

GRBack for Windows 95 and Windows NT: The fast way to make your backups and retrieve your data.

What is GRBack?

General Description

Configuring your backup

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How to Register

Update/Support

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<u>Distribution</u>

Install.

Simply copy the package files where you want.

The first time you run GRBack it automatically insert a System Agent Task for you that allows to execute GRBack at every system startup. You can easily modify the schedule options by double clicking the System Agent Icon.

Remove.

Simply delete the package files.

User Guide.

When you run the shareware version of the program the About dialog box will appear showing you the program version and my address to allows you to register as soon as possible. Clicking the OK button you enter into the program.

The program is a property sheet dialog box with the following pages:

<u>Backup</u>

Zip Compressor

Advanced Options

The first page allows you to define the backup jobs, while the second page allows you to select the available zip archive options. The third page allow you to set some special options.

Development Information.

GrBack for Windows/95 Windows/NT was written in C++ with the microsoft Visual C++ compiler with the aids of the Microsoft MFC. The whole code was created and written by the Author (see <u>About The Author</u>).

Many thanks to my wife Michela and our sons Fabio and Ilaria for the patience and for the encouragement.

Epilog.

I know that this User Guide is very short. I have keep it so small because the program is very simple to use so that you don't need this manual anymore.

However if you have any questions don't hesitate to contact me. See <u>Contact Information</u> for my mailing addresses.

I'm checking my email at least once a week.

Windows 95, Windows NT, Visual C++ and MFC are trademark of Microsoft Corporation.

General Description

GRBack is a Cross Backup utility that allows you to backup one disk drive (either fixed, network or removable) into another. It is designed to backup one drive into the other and vice versa so that if a drive die you have a safe copy on the other. It work with fixed, network or removable drives. For better usefulness you must have at least two physical drives so that you are protected from total hardware failures. If you have only one physical drive you are only protected from some physical disk surface damages. The program is designed in order to be better integrated with the microsoft System Agent that you can find in the Microsoft Plus! package for Windows 95.

The System Agent is a scheduler that can run different programs at specified times in unattended mode and transparently to the user.

GRBack allows you to perform an Incremental backup in order to save time or a Full backup every specified number of incremental backup is done or simply by checking an option.

GRBack will create PKZIP compatible ZIP files that you can see with the many available shells without to learn a new restore tool. Also the program doesn't create a unique big archive file but it make into the destination drive an exact copy of the source directory tree structure with a ZIP file for each source directory.

GRBack is completely configurable via simple \$backup.??? files placed into the source directories. These files allows you to skip the backup of certain directories or to select only some files or to exclude other files. See Configuring your backup for more details.

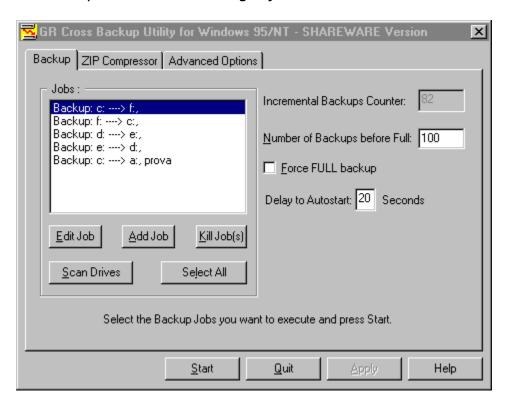
GRBack accept the command line option /A to enable the autostart unattended mode. Starting the program with this option, instead of the typical <u>Backup</u> page you will get the <u>AutoStart</u> dialog box that after a specified delay time execute all defined backup Jobs.

During the backup execution, GRBack show you the <u>Progress Report</u> dialog box listing what archives are created or updated. The same information is also stored into the GRBack.log file created into the same directory where the GRBack.exe file reside. This file is opened in append mode until a full backup is done. When the full backup is done the GRBack.log file is restarted from zero.

Backup

This Property Sheet page dialog box allows you to configure you backup Jobs.

This is a picture of the dialog layout:



The available tool tips allows you to get a quick help about all the options in this dialog. The **Help** button when pressed will get this help page.

The first time you run the program it automatically insert into the **Jobs** list box a

default configuration based on the drives on your system. In any moment you can build this default initial jobs list by pressing the **Scan Drives** button. The first step to do is to define the **Number of Backups before Full** number. This number allows you to rebuild from scratch your archives when the specified number of incremental backups is reached. The **Incremental Backups Counter** show you how many incremental backups remain before a full backup. This counter start from the **Number of Backups before Full** number and decrement avery time an incremental backup correctly finish. An incremental backup is an update backup in which each existing archive is updated with the new files or with a more recent version of an existing file. If the archive doesn't exist the incremental backup became a full backup

because all archives must be built from scratch.

The **Force FULL backup** check box allows you to bypass the previously described incremental/full backup policy and force a full backup anyway. In this case the **Incremental Backups Counter** is decremented as an incremental backup was done and isn't initialized to the **Number of Backups before Full** number. This option allows you to rebuild your archives because you know that some important changes need the complete archive rebuild without modify the **Incremental Backups Counter**. The Full backup obviously take more time than the incremental backup so use this option carefully. This option is here to allows the user to force a full backup without breaking the incremental backup counter sequence and must be used only for a run and then removed.

You can customize the **Jobs** list box editing the existing items or adding new. To edit an inserted job you can double click it on the list box or you can press the **Edit Job**(s) button when the Job you want modify is selected. In this way you get the <u>Edit Job</u> dialog box that allows you to modify the currently selected Job. You can also append a new job to the list by pressing the **Add Job** button. Pressing it you get the <u>Add Job</u> dialog box that allows you to define your Job. You can also delete the currently selected Jobs (one or more) by pressing the **Kill Job** button.

The **Select All** button allows you to select all the Jobs with a mouse click. This operation is needed before you press the **Start** button to begin the backup on all listed Jobs. When you press the **Start** button only the selected Jobs will be executed and the <u>Progress Report</u> dialog box appear to show you how the backup proceed.

The **Quit** button allows you to abort the backup and exit from the program without saving any modified option.

The **Apply** button allows you to save into the windows registry all the current options so that the next time you start the program you will find your setup as you have set it. This button is enabled only when you change an option. The same effect is obtained when you press the **Start** button. In this case you save all your modified options and start the backup jobs.

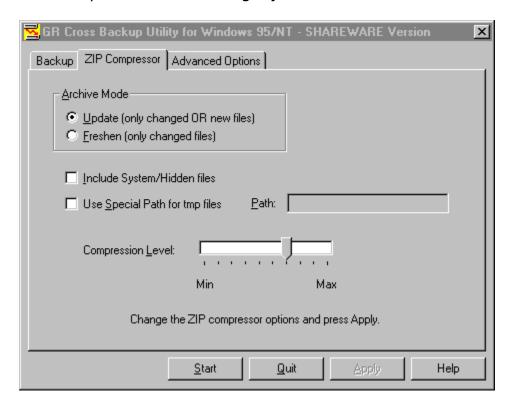
The **Delay to Autostart** edit box allows you to define the autostart timeout. When the program start with the command line option /A (or /a) or when it is executed from the Microsoft System Agent the <u>AutoStart</u> dialog box appear. This dialog box allows you to wait the specified delay seconds before automatically start the backup of ALL the Jobs into the list. The autostart feature is useful when you want to skip the backup for the following reasons:

- you have reboot the system and you have already done the backup.
 you know that there aren't any significant thinks to backup.

Zip Compressor

This Property Sheet page dialog box allows you to set the available ZIP compressor options.

This is a picture of the dialog layout:



The available tool tips allows you to get a quick help about all the options in this dialog.

The **Archive Mode** group box has the following two radio buttons:

- Update (only changed OR new files)
- Freshen (only changed files)

The **Update** (only changed OR new files) option allows you, as explained into the parentheses, to insert into your ZIP archive the new files and update the existing files.

The **Freshen (only changed files)** option allows you only to update existing files. Possible new files will not be archived.

The **Include System/Hidden files** check box allows you to specify to archive also the System or Hidden files into your archives. This option is very

useful when you want to backup also some operating system vital files into the root directory or into the system directory.

The **Use Special Path for tmp files** check box allows you to select a different temporary directory. When not checked the tmp directory used is the directory where the destination archive will be stored. If you check this option the **Path** edit box will be enabled allowing you to specify the full path you want to set.

The **Compression Level** slider allows you to select the compression level from 10 possible values. The Min value imply the simply store of the source files (no compression), while the Max value allows you to minimize the archive size in spite of the program speed. A good value is an intermediate one to satisfy the size and speed needs (the default value is 6).

The **Apply** button allows you to save into the program registry area the options you have selected. It is enabled only when you change an option.

The **Start** button begin the backup task of the currently selected Jobs (see <u>Backup Options</u>). When you press the **Start** button only the selected Jobs will be executed and the <u>Progress Report</u> dialog box appear to show you as the backup proceed.

The **Help** button display this help page.

AutoStart

The following dialog box appear when the program is run with the command line option /A (or /a) or when it is executed by the Microsoft System Agent (SAGE).



The available tool tips allows you to get a quick help about all the options in this dialog.

This dialog box allows you to abort or configure the backup also when the GRBack is execute in autostart unattended mode.

The number to the right of the **Time to Autostart** string is a count down counter that show you how many seconds remain before the program automatically start and execute all the listed Jobs.

If the program run unattended by any operator after the count down is terminated the program select automatically all Jobs and start. This is the normal condition.

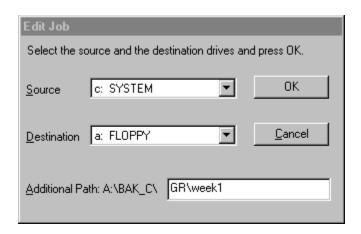
In certain cases you may need to change the program configuration before the backup start. In this case you can press the **Enter Interactive Mode** button and go to the <u>Backup</u> page.

Other times you need to abort the backup because you have already done it or you have no time to do it now because you want all the computer resources for another task. In this cases you can press the **Exit** button and quit the program.

Other times you are at your keyboard when the system boot and GRBack start. In this case you can stop the count down and start the backup now by pressing the **Start** button.

Edit Job

This dialog box allows you to edit an existing Job.



The available tool tips allows you to get a quick help about all the options in this dialog.

The **Source** combo box allows you to select the source drive for your backup lob.

The **Destination** combo box allows you to select the destination drive for your backup Job.

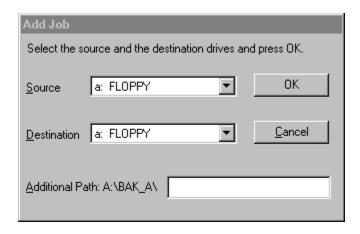
The **Additional Path** edit box allow you to enter an optional path name that will be concatenated to the default destination path name (in the figure A:\ BAK C\).

With the **OK** button you can confirm the source and destination and exit modifying the currently selected Job.

With the **Cancel** button you doesn't modify the currently selected Job.

Add Job

This dialog box allows you to append a new Job to the current Job list.



The available tool tips allows you to get a quick help about all the options in this dialog.

The **Source** combo box allows you to select the source drive for your backup Job.

The **Destination** combo box allows you to select the destination drive for your backup Job.

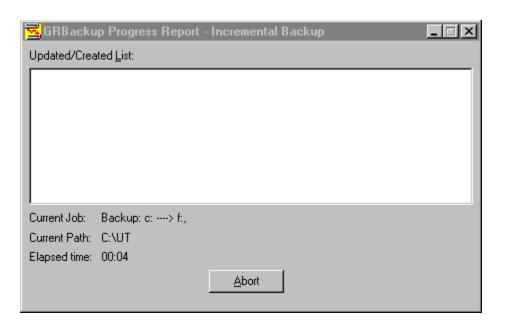
The **Additional Path** edit box allow you to enter an optional path name that will be concatenated to the default destination path name (in the figure A:\ BAK A\).

With the **OK** button you can confirm the source and destination and exit appending the specified Job to the list.

With the **Cancel** button you doesn't append any Job to the list.

Progress Report

The following dialog box show you information on how the backup proceed.



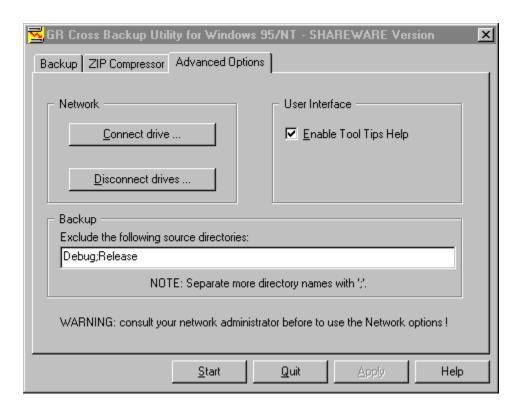
In particular the **Current Job** string show you the currently executing Job. The **Current Path** string show you the path name under analysis and the **Elapsed Time** show you the program executing time since you press the **Start** button.

The **Updated/Created List** show you which destination archives are created or updated. You can navigate into this list but when a new item is inserted the focus go to this last inserted item. The whole contents of this list box is dumped to a file named GRBack.log located where is located the GRBack.exe file. In this way you can view what archives are created or updated also after the backup is complete.

Advanced Options

This Property Sheet page dialog box allows you to set some special options.

This is a picture of the dialog layout:



The page is divided into 3 areas:

- Network
- User Interface
- Backup

Network.

Into the Network group you find two buttons.

The **Connect drive** button allow you to connect a network path to a new local drive.

The **Disconnect drives** button allow you to cancel a local drive connected with a network path.

WARNING: be careful on using these options especially if you are not sure where you backup file will go. Consult your system administrator in order to best configure your backup Jobs.

User Interface.

The **Enable Tool Tips Help** check box allow you to enable (checked) or disable (unchecked) the tool tips help messages that appear every time you move you mouse cursor on a new item. The first times you use the program these messages can be very useful for you, while as you became an expert they are noisy.

Backup.

The **Exclude the following source directories** edit box allow you to insert many directory names you want globally skip during your backup. These are not full path names but simply directory names separated by a ';'. A default already defined by GRBack setting is to skip all "Recycled" directories in every source drive. Another often true setting is "TEMP". The example into the figure shown my setting to skip the directories that Visual C++ employ to store the object files of my projects.

What is GRBack?

GRBack is a full 32 bits cross backup utility written for Windows 95/NT. The scope of this utility is to do a backup of a drive into anther drive (CROSS backup).

What is for?

GRBack allow you to protect your data making a safe and compressed copy of them into another drive of your choice.

As the current cost of an Hard Drive is slow the best way to protect your data is to install at least two physical hard drives and use this great utility to backup selected data from one hard drive to the other. In this way if one of your hard drive die you have a safe backup into the other.

Another good way is to buy a 100MB loMega ZIP drive and backup your drives into it. You can do the same using local area networks or removable hard drives.

The created backup archive IS NOT a unique BIG file. GRBack will create an exact directory tree as your original source files and a single zip archive for every source directory. This behavior simplify your efforts when you want to restore specific files because you will find the exact source structure of your drives into a subdirectory of the backup destination drive.

The generated archive zip files fully support long file names so that GRBack is fully integrated with Windows 95 and Windows NT.

Why to use GRBACK?

GRBACK offer you many advantages over similar utilities you can find and over the standard Windows functionality. Here are some of these reasons:

- It has an intuitive and easy to use User Interface.
- It is fully configurable via simple files placed into the source directory.
- It is fully integrated with the Microsoft Plus! System Agent (SAGE).
- When you want restore some files, it allows you to skip long backup path lists and go directly to the source directory into the backup tree where you know your file is and get it.
- It compress the source files with an industry standard format so that many available shell extensions allows you to see its contents without special restore tools to learn.
- It fully support network and removable drives allowing you to select the appropriate destination drive for your backup data.

Frequently Asked Questions

Q: Did GRBACK run on Windows NT?

A: The current version was intensively tested under Windows/95 and should be run without problems on Windows/NT.

Q: How can I exclude a whole directory without stopping the subdirectory backup?

A: Simply insert the line "*.*" into the file \$backup.exc created into the directory you want exclude.

Q: How can I restore the backup?

A: You haven't a restore option. In fact you can use any explorer shell extension that allow you to view your zip files to navigate into the destination backup directory. The place where you find you file is the exact path you have always used prefixed by a backup path. This path can be the standard X:\BAK_Y (where X is the source drive and Y is the destination drive) or a more complex user specified path.

Q: Can GRBack backup a file that is opened while it run?

A: Yes. If you have a file opened for modify, GRback will backup your last saved version.

Other Programs

GRDUW. (For Windows 95 only)

GRDuw has an easy and intuitive user interface and allows—a very quick operation. GRDuw perform a physical track by track copy. GRDuw can also format your diskettes or hard disks in an optimized mode and repair them if you have a failure. GRDuw include a special feature to check your boot sector in order to verify if it is consistent and then virus free. GRDuw can save and load diskette file image in binary form so that you can store your distribution diskettes on your hard drive for a fast diskette generation. GRDuw also accept a file name into the command line so that you can associate it with the .dim extension and integrate it into the explorer. Also you can create a desktop shortcut icon and drop on it a .dim file to run GRDuw and directly load the .dim file.

ING. Roberto Grassi.

I'm a software developer since 1978 (BASIC language) when I reached my first degree in Electronics. Then I started working and studying to become an Electronic Engineer in 1985 with full votes.

My daily job is to write embedded applications in C/C++ language for a secure communications company in Italy. I'm involved in the development of the operating system and all the development utilities connected to them (debugger, project management, project backup etc..). I have a 7 years programming experience in 'C' and of 3 years in 'C++'.

I also develop some, I hope useful, PC utilities that I'm proposing to the shareware world.

How to Register

Why to register?

Registering this software give you a lot of advantages:

- You can be inserted into our email list in order to be advised when new major release will become available.
- You will receive our full support via email.
- You will receive a license to use your personal copy of the program at your home and at your office in the form of a key file. In this way you are NOT in violation of international Copyright law!

How to Register.

You are granted that your fee will be taken only after the registered program is delivered to you (via email or standard mail)!

Please compile the <u>Registration Form</u> in every part selecting a payment method from the followings:

1. From Europe

Send us the <u>Registration Form</u> together with one of the following:

- an Eurocheque in Italian Lire, in the amount of Lit 60000 (Personal License + shipping).
- an International money order in the amount of US\$ 40 (Paid to Roberto Grassi).
- cash (foreign currency: banknote exchange rate buy, no coins please), at your own risk! Remember to use the "Certificate of Mailing" in order to have evidence that something was mailed to the specified address. This is actually the most simple form. Until now I haven't missed any registration in this form!

2. From the USA

Send us the <u>Registration Form</u> together with:

- a personal check (Paid to Roberto Grassi) or cashier's check drawn on a US bank in the amount of US\$ 40.
- an international money order in the amount of US\$ 40 (Paid to Roberto Grassi).
- Cash: US\$ 40, at your own risk! Remember to use the "Certificate of Mailing" in order to have evidence that something was mailed to the specified address (USPS form 3917). This is actually the most simple form. Until now I haven't missed any registration in this form!

2. All other countries.

Convert US\$ 40 applying the current banknote exchange rate buy (up rounded, no coins please) to your money currency.

Send us the <u>Registration Form</u> together with:

- a personal check (Paid to Roberto Grassi) or cashier's check drawn on a local bank in the amount equivalent to US\$ 40.
- an international money order in the amount equivalent to US\$ 40 (Paid to Roberto Grassi).
- Cash: the amount equivalent to US\$ 40. At your own risk! Remember to use the "Certificate of Mailing" in order to have evidence that something was mailed to the specified address. This is actually the most simple form. Until now I haven't missed any registration in this form!

Credit Cards.

Sorry I'm not currently able to support credit cards!

Multiple License Discounts.

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1 - 9 copies: US$40.00 per copy
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10 - 19 copies: US\$400.00 + US\$35.00 per copy over 10

20 - 49 copies: US\$750.00 + US\$30.00 per copy over 20

50 - 99 copies: US\$1650.00 + US\$25.00 per copy over 50

100 - 999 copies: US\$2900.00 +US\$20.00 per copy over 100

For amounts larger than 1000 please contact the author.

Update/Support

Updates.

As soon as you are registered, (until further notice) all updates are free, provided that you get the latest version yourself. Just install the new (Shareware) version over the old one.

The only important thing is to keep the file grduw.key.

Where to find the latest Shareware version.

The reference places where I first upload my software are:

CompuServe

WINSHARE, Mem/Disk Utilities, file name grback??.zip

Internet

http://www.simtel.net/pub/simtelnet/win95/diskutl/grback??.zip

If you don't have access to a modem, you can request the program directly from us by sending the registration fee. We will mail to you a diskette with the latest available version.

Bug reports

If you find a bug in GRBack you can report it at one of the addresses mentioned below. Please provide the following information:

- an exact description of the bug (how can it be reproduced?)
- Version number of the program (to get it you must click the right mouse button and select "About GRBACK ..." option").
- Windows version(for example 4.950).
- For Fatal errors: The error address and the contents of the error box displayed by Windows 95.

Support

If you have any problem please first read the <u>Frequently Asked Questions</u>.

If you still have questions or bug reports, you can reach us at the following

addresses: Contact Information

- Internet email: roberto.grassi@telsy.it.Snail mail address:

Roberto Grassi Casella Postale (P.O.Box) 48 Corso Francia 10196 Leuman (Torino) Italy

Software License/Copyright

Software License.

Please read the following lines carefully before using this software. If you disagree with any of the following, you are not allowed to use this program. You **MUST** then delete it immediately.

Shareware Version.

You have the right to test this program for a period of one month. Use of this software after the trial period of one month is in violation of International Copyright law! It is also unfair to the author, who has spent hundreds of hours developing this program.

You are allowed to copy this Shareware Version (and ONLY the Shareware Version) and give it to any other person, as long as it is not modified in any way. Under modifications is understood the changing, adding or removing of any files of this package without the author's written permission.

Registration.

This program is neither freeware nor public domain. Use after the 30 day trial period requires registration.

See <u>How to Register</u> for details on registration.

Registered version (personal license).

The registered version may be installed on as many computers as desired, as long as it is ONLY running on one at any one time (I.e. one installation at home and one at the office used by the same person). The usage by multiple people at the same time (on multiple computers) requires additional licenses

Licensee shall not use, copy, rent, lease, sell, modify, decompile, disassemble, otherwise reverse engineer, or transfer the licensed program except as provided in this agreement. Any such unauthorized use shall result in immediate and automatic termination of the license.

Multiple licenses (additional licenses).

Multiple licenses allow an institution, company or school to install the program on multiple computers or on a server. It must be guaranteed that

the program does not run on more machines at the same time than there are licenses purchased.

All licenses are issued to the same (company) name.

Each additional license also allows a single user to use the program at home. Licensee shall not use, copy, rent, lease, sell, modify, decompile, disassemble, otherwise reverse engineer, or transfer the licensed program except as provided in this agreement. Any such unauthorized use shall result in immediate and automatic termination of the license.

Liability.

We try to keep our software as bugs free as possible. But it's a general rule (Murphy's), that no software ever is error free, and the number of errors increases with the complexity of the program. That's why we cannot guarantee that this software will run in every environment, on any Windows95 compatible machine, together with any other application, without producing errors. Any liability for damage of any sort is hereby denied. In any case, the liability is limited to the registration fee.

Please test this program with noncritical data. We cannot guarantee the safety of your data. Should you detect errors before registration, you accept them if you register. Any description of bugs will be accepted, but we cannot guarantee that we will be able to correct them.

All mentioned Trademarks and Copyrights belong to their respective owners.

Legal domicile is Torino, Italy.

Distribution

I prohibits the distribution of outdated versions of the package, without written permission. If the version you have obtained is over twelve (12) months old, please contact us (<u>Contact Information</u>) to ensure that you have the most current version.

Vendor information.

You are allowed to copy this Shareware Version (and ONLY the Shareware Version) and give it to any other person, as long as it is not modified in any way. Under modifications is understood the changing, adding or removing of any files of this package without the author's written permission.

Small additions to the package, such as the introductory or installation batch files used by many shareware disk vendors, are acceptable.

You are NOT allowed to pack this program together with a commercial program or a book.

A distribution fee may be charged for the cost of the diskette, shipping and handling, as long as the total (per disk) does not exceed US\$8.00 in the U.S. and Canada, or US\$12.00 internationally.

You are encouraged to put this program on as many BBS systems as possible. The distribution on CD-ROM is also permitted, as long as the original files are not changed in any way. Please contact me (<u>Contact Information</u>) if you want to distribute the program with a different installation program, changed files etc.

This package CANNOT be sold as part of some other inclusive package. Nor can it be included in any commercial software packaging offer, without a written agreement from the author.

All rights not expressly granted here are reserved to Roberto Grassi.

We would appreciate copies of anything you print regarding this software package. Please send us a copy of any reviews, articles, catalog descriptions, or other information you print or distribute regarding this package. Thank you for your time and assistance and for supporting the shareware marketing concept.

Vendor Update Program.

Most vendors have standard procedures for acquiring new files. They get them from other vendors, BBSs, etc. Most authors cannot afford to mail disks to hundreds (perhaps thousands) of vendors. However, some vendors prefer to obtain programs directly from the authors. If you would like to obtain programs directly from us, automatically, then please help us to cover the cost.

Under this program you can receive updates for an entire year for only \$10 per program (this helps to offset our costs).

To receive updates, simply send us a letter (<u>Contact Information</u>) with your name, company name, mailing address, the name of the person we should contact (such as your disk librarian), the program (or programs) for which you would like to receive updates, and a check or money order for \$10 for each program. See <u>How to Register</u> for payment details.

All vendors participating in our Vendor Update Program will automatically receive any NEW programs which we may release while their Vendor Update Program is in effect.

The Vendor Update Program is only intended to help us cover our expenses in those cases where a vendor desires to obtain the program directly from us. If you have other standard ways to obtain programs, then you may prefer not to use our Vendor Update Program.

Version History

August 1996 : Version 1.50.

This is the first distributed shareware release.

September 1996: Version 1.61.

- Fixed some bugs.
- Added network drives support.
- Added SUBs drives support.
- Added removable drives support.
- Added an advanced options TAB to the main property sheet dialog. It allow the user to map a network drive, to enable/disable the tool tips messages and to define global backup exclude path names.
- Added a user specified path name for every Job. This path will be appended to the default destination path X:\BAK Y.
- Enhanced the grback.log file. Now the information is appended on every incremental backup with a date/time stamp in order to have a complete backup history. When you make a full backup the log file will be restarted.

GRBack exists now in English only. If you would like to provide translations of GRBack or the documentation in another language, please contact me. See <u>Update/Support</u>

GRBack V1.61 Registration Form

Mail this form compiled in every parts to: (Contact Information).

[] Register my copy of GRBack for Windows 95/NT. Generate my personal copy of the "grback.key" file, based on my personal information below.
[] Email me the latest program version with my personal registration key file.
[] Mail me a diskette with the latest program version and my personal registration key file.
[] Insert me into your electronic mailing list (email) in order to receive a notification when a new major release will become available.
I have enclosed the requested fee of \$40.00 (US funds or equivalent up rounded). My payment method is:
 [] Personal Cheque (Paid to: Roberto Grassi) on a US bank or my city bank. [] Eurocheque (Paid to: Roberto Grassi) in Italian Lire 60000. [] Cash, at my own risk! (NOTE: Remember to use the Certificate of Mailing).
My Name:
My Address:
My City, State, ZIP:
My Email address :
My Phone: (
Where do you have found or download the program ?:
Comments or Suggestions :

Configuring your backup

Include or exclude some files from you backup zip archive.

You can easily configure your backup Jobs by means of simple text files that you must place on your source directories. These file contain a list of file names that you want include or exclude from your backup archive. The following are the files that GRBack can handle:

\$backup.inc --> if a directory contain this file, all the files listed in it (wild characters are allowed) will be inserted into the directory zip file.

\$backup.exc -> if a directory contain this file, all the files listed in it (wild characters are allowed) will NOT be inserted into the directory zip file.

\$backup.hlt -> if a directory contain this file, you have 2 possibilities. If the file has zero length than GRBack doesn't backup this directory and all its sub directories. If the file has a length different from zero (It doesn't matter what are its contents) than GRBack will backup only the current directory as specified by the files \$backup.inc and \$backup.exc if they are present.

To better explain how these files works suppose that you want to backup your Windows 95 user files but discard all the others files. You must create in your windows directory (usually c:\windows) the file \$backup.inc with the following contents:

- *.ini
- *.pif
- *.dat
- *.sys

where the '*' is a wild character that specify any matching file.

For Windows 95 this same technique can be applied to your root directory in which reside your system configuration files. You must create the file \$backup.inc with the following contents:

autoexec.bat autoexec.dos config.sys config.dos

The destination backup zip archive.

The created backup archive isn't a unique BIG file. The program will create an exact directory tree as your original source files and a single zip compatible archive for every source directory. Into the destination drive you will find a root subdirectory named BAK_? where the symbol '?' is replaced with the drive letter of the source disk. Also if you have specified a user path into your Job the backup tree will be created taking it.

For example: if you want to backup the drive C: into the drive D: with the user specified path = User Name\Week1, the backup directory tree will start from the following directory: D:\BAK_C\User Name\Week1.

For every source directory GRBack will create a zip file named \$backup.zip and a \$backup.dir. The \$backup.zip file is your backup archive. The \$backup.dir is a text file with a listing of all the files into the source directory at the time the backup was executed. This file allow you to verify if you backup zip archive contains the right files. Also if your source directory have a \$backup.inc or \$backup.exc or \$backup.hlt file it will be copied into the destination to give you evidence of the reason why some file present into the \$backup.dir are not into the archive or vice versa are presents.

Why the destination directory must start with BAK_?

This obligation come from the cross backup. If you backup one drive into another and vice versa you risk to backup the other drive backup directory wasting useful disk space. GRBack will skip all the directories that start with the string "BAK" (case insensitive). In order to avoid wasted disk space also the "RECYCLED" directories are recognized and automatically skipped. The user has also the possibility to add it's own global directory names to skip (see <u>Advanced Options</u> for more details).

A Simple Example.

To better explain how the program works, lets see a simple example: suppose you have two drives respectively drive C: and D:. Suppose you have the following directory structure:

c:\win

c:\win\system

c:\win\system\vmm32

d:\works

d:\works\project1

d:\works\project1\res

Suppose that you doesn't create any \$backup.??? file in any source directory. Also suppose that your specified Jobs doesn't have any user destination path to add to the standard one. You have inserted the following Jobs:

```
c:\ ----> d:\,
d:\ ----> c:
```

GRBack will cross backup all files in all directories. It will create the following destination directories:

```
c:\bak_d
d:\bak_c
```

Inside each of these directories you will find the exact disk structure of the respective source drives:

```
c:\bak_d\works
c:\bak_d\works\project1
c:\bak_d\works\project1\res
d:\bak_c\win
```

d:\bak_c\win\system
d:\bak c\win\system\vmm32

in each of these directories you will find two files: \$backup.dir--> contain the complete source directory list. \$backup.zip --> contain the compressed files.