



GRDUW for ©Windows 95: The fast & easy way to duplicate your diskettes.

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Install.

Simply copy the package files where you want.

Uninstall.

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 allow 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:

[DupDisk](#)

[Format](#)

[Repair](#)

[Boot](#)

Info

In every page you have into the upper right corner the **Drive** combo box. It allows you to select the logical drive you want to work with. The drive selection remain the same between the pages except for the DupDisk page in which only the removable drives are shown.

Development Information.

GrDuw for Windows 95 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.

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

Many thanks to Kauppi Asko for his suggestions and beta testing.

Epilog.

I have kept this help file so small because the program is very simple to use. However if you have any questions don't hesitate to contact me. See [Contact Information](#) for my mailing addresses.

I'm checking my e-mail at least once a week.

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

What is GRDUW ?

GRDUW is a 32-bit disk utility written for Windows 95.

What is for ?

With this utility you can do the following things:

- Format diskettes (the supported media are: 720KB, 1.44MB, 1.68MB and 1.72MB). The 1.68MB media corresponds to the Microsoft DMF (Distribution Media Format).
- Format your hard disks.
- Format in read/write access speed optimized mode or in standard MSDOS mode.
- Duplicate your diskettes on a single drive in two pass: read source disk and write destination disk. Very Fast !
- Save your diskette image into a file in your hard disk for a late use.
- Retrieve the diskette image from a file and write it to a diskette.
- Compare a diskette image against another diskette.
- Check the boot sector of you diskette or hard drive for viruses and recreate a new safe boot.
- Repair your diskettes or hard disks.
- Get technical disk information (logical and physical layouts).

GR Disk Utility for Windows 95 can replace and enhance the standard Explorer functionality when you need to format or duplicate a disk. Have you tried to format a NOT FORMATTED diskette with the Windows 95 explorer ? I'm sure NOT! To do a simple test take a diskette and pass on it a big magnet many times. Then put it in your diskette drive an click the right mouse button on the explorer diskette drive item to select the "Format ..." option. What happen ? Check also how many time it take to duplicate a formatted diskette from the explorer ! What the explorer do when you try to duplicate a DMF (1.68MB) diskette ?

Why to use GRDUW ?

GRDUW offer you many advantages over similar utilities you can find and over the standard Windows 95 explorer functionality. Here are some of these reasons:

- It has an intuitive and easy user interface.
- It can format a diskette in an optimized layout that speeds up the read/write work.
- It support the non-standard software distribution formats.
- It can duplicate your diskette very fast.
- It can repair you diskettes and your hard disks.

Current GRDUW Limitations.

- The program currently only works on Windows 95 and refuse to run on other operating systems (Windows NT).
- A Windows NT version IS NOT currently available.
- The program was tested on standard 1.44MB floppy drives. The 2.88MB drive was never tested (beta tester welcome).

Frequently Asked Questions

Q: Did GRDUW run on Windows NT ?

A: No, for the moment it only works on Windows 95.

Q: Did GRDUW support 2.88M diskette drive ?

A: No, support for this kind of drive will be added in a future release.

Q: Is the diskette image a binary copy of the diskette ?

A: Yes, the content of the diskette image is a one to one binary image of the diskette contents.

Q: Why is a 1.72MB diskette shown by the Win95 explorer as a 1.66MB ?

A: Click your desktop "My Computer" icon, click the right button on the floppy icon and select the "Properties" menu option. A property sheet dialog box will appear. On the "General" Tab you can see the detailed information on the diskette. The row that start with "Capacity:" will show you two numbers: the first is 1.745.408 bytes while the second is 1,66MB. The first number is the EXACT diskette capacity, while the second is the approximate capacity calculated with minor precision that is currently shown by explorer. It is calculated as follows:

$$1,664550781 * 1024 * 1024 = 1745408.$$

A kilobyte is 1024 bytes, not 1000.

Q: How I can associate a .dim extension to GRDuw.exe ?

A: Run the explorer. Select the View main menu option. Select the Options at the end of the menu. You get the "Options" property sheet dialog box. Select the "File Types" TAB and press the "New Type..." button. You get the "Add New File type" dialog box. In this dialog window click the mouse on the "Description of type:" edit box. Enter the following string: "GRDuw diskette image". Click the mouse on the "Associated extension:" edit box. Enter the string "dim". Now press the "New..." button and get the "New Action" dialog box. In the Action edit box enter the following string "Execute GRDuw". Press the "Browse ..." button and find GRDuw.exe. Now press the "OK" button and return to the "Edit File Type" dialog box. Press the "Set Default" button in order to set the execution of GRDuw.exe the default action. Check also the "Always show the extension" if you want to see the .dim extension on your disk image files. Now press the "Change Icon ..." button and select the first GRDuw icon. Press the "OK" button. Press the "Close" button. You return to the "Options" property sheet dialog

box. Press the "Close" button. Now when you double click on a .dim file GRDuw will be executed and automatically it load the .dim file and place the focus on the Write Disk button so that you must insert a diskette and press enter.

Q: How I can create a desktop icon over which to drop my .dim files ?

A: Click the right mouse button on the desktop. Select the "New" option and then the "Shortcut" option. You get the "Create Shortcut" Wizard. press the "Browse..." button and locate the GRDuw.exe file. Press the "Next" button and then press the "Finish" button. Your desktop has now a GRDuw icon on which you can drop your .dim (disk image) files.

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 systems 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 added into our e-mail list in order to be advised when new major release will become available.
- You can get a diskette with the latest version of the program and documentation.
- You will receive our full support.
- You will receive a license to use your personal copy of the program at your home and at your office. 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!

Please compile the Registration Form in every part selecting a payment method from the following:

1. From Europe

Send us the Registration Form together with :

- an Eurocheque in Italian Lire, in the amount of Lit 45000 (Personal License + shipping).
- an International money order in the amount of US\$ 30 (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 Registration Form together with :

- a personal cheque (Paid to Roberto Grassi) or cashier's cheque drawn on a US bank in the amount of US\$ 30.
- an international money order in the amount of US\$ 30(Paid to Roberto Grassi).
- Cash: US\$ 30, 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\$ 30 applying the current banknote-exchange rate buy (up rounded) to your money currency.

Send us the Registration Form together with :

- a personal cheque (Paid to Roberto Grassi) or cashier's cheque drawn on a local bank in the amount equivalent to US\$ 30.
- an international money order in the amount equivalent to US\$ 30(Paid to Roberto Grassi).
- Cash: the amount equivalent to US\$ 30. 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.

1 - 9	copies: US\$30.00 per copy
10 - 19	copies: US\$300.00 + US\$25.00 per copy over 10
20 - 49	copies: US\$550.00 + US\$20.00 per copy over 20
50 - 99	copies: US\$1150.00 + US\$15.00 per copy over 50
100 - 999	copies: US\$1900.00 +US\$10.00 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 of the software yourself from an electronic archive. 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.

CompuServe:

WINSHARE, Disk Utilities, file name grduw???.zip

Internet:

<http://www.simtel.net/pub/simtelnet/win95/diskfile/grduw???.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 GrDw 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 GRDUW (to get it click the right mouse button above the title bar and select the "About grduw ..." option").
- Windows version (for example 4.950). You get it by opening the control panel window and double clicking the "System" icon. In the "General" property sheet page you find the complete version number.
- For Fatal errors: The error address and the contents of the error box displayed by Windows 95.

Support

If you have any problems please read the [Frequently Asked Questions](#).

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

addresses: Contact Information

- If you're on the Internet, write to roberto.grassi@telsy.it.
- On CompuServe, write to my CIS account 100043,2763.
- You can also write to my postal address:

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

Software Licence/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 [How to Register](#) 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 bug-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 Windows 95 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 non-critical 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 prohibit 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 ([Contact Information](#)) 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 ([Contact Information](#)) 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 ([Contact Information](#)) 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 cheque or money order for \$10 for each program. See [How to Register](#) 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 1.81.

- Added a help file instead of a simple manual.txt file.
- Easy registration is now possible by means of the grduw.key file. In this way a registered user can update his current version by downloading the latest shareware version.
- Added a starting parameter so that it is possible to make a grduw desktop link icon and drop an image file onto it to load it automatically. It is also possible to associate GRDuw at the .dim extension so that double clicking on a .dim file GRDuw is executed and it load the specified image file. See [Frequently Asked Questions](#) to see how.
- Corrected a bug on handling SUBSTed disk drives.
- Added a minimize box so that is possible to minimize the progress and the main dialog windows while an activity is in progress. The task bar shows the percentage of the operation as the main dialog title.
- Fixed a bug when duplicating a diskette and the destination diskette was never formatted.
- Allowed the read of a disk file image that is not of the exact size of a disk media. The current image file loading procedure check the first 512 bytes of the file in order to see if this file thunk is eligible to a boot sector. If you load an image file smaller then the original disk size the unreaded data are random.
- Minor dialog text refinements.

June 1996 : Version 1.71.

- Added the volume label to the drive list box in order to better identify the right disk drive.
- The image file format was changed in order to accept a pure binary disk image.
- As a simple help guide tooltips have been added to the dialogs.
- In the duplicate tab a "Verify after write" check box has been added to allow safer diskette write.
- Minor dialog re-styles.
- Minor bug fixes.

April 1996 : Version 1.51.

- This is the first distributed shareware release.

GrDuW exists now in English only. If you would like to provide translations of GrDuW or the documentation in another language, please contact me.
See [Update/Support](#)

Version 1.81 Registration Form

Mail this form filled in every details to: (Contact Information).

Register my copy of GRduW for Windows 95.

I have enclosed the requested fee of \$30.00 (US funds).

Send me my personal copy of the "grduw.key" file, based on my personal information below, so that my shareware copy become a registered one.

Mail me a diskette with the latest released version.

Insert me into your electronic mailing list (e-mail) in order to receive a notification when a new major release comes available.

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 45000.

Cash, at my own risk (Remember to use the Certificate of Mailing).

My Name: _____

My Address: _____

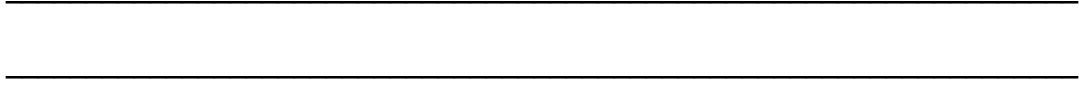
My City, State, ZIP: _____

My E-mail address : _____

My Phone: (_____)_____ - _____ (Optional)

Where have you found GRUDW ?:

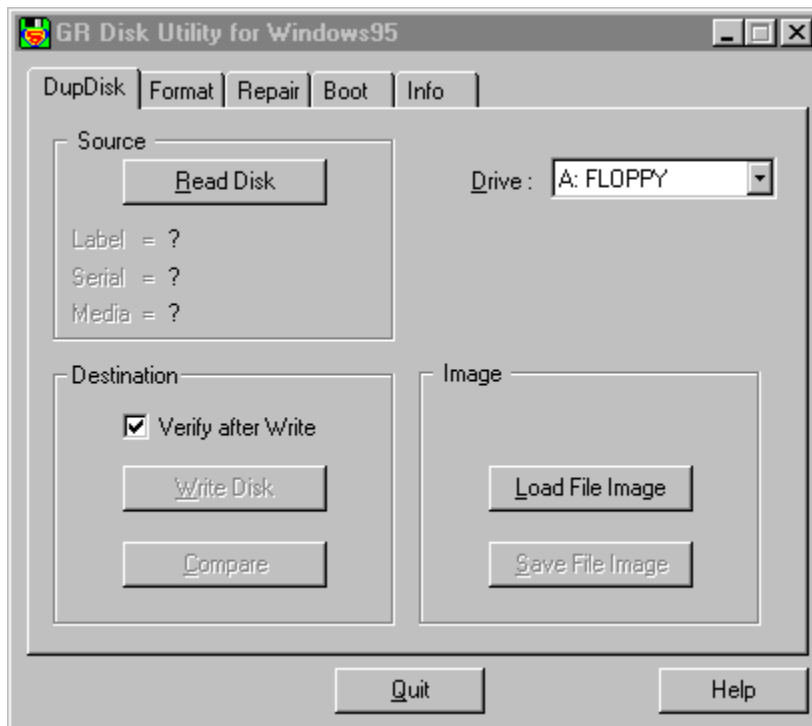
Comments or suggestions :



DupDisk

This Property Sheet page dialog box allows you to duplicate your diskettes.

This is a picture of the dialog layout:



First you must select the drive from the **Drive** combo box in the upper right corner.

In this property sheet page you will find the following three groups:

- Source
- Destination
- Image

The first time you enter this page only the button **Read Disk** in the Source group and the button **Load Disk Image** in the Image group are enabled. Before continuing you must fill the program memory with a diskette image. You have two choices:

- Press the **Read Disk** button to read a diskette. If you haven't put the source diskette into the drive, the program ask for it and warns you if the source diskette isn't write protect to prevent mixing source and

destination diskettes by accident. While reading the diskette a progress dialog will appear showing you the percentage of diskette already read.

- Press the **Load Disk Image** button to read a diskette image from your hard drive.

When the program memory has been loaded with a diskette image, the Source group show you the volume label and the serial number in order to allow you to identify the current diskette image.

When one of the previous two operations is done the other tree buttons will become active. Now you can do the following:

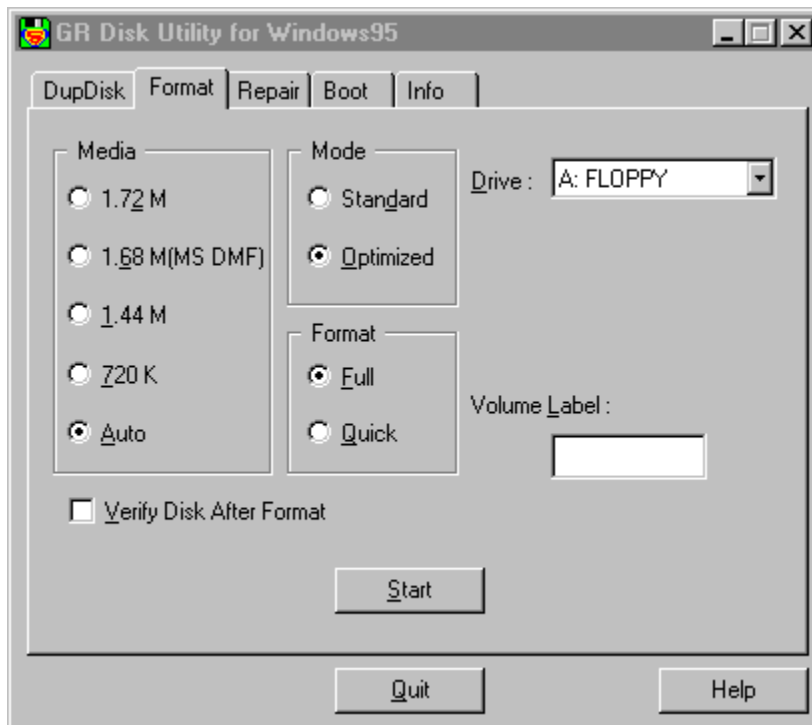
- Press the **Compare** button to compare the current memory image against another diskette.
- Press the **Write Disk** button to write the current memory image into another diskette. Checking **Verify after Write** spends a little more time when you write to the destination diskette but assures you that the data are correctly written on it.
- Press the **Save Disk Image** button to save the current memory image into a file image for later user. The first time you press this button you must enter a proper file name to save the file. If you enter a the file name that end with a number the subsequent saves automatically set the file name with that number incremented.

If GRDUW finds out that the diskette isn't formatted it will automatically format it.

Format

This Property Sheet page dialog box allows you to format your diskettes or your hard disk drives.

This is a picture of the dialog layout:



First you must select the drive from the **Drive** combo box in the upper right corner.

In this property sheet page you will find the following three groups:

- Media
- Mode
- Format

Media.

You can select a diskette media type if you want to be sure that the diskette is formatted with the media type you want or you can select the Auto option to leave the choice up to GRDUW.

The listed media are the standard 720KB and 1.44MB format and two

additional non-standard formats: the 1.72MB and the 1.68MB formats. The 1.72MB media is a special format automatically recognized by Windows 95 when you use the explorer or any other Windows shell. Windows 95 is able to read and write to this kind of disk media but isn't able to format it. The 1.68MB media is the non-standard format used by Microsoft to distribute its software packages. This format is identified as 1.68MB or MSDMF media type. The number of sectors of the MSDMF type is equal to the 1.72MB type; the difference is that that the MSDMF format only allows 16 files or directories on the disk root, while the 1.72MB, having two more tracks on the disk surface allows a root directory equal to that of a 1.44MB diskette.

Mode.

The available modes are:

- **Standard:** the classic MS-DOS format mode (interleave 1 and skew 0).
- **Optimized:** to have the best interleave and skew factor in order to speed up the read/write operations on the diskette.

The option **Standard** is renamed to **Low level** when you select a non-removable drive. In this case all the media options also became disabled and the selected option is **Auto**.

Format.

You can select if you want a **Full** format or a **Quick** format.

The **Full** format performs the low level recreation of the disk tracks re-generating the sector syncs and others low level signals.

The **Quick** format only rewrite the system area in order to free up all the disk space. The advantage of **Quick** mode is the speed, while **Full** mode is slower but safer.

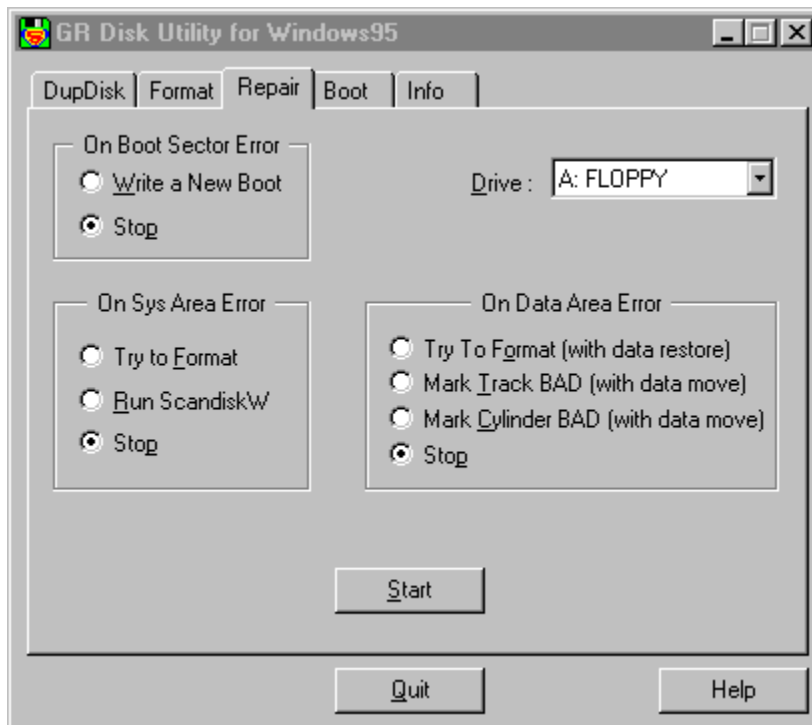
You have the option to verify that the format procedure was successfully completed. To enable it check the **Verify Disk After Format** check box. When the program has completely formatted the disk it start automatically a verify procedure. During the disk verify, the program is able to mark as BAD the tracks that cannot be read leaving you a safe usable diskette. This additional operation takes a little time but is recommended to avoid problems when you copy the data on the disk.

You can assign a volume label to the disk by writing a string into the **Volume Label** edit box.

Repair

This Property Sheet page dialog box allows you to repair your diskettes or your hard disk drives.

This is a picture of the dialog layout:



First you must select the drive from the **Drive** combo box in the upper right corner.

In this property sheet page you will find the following three groups:

- On boot sector error.
- On sys area error.
- On data area error.

This page allows you to try a disk repair procedure when you find disk errors. Selecting the stop option on all the 3 groups only checks the disk and advises you if any error are found without any modification or repair action taken.

On boot sector error.

In this group you can select the **Write a New Boot** option to regenerate the boot sector or the **Stop** option to only check for errors. With the **Write a New Boot** option a new standard boot sector will be written to the disk if the actual boot sector is in error.

This option can be very useful when you have a disk virus in the boot sector.

On sys area error.

In this group you have 3 options. The **Try to Format** option allows you to try to format the track in error. This is the only valid option you have to try to recover a disk damaged in the system area. The **Run Scandiskw** option delegates the scandiskw program the difficult work of repairing this kind of an error. The **Stop** option simply inform you of the error and stop the procedure.

On data area error.

This area has the greater probability of repair success.

In this group you have 4 options:

- Try to Format (with data restore).
- Mark Track BAD (with data move).
- Mark Cylinder BAD (with data move).
- Stop. This option as before will warn you and stop the procedure.

Try to Format (with data restore).

This option reads in the track in error (doing the best to read all the sectors in error) and then tries to format the track many times. If the format succeeds the program writes back the data it was able to read, otherwise it terminates.

Mark Track BAD (with data move).

This option reads in the clusters (as many clusters that fit into a track) in error and moves them into a safe and free disk data area. Then the program marks these clusters as BAD so that the file system will never use them again.

Mark Cylinder BAD (with data move).

This option is very similar to the previous one except that it works with a disk cylinder instead of a disk track. A cylinder is a track for all the heads i.e. is a data area greater then the previous one. This option can be useful on hard disks when a complete disk area is damaged and it is safer not to use any

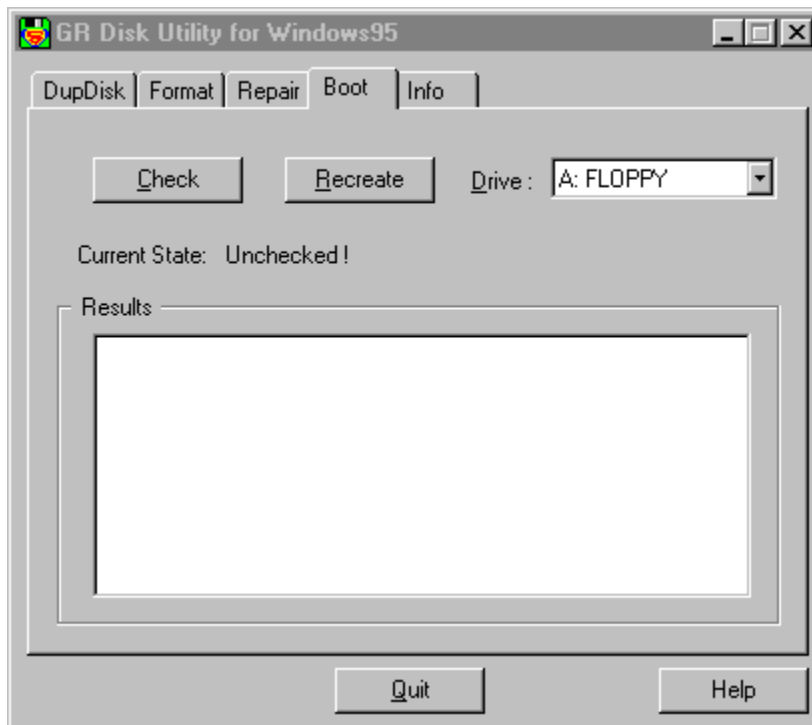
part of the damaged area but mark it all unusable.

When you have selected the desired repair behaviour of the program you can press the **Start** button to begin the repair procedure.

Boot

This Property Sheet page dialog box allows you to check and repair your diskette or hard disk boot sector.

This is a picture of the dialog layout:



First you must select the drive from the **Drive** combo box in the upper right corner.

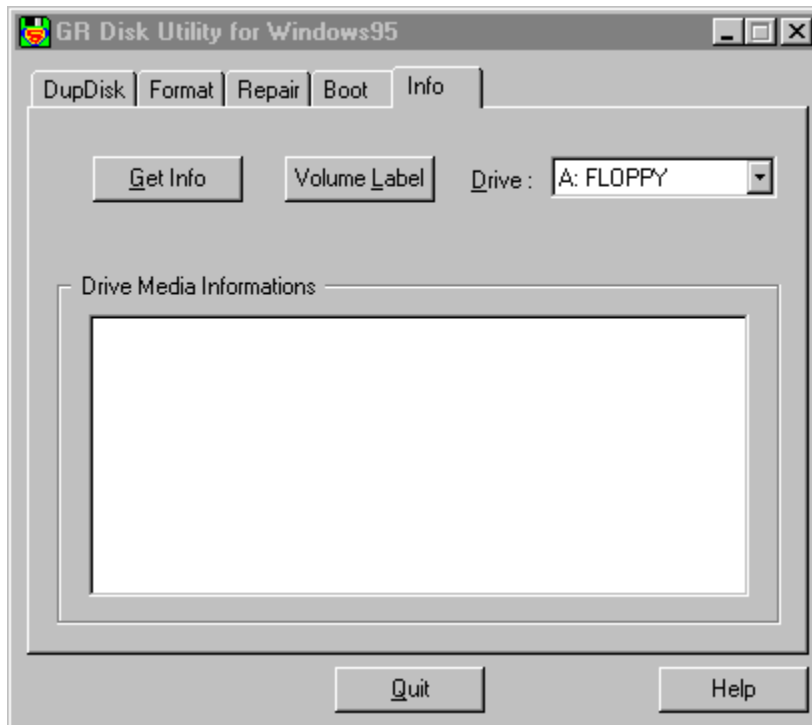
Press the **Check** button to check if the boot sector is damaged or infected by a virus. This operation will read the boot sector and check it. The check results are collected into the **Results** list box showing you all the non-compliances the procedure has found.

Press the **Recreate** button If you want to write a safe boot sector.

Info

This Property Sheet page dialog box allows you to collect some useful technical information about your diskette or hard disk. Also you can modify the drive Volume Label.

This is a picture of the dialog layout:



First you must select the drive from the **Drive** combo box in the upper right corner.

Press the **Get Info** button to fill the **Drive Media Information** list box. After the information is collected from the drive you can scroll the information into the **Drive Media Information** list box by pressing the up/down keys.

Press the **Volume Label** button to get a dialog box that allows you to edit the selected drive Volume Label. By pressing the *Change* button in this dialog box you will write the new label into the disk. If the disk is write protect or isn't into the drive (for example a floppy disk) you will get a message saying you that the program isn't able to write the volume label to the disk. in this case you can correct the problem and press the *Change* button again.

Other Programs

GRBack.

GRBack is a 32-Bit program to backup your hard drive data. **GRBack** is a cross backup utility designed to backup one hard disk drive data into another hard disk drive. It recreate the exact source directories structure and for each directory it create a PKZIP compatible archive with full long file name support.

It is fully customizable in order to include or exclude files or skip whole directories via simply \$backup.??? files located into your source directories.

GRBack is fully integrated with the Microsoft System Agent that come with the Microsoft Plus! package and automatically insert a task into the task list for you to start the backup at every system start. **GRBack** has an easy and intuitive user interface.

