



Typical Causes of Corruption in an Activity ADVANTAGE Database

While we have taken all the programming steps necessary to ensure that your ADVANTAGE database remains in good working order, external factors can cause corruption.

Corruption is an insidious problem in Microsoft Access databases that can cause problems ranging from minor errors in opening screens to the complete and total loss of your data. Sometimes we are able to manually fix corruption, but just as often it occurs in the structure of the database that cannot be manually repaired.

Following is an excerpt from a Microsoft white paper which details the causes and prevention of corruption that are within your control. If you suspect you have any of these issues, it is best to deal with it early.

As always, be sure to back up your database often and routinely verify that your backup routine is actually producing a usable backup file.

Database is Suspect/Corrupted Because of Interrupted Write Operation

Correct shut down that is completed by clicking **Exit** on the main menu, is highly recommended. However, if a database is open and is writing data when ADVANTAGE is incorrectly shut down, the Jet Database Engine may mark the file as suspect/corrupted. This can occur if the computer is manually turned off without first shutting down Windows or if power is lost. Other situations may not shut down Access but may still interfere with the writing of data to the disk by Jet while the database is open. This can occur, for example, when networks experience data collisions or when disk drives malfunction. If any of these interruptions occur, then Jet may mark the database as potentially corrupted. When Jet begins a write operation, it sets a flag and then resets the flag when the operation is complete. If a write operation is interrupted, the flag remains set. When you try to open that database again, Jet determines that the flag is set and then reports that the database is corrupted. In most cases, the data in the database is not actually corrupted, but the set flag alerts Jet that corruption may have occurred.

Faulty Networking Hardware

In this case, the file corruption does not involve the Jet Engine. Rather, the file is literally corrupted by some outside cause. The cause can be one or more links in the hardware chain between the computer that the database resides on and the computer that has the database open. This list includes, but is not limited to, network interface cards, network cabling, routers, and hubs.



Hardware-based corruption is typically indicated by .mdb files that cannot be restored through the use of compacting, of repairing, or of Jetcomp. Hardware corruption typically occurs until the responsible hardware is repaired or is replaced.

Opening and saving the .mdb file in another Program

There is no way to recover a .mdb file that is opened and then is saved in a different program. For example, Microsoft Word permits you to open an Access database, and then to save it. (No purpose is served if you open a .mdb file in another application because all you see are extended characters.) Saving the file this way causes the .mdb file to prompt you for a database password when you try to open the file in Access. This occurs although the file may have never been password protected in Access. The password prompt occurs in such cases because the first byte range that Access checks when it opens a file is the location where the database password is. If that byte contains corrupted data, Access treats the file as password protected. Even if there was a way to get around the password prompt in this case, the database is still unrecoverable because the binary structure is scrambled and therefore unreadable to Access. You must recover a backup copy of the file as the only solution in this case.

Methods that can be used to Prevent Corruption

- ✚ Avoid the loss of power during database writes. If power is lost during a database write, this can cause the database to be left in a suspect state.
- ✚ Avoid dropping network connections.
- ✚ Avoid incorrect termination of Microsoft Jet connections such as power loss, manual shutdown, or allowing Task Manager to shut down the application.
- ✚ Do not run IPX on a Windows NT-based Server where Jet databases are located across the network and the client is Microsoft Windows 95 with Internet Packet Exchange/Sequenced Packet Exchange (IPX/SPX). Instead, run TCP/IP on the Windows NT-based Server and a dual protocol stack of IPX and TCP/IP on the Win95 client. (Windows NT-to-Windows NT with IPX/SPX does not cause the problem, nor does Novell to any client.)