Backer 2.99 <ASP>   Online Help

Backer is a Windows utility for synchronizing and updating directories and files via network, disk, IR, or cable. **Backer** keeps all your computers and disks up-to-date.

With **Backer** you can:
synchronize your notebook before you travel and your desktop afterwards;
transfer files between your office and your home;
backup your day's or week's work;
keep current copies of system files on disk to be prepared for a crash;
and many things more.

Features of **Backer**:
Convenient setup. Uses file creation / alteration dates to compare. Interactive selection of included or excluded files, file types and directories. Several options for sorting, path reduction, confirmation and filtering. Takes parameters for automatic work and keeps a log of all actions. Fast access to stored configurations. Can cope with large volumes. Writes standard MS-DOS files - readable on virtually any computer in the world without special software. Comprehensive online help with many examples.

Backer is an indispensable tool for everyone who works on more than one computer; those who do not want the cost and hassle of commercial programs just to backup 20 files a week; and network administrators who want a simple yet powerful backup tool on everybody's PC.

Installation
Any computer that can run Windows 3.1 or later can run **Backer**. Under How do I install this program? you will find details on installation.

Some very important hints to begin with:

For optimal use knowledge of some basic terms is required.

Since **Backer** works with your valuable data, please take the time to familiarize yourself with its operation before attempting ambitious tasks with it.

Backer bases its decisions on the date/time stamp of each file. This stamp is updated to the present date and time each time a file is modified by an application. If the clock in one of your computers is inoperative, the stamp used by this computer will be incorrect. Do not use **Backer** on computers with inoperative clocks.

If you have changed more than 1 copy of a file after the last synchronization, the next synchronization will discard the older of the two changes. In such cases you must combine the changes into 1 file by hand.

Users of Windows 95 should read the special hints and the warning against long file names.

Answers to frequently asked questions can be found with the button *Problems?* above.

Help topics are grouped in the following categories:

And finally...

You want to read this help like a book, from front to back, without being puzzled by the lot of cross-references? Quite simply: Each of the five categories can be leafed through by the buttons >> und <<. Thus you get to see the complete texts, with the exception of those hiding behind some of the graphics (recognizable by the sentence "Just click on the spot you want to learn more about.").

Questions

What can I do with this program?

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What can I do with this program?

Backer compares two different versions of one and the same file by their creation dates and times. This job, although not very demanding, allows a variety of applications:

You can update the data on two computers, i.e. synchronize them in terms of file versions. A newer version replaces an older one; files not present on one machine are considered ancient for this purpose so that they are added. Updating can optionally work in only one direction or in both. This is useful e.g. between a notebook and a desktop system or among network computers.

You can save your important documents to disk (backup) in case they accidentally got deleted from your hard disk or that device refuses to work. Unfortunately, floppy disk space is pretty scarce, but since you can have individual workfiles for several projects or applications you can divide data volumes down to fit on a single floppy disk.

If data loss really has occured you can restore your documents from disk. **Backer** does not care between which drives you want to copy to and fro, meaning you can proceed just like with the backup.

You can save your system files to disk so that you can restore these important files any time in case your computer has become 'sick'.

And last but not least you can compare directory trees in general, even without any kind of updating, or just copy files or use it as a general search tool.

As mentioned, you can put together **Backer**'s tasks as needed and store them in workfiles so that you can start right away the next time.

How do I install this program?

Any computer that can run Windows 3.1 or later can run **Backer**.

The actual **Backer** consists of BACKER.EXE and BACKER.HLP, i.e. executable program and online help file. The BAC files are examples of workfiles. You must copy these files into a directory of your choice. You can create a group in the Program Manager or add it to the Start Menu respectively according to your personal preferences.

BWCC.DLL is needed to enhance the user interface. Move this file to your Windows system directory (usually C:\WINDOWS\SYSTEM\) *unless you already have the same or a newer version there*. Do not rely on the displayed date but check its version number by pressing *Alt+Return*. Note that there are international versions of this file so you can select the one appropriate for you. Supplied here is the English version 2.03. You can do nothing wrong with a newer version.

A special installation program is exaggerated in this case, I think, especially because they often make changes in the Program Manager or Start Menu respectively without question and register every unimportant file individually. Those who are overtaxed with creating directories and copying files are certainly not the target audience of **Backer**.

How do I deinstall this program?

Delete BACKER.EXE, BACKER.HLP, and all BAC files; also README.TXT, FILE_ID.DIZ and VENDINFO.DIZ, if you have not done so already.
BWCC.DLL in the Windows system directory (usually C:\WINDOWS\SYSTEM\) may only be deleted if you are positively sure none of your other applications will need it. Advice: Leave it on your hard disk, it is not that big. **Backer** does <u>not</u> modify your system files (AUTOEXEC.BAT, CONFIG.SYS, WIN.INI, SYSTEM.INI; or the Registry in Windows 95); however, in your Windows directory (usually C:\WINDOWS\) a file called BACKER.INI is created that can also be deleted.

What is new in version 2.99?

Version 2.99 has improvements especially for business customers but, of course, for anybody else, too:

The percentage bar during an update shows the whole data volume, not the single file pair.

Due to a more efficient internal data structure very large volumes (more than 3000 file pairs) can be handled distinctly faster.

A new command line parameter allows unattended working even with error messages. Automatic exiting works under Windows 95, too.

The log is more comprehensive.

The overview builds up and down considerablyfaster, can show 16500 instead of 400 file pairs and allows single line display. Files to be copied in backward direction are easier to recognize.

The destination can automatically include the present date so that you can build an archive of old versions (e.g. interesting for programmers).

The quick setup comes in handy when you need a 'quick and dirty' update without the hassle of rarely used options.

Hidden and system files and directories can be found, too.

Files present in the destination but not in the source ('orphans') can be deleted automatically, as well as empty directories.

Drag and Drop is supported.

The list of recently opened workfiles has 6 entries instead of 4. The Top Five can be opened without being started immediately, too.

The structure of workfiles has not changed, but you have to disable the daily changing destination by hand when opening old files.

How exactly does this program work?

Because a file's creation date and time remain untouched when being copied or moved under MS-DOS and Windows 95 this is a very reliable criterion of newer file versions. In this sense replacing an existing file is also a form of creation, but *only if you, the user, demand this by giving your application a save command for a revised document*. You see: It is you, not the computer, who affects a file's creation date and time.

Other backup utilities check a file's so-called archive bit to decide whether it has already been backuped. In case you want to archive large data volumes over a long time this is quite useful. In case you want to archive manageable data volumes on a few disks, however, a date/time comparison is much more reliable, as does **Backer**.

Communication between computers is left to those who know best how to do it: your operating system MS-DOS or Windows 95 respectively. They offer, via Interlink, Direct Cable Connection, or networks, powerful capabilities I could not do half as good myself. Instead, I put some extra work in **Backer**'s main task, the search for files to be processed.

To put it another way: The operating systems mentioned above present all available mass storage devices through drive letters (A: to Z:). What they stand for physically (a floppy disk, a hard disk or a CD-ROM, in your own or another machine) and how you are connected to them physically (by serial or parallel cable or by network) need not be your concern - you only want to access their directories and files. **Backer** thinks just the same.

Something **Backer** can certainly not do is starting applications on remote computers. The market offers enough utilities for that purpose. Besides, I hate programs overloaded with features.

What is the difference to the competition?

This program has been developed, like so many others, because someone was not satisfied by what the market offered.

Commercial backup programs often feature high transfer rates and good compression; however, this reduces compatibility, i.e. cooperation with other computers. Usually these backups can only be read by the program that created them. And what quickly annoyed me was the bad habit of one of these to pile up files and directories on my hard disk. This makes the File Manager / Explorer slow and confusing. **Backer** creates normal MS-DOS files that can be read on almost any computer in the world - thanks to industry standards! What is copied where is at only your command.

Many backup program detect files to be processed by the archive bit (an "a" behind its name in the File Manager) and clear it afterwards. If you are one of those safety fanatics who want two subsequent backups you can forget about that. **Backer**, on the other hand, judges files to be processed by their creation dates, which is not altered by a backup.

Today there is MS-DOS 6 and Windows 95 with their built-in capabilites for PC connection via standard cables. **Backer** uses these capabilities instead of creating its own standard. Focussing on a single task eliminates one source of bugs and, of course, also affects the retail price positively.

Smaller products, like this one, often set a fixed and pretty low limit to the number of records etc. **Backer** can handle approx. 16500 file pairs (if memory allows), making it a lot more powerful with bigger data volumes.(1) It does not spread its data all over the hard disk, either, but uses workfiles containing all updating information in one directory of your choice. Should you need a really complicated constellation you can simply create several workfiles and run them one after another. **Backer**'s ways to automate tasks might prove helpful here.

Users of Windows 95 should also read the hint on My Briefcase.

(1) For instance, a P100 with 16 MByte RAM copes with a data volume of 650 MByte and 16251 files in an acceptable time. A DX4/75 with 12 MByte RAM needs considerably longer for that but can cope, too.

What is a workfile?

A workfile tells **Backer** what to do. It contains the source directories and files to be processed, the destination to copy the files to and the options you selected. To put it shortly: It knows everything about your updates or backups.

The file name extension normally is BAC. You can specify one of your choice, but what for? Besides you lose the chance to include a workfile in the command line or Drag and Drop one to be opened automatically - this works only with the extension BAC.

In case you want to learn more about a workfile's structure...

What are drives, paths, directories etc.?

You should be proficient with these terms and objects to get the most out of **Backer**.

Drives are anything that hides behind a letter with trailing colon. Typical examples are A: for the first floppy disk drive, B: for the second, C: for the hard disk drive, D: for a CD-ROM drive or a second hard disk drive. Basically anything from D: can be allocated freely to network drives, CD-ROM drives, removable media drives, Interlink connections or Direct Cable Connections (that is drives on another computer) etc. It is the task of your operating system MS-DOS or Windows 95 respectively to administer all this, and this task gets done very well.

Files are, from a user's point of view, the basic storage element on a drive. If you write a letter in your word processor and save it to disk, MS-DOS / Windows 95 will create a file on the drive you specify. Images, applications, spreadsheets, sounds, videos and so on are all examples for files. There is, of course, the possibility to bundle several of these together into a single new file, often called an archive. A file has a file name and a file name extension, often also called type. Both are separated by a period. Before Windows 95 the choice of name was limited to 8 characters for the file name and 3 characters for the file name extension. It is customary to name a file without or also with path.

Directories tell the place where a file can be found on a drive. MS-DOS / Windows 95 allow hierarchical directories, i.e. you can set up subdirectories and thus build a directory tree. This simplifies the overview considerably. The best example is the Windows directory, C:\WINDOWS\ as a rule, that in turn contains various subdirectories. Practically everything Windows needs to function is gathered there. Directories and subdirectories are lined up one after the other, separated by a backward slash.

Paths are simply a drive letter with colon plus directory. They tell the place where a file can be found on the whole computer (including all drives connected to it via network or Interlink / Direct Cable Connection).

Example
For the file C:\TEST\BACKER\BACKER.HLP the path is C:\TEST\BACKER\, the file name BACKER and the file name extension HLP. The drive letter is C: and the directory \TEST\BACKER\.
The file A:\TEST\BACKER\BACKER.HLP matches in directory, file name and file name extension but has a different path due to the drive letter.

Windows 95 names directories folders and files partly documents. (Strictly speaking, folder is a more general term than directory, since it cannot only contain files but also any other object. An example are the folders for fonts or printers.)

Important!
Although under Windows 3.1 theoretically 80 characters per path are allowed, in practice only about 55 characters are possible. Longer paths lead to errors. The problem arises especially under Windows 95 that always creates a short name suitable for Windows 3.1 but does not check if the total length of 55 characters is exceeded. Do not, however, confuse this problem with the long file names of Windows 95.

How can I automate my work?

Quite simply: by the command line(1).

Backer allows five so-called parameters:

a file name with the mandatory extension BAC (to allow correct identification) appearing first in the parameter list. This workfile is then automatically opened.

a suffix */start* that starts updating automatically; must be after a file name, if specified

a suffix */stop* that after updating automatically stops **Backer**; must be after a file name, if specified

a suffix */exit* that after updating automatically exits Windows; must be after a file name, if specified, and works only in conjunction with */stop*.

a suffix */suppress* that suppresses error and warning messages during updating; must be after a file name, if specified. To be noticed of errors you should enable the Log. Errors outside updating are still displayed.

The analysis used for the command line is admittedly not too sophisticated. All parameters mentioned above will be identified with no problems, however, if you do not abide by the syntax you may receive strange results... Capital and small letters are equivalent, by the way.

By combining the parameters above you can make updating run by itself. E.g., by putting *travel.bac /start /stop* on the command line right after **Backer**'s program name the workfile TRAVEL.BAC gets opened, updating starts, and after all work is done **Backer** exits. Thus you can easily integrate it into other applications.

Remember that under Windows there is no limit on the number of iconized copies of one and the same program, e.g. the 'normal' version of **Backer** and a customized one with a command line. To tell one from the other a second icon(2) is available. Hint: The icon used by the running program cannot be customized. **Backer** automatically switches to the second icon as soon as it finds */start* or */stop* in the command line This will affects all running copies!

Another handy way to use the command line is to link the file name extension BAC to the BACKER.EXE executable file. Thus you will only have to double-click a workfile's name to get it opened and **Backer** started.

Three more hints:
Windows sometimes cannot handle painting of the various program windows properly. When using /*start* you may not see **Backer**'s main window.
All options specified by you are used. If confirmation is enabled you will hardly have an automatic run!
Not all program launchers like these parameters. Windows' own Program Manager shows no problems, but my personal favorite Clysmic Icon Bar (Copyright by Clysmic Software) crashes.

(1) This remainder of DOS obviously makes sense under Windows, too. You can specify it in the Program Manager by clicking **Backer** once and then pressing *Alt+Return*.

(2) You find it by clicking **Backer** once in the Program Manager, pressing *Alt+Return* and selecting *More icons...*

How can I use Interlink of MS-DOS 6?

Interlink helps in the simple and inexpensive data transfer between two computers. All you need is MS-DOS 6 and a so-called null modem cable(1). Take a parallel one, it is considerably faster than a serial one. I recently paid about US$ 8 for it. Tell the retailer explicitly that you want a connection cable, not a printer cable. Another possibility is Infrared (IR).

On one of the two machines add the lines "DEVICE=C:\DOS\INTERLNK.EXE" and "LASTDRIVE=Z" to the CONFIG.SYS file and reboot it. On the other enter "INTERSVR" at the MS-DOS prompt. It does not matter which computer takes which role.

Now you can start the File Manager / Explorer on the first computer. Among the drive symbols you will see some new entries. The second computer tells you which letters its drives now bear and whether Interlink is reading or writing data.

For additional information see the MS-DOS 6 manual or enter "help interlnk" at the MS-DOS prompt. Users of Windows 95 can use Interlink, too (instead of the Direct Cable Connection), provided they can get a legal copy of the files INTERLNK.EXE and INTERSVR.EXE.

(1) MS-DOS tells you the exact assembly of such a cable when you enter "help interlnk", click the notes on the top and leaf through them. In case this goes over your head choose "File | Print" and see your local retailer.

I have Windows 95 - what changes?

Not much changes, since programs for Windows 3.1 also run under Windows 95 without problems. You have to do without long file names, though, until the next update (scheduled for April 1996). You can probably get over that, because as long as you have not switched all applications and utilites to Windows 95 long file names seem to be more of a curse than a blessing.

If you want to connect a computer with Windows 95 and a computer with Windows 3.1 directly you will notice that this does not work with the Direct Cable Connection of Windows 95. Simple solution: Use the Interlink file pair INTERSVR.EXE und INTERLNK.EXE from MS-DOS 6 under Windows 95, too - this may seem outdated but it works fine. Even between two Windows 95 machines this makes sense - I prefer to have two small standalone files instead of installing a complete network. Note: INTERLNK.EXE and INTERSVR.EXE are copyrighted files and may not be copied without valid licenses for MS-DOS 6.

Have you tried My Briefcase? It makes a copy of each file to be updated in the directory C:\WINDOWS\DESKTOP\MY BRIEFCASE (or another Briefcase directory you assign). It does not compare two copies of a file directly but only via this unnecessary third copy. That way, a direct comparison of directory trees is impossible. The idea behind My Briefcase is that you work with the file copies inside it when you travel, just as you would with a real briefcase. Sounds good, but what about those people who prefer to have their files in custom-made directory structures?

Known problems under Windows 95

As a Windows 3.1 program that has always kept to Windows standards **Backer** runs under Windows 95. In my testing I had to notice, however, that it sometimes crashes without reason, although the same settings have worked before flawlessly. It often helps to shut down other applications, especially the Explorer. My guess is that Windows 95 does not like more than 1 application doing a lot of file input/output simultaneously.

Although under Windows 3.1 theoretically 80 characters per path are allowed, in practice only about 55 characters are possible. Longer paths lead to errors. The problem arises especially under Windows 95 that always creates a short name suitable for Windows 3.1 but does not check if the total length of 55 characters is exceeded. Do not, however, confuse this problem with the long file names of Windows 95.

Long file names?

Windows 95 allows file and directory names of up to 255 characters, including spaces and other special characters, instead of the old 8.3 limitation.

Although **Backer** still is a 16 bit program there are ways to work with Windows 95 long file names. In spite of that it lacks this feature, and there are good reasons for that.

In order to let 16 bit programs access files with long file names Windows 95 creates a short name following the old 8.3 convention by preserving the first six characters of the long name and adding a tilde ~ as well as a digit. The file name extension stays the same. You can display the short names via the properties of a file or directory / folder.

The "Birthday letter to Grandma.DOC" thus becomes BIRTHD~1.DOC. So far, so good. If later another file name is identical in the first six characters the digit will simply be counted up. The "Birthday card to Peter.DOC" thus becomes BIRTHD~2.DOC. Still there is no problem.

If, however, you now create a "Birthday greeting to Susy.DOC" in another directory / folder or on another computer it will also get the short name BIRTHD~1.DOC. Copy this letter using a program without long file names (and this means Windows 3.1, too!) to the other two, and the letter to Susy overwrites the letter to Grandma, since the short names are identical. But even if the copy program supports long file names you will have a problem: The letter to Susy's copy gets the short name BIRTHD~3.DOC. One and the same letter thus exists under two different short names and will puzzle every program that does not yet support long file names - and there is hardly anybody who has none of those anymore.

What you can do against it: Make sure that no two long file names in the same directory / folder start with the same six characters. If you follow the advice below this count is raised from six to eight.

How to avoid the tilde character and get short names with eight characters:
1. Run C:\WINDOWS\REGEDIT.EXE to edit the Registry that contains the user and system settings.
2. Expand the branch HKEY_LOCAL_MACHINE in the left window until you reach HKEY_LOCAL_MACHINE\System\CurrentControlSet\control\FileSystem.
3. Click on FileSystem in the left window. In the right window you see a list of the values assigned to the FileSystem key.
4. Select Edit | New | Binary value.
5. Enter "NameNumericTail" without the quotes and press *Return*.
6. Double-click on the new entry NameNumericTail, enter the value 0 (appears as 00) in the dialog box and press `OK`.
7. Exit REGEDIT and restart Windows 95.

File names with tildes that already exist remain untouched by this, and as soon as a long file name is identical to an existing one in the first eight characters Windows 95 falls back to the tilde with digit. In these cases you must rename the long file names by hand, e.g. with the Explorer.

If you think now "What a hassle these long file names are..." then you know why **Backer** does not yet support them. For the time being, do not use any long file names, or you will live to curse them. Long file names may occur even though there are not more than eight characters but a character formerly not allowed, like space, is contained.

Example 1: Backing up system files to disk

What does your computer do when important system files like AUTOEXEC.BAT or CONFIG.SYS get lost or damaged? Not much anymore!

SYSTEM.BAC

To prevent this ill fate you can copy these files and the INI files created by almost any Windows program for basic settings to disk. Simply open the workfile SYSTEM.BAC, insert an emtpy floppy disk into drive A: and start updating.

Under Windows 95 USER.DAT and SYSTEM.DAT replace the INI files. A total of three backup files belong to these two files. All five are backed up by SYSTEM.BAC, too. This does not mean that the INI files are obsolete - your applications are presumably not all versions for Windows 95 yet. (If you have no Windows 95 installed you can do no harm with SYSTEM.BAC.) Unfortunately, these five files as a rule do not fit on a single diskette - omit SYSTEM.1ST, SYSTEM.DA0 und USER.DA0 then.

This disk's full power can only be unleashed, however, if it is a system disk, meaning it was formatted with this option. Thus it can be used to boot your machine after a hard disk failure. Remember to update this disk regularly.

DESKTOP.BAC

Not vital for your computer, but annoying when it gets lost: Your user interface, that is to say the settings of your Program Manager or Start Menu plus Desktop respectively. Many a user has put a lot of work into this. Has it never happened to you that under Windows 95 you accidentally clicked "Arrange icons", and suddenly your whole arrangement was a thing of the past?

The information on the many icons is partly stored in the system files mentioned above, but partly also in further files that you can back up with DESKTOP.BAC. Disk space permitting, this can be to the same disk as SYSTEM.BAC. The reason for splitting is that thus you can store and recall different user interfaces, though you will lose the exact icon positions on the Windows 95 desktop - have them rearranged then.

Restoring after loss

On the disk all directory names are preserved, meaning that you can search for files specifically and copy them back manually. If you have lost many or all files, switch on the option `in both directions` with SYSTEM.BAC and DESKTOP.BAC and start updating. However, do not save the changed workfiles.

The 16 bit version of **Backer** cannot store long file names and thus no exact descriptions of the icons on the Desktop. It works anyway, though. If your Start Menu does not have the MS-DOS name STARTM~1 (you check that by viewing the properties of the folder C:\WINDOWS\STARTMENU) you must change DESKTOP.BAC accordingly.

Options

For backing up system files the same rules apply as for all other backups, concerning the maintenance of outdated files. You find precise information unter the filters of the options. Here it is certainly not desirable to copy old files back from disk. Thus, leave the filter `in both directions` switched off.

Example 2: Synchronizing notebook and desktop

You want to go on a business trip, go home or on a holiday, and get some work done on your notebook? Then you will first have to get the latest revisions of your documents (texts, speadsheets, data bases) onto the notebook. For this example let us assume the directory structure on both machines is identical (e.g. all documents under C:\SMITH\ on the respective hard disk). If that does not apply see under options / Directories.

By the way...
If your notebook runs on a nickle cadmium (NiCd) battery you should clear the memory effect before the trip and thus bring the battery to its full capacity. The Depleter by the same author will help you with that.

Case 1: Computers connected to each other

If your computers are connected to each other (network, Interlink, Direct Cable Connection) find out under which drive letter the notebook's hard disk is known by your desktop (or vice versa). Make this drive the destination. The directories and files to be processed can be set under source as inclusive. As options select `Directories: keep`, `create directories` and `in both directions`. The other filters must be off, all other settings are irrelevant.

It suffices to let **Backer** run on only one of the two computers.

Because you will certainly need this workfile more than once you should save it in a place of your choice.

Now start updating, and the latest versions of your documents are copied from the desktop to the notebook.

On return to your work desk this procedure repeats: All you have to do is open the workfile created and start updating. Since you selected `in both directions` the latest versions of your documents are now copied from your notebook to your desktop.

Case 2: Computers not connected to each other

You proceed as in case 1 but have to insert floppy disks as an aid. **Backer** must run on both computers, and you must organize your documents by hand to fit the number of disks. If necessary, create individual workfiles for the various subdirectories. The destination must be A:\, and you must do updating on one machine first, then on the other.

Hint:
Of course you can use the options `not more than` *`x`* `days old` and `check sizes` in both cases. Unselecting them was only done for the sake of simplification.

Example 3: Backing up important documents to disk

Let's assume you have created documents with a popular word processor that have the extension *.DOC and are located in the directory C:\DOCUMENT\ and its subdirectories. The layouts used end in *.DOT and are located in the directory C:\WORDS\ but not its subdirectories. These files are to be saved to an empty floppy disk.

Under source select the named directories and file name extensions, both inclusive. For C:\DOCUMENT\ the option `all subdirectories` must be checked, for C:\WORDS\ it need not. Under destination select the directory A:\. A floppy disk (not necessarily the one designed for backup) must be present in the drive, or this selection is not accepted. Under options check `Directories: keep` and `create directories`. The other filters must be off, all other settings are irrelevant.

Because you will certainly need this workfile more than once you should save it in a place of your choice.

With the correct floppy disk in the drive and the update command you start the machine. All text documents in C:\DOCUMENT\ with its subdirectories and all layouts in C:\WORDS\ without its subdirectories are copied to disk (provided space is sufficient!). The respective directories are created on the disk, that is A:\DOCUMENT\ etc. and A:\WORDS\.

This updating can be repeated anytime since you saved the workfile and can simply open it again. Then, of course, only those documents and layouts are copied that have been revised since the last backup.

Hint:
Of course you can decide on other options. `Directories: shorten` and `Directories: keep`, however, will yield the same result here because there is nothing to shorten. If you want only the documents and layouts copied, but not their locations on hard disk, have the directories removed.
You can also update with `in both directions`, but since an empty floppy disk was assumed **Backer** has nothing to copy in the opposite direction here. This gets interesting when you delete outdated documents and layouts from hard disk later. If you update in both directions afterwards these will be copied back to hard disk, else not. Depending on the application this is desirable or annoying.
Under options, or more precisely the filter features, several techniques to build an archive / backup are explained.
Of course you can use `not more than` *x* `days old` and `check sizes` in both cases.
Unselecting them was only done for the sake of simplification.

Example 4: Restoring important documents from disk

This example assumes that you followed the example 3: Backing up important documents to disk.

All you have to do now is open the workfile created there, select the option `in both directions` and start updating.

All documents and layouts saved to the floppy disk that do not exist on the hard disk or exist in an older version are now copied back into precisely those directories they belong to.

Example 5: Comparing two directory trees

Generally **Backer** can be used to compare two directory trees, that is directories with all their subdirectories, without having to update them.

Let's assume you want to compare your development package installed on the hard disk in the directory C:\DOLPHIN\ to the version on CD-ROM in the directory D:\RUNIMAGE\DOLPHIN\, both with several subdirectories.

In the quick setup select D:\RUNIMAGE\DOLPHIN\ with all subdirectories as the directory and *.* as inclusive file. Make C:\DOLPHIN\. the destination. The optionsare `Confirmation: overview` and `In both directions`.

After you have started updating you are shown an overview of all differences in the directory trees. Leave this dialog with `Cancel`, not with `OK`. Due to the large number of files the search might take a while.

Example 6: Removing unnecessary files

In the course of time a lot of files gather on your hard disk: temporary files (extension TMP) that an application forgot to delete (or could not delete due to a crash), safety copies (extension BAK) that you had made during your work on a document but need no further, etc.

Backer can search your hard disk for these candidates and offer them to you for deleting. This is what the supplied workfile TMPBAK.BAC does.

A destination is not really necessary here, so C:\TEMP is assumed. The overview shows all files found (the destination files do not matter in this case). With the buttons on the lower left you can delete them: Mark all files, check both `Delete source file` and `Delete destination file`, then press `Del`. The list is emptied, and on pressing `OK` the files are deleted. Press `Cancel` to avoid this.

Caution: Do not delete TMP files that might belong to a running application. Make sure with BAK files that you really do not need them anymore.

Example 7: A backup strategy

A backup strategy is your personal way to effectively protect yourself against data loss.

Data loss can have many causes:
viruses
damaged hard disks (notebook fallen to the ground?)
human error ("I thought we wouldn't need this document anymore...")
revising a document until you realize you have ended up in a dead-end street and want to have back the old version

I don't want to create exaggerated fear of data loss here just to talk you into buying my product. In the many years of my programming work I have lost data only due to rash "clearing out". Nevertheless, my data have become a considerable economical factor in the meantime, and I want to protect that.

My personal strategy is quite simple:
A day's work is saved to disk (a program's source codes are pretty small, the documentation a little bigger) by setting the appropriate filter to 0 days. Every day of the week has its own disk that gets overwritten after exactly 7 days.
Once a week I save to a larger backup medium (Iomega's zip drive is my personal favorite) that is not erased in between. Once a medium is full I buy a new one. Thus I build up an archive over the months that allows me to regain old versions any time.

To which extent you go depends on the value of your data: Losing the letter to Grandma will probably not hurt; losing all your company data will probably be the end of your company. **Backer** gives you the whole spectrum of data security - decide for yourself!

Under options, or more precisely the filter features, several techniques to build an archive / backup are explained.

Example 8: Just copy

If you've just said to yourself "That I can do with the File Manager / Explorer!" you should read on in any case...

The File Manager / Explorer neither tells you if all data to be copied will fit on the destination drive nor how far the copy command has progressed. It simply cannot do that because it completes such commands in small fractions. **Backer**, in contrast, first gets an overview over the whole data volume and thus can give you information constantly.

Copying files with **Backer** probably needs no more explanations. In case you are new to the program have a look at the quick setup.

New file

This topic creates an empty workfile in memory. **Backer** resets the options to the basic settings stored in the INI file. A file name is assigned only when the workfile is saved for the first time.

A warning is displayed in case memory contains yet unsaved data.

Open file

This topic reloads a workfile into memory. The file name extension BAC is expected but not mandatory.

A warning is displayed in case memory contains yet unsaved data.

You can, provided the file name extension is BAC, also open a workfile via Drag and Drop or pass it upon starting **Backer** in the command line. Besides a list of the last 6 files opened by hand is kept, and you can put frequently used files on the function keys F1 to F12 as Top Five.

Save file

This topic saves the workfile currently in memory. The existing file name is used. In case you want to respecify it or have not yet named the file you must select topic save file as....

Save file as...

This topic saves the workfile currently in memory by a new name. In case you want to keep the existing file name you must select topic save file.

The file name extension BAC is expected but not mandatory.

Exit

This topic exits **Backer**. Saving is offered in case memory contains yet unsaved data.

Configuration: Quick setup

The quick setup summarizes the most important settings of menu items source, destination, and options. For quick updates without rarely used options this is the easiest way - or if you have not yet worked with **Backer** and look for an easy approach.

You can select a single directory and the destination belonging to it. The various file names and masks are separated by spaces.

Hint for advanced users: When pressing `OK`, the settings not appearing here are set to standard values. These are: directories `inclusive`, destination not `changing daily`, `Directories: shorten`, `Sorting: by path`, the filters `create directories` and `check sizes` on, all other filters off. All further inclusive directories get lost. To prevent this press `Cancel`, but you will also lose your recent changes.

More explanation can be found under the menu items mentioned above. You can simply leaf forward with the buttons on top.

Configuration: Source

Here you select the directories and files you want to update.

Restriction: All directories must be on the same drive. However, you can easily bypass this restriction by simply creating several workfiles.

Just click on the spot you want to learn more about:

The settings made here are stored in the workfile.

An alternative is the configuration via Drag and Drop.

Existing directories:

Here you see all directories and drives available on your machine including those accessible via network or Interlink / Direct Cable Connection.

With a single click you highlight a drive or directory, with a double click you switch to that drive or directory. You can have multiple selections: With an additional *Ctrl* you highlight another line, with an additional *Shift* you highlight a whole block. You can also drag with the left mouse button pressed. Highlighting drives is possible, but useless - useful is only to switch by a double click.

You can as well type the desired directory into the top line. The little X button to its right resets the input to "C:\" because this is probably the point you want to start from. Then press *Return* to update your selection. If the directory is not accessible, e.g. because the floppy disk is not inserted or you are not logged into the network C:\ will be displayed.

All subdirectories:

These two buttons decide whether directories are used with or without all their subdirectories. A small box behind their names indicates these subdirectories.

With the left button you make the decision for all subsequently selected directories, with the right button you toggle already selected directories.

Green and red directory arrow:

These arrows copy directories from the upper to the lower list and vice versa. This is the same as selecting and unselecting directories. A single entry in the lower list can also be removed by a double click.

If at least one entry is highlighted in the upper list it will get copied down, if not, the entry above will get copied. You cannot copy drives but will have to switch to them first.

Though you may select any directories you want they will be checked to be on a single drive when you leave the window by `OK`.

Selected directories:

Here you can see all directories selected so far in alphabetical order.

With a single click you highlight a directory. You can have multiple selections: With an additional *Ctrl* you highlight another line, with an additional *Shift* you highlight a whole block. You can also drag with the left mouse button pressed.

Though you may select any directories you want they will be checked to be on a single drive when you leave the window by `OK`.

Inclusive/exclusive directories:

You can select directories to be searched or not to be searched - i.e. inclusive or exclusive. Though you can have both selections parallelly only the one checked last is used for updating.

Note that an inclusive search is much faster.

Caution: If you selected a directory without subdirectories as exclusive these subdirectories will be in the search later.

Existing files:

Here you see all files in the present directory that fit the mask (e.g. *.TXT) above.

With a single click you highlight a file. You can have multiple selections: With an additional *Ctrl* you highlight another line, with an additional *Shift* you highlight a whole block. You can also drag with the left mouse button pressed.

You can as well type the desired file or mask into the top line. The little X button to its right resets the input to "*." because this is probably the point you want to start from. Then press *Return* to update your selection.

By the way: Windows 95, in contrast to former versions, can handle masks like *ABC*.* properly - it will find all files whose name contains ABC. (This feature is not available in the 16 bit version of **Backer**.)

Green and red file arrow:

These arrows copy files or masks from the upper to the lower list and vice versa. This is the same as selecting and unselecting directories. A single entry can also be removed by a double click.

If at least one entry is highlighted in the upper list it will get copied down, if not, the entry above will get copied. You can copy both complete file names and masks (e.g. *.TXT).

Selected files:

Here you can see all files and masks selected so far in alphabetical order.

With a single click you highlight a file or mask. You can have multiple selections: With an additional *Ctrl* you highlight another line, with an additional *Shift* you highlight a whole block. You can also drag with the left mouse button pressed.

Inclusive/exclusive files:

You can select files and masks to be processed or not to be processed - i.e. inclusive or exclusive.
Though you can have both selections parallelly only the one checked last is used for updating.

Note that an inclusive search is much faster.

Update selection:

This button switches to the directory specified above the directory list and displays the files that fit the mask specified above the file list. Shortly: You update your selections. This is only necessary when you have made an entry by hand. If the directory is not accessible, e.g. because the floppy disk is not inserted or you are not logged into the network C:\ will be displayed. Paths containing the omission mark (ellipsis) "..." are not accepted.

For easier use, this button can also be reached with the *Return* key.

Configuration: Destination

Here you select the destination directory for updating, i.e. the object of comparison. This destination directory can be on another drive, of course. Check out options: `Directories` to avoid mistakes.

It can e.g. be a special directory named C:\ARCHIVE\ or C:\BACKUP\, maybe also a floppy disk A:\ or B:\, or maybe a drive or directory on another computer via network or Interlink / Direct Cable Connection, with an unlimited number of subdirectories.

The selection window shows only existing directories. To select a not yet existing directory or a presently unavailable drive (disk not inserted in drive, net drive not accessible) you can enter it into the top line by hand.
Important: If you chose a destination directory earlier that is not available when opening this dialog it cannot be displayed and will be replaced by one that is available. Your old setting is not overridden, though. Simply leave the dialog by `Cancel`. The decisive entry is always the one displayed in **Backer**'s main window.

You can let the destination change daily. In that case a subdirectory to the destination directory is created from the current date. If you have the destination E:\ARCHIVE, for instance, then on July 4th 1996 a directory E:\ARCHIVE\A070496 will be created. This makes sense for building an archive of old versions, something e.g. a programmer rummages out now and then (whenever he/she took the wrong turn in "improving"). This daily directory is not displayed in **Backer**'s main window, but only the destination directory specified here with a hint.

Update selection:
This button switches to the directory specified above the directory list. This is only necessary when you have made an entry by hand. If the directory is not accessible, e.g. because the floppy disk is not inserted or you are not logged into the network C:\ will be displayed. Paths containing the omission mark (ellipsis) "..." are not accepted.

The settings made here are stored in the workfile.

Configuration: Options

Just click on the spot you want to learn more about. As a novice, be sure to read about `Directories` since this topic often causes misunderstandings.

If as a beginner you are puzzled by the many options use only the quick setup for the time being.

The settings made here are stored in the workfile.

Confirmation:

Decide here if you want to confirm the files to be updated not at all, separately before each copy process, or all together in an Overview.

(back to the options)

Directories:

The directory name of a file is anything between drive letter (with colon) and actual file name, e.g. \TEST\BACKER\ for the file C:\TEST\BACKER\BACKER.HLP; see terms.

These directories you can
`remove`, if the precise location of a file is not important, e.g. with a backup copy.
`keep`, if the directories are important, e.g. when synchronizing two computers.
`shorten`, if the directories contain an always identical part, e.g. when you want to backup a subdirectory on your hard disk.

Examples

You want to save the directories C:\TEXTS\FIRM\ and C:\TEXTS\PRIVATE\ into the destination A:\.
If you select `remove`, the files will be copied to A:\. Take care that no file name occurs twice because the second would overwrite the first.
If you select `keep`, the files will be copied to A:\TEXTS\FIRM\ and A:\TEXTS\PRIVATE\ respectively.
If you select `shorten`, the files will be copied to A:\FIRM\ bzw. A:\PRIVATE\ because the directory TEXTS\ that is contained in both is dropped.

You want to synchronize C:\DATA\ and E:\DATA\. If you select the destination E:\DATA\ and `keep` the directories, you will compare to E:\DATA\DATA\ - obviously not what you wanted. The destination has to be E:\, or you must `shorten` the directories so that DATA\ is dropped.

You want to synchronize C:\DATA\ and E:\SMITH\DATA\. If you select the destination E:\SMITH\ and `keep` the directories, you will compare to E:\SMITH\DATA\ - exactly what you wanted. If you `shorten` the directories DATA\ will be dropped and the destination has to be E:\SMITH\DATA\.

It looks different if you want to synchronize two source directories C:\DATA\ and C:\TEXTS\ with the drive E:. Since there is nothing to shorten in these directories `shorten` will lead to the same result as `keep`. In the two previous examples the destination can then only be E:\ and E:\SMITH\ respectively.

Hints

If you select `remove`, `in both directions` will not work because the original file names cannot be reconstructed.
If you are not sure which result `shorten` will yield simply check with the help of the overview whether you get what you wanted.
To create directories that not yet exist and to delete directories that are empty `create directories` and `delete directories` must be on.

(back to the options)

Files:

Here you can decide on the so-called attributes of source files that are to be found in addition. If that means nothing to you, keep to the standard settings: `read-only` included, `hidden` and `system` excluded. An application for the attributes is shown in Example 1: Backing up system files to disk. The setting `read-only` is permanently enabled because MS-DOS and Windows 95 respectively always include such files in their search.

(back to the options)

Sorting:

Decide here how **Backer** sorts the files to be updated and thus the order in which they are processed.

The path is anything including the last character before the actual file name. The name is that part of the file name before the period. The type is that part of the file name after the period. The date includes the time. If two files are equivalent in terms of the sorting key the order in which MS-DOS / Windows 95 put them on the drive will decide. By the way, the directory is the path minus the drive letter and the colon.

Examples

For the file C:\TEST\BACKER\BACKER.HLP the path is C:\TEST\BACKER\, the name is BACKER and the type is HLP. The drive letter is C: and the directory \TEST\BACKER\.
The file A:\TEST\BACKER\BACKER.HLP has the same name and type but a higher ranking path due to the drive letter.
See also terms.

(back to the options)

Filters:

Here you extend or limit **Backer**'s selection of files to be updated.

not more than *x* days old:

The age of the candidates can be limited between 1 and 99 days, with the present day counting als 0. This avoids outdated files to be updated although you want them parked somewhere in the depth of your hard disk. This filter is also handy when transferring files via floppy disk instead of cable because you then have no comparison with the other computer whose files did probably not all fit on the floppy disk.

check sizes:

The size check requires a confirmation before updating if the size difference between the two file versions is larger than a factor of 5 or if the two file versions have different sizes in spite of identical date. This way you sometimes can stop damaged files before they spread.

create directories, delete directories:

Enable these filters to create directories that not yet exist and to delete directories that are empty (and only those that are empty!). With the first filter off you will get an interruption if a necessary directory does not exist. In most cases the first filter should be on. The second filter allows you to exactly match two directory trees.

If the filter `in both directions` is set source and destination drive will be dealt with, else only the source drive. Of course only directories are considered that are within your selection. If you copy from a directory C:\TEXT\ to disk A: that has an empty directory A:\EMPTY\ on it, that will remain there.

WARNING: Here the property of MS-DOS / Windows 95 is used that the operating system command for deleting directories makes sure itself that the directory to be deleted is empty, and otherwise does nothing. If you use another operating system that is not from Microsoft I DO NOT GUARANTEE A FLAWLESS BEHAVIOUR! Check manually whether non-empty directories can be deleted on your operating system.

in both directions:

If updating in both directions the destination will also get searched for the specified source files. For synchronizing two computers or directories this is helpful. If, on the other hand, you have backup copies on floppy disks containing files that are not used any more you will probably want to prevent them from being copied back to hard disk - or even delete them...

delete orphans:

Files present in the destination but not in the source ('orphans') can be deleted automatically. This will only work if you update in both directions; after all, orphans would only be copied in backward direction. Before the actual deletion you are queried. To delete empty directories, too, switch on `delete directories` also.

You are perhaps sometimes uncertain whether deleting orphans might result in damage to your data. You always can be sure, however, that orphans will be deleted only on the destination drive, never on the source drive. On the other hand: Orphans are by nature files that exist only *once* (and afterwards not at all anymore). So think twice if you want to use this option.

existing files only:

You can limit updating to those files that match files already existing in the destination (and the source, respectively, if you update in both directions). This is useful if important and unimportant files are in the same directory - update by hand the first time, and for the future **Backer** will know which files are interesting to you and which are not. Another application is updating between desktop and notebook where the latter always needs to synchronize only a certain part of all files, the part that is already on the notebook.

Once again to clarify the three possibilities of an archive / backup:

(It is assumed that maybe in the source, but never in the destination files are deleted manually.)

1. Your destination is to contain all files created so far, as does the source. Select `in both directions` but not `delete orphans`. Files present in the destination but no more in the source are copied back into the source. Thus, the source's contents are adapted to the destination's contents.

2. Your destination is to contain all files created so far, but the source only those still in use. Select neither `in both directions` nor `delete orphans`. Files present in the destination but no more in the source are ignored. Thus, the source's contents may differ from the destination's contents, the destination contains as many or more files.

3. Your destination is to contain only those files still in use, all others are to be deleted. Select both `in both directions` and `delete orphans`. Files present in the destination but no more in the source are deleted from the destination. Thus, the destination's contents are adapted to the source's contents.

In all three cases files present in the source but not yet in the destination are, of course, copied to the destination. That, after all, is the purpose of a backup.

(back to the options)

Write INI file:

Just like any other Windows program that follows the latest fashion **Backer** creates a so-called INI file in the Windows directory (usually C:\WINDOWS\) that holds some basic settings (e.g. your user ID). By pressing this button you store your present options.

Note that opening a workfile overwrites these basic settings and creating a new one restores them (in memory, not on disk!).

Configuration: Log

A log gives you a report of **Backer**'s activities, i.e. writes them to a normal text file that you can view with Windows' notepad (editor). This log's appearance can be customized here.

With *Log active* you decide whether a log is written or not.
Under *Date and time* you define how the moment a file was copied is kept. Please do not mistake this date and time for the date and time a file was created.
The *File information* should need no further explanation.
The *Log file* can be any file, existing or not. There are no limitations as to its name. A good try would be LOG.TXT.
Finally you may decide whether the new log is appended to an old one or overwrites it. If no old log file exists both will yield the same result, of course.

The settings made here are stored in the INI file.

Hint:
The log file should always be excepted from updating since it is written to in the meantime. Put it out of the source directories to be processed, or adapt your source files accordingly.

Configuration: Top Five

You can put workfiles that you use frequently on the Top Five list and add a description to them. This description is displayed in the file menu so that you open a workfile and start updating with one command. Instead of the file menu you can also use the keys F1 through F5. If you press *Shift* in addition, you only open the workfile but do not start updating.

A description can be up to 40 characters long and contain any character. You may specify a non-existing file name, since it will only be checked when opened later. A list entry without file name will not appear in the file menu but is stored nevertheless.

The settings made here are stored in the INI file. There you can also program function keys F6 to F12 by inserting description and file name manually - simply use Windows' notepad (editor).

In case you expect a help function on F1, as most other Windows programs do offer, better leave this key empty.

Update

This topic starts what **Backer** was made for: updating files and directories. For easier use, this command may also be issued with the *Return* key.

Preparations:

You should have determinded the source directories and files in question and the destination and selected your options - or maybe you have simply opened a workfile.

Checks:

Backer checks if source and destination drive are available, no matter if they are floppy or hard disks on your own machine or drives via network or Interlink / Direct Cable Connection.

Free space on the destination drive is checked; if you have selected the option `in both directions` also free space on the source drive. Note that actual space consumption is always slightly greater than calculated because MS-DOS / Windows 95 cannot occupy single bytes and thus fills up files with zeros until a cluster boundary is reached. **Backer** includes a small safety margin in the calculation.

Information window:

During the search for candidates you will see an information window displaying **Backer**'s present occupation. Though is has no button to cancel you can close it by the system menu (on the very left of the information window's title bar), which leads to the same result.

It is in the nature of things that searching for exclusive files and directories takes longer than searching for inclusive ones - first all files and directories have to be processed and then the ones not wanted have to be dropped.

Limits:

The number of files and directories to be processed is limited to approx. 16500; much sooner, however, you might reach the limits of available memory. For example, on a computer with 8 MByte RAM you can easily copy 3000 file pairs. Above that **Backer** continues working properly but speed decreases significantly. Because in those cases even closing the information window is a test of your patience you should hit *Ctrl-Alt-Del* . This ends updating rudely but normally without affecting your other applications. With 16 MByte **Backer** does not run out of puff easily - expect to master 10000 files.

Progress bar:

During the actual copying you see a window with a progress bar. This bar has a pretty high resolution, meaning that you see even a slight progress - useful with very large data volumes. However, this will work not so well if you use a write cache like SmartDrive or Windows 95 - then **Backer** is made believe that the write process has been finished although the data are still in memory. In such cases, never stop copying abruptly (e.g. by removing the floppy disk) but only with **Backer**'s controls!

Overview

You will only see the overview if you have selected the option `Confirmation: overview`. All files elected for updating are displayed at one glance.

List window:

Due to Windows 3.1's internal limits you cannot update more than approx. 16500 file pairs. With single line display you only see the source files. Files to be copied in backward direction are represented by a "negative", provided you have selected the option `in both directions`.

Status line:

A status line below the list shows you how many files altogether and how many not yet present have been found - separated into forward and backward direction - and what data volume must be copied. This is not the free space needed on the destination drive (that one is checked, too, and admonished, if required) but the data volume that actually has to be copied. This gives you a notion how much time you have to invest with slower transfer techniques like Interlink / Direct Cable Connection.

If you are puzzled now: The data volume to be copied is the volume of the source files. The free space needed on the destinatinon drive is the volume of the source files minus the volume of any existing (older) destination files.

Delete button:

You can delete source file, destination file, both, or none from the drive; what will always disappear is the list entry, meaning that the respective file pair will not be updated. **Backer** does not check if there really is a destination file for a marked file pair; that will be known only later when deletion actually takes place. Important: Actual deletion takes place only after you have left the overview by `OK`. If you choose `Cancel` nothing will be lost. You can mark multiple files with the help of the *Ctrl* and the *Shift* key, up to 5000; above that this button is disabled.

The number of files to be deleted is displayed permanently. This does not mean file pairs to be exempted from updating but single source and destination files to be deleted from the drive.

Confirmation

This window will appear for every file if you have selected the option `Confirmation: single`. It will also appear if you have enabled the option `check sizes` and this check rings alarm.

Just click on the spot you want to learn more about:

Information window:

Here you see which file is next to be copied. If the option `check sizes` is enabled and rings alarm, the last line will give you a hint to that.

Yes:

Confirm here to copy the file named.

All:

Confirm here to copy the file named and all following ones - so confirmation is switched off. This is useful if you only want to check part of the updating.

Next file:

This button skips to the next candidate in the list of files to be updated. The file that is currently processed is omitted. The candidates' order is set with the option `Sorting`.

This button is enabled even if there is no more next file.

Next directory:

This button skips to the next candidate in the list of files to be updated that is not located in the present directory. The file that is currently processed and any other still following in this directory are omitted. The candidates' order is set with the option `Sorting`.

It poses no problem to **Backer** that files are not processed bundled by directories. The button is enabled even if there is no more next directory.

Delete:

This button deletes source and/or destination file on the drive - so be cautious! The destination file will only be offered for deleting if it exists.

Quit:

When you lost fun in updating you can stop it with this button.

Interruption

This window will appear if copying a file during updating gets interrupted - either by you or by an error in reading or writing.

In the case of an interruption the partly written destination file is always deleted because it is useless anyway. This is hardly a loss since you still have the source file, which must be the newer version. (If the destination drive is unaccessible the destination file cannot be deleted, of course, and will remain as 'ruins'.)

Just click on the spot you want to learn more about:

Information window:

Here you see which file was currently copied. If an error in reading the source file or in writing the destination file has occured, the last line will give you a hint to that.

A read error is often caused by having moved or deleted a file to be updated in the meantime, or that the file is currently in use by another application.

A write error may be caused by write-protected disks, directories or files or full drives. Remember that overwriting an old file version with a new one is the same as deleting the old version, so that file may not be write-protected.

Continue:

You will only see this button if you have requested the interruption yourself. It allows you to continue copying seamlessly.

Retry:

You will only see this button if the interruption is due to a read or write error. A seamless continuation is not possible then, but at least another try.

Next file:

This button skips to the next candidate in the list of files to be updated. The file that is currently processed is omitted without suffering any harm. The candidates' order is set with the option `Sorting`.

This button is enabled even if there is no more next file.

Next directory:

This button skips to the next candidate in the list of files to be updated that is not located in the present directory. The file that is currently processed and any other still following in this directory are omitted without suffering any harm. The candidates' order is set with the option `Sorting`.

It poses no problem to **Backer** that files are not processed bundled by directories. The button is enabled even if there is no more next directory.

Delete:

This button deletes the source file on the drive - so be cautious!

In contrast to overview and confirmation you have no option to delete the destination file - that one is always deleted.

Quit:

When you lost fun in updating you can stop it with this button. The file that is currently processed suffers no harm.

Drag and Drop

Drag and Drop is a Windows mechanism to e.g. take files easily from A to B with the mouse. A vivid example is the File Manager / Explorer that allows you to copy and move directories and files this way. Or think of the Recycle Bin in Windows 95.

Not everything that can be dragged can also be dropped over **Backer** - watch the symbol of the mouse pointer. Drag and Drop makes sense with workfiles that are identified by the file name extension BAC as well as any directory or file. Thus you have a short cut for the menu items Open file and Configuration: Source.

The procedure is as follows:
- If it is a workfile, it will be opened.
- If it is a directory, it will be added to the selected directories and the file mask *.* will be added to the selected files.
- If it is a file and *Shift* is not pressed, its directory will be added to the selected directories and its file type will be added to the selected files, e.g. *.TXT with the file TEST.TXT.
- If it is a file and *Shift* is pressed, its directory will be added to the selected directories and its file name will be added to the selected files, e.g. TEST.TXT with the file TEST.TXT.

Both directories and files are always taken as inclusive.

Structure of workfiles

A workfile is a simple ASCII file and therefore can be revised with any editor (e.g. Windows' notepad). Remember it is your own risk to spoil the file - **Backer** might crash on opening it.

Editing by hand is handy when you need several similar workfiles since this is done easily by copying, pasting and deleting. To check which information is where here is an explanation of SYSTEM.BAC which is supplied with **Backer**:

`1`	*DInclusive*
`1`	*FInclusive*
`a:\`	*Destination*
`0`	*ChangingDaily*
`2`	*ConfirmMode*
`0`	*SortMode*
`1`	*PathMode*
`32767`	*DaysOld*
`1`	*WorkOnDirs*
`1`	*CheckSizes*
`0`	*Bidirection*
`12`	*Attributes*
`IncludedDirectories:`	*(static text)*
`2`	*number of DInclSels*
`c:\`	*DInclSels->Entry(0)*
`c:\windows\`	*DInclSels->Entry(1)*
`ExcludedDirectories:`	*(static text)*
`0`	*number of DExclSels*
`IncludedFiles:`	*(static text)*
`8`	*number of FInclSels*
`*.ini`	*FInclSels->Entry(0)*
`autoexec.bat`	*FInclSels->Entry(1)*
`config.sys`	*FInclSels->Entry(2)*
`...`	*...*
`ExcludedFiles:`	*(static text)*
`0`	*number of FExclSels*

Meaning of variable names:

DInclusive	directories included (0=no, 1=yes)
FInclusive	files included (0=no, 1=yes)
Destination	destination
ChangingDaily	destination changing daily
ConfirmMode	confirmation (0=none, 1=single, 2=overview)
SortMode	Sorting (0=by path, 1=by name etc.)
PathMode	directories (0=remove, 1=keep, 2=shorten)
DaysOld	not more than *x* days old (32767=maximum, i.e. no check)
WorkOnDirs	create / delete directories (1=create, 2=delete)
CheckSizes	check sizes (0=no, 1=yes)
Bidirection	in both directions (0=no, 1=yes)
Attributes	file attributes (1=existing, 2=orphans, 4=hidden, 8=system)
number of DInclSels	number of included directories

DInclSels->Entry	the specified included directories
number of DExclSels	number of excluded directories
DExclSels->Entry	the specified excluded directories
number of FInclSels	number of included files
FInclSels->Entry	the specified included files
number of FExclSels	number of excluded files
FExclSels->Entry	the specified excluded files

Although not shown here included and excluded directories and files can peacefully coexist in one and the same workfile. The decision which of the two shall be used is made by the values of *DInclusive* und *FInclusive*.

Shareware

This program and its accompanying documentation are Shareware. The only difference between unregistered and registered version is a reminder screen on program start and disabling of keys F3 to F12. Thus usability is only slightly reduced.

What does "Shareware" mean?

The Shareware principle states that you may test the product for a limited time or to a limited extent freely, when exceeding these limits, however, either erase the product completely from your system or convert it into the registered version by paying the registration fee, then being subject to the usual copyright rules without the limitations mentioned. In the case of **Backer** the limitation is that you must not use the unregistered version for more than 30 days. Remember: Trust is the foundation of the Shareware principle!

Shareware is a distribution method, not a type of software. The Shareware system makes fitting your needs easier, because you can try before you buy. And because the programmer's overhead is low, prices are low also. Shareware has the ultimate money-back guarantee: If you don't use the product, you don't pay for it.

Copyright laws apply to both Shareware and commercial software, and the copyright holder retains all rights. Shareware is not free software! Shareware authors are accomplished programmers, just like commercial authors, and the programs are of comparable quality - in both cases, there are good ones and bad ones. The main difference is in the method of distribution.

Giving Backer to others

Shareware comes, as the name implies, with the programmer's express wish that you pass on the unregistered version - and only the unregistered version! - to others. Please do this in exactly the same form you received it yourself, that is complete. After all, the programmer wants the product to arrive at a potential customer as planned, and not without parts of the documentation.

Legal information

All users of the unregistered version of **Backer** are granted a limited license to copy the product only for the trial use by themselves or others, provided that **Backer** is copied in its full and unmodified form. The copy must include all files necessary to permit full operation of the program. It must also include this documentation. Use of unregistered copies of **Backer** by any person in connection with a business, corporation, educational institution, or government agency is forbidden. Such users must register this product. By using the unregistered version of **Backer** you acknowledge that you have read and understood this limited license and agree to be bound by its terms and conditions. The registered version must not be distributed.

Registration / How to order

This program and its accompanying documentation are Shareware. If you use **Backer** for more than 30 days you must register. In addition to supporting the author's continued enhancement of this program, your registration fee will bring you the following:

As a registered user you will receive at no cost a user ID to convert your unregistered version into a registered version. This will remove the reminder screen on program start and enable keys F3 to F12. Your personal version may be used without restrictions other than those resulting from copyright laws. Support is available by phone, fax, mail and e-mail. Because of the context sensitive online help I do without a printed manual.

There are 3 ways to register:

O directly with the author by sending him the order form,

O via CompuServe by entering GO SWREG and selecting number 4310.

O via the PsL:
CREDIT CARD ORDERS ONLY - You can order with MC, Visa, Amex, or Discover from Public (software) Library by calling 800-2424-PsL or 713-524-6394 or by FAX to 713-524-6398 or by CIS Email to 71355,470. You can also mail credit card orders to PsL at P.O.Box 35705, Houston, TX 77235-5705. Mention program #14442 to identify this program.
THE ABOVE NUMBERS ARE FOR CREDIT CARD ORDERS ONLY. THE AUTHOR OF THIS PROGRAM CANNOT BE REACHED AT THESE NUMBERS.
Any questions about the status of the shipment of the order, refunds, registration options, product details, technical support, volume discounts, dealer pricing, site licenses, non-credit card orders, etc, must be directed to the author of this program.
To insure that you get the latest version, PsL will notify the author the day of your order and the author will transmit the user ID directly to you via the fastest way possible. If available, please leave your electronic contact information (e-mail, fax) with the PsL when ordering.

Please print this **Order form** (`File | Print Topic`), fill it in and mail/fax it. You can also copy its content and e-mail it to me.

Bernd Cordes
Wiesingerweg 34
D-20253 Hamburg
Germany
Fax +49 (40) 494370

Name: ______________________ Company: ______________________

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_________ licenses Backer 2.99

credit card, check: DM 49.95 each DM ______________ total

all others: US$ 29.95 each US$ ______________ total

Site licenses available; please inquire.
Prices include shipping & handling. Credit card or check users, please check your current exchange rate for the Deutschmark.

I pay:

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O Visa card no ____________________________________ exp. date __________

O check (drawn on a German bank in DM, payable to Bernd Cordes)

____
Signature

If you can spare another piece of paper, please take the time to answer the following questions. You help to rid this product of possible bugs and to serve the customers' needs better.

Supplier of Backer 2.99:

O CD-ROM ______________________________ published by ___________________

O Internet, FTP server / WWW page ____

O CompuServe, AOL, MSN forum ____

O other online service: ____

O BBS ________________________________ in ______________________________

O Shareware distributor ____

O something totally different: ____

Opinion in school marks:

usefulness:	A	B	C	D	E
user friendliness:	A	B	C	D	E
readme file, online help:	A	B	C	D	E
maturity / crash safety / bugs:	A	B	C	D	E

An F is not provided - if my program were that bad you would hardly have made it through here.

Suggestions for improvements:

Thank you for your effort!

Where to get the latest version

The latest version of **Backer** can be found on the Internet or WWW respectively at my homepage:

http://ourworld.compuserve.com/homepages/BerndCordes/homepage.htm

In the fast moving world of the Internet this address may change; in case you cannot find me there anymore, simply send me an e-mail so that I can tell you the new homepage.

Minor updates are free, i.e. they work with the same user ID. Check my homepage from time to time to find out about new releases. By the way, you will also find my other products there.

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WWW: http://ourworld.compuserve.com/homepages/BerndCordes/homepage.htm

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ASP ombudsman statement

This program is produced by a member of the Association of Shareware Professionals (ASP). ASP wants to make sure that the shareware principle works for you. If you are unable to resolve a shareware-related problem with an ASP member by contacting the member directly, ASP may be able to help. The ASP Ombudsman can help you resolve a dispute or problem with an ASP member, but does not provide technical support for members' products. Please write to the ASP Ombudsman at 545 Grover Road, Muskegon, MI USA 49442-9427, Fax 616-788-2765, or send a CompuServe message via CompuServe Mail to ASP Ombudsman 70007,3536.

Troubleshooting

A basic hint to begin with: Many problems under Windows are caused by the natural playfulness of the user who thinks the default fonts are boring and the Program Manager / My Computer is uncomfortable. On top of this comes a dozen of supposedly necessary memory managers, drivers, utilites, tool etc. You certainly have the right to set up your computer as you like. Sometimes, however, the actual applications, the purpose the computer was purchased for, do not run flawlessly.

I do not want to demonise other programmers and pose my own work as completely immaculate. But just as little I want **Backer** erased by a frustrated user because "the programmer was too stupid to write a proper program", although the blame is on someone else. Therefore I ask you: In case of problems first set up a standard Windows (boot with only the absolutely necessary drivers etc., display 640x480 with 16 colors and Windows' own driver instead of the graphics adapter's manufacturer's, original system font, color scheme Windows standard, Program Manager / My Computer or File Manager / Explorer to start applications). Then give **Backer** a second chance.

This is a lot asked, but it helps you to detect the real troublemaker in a structure as complex as MS-DOS / Windows 95, and it helps you to avoid much, much trouble in the long run.

Here are the answers to some frequently asked questions:

Q: The program cannot be started.
A: Some so-called shells (replacements for the Program Manager / Desktop / Start Menu) cause this error. Use the Program Manager / Desktop / Start Menu from Microsoft.

Q: When I try to start BACKER.EXE a message "File not found" appears, and that's it.
A: The file BWCC.DLL was not found. See installation for details.

Q: When I start updating a message "No source directories or files specified." appears.
A: Under source or quick setup entries for directories and/or files are missing. You have to specify at least 1 entry for either inclusive or exclusive. If e.g. you want to include all files, you must enter *.* at inclusive. There is a simple visual check: Under source the two lower list windows must not be empty, or in the main window after each of the first two red and left-justified lines at least one black and indented line has to follow.

Q: Some files are found twice.
A: You have specified file masks that include one and the same file twice. E.g. with *.* and *.TXT every file with the extension TXT is found twice. Though two identical specifications are not allowed, Backer cannot detect such redundancies.

Q: I get strange results, e.g. garbled paths or the message "No files found" although some should be found.
A: You have specified a too long path as destination. MS-DOS does not report this as an error, but it will lead to the strangest results.

Q: Those many settings puzzle me. Backer simply does not do what it is supposed to.
A: A program as powerful as this requires some time to get used to. In the beginning, set yourself simple tasks and get them done solely with the quick setup.

Q: Text in the various windows does not fit properly, overlaps or is clipped at the end.
A: You have selected an inappropriate system font for Windows. This affects all other programs, too. A typical cause are display drivers that suggest a large system font with high resolutions like 1024x768 although it is completely unappropriate. Choose a small font instead.

Q: On my 640x480 notebook some windows are larger than the whole screen.
A: See previous question. The size of a window is affected by the size of the system font. Being a notebook owner myself, I make sure each window fits on the screen.

Q: Since I have Windows 95 problems occur.
A: Read I have Windows 95 - what changes?

Other products

(All the following products' latest version can be found on my Internet homepage.)

ShareMan 1.7
Windows utility for software distribution; LHA and crypto interface also usable generally. Encrypt and decrypt text and files, insert passwords, user IDs and serial numbers with authentication digit into the program. Compress and copy files for distribution. Create individual disks with serial number, customer's name and company within the program, write a user ID and store customer data in an address file. Options can be turned on or off separately. Crypto algorithms as source.
Available in English and German. US$ 25 or DM 40.

Depleter 2.2:
Windows utility for owners of laptops and notebooks.
Countdown mode for controlling remaining battery use time, based on previous measurements during your normal work. Thus you can see long before your computer's built-in voltage control when you will have to shut down your work.
Discharge mode for calculated battery depletion under constant conditions. Thus you can detect and cure the memory effect, i.e. the steady decline of maximum battery capacity.
Available in English and German. US$ 14.95 or DM 24.95.

Good Credit 1.2
Windows utility for verifying credit card numbers. Supports Visa, MasterCard/Eurocard, American Express, Discover, and others.
Available in English and German. US$ 10 or DM 20.

About the author

I was born in 1966 in little Stade near Hamburg. My first steps in the world of computers were on a TI 99/4A. Via Atari 400, Atari 130 XE, Atari 800 XL and Atari 1040 ST I climbed up to the PC in 1992, which turned from a mere writing tool to a fascinating programming machine, thanks to Borland C++ 3.1.
In 1986, I joined the Federal German Navy, doing an 11-month trip around the world on a sailing ship. Deciding the navy was the right place for me I applied for career officer, including a university degree in communications engineering, with a focus on digital electronics, microprocessors, and C programming.
Privately I am a passionate bachelor and now and then enjoy the multi-faceted nightlife of Hamburg.

Bernd Cordes, 03/23/96