u>	Alt+H,R	Register your copy of File Defender.
<u>About File Defender</u>	Alt+H,U	Displays product name, copyright, credits, program version, registration, and useful system statistics.

New command (File menu)

Use this command to delete all selected files and open a new [File Defender Workfile](#) .

If the current Workfile has been saved, the new Workfile is opened immediately.

If the current Workfile hasn't been saved, a dialog opens to ask whether you want to save changes made to the current Workfile:

Click **Yes** button to save the changes. If the current file has not been named File Defender opens a the [File Save As dialog box](#) so you can name the file.

Click **No** button to discard the changes.

See also

[Opening and Saving Workfiles](#)

Open command (File menu)

Use this command to open an existing [File Defender Workfiles](#)

File Defender displays the [File Open dialog box](#) which lets you select a File Defender Workfile.

Note: If the current Workfile has not been saved File Defender prompts you if you want to save the current WorkFile.

See also

[Opening and Saving Workfiles](#)

Save command (File menu)

Use this command to save the active File Defender Workfile with its current name, and location.

Note: When you save a WorkFile for the first time(if filename is [NONAME00.DAT](#)), File Defender displays the Save As dialog box so you can name your WorkFile. If you use an existing file name to name the file, File Defender asks if you want to overwrite the existing file.

Note: If you want to change the name, location, or format of an existing document before you save it, choose the **Save As** command.

See also

[Opening and Saving Workfiles](#)

Save As command (File menu)

Use this command to save and name the currently selected group of files as a File Defender Workfile

Note: To save a group of files with its existing name and settings, use the **Save** command from the **File** menu.

File Defender displays the File Save As dialog box which lets you create a File Defender Workfile.

See also

Opening and Saving Workfiles

Select Files...command (File menu)

Use this command to select files in the **File Defender File Window**.

File Defender displays the Select Files status box which lets you specify the files you want to select or deselect.

See Also
Building Workfiles

Exit command (File menu)

Use this command to quit File Defender.

Note: Make sure the **Save Settings On Exit** command on the **Options** menu has a check mark next to it if you want to retain the current **View** and **Options** command settings.

Run All command (FDefend menu)

Use this command to run FDefend using the currently selected files as the File Defender Workfile.

Note: If File Defender is unable to run FDefend ([FDEFEND.EXE](#)) then an Application Error message box is displayed.

See also

Running FDefend Using Menu Commands

Run File command (FDefend menu)

Use this command to run FDefend using an existing file as the File Defender Workfile.

File Defender displays the File Run dialog box which lets you select Workfile to run.

Note: If File Defender is unable to run FDefend ([FDEFEND.EXE](#)) then an Application Error message box is displayed.

See also

Running FDefend Using Menu Commands

Log... command (FDefend menu)

Use this command to open the File Defender Log using the Windows program Notepad.

Note: In order to use this command, the Windows program [NOTEPAD.EXE](#) must be in the path. If it does not exist, another text editor or word processing program may be used to open the Log.

Note: If File Defender is unable to run the Windows program [NOTEPAD.EXE](#) then an Application Error message box is displayed.

For help using Notepad see Notepad's help system.

Errorfile... command (FDefend menu)

Use this command to open an existing File Defender Errorfile using the Windows program Notepad.

File Defender displays the [File Open dialog box](#) which lets you select the **File Defender Errorfile**

Note: In order to use this command, the Windows program [NOTEPAD.EXE](#) must be in the path. If it does not exist, another text editor or word processing program may be used to open the Errorfile.

Note: If File Defender is unable to run the Windows program [NOTEPAD.EXE](#) then an [Application Error message box](#) is displayed.

For help using Notepad see Notepad's help system.

See also

[Opening File Defender Errorfiles](#)

Configure... command (FDefend menu)

Use this command to set-up FDefend's configuration, this determines how FDefend runs a Workfile.

File Defender displays the FDefend Configuration dialog box which lets you modify FDefend's configuration.

See also

Building File Defender Workfiles

Opening, and Saving Workfiles

Configuring FDefend

Tree and Directory command (View menu)

Use this command to display both the directory tree and the contents of the current directory.

See also
[Changing Views](#)

Tree Only command (View menu)

Use this command to display only the directory tree; the contents of the current directory are not displayed.

See also
[Changing Views](#)

Directory Only command (View menu)

Use this command to display only the contents of the current directory; the directory tree is not displayed.

See also
[Changing Views](#)

File Details Command (View menu)

Use this command to display specific file information in the directory window.

File Defender displays the File Details dialog box which lets you select the file details to be displayed in the file window.

See also

Displaying File Properties

Name command (Sort By cascading menu)

Use this command to sort files alphabetically by name.

See also
[Sorting Files](#)

Type command (Sort By cascading menu)

Use this command to sort files alphabetically by extension.

See also
[Sorting Files](#)

Size command (Sort By cascading menu)

Use this command to sort files from smallest to largest

See also
[Sorting Files](#)

Date command (Sort By cascading menu)

Use this command to sort files from youngest to oldest using last modification date.

See also
[Sorting Files](#)

By File Type command (View menu)

Use this command to display groups of files that you specify.

File Defender displays the By File Type dialog box which allows you to select the groups of files to be displayed.

See also

Displaying a Group of Files

Lower Case command (Options menu)

Use this command to display all files and directories in lower case.

See also
[Changing Case](#)

Save Settings on Exit command (Options menu)

Use this command to save **View** and **Option** menu settings as when you last quit File Defender.

Refresh command (Window menu)

Use this command to update the entire File Defender Main Window.

See also

Updating the Directory Window

Index command (Help menu)

Use this command to display the opening screen of Help. From the opening screen, you can jump to step-by-step instructions for using File Defender and various types of reference information.

Once you open Help, you can click the **Contents** button on the left in the Help window whenever you want to return to the opening screen.

Keyboard command (Help menu)

Use this command to find help on how to use the keyboard with File Defender

Commands command (Help menu)

Use this command to see an index of all the File Defender commands.

Procedures command (Help menu)

Use this command to see an index of all the File Defender procedures.

Using Help command (Help menu)

Use this command to find help on how to use Help.

Register Command (Help menu)

Use this command to register your copy of File Defender.

Note: Once you have registered your copy of File Defender you can remove the registration program [FDREG.EXE](#) from your system.

About File Defender Command (Help menu)

Use this command to display product name, copyright, credits, program version, the registration name of your copy of File Defender, and some useful system statistics.

The Index contains a list of all Help topics available for File Defender. For information on how to use Help, press **F1** or choose **Using Help** command from the **Help** menu.

The File Defender Workfile Manager ([FD.EXE](#)) is a utility program that provides all of the commands which allow build, edit, open, save File Defender Workfiles and File Defender Errorfiles, as well as provide a launching platform for the companion program FDefend.

FDefend ([FDEFEND.EXE](#)) is the utility program that performs all of the protection functions (checksums, etc.) on File Defender Workfiles, as well as create File Defender Errorfiles.

The FD Scheduler ([FDSCHED.EXE](#)) is a versatile scheduling utility used to launch FDefend at a specified time completely unattended. The scheduler's versatility allows it to be used with any Windows program or non-Windows application and can be configured to run programs by certain intervals, on certain days or one time only. For help using FD Scheduler see FD Scheduler's help system ([FDSCHED.HLP](#))

FDefend Configuration

These settings determine the behavior of FDefend when it is running.

Workfile

A File Defender Workfile is a collection of files that have been selected and saved using the File Defender program.

File Defender Workfiles are saved with the extension **DAT**.

FDefend errors

FDefend errors can be one of five types.

Checksum	The file's contents have changed.
Size	The file's size has changed.
Date/Time	The file's date/time has changed.
Attribute	The file's attribute has changed.
Not Found	The file was not found or was in use by Windows.

Errorfile

A File Defender Errorfiles are created when errors are found by FDefend. File Defender Errorfiles are saved with the extension '**ERR**' in the directory of the Workfile.

Log

The File Defender Log ([DEFENDER.LOG](#)) is the file that is appended each time FDefend is ran. This text file reports the results of FDefend. This file is found in the File Defender working directory.

wildcard

Wildcard characters are used to represent one or more characters. The wildcard characters are:

- ? (question mark) - used to represent any single character
- * (asterisk) - used to represent any character or group of characters that might match that position in filenames.

For example:

- *.* Any filename with any extension.
- *.BMP Any filename with extension '**.BMP**'.
- *.??T Any filename with a 3 letter extension ending with **T**
- TE*.* Any filename starting with the letters **TE**
- T?MP.* Any 4 letter filename starting with **T** and ending with **MP** with any extension.

Chkdsk

MS-DOS command that reports logical errors found in the file allocation table and file system. If errors exist on the disk, **chkdsk** alerts you with a message. If the **/f** switch is included **chkdsk** fixes errors on the disk. Refer to the [MS-DOS User's Guide and Reference](#) for more information.

The name that identifies a disk

drive icon

An Icon in a directory window in File Defender that represents a disk drive in your system.

The size in bytes of a file.

The date the file was last changed according to the system clock.

The time the file was last changed according to the system clock.

One of the four file attributes which determine whether a file is read-only, hidden, archive, or system. (See also hidden file)

name

To display all files with similar names or file types use wildcards in the name box.

WIN.INI file

An initialization file that is created when you install Windows. This file contains information about how Windows looks and behaves. Windows applications use this file to obtain information to configure themselves.

file type

Use these check boxes to specify which types of files to display.

Select	To Display
Programs	All files ending with EXE , BAT , PIF or COM .
Documents	All files with associations.
Other	All others

show hidden/system files

Show files with hidden or system attributes.

header bar

Bar above directory window that displays drives and volume id of current drive.

Directory Tree

A hierarchical representation of the contents of a drive.

Context Sensitive Topics

This Help system includes topics that you can call directly from File Defender. To get context-sensitive help from File Defender, press **Shift+F1** and click on any element of the **File Defender Directory Window**. You can also highlight any File Defender menu command using the keyboard and press **F1** to get help on the command.

A file's checksum is the numerical total of all the bytes of the file code which is used to compare the contents from one version to another. For example, a simple batch file **SIMPLE.BAT** may contain the following text: **ECHO HELLO**

which to the computer looks like: **69 67 72 79 32 72 69 76 76 79**

and the sum of these is: **691**

This is the file's **checksum**. If any of the characters in the file were to change, the checksum would change, indicating the file's contents has been modified. This is a simple, compact way of storing the status of the file's contents.

Foreground (normal) mode is when a program is the active window and it receives the user's input. (See also background mode)

Background mode is when a program is running but is not the window that is currently selected. An application in background mode cannot receive user input. A unhidden background application may be brought to the foreground using the mouse or keyboard commands while a hidden background application may not. (See *also* [foreground mode](#))

A **hidden file** is a file that is not intended to be viewed in a directory listing.

An executable file or program file are files that include the extensions:
.COM,.EXE, .PIF, .DLL, .VOR, .OVL, .DRV, .BIN, .INI, .SYS.

The boot sector on a diskette or fixed disk contains the code that loads DOS into memory.

An icon is a graphical representation of any element in Windows. Icons are used to represent applications, drives, directories, files, etc.

The File Defender Main Window

In the File Defender Workfile Manager, your files are displayed in the **File Defender Main Window** which is split. The left half displays the directory tree, and the right half displays the contents of the current directory. When you select a different directory in the directory tree, the contents of that directory are displayed in the right half of the window.

File Defender Main Window Caption

Displays the current directory and name of the File Defender Workfile

File Defender Directory Tree Window

In the **directory tree window**, each directory has an icon next to it, indicating presence of subdirectories.

File Defender File Window

In the file window, the filename of the current directory are displayed. Each filename has an icon next to it, indicating what type of file it is.

File Defender Menu Bar

The File Defender Menu bar displays all the commands available to File Defender. For more information choose one of the following menu commands:

File FDefend View Options Window Help

File Defender Header Bar

At the top of the main window is the header bar where icons for each drive you currently have access to are displayed. These icons are called drive icons. Different icons represent the different types of drives on your computer: hard disk drives, floppy disk drives, and network drives. (RAM drives, CD-ROMs and floppy disk drives are not supported by File Defender). You can change to a different drive by selecting its drive icon. The header bar also displays the volume label of the drive.

File Defender Status Bar

At the bottom of the main window is the **status bar** where information on the number of selected files are displayed. The box on the left hand side displays the total number of files selected in all directories, the box on the right hand side displays the total number of files selected in the current directory.

File Open Dialog Box

This dialog box appears when you click the **Open...** command **Open Errorfile...** command from the **File** menu of the File Defender Main Window.

Use this dialog box to find the filename you want to open.

Directory

This text box displays the current default or currently-selected directory. This text changes automatically when you select from the **Directory** list boxes.

Filename

Type the filename and press **Enter** or, select a file from the **Files** list box, or, type a new wildcard file specification and press **Enter** to see only files matching that wildcard.

When you click **OK**, the currently displayed selected filename is opened and its files are (highlighted) in the **File Defender File Window**.

Files List Box

This list shows the names of files in the current directory, in alphabetical order.

You can type the first character of a filename to quickly scroll to that part of the list or, use the scroll bar to look through this list. You can double-click a filename to select it and automatically confirm the selection.

Directories List Box

You can type the first character of a directory name to quickly scroll to that part of the list or, use the scroll bar to look through this list. When you click a directory, its files are shown in the **Files List Box**.

You can type a drive letter or, click the prompt button and use the scroll bar to look through this list. When you select a drive, its directories will be listed in the **Directory List Box**.

OK Button

Click this button, or double-click a filename, or press **Enter** to confirm your selection of the filename and close the dialog box..

Cancel Button

Exits the **File Open dialog box** without selecting a file.

Help Button

Displays this screen.

File Run Dialog Box

This dialog box appears when you click the **Run File...** command from the **FDefend** menu of the File Defender Main Window.

Use this dialog box to find the filename of the File Defender Workfile you want to FDefend to run.

Directory

This text box displays the current default or currently-selected directory. This text changes automatically when you select from the **Directory** list boxes.

Filename

Type the filename and press **Enter** or, select a file from the **Files** list box, or, type a new wildcard file specification and press **Enter** to see only files matching that wildcard. The default wildcard is ***.DAT**.

When you click **OK**, the currently displayed selected filename is opened and its files are (highlighted) in the **File Defender File Window**.

Files List Box

This list shows the names of files in the current directory, in alphabetical order.

You can type the first character of a filename to quickly scroll to that part of the list or, use the scroll bar to look through this list. You can double-click a filename to select it and automatically confirm the selection.

Directories List Box

You can type the first character of a directory name to quickly scroll to that part of the list or, use the scroll bar to look through this list. When you click a directory, its files are shown in the **Files List Box**.

You can type a drive letter and use the scroll bar to look through this list. When you select a drive, its directories will be listed in the **Directories List Box**.

OK Button

Click this button, or double-click a filename, or press **Enter** to confirm your selection of the file you want to run and close the dialog box..

Cancel Button

Exits the **File Run dialog box** without selecting a file.

Help Button

Displays this screen.

File Save As Dialog Box

This dialog box appears when you click either the **File Save As...** command from the **File** menu of the File Defender Main Window or when you save a new file.

Use this dialog box to find the filename you want to save.

Directory

This text box displays the current default or currently-selected directory. This text changes automatically when you select from the **Directories List Box**.

Filename

Type the filename and press **Enter**. The default wildcard is ***.DAT**

When you click **OK**, the currently File Defender Workfile is saved using the currently selected displayed filename.

Directories List Box

You can type the first character of a directory name to quickly scroll to that part of the list or, use the scroll bar to look through this list. When you select a drive, its directories will be listed in the **Directories List Box**.

OK Button

Click this button, or double-click a filename, or press **Enter** to confirm your selection of the filename and close the dialog box..

Cancel Button

Exits the **File Save As dialog box** without saving the file.

Help Button

Displays this screen.

By File Type Dialog Box

This dialog box appears when you click the **By File Type...** command from the **View** menu of the File Defender Main Window.

Use this dialog box to view only certain groups of files in the **File Defender File Window**. You can specify a filter using wildcard file specification and/or file attributes.

Filename Display Box

Enter one or more wildcard file specifications, separated by semicolons and only those files matching the wildcard specifications are shown.

File Type Group

Select a check box:

Programs: Only files having an extension of **.EXE**, **.COM**, **.PIF** and **.BAT** are displayed.

Documents: Only files having an association are displayed.

Other: All other file specifications are shown under this option -- there is no filtering of filename or extension.

Show Hidden/System: Those files with the hidden or system attribute are displayed.

OK Button

Click this button, or press **Enter** to confirm your selections and close the dialog box..

Cancel Button

Exits the **By File Type dialog box** without changing options.

Help Button

Displays this screen.

File Details Dialog Box

This dialog box appears when you click the **File Details...** command from the **View** menu of the File Defender Main Window.

Use it to specify the file details to be shown in the **File Defender File Window**.

Details

Check the check boxes containing the attributes you want displayed in the directory window.

Icon: Displays the file's icon.

Size: Displays the file size in bytes.

Last Modification Date: Displays the file's last modification date

Last Modification Time: Displays the file's last modification time

Attribute: Displays the file's attribute

OK Button

Click this button, or press **Enter** to confirm your selections and close the dialog box.

Cancel Button

Exits the **File Details dialog box** without changing options.

Help Button

Displays this screen.

Select Files Status Box

This dialog box appears when you click the **Select Files...** command from the **File** menu of the File Defender Main Window. , it lets you quickly select or deselect files in the **File Defender File Window** by using wildcards.

Directory

Display the **current directory** that you are selecting or deselecting files from.

Files

Enter one or more wildcard file specifications, separated by semi-colons. For instance, entering ***.BAT;*.COM** selects all files with either **' .COM'** or **' .BAT'** extensions

Include Subdirectories Checkbox

Check this box if you want to select or deselect files in subdirectories of the **current directory**.

Select Button

Click this button to select files, File Defender will display the number of files found and the number of files selected.

Deselect Button

Click this button to deselect files, File Defender will display the number of files found and the number of files deselected.

Close(Stop) Button

Exits the **Select Files status box**.

Note: If File Defender is still running then pressing this button will stop File Defender from selecting or deselecting files. To close the **Select Files status box** press this button again.

Help Button

Displays this screen.

Tip: Files not included in the wildcard specification are still displayed, but not selected. If you want to see only certain types of files, choose the **By Type** command from the **View** menu. For help with selecting files, see Building Workfiles.

FDefend Configuration Dialog Box

This dialog box appears when you click the **Configuration...** command from the **FDefend** menu of the File Defender Main Window.

Use this dialog box to configure how **FDefend** runs a Workfile.

The **FDefend Configuration dialog box** has the following options:

Options

checksum: Check this box if you want FDefend to perform a checksum operation on each file in the File Defender Workfile. The checksum total is then compared with the previous value to determine if the file's contents have changed. FDefend reports an error if there is a difference between the previous and current checksum values. These errors are recorded in a File Defender Errorfile.

Note: The first time FDefend performs a checksum operation on a Workfile, the value of the checksum is not compared with the previous value since it has not been computed, therefore no checksum errors are reported. This value of the checksum automatically replaces the previous value (-1 by default). Therefore it is strongly advised that you run FDefend as soon as possible after selecting your files. Also, see **replace errors** option for more information.

Check file information: Check this box if you want FDefend to compare the attribute, size, and date/time information of each file in the File Defender Workfile with its previous value. If there is a difference between the previous and current values of the file information, these errors are recorded in the File Defender Errorfile

Replace Errors: If a difference is found between the previous value and the current value in the File Defender Workfile, the current value replaces the previous value.

Note: If the File Defender Workfile contains a filename that is not valid, checking this option will cause FDefend to remove this file from the Workfile.

Note: If you are running FDefend periodically, checking this option will cause FDefend to only detect errors for the first time.

Errorfile Options

save Errorfile as a new file: Check this box if you want FDefend to save File Defender Errorfiles with a unique filename. If this box is not checked then the Errorfile is saved with the Workfile name and the extension '**ERR**'. If this box is checked then FDefend saves the Errorfile with a unique name in the form '**NAMEnnn.ERR**' where nnn ranges between '**000**' and '**999**', (starting at '**000**').

save Errorfile as a hidden file: Check this box if you want FDefend to save the File Defender Errorfile with the hidden attribute.

FDefend Status Options

show status: Select this button if you want FDefend to display the **FDefend Status box** while running. If this option is selected then FDefend will also display messages reporting the number of errors found and the filename of the File Defender Errorfile.

hide status: Select this button if you want FDefend to hide the **FDefend Status box** while running. If this option is selected then FDefend will run completely undetected by the user.

Important: If the **hide status** option is selected then you will not be able to stop the program from running. [To end the program you must exit Windows.](#) (See also [Exiting Windows while FDefend is running](#))

OK Button

Click this button, or press **Enter** to confirm your selections and close the dialog box.

Cancel Button

Exits the **FDefend Configuration dialog box** without changing options.

Help Button

Displays this screen.

FDefend Status Box

This status box appears when you click the **Show FDefend Status...** option from the FDefend Configuration Dialog Box, and FDefend is running.

The **FDefend Status box** displays the following information:

FDefend Status Box Caption

Displays the name of the current File Defender Workfile.

Files

Displays the name of the current file in the File Defender Workfile being analyzed.

Files Checked

Displays the number of files that have been checked.

Files Selected

Displays the number of files selected in the Workfile.

Errors Found

Displays the total number of errors found.

Cancel Button

Closes **FDefend**. Any errors that are found are saved.

Application Error Message Box

The **Application Error** message box is displayed when there is an error running an application.

The message box displays then application name plus an **error code**.

Error Code

The error code value may be one of the following:

Value Meaning

- 0** System was out of memory, executable file was corrupt, or relocations were invalid.
- 2** File was not found.
- 3** Path was not found.
- 5** Attempt was made to dynamically link to a task, or there was a sharing or network-protection error.
- 6** Library required separate data segments for each task.
- 8** There was insufficient memory to start the application.
- 10** Windows version was incorrect.
- 11** Executable file was invalid. Either it was not a Windows application or there was an error in the .EXE image.
- 12** Application was designed for a different operating system.
- 13** Application was designed for MS-DOS 4.0.
- 14** Type of executable file was unknown.
- 15** Attempt was made to load a real-mode application (developed for an earlier version of Windows).
- 16** Attempt was made to load a second instance of an executable file containing multiple data segments that were not marked read-only.
- 19** Attempt was made to load a compressed executable file. The file must be decompressed before it can be loaded.
- 20** Dynamic-link library (DLL) file was invalid. One of the DLLs required to run this application was corrupt.
- 21** Application requires Microsoft Windows 32-bit extensions.