

# File Fixer Documentation

## What it does

File Fixer is a program for reconstructing files. It allows you to recover information from disks that the Mac says are unreadable, and it also allows you to recover files that have been deleted. This is accomplished by using 12 bytes of information called "file tags" that are attached to each of the sectors on a Macintosh initialized diskette. This information tells File Fixer which file each sector belongs to, and allows File Fixer to determine the sector's proper place in the file. You need not be concerned with the details of how this is accomplished. File Fixer handles them for you automatically.

## What it doesn't do

File Fixer is a useful utility, but don't expect it to perform miracles. It can only recover information which is still on the diskette. If part of the file data has been overwritten, then it is lost forever. If the directory entry for a file has been destroyed, then File Fixer has no way of reconstructing the information it once contained. You must provide this information yourself in the appropriate dialog box. The most important information you will have to provide is as follows: file type, file creator, and whether the "bundle bit" is to be set.

File Fixer is not a disk copy utility. Although it will copy or reconstruct protected files, it makes no attempt to deal with copy protection schemes.

## Instructions for use

After loading File Fixer, select "Open Volume" from the File menu. File Fixer will display a dialog box requesting information about the diskette which contains the file you wish to reconstruct. Click on the appropriate buttons, and then press "OK". At this point, you will be prompted to insert the source disk. (Here the term "source disk" refers to the disk containing the files you wish to recover.) After you insert the source disk you will have to wait a few seconds while File Fixer reads in and sorts the file tags on the disk. Soon, two windows will appear with the titles "Disk Window" and "File Window". The disk window displays information about all the files on the disk, even the ones that have been erased. (Note that the disk window treats the data fork and resource fork as separate files.) If File Fixer can locate a directory entry for a file, the directory information is displayed in the disk window. If not, you will be informed that the directory information is not available. Note in particular the line "Missing sectors:..." in the disk window. If the number of missing sectors is not 0, then only a fragment of the file remains on the disk, so you should expect problems if you attempt to reconstruct this file. (File recovery *might* work even if missing sectors are indicated, since the missing sectors could be from an old

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version of the file.)

The disk window is used for two distinct purposes. First it provides you with information about files on the disk, and secondly, the scroll bar is used to select the current file. The *current* file is always the one that is currently displayed in the disk window.

The other window used by File Fixer is the file window. It is used to scan the current file. The horizontal scroll bar is used to scroll through the file in *blocks* of 512 Kbytes, and the vertical scroll bar is used for scrolling within blocks. The file window is particularly useful for identifying a file when its directory entry is missing. (By the way, don't be alarmed if you see a logical block number repeated more than once as you scroll through a file. This can happen when part of a file is deleted and then rewritten. When File Fixer reconstructs a file, it assumes that the last block written to disk is the correct one.)

Once you have located a file that you wish to recover, select "Recover File" from the File menu. In the dialog box which appears, enter the file name you want to use for the reconstructed file, the type and creator of the file, and check the bundle box if appropriate. (If the file is an application that has its own unique desktop icon, or if it creates double clickable documents, then the bundle bit should be set. If you are unsure of the type and creator, check another file of the same type.) Use the "Drive" button to select a disk to receive the reconstructed file, and click save when everything looks right. File Fixer will do the rest. By the way, if the file has both data *and* resource forks, they will be combined automatically. It's not necessary to repeat the above steps for each fork.

## Disclaimer

I wrote this program some time ago for my own personal use. The addition of the Mac-style user interface was an afterthought. It is not a polished presentation, and probably never will be. In particular, it does not have extensive error checking and general idiot proofing built in, so you use it at your own risk. You should expect strange behavior if you ask it to do something silly like read a double sided diskette from a single sided drive. It will also exhibit strange behavior if you feed it an unformatted disk (or one that your dog chewed up) since it won't give up until it has tried to access every sector on the disk. I should also add that I have not tested it on a machine with the old 64K ROMs, but it should work on such a machine.

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If you discover any bugs please let me know. I might even fix them. My mailing address

Frank Beatrous  
309 Barnes Street  
Pittsburgh, PA 15221

I can also be reached by BITNET at [110343@PITTVMS](mailto:110343@PITTVMS).