

RoadSoft RoundUp

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Database Management Essentials

Accidents happen. No matter how thorough your agency is with maintenance and upkeep, unforeseen events like hardware failure or power loss can cost your agency hours of work, potentially undoing valuable data entry and analysis.

However, by periodically making backups, you can prevent accidents and easily restore your RoadSoft database if necessary. To keep your database safe, RoadSoft software engineers recommend taking the following steps.

Know How to Create Backups

The first step in keeping your data safe is to be familiar with the ways that you can back it up. You can access the RoadSoft *Database Management* tools in the following locations:

1. The *RoadSoft Database Manager* utility that is installed with RoadSoft
2. The *Options* menu in the RoadSoft User Login window when you first start RoadSoft
3. In the *Tools* menu in RoadSoft

The process for creating and restoring database backups is described in detail on the RoadSoft video tutorial page (see <http://www.roadsoft.org/training/tutorialvideos>). Written instructions for database management are included with every new RoadSoft CD.

Working with a Shared Database

If your Roadsoft database is shared, pay special attention to other users. "A common mistake that we see with shared databases is that people will back them up while others are making changes," explains Software Engineer Nick Koszykowski. "Then, if the person who made the backup decides to revert to an old version of the database, it can inadvertently undo all of the changes other users have made in the interim."

"The best way to back up a shared database is to have a system administrator set up automated nightly backups using commercial software," says Koszykowski. Users that need to perform a backup on a shared database manually may need elevated credentials on the server.

When to Create Backups

Having a schedule and plan for creating backups is essential. How often you should make backups depends how often you make changes to your database. If your agency frequently edits asset information, you should make backups at least once a week. If your agency doesn't edit data often, creating backups once a month (or less) should be sufficient.

You should always back up your database before making significant changes. "Many of the problems we see are with users who forget to back up their data before performing an important task like a data migration or an LDC import," says Software Engineer Mike Pionke. "If you accidentally overwrite important data while making a major change, the only way to recover your data is to restore it from a backup."

Where to Store Data

A final point to keep in mind is where you store your data. By default, RoadSoft stores database backups on the same computer that your database is stored on. While these backups can be effective for reverting changes, they will not protect against hardware failure. If the hard drive your database is located on were to crash, you would also lose all of the backups stored on it, crippling your ability to recover your data.

"The best practice a user can get into is storing backups in multiple places," explains Pionke. External storage devices such as a flash drive or CD are excellent for this purpose. Wherever you store your backups, make sure that you update them often and keep them secure, just in case.

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