



12Ghosts 2ndBackup

The Airbag for Your Data

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Keep copies of every change of your current documents while you are working on them! Automatically store changed versions in an archive folder and apply a smart filter that knows how many files and exactly which one you want to keep.

2ndBackup creates second copies of all changes. It creates one version per **minute** for the last 60 minutes, one version every **hour** during one day' time, one version every **day** for the last month, and one version per **month**. This way 2ndBackup keeps a full history of all changes but requires only moderate disk space. It is as reassuring as having an airbag for your data!

2ndBackup uses a technology that does not require any processor power while waiting for a change! And even while running it does not block other foreground applications because it runs in idle time, that is, when the processor is not otherwise active.

Straight forward user interface. Integration into Windows Explorer. Add and restore files with a simple right-click.

New in this version

2ndBackup supports backing up **complete folders**, subfolders, as well as using **wildcards** like *.doc. You may add complete directory trees but exclude certain files or

subfolders from being backed up. You could add the auto-recovery Word files *.asd in the "temp" folder. Or backup all *.c files in the "C:\Source" folder after every change - automatically, with a simple command.

Notes

Microsoft Word Users: If you use Microsoft Word on Windows 95/98 you need to *deactivate* the option (Tools - Options - Save -) "Allow fast saves". However, this setting is recommended anyway in order to keep file sizes small.

Microsoft Word Users: You can also include the automatically saved auto-recover files, which you find in your TEMP folder as "AutoRecovery save of DocName.asd". Add this folder with the wildcard *.asd to 2ndBackup in order to have your data always secured automatically. Check to see if the option (Tools - Options - Save -) "Save AutoRecovery info every..." is activated and the time is set at a convenient interval.

Setup: If you use Windows NT, only an Administrator or a Power User has the right to install a menu extension (the right-click context menu entries in Windows Explorer). However, you can also add files directly to 2ndBackup without installing the menu extension.

Caution: Don't change the system date (for example for testing purposes) by several days or months while running 2ndBackup! See the [2ndBackup Q&A](#) for more details.

"Just the principle of 2ndBackup is brilliant." PC Online, 1/99, tested 27 backup tools for Windows and Linux, and 2ndBackup was one of seven fully described programs.

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Start Using 2ndBackup

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2ndBackup does not need any configuration. You only need to enter the list of your documents to be backed up. If you need further explanations for the settings dialog box either press F1 for context help or click the Help button.

In the Options tab of the settings dialog box you can change the 2ndBackup folder, that is , the archive path to which the 2ndBackup files will be copied. If possible, use a second disk drive in order to take precautions against disk failures as well.

Windows Explorer Extension

Instead of working with the 2ndBackup settings window, you can also add or remove files from within the Windows Explorer, as well as in any Open or Save As window. There should be a new entry in the context menu of files and folders, i.e., when you right-click on a file you should find the entry **Add to 2ndBackup**. This command will add the file to 2ndBackup and open the settings window for you to confirm the changes.

If the file was already added to 2ndBackup, the menu entry changes to **Remove from 2ndBackup**. Again, the settings window will open, listing the files that have been added, but now without the file that was just removed. Click OK to confirm the removal or

Cancel to keep the file.

You can find all backed-up files easily by right-clicking on the 2ndBackup taskbar tray icon and selecting the command "Open 2ndBackup Folder". If you click on a file in one of the four 2ndBackup folders, the context menu entry is **Restore out of 2ndBackup**. You will be asked to confirm your selection.

Options

2ndBackup offers three options to control 2ndBackup behavior:

- **Pause 2ndBackup** - You can stop 2ndBackup. For example, if you need to rename one of the included folders, you need to stop 2ndBackup temporarily.
- **Sound on Copy** - Choose if you want to have acoustic feedback on backup. You will hear a sound everytime 2ndBackup detected a change in one of the included files.
- **Explorer Menu Entry** - Add the 2ndBackup command to the context menu. That is, the menu that opens when you click with the *right* mouse button on a file or folder in Explorer or in any Open or Save As... dialog box.

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An Example: SaveLayout

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2ndBackup has its roots in the very first 12Ghosts utility, [12Ghosts SaveLayout](#), which saves the desktop icon layout. SL has a marvelous function, called "AutoSave", that creates not only one layout file but in fact up to 100 different versions. If at any point a misarranged layout is inadvertently saved, then simply return to one of the previous versions that still has the correct layout.

So we thought, if this works for SL why not make it available for other documents, too? So we developed 2ndBackup.

You should add the file "layout1.sl" on your desktop to 2ndBackup to keep a history of all layout changes. You can also save the layout at regular intervals with an application scheduler like [12Ghosts Timer](#). You will find that the SaveLayout Example may be easily added to 12Ghosts Timer.

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Backup Strategies

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Well, security is the one thing we really like to stress. It's maybe surprising, but at 12Ghosts Inc., we do not use a special backup program nor do we have a streamer. We use **12Ghosts 2ndBackup** for virtually all our documents and XCOPY started through **12Ghosts ShutDown** for daily backups.

2ndBackup

Our most important data, like this help file, the 12Ghosts source files, to-do lists, business tables etc., we've added to 2ndBackup, which does all the backups to a second disk drive. Sometimes we've had to go back to a version that we worked upon the other day and were able to find it easily in the 2ndBackup folder.

You don't need to pay any attention to 2ndBackup - it does everything automatically as long as it's running. Only when you create a new file or folder make sure to include it to 2ndBackup.

XCOPY and ShutDown

When you turn off your computer you're truly never certain whether it will start again. The last time one of us did not backup before shutdown, he had tinkered around with an old FAT disk editor on an NTFS partition...scary! We almost lost everything we did that day. - Since then we all make sure that we start our backup before shutdown. We do a backup as we always did: just copy changed files to a second disk drive after making extensive changes and certainly every time before shutdown. We use 12-ShutDown to start the backup automatically.

With 12-ShutDown you no longer need to think about your backup, just add XCOPY as the program to start before shutting down. 12-ShutDown will wait for the program to close, and will shut down on its own after that. Here is an example:

```
xcopy "C:\My Documents" "D:\Backup\Docs" /d /s /e /h /r /i /f /c
```

You will probably have to adjust the paths. Make sure to enter "xcopy" in the Start Path field, and the rest in the Parameters field.

The options are the same for Windows 95/98/Me/NT/2000. The above parameters mean that you want to copy only files with a newer /date (i.e. "incremental"), copy directories and /subdirectories, including /empty ones, also copy /hidden and system files, overwrite /read-only files, assume a d/irectory not a file, and display /full paths while copying. Most important is to /continue even if errors occur, for example, if a file is in use. Doing a copy in Explorer does not do this!!!

Replace "My Documents" with the folder you want to backup. It is always a good idea to put all user data in one folder. However, you can add more than one command to 12-ShutDown. If possible, keep data that doesn't need a backup regularly in a different folder. This will fasten the backup process.

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Copy and Rename with 2ndFolder

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2ndFolder is a companion to 2ndBackup. You may want to set up a timer to schedule 2ndFolder.exe (in the 2ndBackup installation path) to copy and rename folders in one step.

This is very helpful if you just want to have a complete folder twice. This way you have all containing files together in one place. 2ndFolder will make sure that no files are overwritten by renaming the second folder with a unique name, automatically adding the current date and time.

The syntax is:

```
2ndFolder.exe <source-path> <target-path>
```

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2ndBackup Questions & Answers

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How do the developers of 12Ghosts do their backups?

What happens when I change the system time?

2ndBackup relies on a continuous system time. You can of course adjust the system time, also for Daylight Savings Time, or let the time be synchronized automatically. 2ndBackup will issue a confirmation message if the date was changed by more than one hour.

But when you start 2ndBackup with the system date set to a date several months in the past or several months in the future, 2ndBackup will use that system date to consider if files need to be copied or deleted and might keep less versions than intended or might not backup changed files at all.

Here's why: When you start 2ndBackup with a changed system time all versions from the last month might be "outdated" and only the newest version per month will remain. Furthermore, files changed in the "future" will never be copied, since they seem to have a newer version already in the backup path.

If you change your computer's date, for testing purposes for example, you should stop

2ndBackup during this test. Or rename or make a copy of the complete 2ndBackup folder prior to changing the date and time.

Does 2ndBackup need processor or memory resources?

Usually, 2ndBackup is just sitting there *doing nothing* until a change occurs in one of the scanned files. While it is waiting, no processor cycles and no memory are used by 2ndBackup but the system notifies 2ndBackup of any changes in the files.

Even when it is running, it does not use up valuable processor cycles, since 2ndBackup (actually, b2notify.exe) runs as an idle task! An idle task will only be administered processor cycles by the system if no other programs are using the processor.

Why is b2notify.exe restarted?

2ndBackup will recheck all included files after you click OK in the 2ndBackup window. Actually, this will always stop the currently waiting instance of b2notify.exe and start a fresh instance. This is an additional redundancy to assure proper working.

Does 2ndBackup lock the folders under its care?

Yes, while 2ndBackup is running all folders included in 2ndBackup cannot be renamed or deleted. You'd have to pause or stop 2ndBackup temporarily if you want to rename those folders.

Do I need to delete older files manually?

12Ghosts 2ndBackup keeps one version per month of every file added to 2ndBackup. One additional file per month should not be a problem for your system. Older versions per minute, hour, or day are moved down the hierarchy gradually. They will be removed from the respective folders automatically.

If you have the need to clear files older than one month open the folder "<2ndBackup-Path>\d One per Month", where <2ndBackup-Path> is the folder you specified in the 2ndBackup options. Check for files you don't want to keep any longer and delete them according to your security needs.

I get error message 'Cannot install notify handler...(7)'. What can I do?

The folder and volume names are probably identical. This reportedly occurred on some Windows versions for reasons you need to ask Microsoft. Please rename either the volume or the folder.

Sometimes, the minute appended to a copied file name is not the same as the minute displayed in Explorer!?

Yes, it is a little surprising that the Windows Explorer displays the wrong time. Please look in the properties of the concerned file and compare the last modified time. If the time ends on 58 or 59 seconds, Windows Explorer rounds up to the minute. Not 2ndBackup.

Anyway, in Windows 95/98 the precision of file times on a FAT file system is 2 seconds at most.

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