



RJL Systems
33939 Harper Avenue
Clinton Township, MI 48035
Phone +1-586-790-0200
Toll-Free +1-800-528-4513
Fax +1-586-790-0205
www.rjlsystems.com

Cloud File Sharing Services and Body Composition Databases

Introduction

When setting up BC on your computer, you might be tempted to save your database directly into a cloud file sharing service, like DropBox, Microsoft OneDrive, or Apple iCloud. On the surface, this may seem like a good idea - you would be able to access the database from multiple computers, whether you were at the office, at home, or on the road, and using a cloud file service to share the database might seem more straightforward than setting up a file server on your local network or sharing files directly between computers.

Doing so would be ill-advised. If you have an account with one of these services that comes with adequate privacy and security guarantees for your needs, that may be a decent place to store a backup copy of your database, but resist the temptation to place your database there directly.

How cloud storage services typically work

These services work by creating a folder on your computer and monitoring it for changes. When you save a file to the folder, the service sends a copy to their server in the cloud. If a file in the folder on your computer is older than the one that's in the cloud because it was changed on another computer, the service automatically downloads the latest version.

When they check a file to see if it's changed, these services typically lock it, to prevent other applications from opening it until they're done checking. Unfortunately, the ways of locking files used by the services tend to not play nice with the file locks used by our database system.

What could possibly go wrong?

Everything may seem to work just fine for quite a while, but it is likely only a matter of time before something goes wrong. When it does, these are the most likely issues that may occur:

1. When you change a file in a cloud folder, there is a delay between when you make your change and when the version in the cloud gets updated. Then there is another delay between when that update happens and any copies of that file on other people's computers gets updated.

Because of these delays, if two people are accessing the same database, and they both save tests at nearly the same time, it is possible that only one person's changes are kept.

2. Because of incompatibilities between the way the cloud services interact with files and BC, it is possible for the database to reach a state where BC can no longer save data to it, but can still read records that have already been saved, and generate reports.
3. The cloud service could not only prevent BC from being able to write to the database, but prevent it from reading from it as well.
4. In some cases, it is possible that BC and the cloud service interact with each other in such a way as to completely corrupt the database file, resulting in a total loss of the data.

What you should do

In short, copy or move your database to a folder that is not managed by the cloud file service. Follow these steps:

1. If the BC program is currently open, close it.
2. Open your computer's file browser dialog. (eg: Windows Explorer, or Finder on Mac)
3. Browse to the folder your database is currently saved in.
4. Select the database file. Either right-click on it and select copy, or select copy from the window's menu bar.
5. Browse to some location outside of any cloud sharing service. Your documents folder is a good choice. If you are sharing the database with multiple people who use different login accounts on the computer, your computer may have a location set up for that purpose. (For example, C:\Users\Public\ on Windows) You may create a new folder if desired.
6. Paste the database file into its new location.

7. Open the BC program. At this point, it will still be trying to access the database from its old location.
8. Go to the File menu and select *Open or Create Database*.
9. Browse to the location you copied the database to, select it, and click the Save button. BC may ask if you are sure that you want to change databases. If it does, select Ok.

BC should now be using the database in its new location.

You may choose to delete the database from its old location, or to keep it as a backup copy.

What to do if it already went wrong:

Here are some suggestions on things to try:

- Copy the file out of the cloud folder. Follow the directions in the section **What you should do**. Just moving the database file to a location that is outside of the cloud service's influence may be sufficient to restore proper function.
- The cloud file service may have older versions of the database file backed up for you. Check the documentation for the cloud file service you use to see if they provide a **Version History** for files, and if so, how to restore old versions of the file.

If they do have older versions available, start with the most recent version of the file that is older than the current one. Note that when you restore an older copy, that becomes the newest version, so you will want to keep track of which ones you have tried.

Each time you try restoring an older revision, the service will replace the file in its folder with the version you selected. Follow the numbered steps in **What you should do** to place the database file in a safe location and testing to see if it works.

- If the cloud service does not have any older versions of your database file, or if you are unable to get any of the ones they have to work, then unless you (or your IT Staff) have been making your own backup copies of your database, the data is gone.