

## Re: Do Transactions guard against corruption?

---

*Source:*

<http://www.tech-archive.net/Archive/Access/microsoft.public.access.modulesdaovba/2008-08/msg00332.html>

---

- *From:* JString <JString@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
  - *Date:* Wed, 6 Aug 2008 22:47:00 -0700
- 

Yes, the company that I work for is having a few problems with the back end being placed in a locked state. After restoring it, I've noticed that there are a few people who's usernames have not been removed from the user table which makes me think that they're just powering off their workstations instead of correctly shutting down, and I've read that that is known to place databases into suspect states. We use Access 2003 though so if that is really the problem then is it possible that the issue was never really fixed?

"david" wrote:

In Access version 2.0, it was common for databases to be left in an indeterminate state, because databases idled in an indeterminate state. That was in 1993.

This is no longer a problem. Access 95, 97, 2000,2002,2003, 2007 don't work that way. It is no longer common to find that a database can't be opened because it was disconnected without being closed correctly.

In Access 2000+, the LDB file is automatically deleted when the last user disconnects. This means that any hanging locks are deleted.

In Windows, file locks are automatically deleted sometime after the user disconnects. This means that disconnected users are automatically disconnected from MDB and LDB files, allowing the LDB file to be automatically deleted, allowing any hanging locks to be automatically deleted.

Have you ever had a database in a 'suspect' state?  
Have you ever had hanging locks?

(david)

## Re: Do Transactions guard against corruption?

"JString" <JString@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message  
news:F8794FF4-043A-4173-A709-0F1E1AB11492@xxxxxxxxxxxxxxxxxxxx

I think I probably should have made myself a little more clear about what I meant by 'corruption'. Obviously corrupt data is bad data that Access cannot handle. However, it's my understanding that Access will mark a database as being 'suspect' if a connection is terminated prematurely, when a user is manipulating data, even if there hasn't been an actual corruption of that data. The end result is that all users will be locked out of the database until someone recovers it.

So I definitely get what you're saying about transactions having no affect on data integrity, BUT, can it guard against a database being placed in a 'suspect' state? It seems to me that if a transaction is never committed (or even rolled back) because of a system crash or whatever, Access shouldn't do this.

"Michel Walsh" wrote:

It seems you put in the same bag very different concepts such as data integrity and database corruption, mainly when you speak of 'user error'.

If the user enter 23 when what should be entered is 32, that is a mistake.

That is a user error and indeed, no transaction could help. A cup of coffee, having a validation number (CRC or otherwise) to be entered, having two people entering the same data are all techniques that may help, but transaction, no.

If the user fails to enter required data, or enter a not existing reference, that should be covered and trapped by table design (not null) or by data integrity rule, etc.

Transactions have NEVER been designed as safeguard for those previous kind

Re: Do Transactions guard against corruption?

of 'user errors' in mind.

Sure, go immediately to the absurd, if its hard disk fails, then you are likely to have to relay on having a RAID system, NOT on transaction, to be able to recover from these errors.

You can come with cases were transactions are useless, indeed.

BUT

the table structures are protected by lock, when you modify them, and internally by a transaction (never got the error message that the modification(s) could not be written because some data won't match a new constraint you just added ?). But you won't use transaction "to protect table structure" when no-one is modifying them, you use a back-up (or scripts, ... or RAID).

Vanderghast, Access MVP

"david" <david@xxxxxxxx> wrote in message  
[news:uUVqlk69IHA.4956@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:uUVqlk69IHA.4956@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx)

Most corruption is caused by user errors. For example, deleting the wrong record. Or updating the wrong record. Or Adding the wrong record.

That happens, and your data is wrong: it is no longer true. It is corrupt.

Access no longer guards against your computer failing or being turned off while you are using it (as it did in Access 2.0), so the only kind of corruption transactions now prevent is the kind of corruption that occurs

## Re: Do Transactions guard against corruption?

when you have a programming or data error that halts a complex sequence of actions, leaving some of your tables updated and some of your tables not updated. This is database corruption: your data is corrupt.

A transactional file system like Novell Netware could do the same thing at the file system level, and it could be used (not with Access) to prevent your data becoming corrupted when the network went down or your computer turned off.

Access also sometimes has problems with the structure of the database becoming corrupted. Transactions are not used by Access to protect the structure of the database. If transactions were used to protect the structure of the database, they would protect the structure of the database during complex sequences of actions, just like you can use them to protect your data during complex sequences of actions.

Access still does not use transactions to protect the database structure even if you use transactions to protect your data during complex sequences of actions.

When you said 'corruption' you probably meant damage to the database structure. No, transactions do not prevent that, because transactions are not used by Access at that level.

If you only have simple database actions,

Re: Do Transactions guard against corruption?

then transactions  
do not do anything.

It is good to keep in mind that corruption of  
your  
data by a network error is much less likely  
than  
corruption of your data by user error.  
Transactions  
do not prevent user error.

(david)