



Recover valuable data from your hard drive...

Even if it's hidden, missing, or lost

As a computer user, you know one thing for sure - someday you will lose valuable files, work and time because of a software or hardware failure.

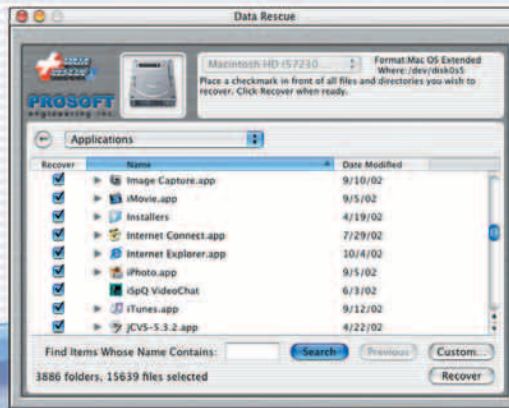
Now there is a solution!

Leveraging new technology, Data Rescue will recover your endangered files, even after other products have failed.

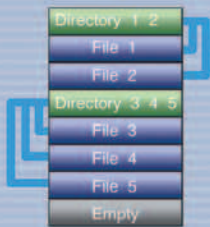
Data Rescue is Different

Focusing on data recovery, instead of hard drive repair, Data Rescue will work in more cases, recover more effectively, and deliver your files in better condition than other utilities you may have tried in the past. Data Rescue analyzes your entire hard drive looking for your data, then it meticulously re-assembles your files and stores them in a safe location.

- + Recovers icons, dates, and even folder hierarchy
- + Leaves the original disk untouched to preserve data
- + It works even when other utilities have failed
- + Recovers files from hard drives even if they fail to mount or only partially operate
- + Professional results, yet easy to use



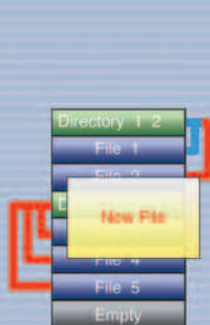
The Anatomy of Data Loss



1. Good Hard Drive

A good working hard drive contains all of your important files neatly organized in an orderly fashion. It is also supposed to contain valid file location information in a hidden file called a directory. This directory file is usually contained in multiple, sometimes disjoint, locations (called directory segments) throughout your hard drive. The directory file's purpose is to contain and point to important information about every file on your hard drive. Information such as file name, size and location are all found in the directory file. There is one record (or directory entry) for each file on your hard drive.

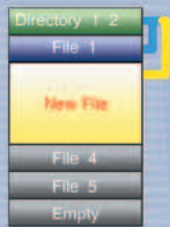
The simplified example above shows a hard drive containing 5 files and 2 directory segments. Notice how each directory entry points to valid files through the light blue lines. This is an example of a good drive - the next two diagrams illustrate what happens when a drive goes bad and the user loses data.



2. Hard Drive going bad

A typical hard drive failure is sometimes caused by a hardware or software glitch, it is unpredictable and the cause is almost impossible to explain after the fact. Regardless of the cause, the result is that files start to become stored in invalid locations (such as places that already contain other files).

In our example, you see a file called "New File" being written into a location that is currently occupying directory information as well as files 2 and 3. It is important to note that several of our previously valid directory entries are becoming invalid (as shown in red).



3. Lost Data

When a drive becomes corrupted, the directory file can point to invalid locations on your hard drive, or become overwritten entirely. In many cases the directory becomes so corrupted, you can see no files on your drive, or your drive will not mount at all.

In our example, "New File" has been written on our hard disk in such a way that files 2 and 3 have been overwritten. These files can never be recovered. Also, the directory entry for file 2 has been replaced with an entry for New File. Furthermore, the directory information for files 4 and 5 has been eliminated, so even though the files still exist, the user cannot see them.

This drive is now in bad shape and the user has probably noticed that files are missing. If nothing is done to correct the problems, more files will be lost.

The Data Rescue Advantage

Hard drive repair utilities focus their attention in your hard drive's directories. In most cases, the utility is able to reconstruct each directory entry as long as there is an associated partial entry to be used as a clue. However, in other cases, if large portions of the directory are missing (because it has been written over by a user file, or that part of the hard drive no longer functions), the repair utility cannot fully re-assemble the directory and you may lose valuable data and files.

In our example, because "New File" was written on top of the directory entry that correspond to files 3, 4 and 5, all three files are no longer accounted for in the new, reconstructed directory. The space occupied by those old files is now marked as empty, even if your important files and information are contained there. Because some valuable files may now be marked as unused space, the repair utility runs the danger of writing the new directory information right on top of your valuable files, and unfortunately, ensuring they will never be recovered.

The drawback to repair utilities is that the root cause of the problems are never addressed. Regardless if the origin of the problem was a software glitch or a hardware failure, just fixing the damage in the directory will not resolve the original error. Chances are, you are in for more data loss in the near future.

Unlike repair utilities that may only repair the obvious damage to your directory, **Data Rescue** scans the entire drive (every byte) and recovers every file physically present on the drive. At no time does Data Rescue actually write to your hard drive because that can potentially cause more damage. Instead, Data Rescue allows you the opportunity to safely store your data in a new location. No attempt to repair your hard drive is made because of the impossible challenge of finding the root problem, so you are not offered a false sense of security in a drive that may fail again in the future. Data Rescue's emphasis is on the value of your data, not the value of the drive.

In our example, Data Rescue scanned the hard drive and located all the files that were recoverable. Like the repair utility, it found files 1 and 2 (New File), but it also found the old files 4 and 5, because they had not become corrupted with the introduction of New File. Since Data Rescue is focusing on the entire drive (not just the directory), it is able to find files that repair utilities miss. Simply put, Data Rescue recovers more files than the competition, period - to those who value the safety of their data, that is a big plus. +

+ **Data Rescue...** Professional grade. The best utility for recovering data from your hard drive. The future of your data is in your hands.