

AVG Rescue CD

User Manual

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1. Introduction

This User Manual provides complete overview of the usage and features provided by the AVG Rescue CD.

1.1. Basic description of AVG Rescue CD

The AVG Rescue CD is a portable variant of AVG based on Linux, and an indispensable tool for booting up the system in case your local disk is unable to do so (e.g. when your computer system areas have become infected). Also, the AVG Rescue CD can be used for removing viruses on computers with sharing violations or insufficient user access rights.

AVG Rescue CD enables you to update the AVG virus database, test all areas of the local machine, remove infection, and offers basic administration tools. For users acquainted with Linux systems, standard Linux terminal is also available.

Note: We strongly recommend that only users with advanced computer knowledge use the AVG Rescue CD. As the AVG Rescue CD gives the user administrator access rights, it is vital that the user knows what they are doing; incorrect manipulation of the operating system or its resources may result in partial or even complete loss of system stability and functionality, or important data loss.

1.2. Features

The AVG Rescue CD offers the following key features:

- Booting up the computer in alternative (virusless) environment
- Scanning all areas of the computer (local drives and Windows system registry) for viruses and spyware
- Handling any infected files (rename, delete, heal)
- Accessing the AVG Virus Vault: Possibility to restore quarantined system files
- Launching published hotfixes (to fix possible bugs and glitches in AVG desktop application)
- Administration tools
- Linux terminal

The AVG Rescue CD is currently available in English only.

Note: Skilled administrators and expert Linux users may access AVG Rescue CD source files in order to create a customized AVG Rescue CD from scratch to meet their particular requirements. If you're interested, you can also test unpublished versions of the software <u>here</u>. Please read the disclaimer on the linked page before continuing further down that road; AVG is unable to provide support for unpublished versions of the Rescue CD, or any version you create from source code we supply.



2. Installation

AVG Rescue CD is distributed as:

- part of AVG installation DVD it can be purchased together or as an addition to your AVG software; contains installation files and documentation of all commercial AVG products as well as some useful tools (including the AVG Rescue CD)
- 2. ISO image for burning onto a CD
- 3. ZIP or RAR archive for use on a USB flashdisk

2.1. Supported systems

Currently supported operating systems:

- Microsoft Windows 2000/XP/Vista/7/8
- Microsoft Windows 2000/2003/2008 Server

Both 32 and 64-bit versions are supported.

Minimal system requirements:

- Intel Pentium 600MHz
- 768 MB of RAM memory (CD), 256 MB of RAM memory (USB)
- no hard drive space is required

Generally, all common desktop PCs using the FAT32 or NTFS filesystems (running MS Windows or Linux) should work with AVG Rescue CD, however only those mentioned above are tested and quaranteed to work.

Note: On an overwhelming majority of computers, BIOS setup settings can be changed so that the computer boots up from a CD. However please note that if BIOS does not allow to change this for any reason, the AVG Rescue CD cannot be used on the computer. See chapter <u>Setting Boot from</u> <u>CD</u> for more details.

2.2. Downloading Rescue CD

You can download the Rescue CD files from our website <u>http://www.avg.com/avg-rescue-cd</u>. Available options:

Click the link *Download Rescue CD (for CD creation)*, and save the ISO file onto your computer. For further instructions, please refer to chapter <u>Creating Rescue CD</u>.

Click the link **Download Rescue CD (for USB stick)**, and save the archive (both RAR and ZIP archives are available). For further instructions, please refer to chapter <u>Creating Rescue USB</u> <u>Flashdisk</u>.



2.3. Creating Rescue CD

After you have downloaded the ISO image of the AVG Rescue CD to your computer, you now only need to burn the file on a clean CD or DVD. You will need an application for burning a CD/DVD (e.g. Nero, BurnAware Free, CDBurnerXP...). However, avoid using the Windows built-in burning feature, since the disk it creates won't be bootable.

In the burning application, choose to Burn Image file (mostly the ISO file option). Insert the medium in the drive and confirm the burning. There is no need for other special settings.

2.4. Creating Rescue USB Flashdisk

After you have downloaded the RAR/ZIP archive of the AVG Rescue CD files to your computer, locate the archive on your harddisk, and proceed as follows:

- 1. Make sure that the USB flashdisk has sufficient capacity. It is also recommended to format it before use.
- 2. Unpack the RAR/ZIP archive (any common decompression program, such as WinRAR/ WinZIP, should be able to do this).
- 3. Among the the extracted files, find setup.exe, and run it.
- 4. Choose a drive from the removable drives list (autodetected) and click Install.

When done, you will get a message that the USB flashdisk is bootable.

Also, once you have launched the AVG Rescue CD (burned on a CD), you can create a bootable USB flashdisk from the Main Menu directly.



3. First Launch

3.1. Setting Boot from CD

Before you can use the AVG Rescue CD on a computer, you need to configure the BIOS so that the computer is set to boot up from a CD/USB flashdisk (whichever you intend to use).

There are various ways to do so, depending upon the BIOS type resp. hardware producer (it does not depend on the operating system). Typically, you will need to press a specific key to enter the BIOS/ CMOS setup program. Usually, instructions to do this are shown on the screen during computer startup, however, the message is often gone so quickly that you cannot read it; try pressing quickly the **PAUSE/BREAK** key to freeze the screen (hitting the key again "unfreezes" the screen). Another solution is then to consult your computer or motherboard manual; if you do not have one, you might want to contact the technical support.

If none of the solutions suggested above prove successful, you can just try and press a key during the computer startup. The most frequently used keys for this purpose are: **ESC**, **DELETE**, **F2**, **F10**.

Once in the BIOS, look for setting option named **Boot order**, **Boot Options** or **Boot**. Move the CD or USB flash drive up the boot list until it is in the first place. Save the change. Insert your AVG Rescue CD or USB flashdisk, and restart the computer.

Note: Some BIOSes require the USB device to be detected, else in won't be shown in the boot list. Therefore you have to insert the USB device first.

Note: Sometimes, a message like "Press any key to boot from CD or DVD" appears during startup. In such case, all you need to do to boot from your AVG Rescue CD is really just to press any key.



3.2. First Run Step By Step

During the first run, the AVG Rescue CD will display a welcome screen. Follow the instructions on the screen.

AVG Rescue AVG Rescue Boot from Boot from Boot from Memtest86 Exit to t	CD CD with Disa CD with Reso floppy disk hard disk next device i - Advanced M he syslinux bo	bled Framebus lution Select n the BIOS bo lemory Diagnos of prompt	fer tion ot sequence stic Tool	

Upon pressing F1, all available boot options and general commands are listed:

boot op f arl nofb vgask floppy disk	tions: boot AVG Rescue CD boot AVG Rescue CD with disabled framebuffer boot AVG Rescue CD with selected video mode boot from floppy boot from hard disk
	best from mark devices in the DIOS best services
next	DOOT ITOM NEXT GEVICE IN THE BIDS DOOT SEQUENCE
command	line keystrokes:
<enter></enter>	boot specified command line
<backspa< td=""><td>ace> erase one character</td></backspa<>	ace> erase one character
<ctrl-u< td=""><td>erase the whole line</td></ctrl-u<>	erase the whole line
<ctrl-v< td=""><td>display the current Syslinux version</td></ctrl-v<>	display the current Syslinux version
<tab></tab>	list matching labels
<f1><</f1>	(12) help screens (if configured)
<ctrl-f< td=""><td><pre><digit> equivalent to F1F10</digit></pre></td></ctrl-f<>	<pre><digit> equivalent to F1F10</digit></pre>
<ctrl-c< td=""><td>interrupt boot in progress</td></ctrl-c<>	interrupt boot in progress
<esc></esc>	interrupt boot in progress



Please be patient while the AVG Rescue CD launches; it may take a couple of minutes.

After a successful boot, the **License Agreement** will be shown. Please read it carefully (use the arrow keys to scroll up or down), and then select whether you agree or disagree with the License Agreement (use the TAB key to move to the desired option). Please note that if you disagree, the AVG Rescue CD launch will be cancelled, and your computer restarted.

As a next step, the AVG Rescue CD will ask you if you want to perform immediate update of your AVG. It is strongly recommended to perform it, since only the latest version of virus database ensures full-scale protection even from the latest threats. If your computer is connected to Internet, it won't take long to download all necessary files. However, if your computer is not connected (or if the Internet connection is unavailable for any reason), you do not need to worry, since there is also another way of updating. Simply use files previously downloaded from the AVG webpage and stored on you harddrive or USB flashdisk.

Next (no matter if you have performed update or not), the main menu of the AVG Rescue CD will be displayed.

3.3. Main Menu

The Main Menu is displayed after successful AVG Rescue CD boot, and lists all available options. You can navigate around the Main Menu using the arrow keys.

Main Menu					
Scan Configure and run on-demand scan.					
Scan Result View and process last scan result.					
Update Configure and run update.					
Hotfix	Scripts for fixing known issues.				
Database	Select virus database.				
Vault	Inspect Windows virus vault.				
Mount Re-mount Windows volumes.					
Network Configure network.					
USB	Create bootable USB Flash Drive.				
Utilities	Miscellaneous utilities.				
Eject	Eject rescue cd.				
Reboot	Reboot system.				
Shutdown	Shutdown system.				
About	Rescue CD and AVG version info.				
<pre></pre>					

This menu allows you to access all key features of the AVG Rescue CD. The following options are available:

- **Scan** allows you to start (and configure) on-demand scan. Click <u>here</u> to learn more about scanning in the AVG Rescue CD environment.
- Scan Result allows you to view reports about finished scans. Click <u>here</u> to learn more about handling scan results in the AVG Rescue CD environment.



- **Update** allows you to start update of AVG (by selecting one of available ways). Click <u>here</u> to learn more about updating in the AVG Rescue CD environment.
- *Hotfix* allows to access various scripts for fixing known bugs and issues afflicting the performance of AVG desktop application (i.e. standard AVG installed on the computer). The most common example of such glitches are so called "false positives" (i. e. AVG keeps detecting a virus in a file that is definitely harmless). Running an appropriate script (see its description) should take care of such problems. The list of scripts can be updated at any time (if the Internet is available).
- **Database** allows you to choose a virus database used by the AVG Rescue CD (when there is more than one database available, the AVG Rescue CD always uses the one most up-to-date; however, it might be a good idea to try some older one, just in case the newest database is infected or corrupted). You can also add a new virus database to the list. Simply press Add, select a volume and browse your hard drive or removable drive for required file.
- **Vault** allows you to view files stored in the Virus Vault of AVG installed on the computer and to restore them. This can be useful if a file was detected by a mistake. Click <u>here</u> to learn how to use the Virus Vault in the AVG Rescue CD environment.
- Mount starts mounting of storage devices. Use this option after inserting a USB device.
- Network allows you to configure the network connection (click here to learn more).
- USB starts creation of a bootable USB flashdisk containing AVG Rescue CD.
- Utilities allows you to access a set of useful tools (see Utilities section below)
- Eject ejects the CD/DVD-ROM disc trays.
- Reboot restarts the computer.
- Shutdown turns the computer off.
- About shows information about the AVG Rescue CD (version etc.).

Users familiar with Linux can also press **Alt+F2** (resp. F3, F4, F5) to switch over to Linux terminal, offering all common Linux commands and tools.

Note: If needed, you can always switch back to the menu-based AVG Rescue CD interface by pressing Alt+F1.



4. Updating

The AVG Rescue CD should be always kept up-to-date, so that it can achieve highest performance. In the <u>Main Menu</u>, choose **Update** option to trigger the following dialog:



There are three different ways to update your AVG Rescue CD:

- 1. Online e.g. automatically through Internet-enabled local network
- 2. <u>Offline e.g. from a directory</u> (on a local harddisk, or an external source such as USB flashdisk)
- 3. <u>Download e.g. by downloading files to a previously chosen folder</u> (so you can use them for offline update later on)

Note: As the update only takes place in RAM (no writing on harddisk), it is necessary to update each time you use the AVG Rescue CD again.

No matter which way you choose, you will be always prompted to select priorities for your update:





This dialog allows you to select which updates you want to use. The lowest priority is virus database update, higher is program update and the highest contains optional files (help files etc.). If you choose a higher priority, all lower priority updates will be also downloaded.

Note: Selecting only high priority updates can speed up the whole process; however, for the best performance of your AVG Rescue CD, we strongly recommend to get all updates (as it is set by default).

4.1. Online

This option is surely the quickest and the most comfortable, since the update is being performed automatically; however, it requires a working network connection. If the network connection is not available for some reason, you should try to <u>configure it</u>, or choose the <u>offline update</u>.

4.1.1. Configuring Network Connection

The AVG Rescue CD always attempts to configure the network connection during the boot. However, this only works for DHCP assigned IP addresses. If you need to use static IP address, you will have to set it up manually.

In the Main Menu, select the Network option to trigger the following dialog:

Network Configuration Menu				
Interface Proxy Set up proxy.				
< <u>Select></u> <return></return>				

Selecting the **Interface** option lets you choose the Network Interface Controller that you wish to configure. Next, you are given two options - **DHCP** (on by default) or **Static**. While the DHCP IP address is being configured automatically, the Static address requires some data to be entered manually. You will need to know the IP address that the computer should be using, subnet mask etc.

If you don't wish to access the Internet directly, but to use a proxy server instead, select the **Proxy** option (*the proxy server is a stand-alone server or a service running on a PC that guarantees safer connection to the Internet*). In order to configure proxy, some further data are required:



- Use proxy specify if you really wish to use proxy (this is the first thing to be done)
- **Authentication** specify the authentication type; it is strongly recommended to keep the *Any* option, which is set by default (the proxy server will then automatically convey its requirements to you). However, if you are a skilled user, you can also choose *Basic* (required by some servers) or *NTLM* (required by all ISA Servers) option.
- Server IP Address specify the server's IP address or the name of the server
- Port specify the number of the port that enables Internet access (by default, this number is set to 3128 but can be set differently – if you are not sure, contact your network administrator)
- User login optional, specify only if required
- User password optional, specify only if required

4.2. Offline

This option allows you to perform update using previously downloaded files.

Note: You can also download the files beforehand from the AVG web page and access them from the USB flash drive. If this drive is plugged in after starting the AVG Rescue CD, use the **Mount** option in the <u>Main Menu</u>, to make it accessible.

4.3. Download

The option allows you to initiate the download of the update files. You will be prompted to choose the folder on the computer where the files should be stored (and after the download is finished, you will be also asked if you want to use them straightaway).



5. Scanning

5.1. Running a Scan

To run a scan, select **Scan** in the Main Menu. If there is an update to your AVG Rescue CD available, you will be asked whether you want to run it. We strongly recommend that you do it, since only fully up-to-date AVG Rescue CD can perform at its best. Click <u>here</u> to read more about updates and their types.

Now, choose a part of the computer to be scanned in the Scan Type Menu:

Scan Type Menu					
Volumes Directory Boot Sector	Scan selected volumes. Scan selected directory only. Scan only boot sector of selected devices.				
	Select> <return></return>				

Volumes (usually equal to disk units), Directory and a Boot Sector scan types are available.

Note: The Boot Sector scan will only try to find infected MBRs on selected volumes. For every such MBR found, you will be separately asked whether you want to fix it. Click <u>here</u> to learn more about fixing MBR via AVG Rescue CD.

No matter which scan type you choose, you will be asked to select a volume in the next step:



I	Please select volumes for scanning
	[*] /mnt/sda1 NTFS 4.0G
	-
	L < <u>OK</u> → <return></return>

Each volume is defined by a location specification (according to Linux standard, volumes are mounted into the /mnt/ directory), a filesystem (NTFS or FAT32), and a volume size. If there is more than one volume, you can select/deselect the desired one with the **spacebar**. Selected volume is marked with an asterisk.

If you selected *Directory* in the *Scan Type Menu*, you will be now offered help on how to navigate around the *Directory Selection* window, which follows:

Directories	Directo	ory Selection	
SAVG Documents and Program Files RECYCLER System Volume WINDOWS	Settings Information		
/mnt/sda1/_			
	K OK >	<return></return>	

The window consists of a directory section, a text field, and **OK/Return** options. To move between the sections, use the **TAB** or **arrow keys**.



To specify the directory you need to scan, either type the full path in the text field, or use the directory section to locate it: Within the directory window, use the **up/down arrow keys** to move to the desired directory, and the **spacebar** to select it (copy it to the text field). Type a **forward slash** to enter the directory and list all subfolders in the directory section (if you also type an alphabetic character,). Repeat until the path to the desired directory is shown in the text field. Press **Enter** to confirm the selection and proceed to the next step.

One dot in the directory section represents the currently selected folder, two dots represent a folder one level up the directory tree. \$AVG represents AVG program folder.

You can only select one directory to be scanned at a time.

In the next step, you can specify detailed scan and report settings:

Scan Options					
riease select s	Please select scan options				
[*] arc	Scan inside archives.				
[] pudu	Report password protected files. Use witharc.				
[] arcbombsw	Report archive bombs. Use witharc.				
[*] heur	Use heuristics for scanning.				
[*] pup	Scan for potentially unwanted programs.				
[] [] [] [] [] [] [] [] [] [] [] [] [] [Scan cookies.				
[] hidext	Recognize hidden extensions.				
[] macrow	Report documents with macros.				
-	-				
L	✓ OK > <return></return>				

- Scan inside archives check to define that the scanning should check all files even if these are packed inside some type of archive, e.g. ZIP, RAR, ...
- Report password protected files check to report detected documents protected by password, i.e. not possible to scan.
- **Report archive bombs** check to report detected (the archive bombs are highly compressed archives that, upon decompression, take up so much disk space and memory that they can bring down the application accessing them, or in the worst case, the whole system).
- Use heuristics for scanning check if you wish the heuristic analysis (dynamic emulation of the scanned object's instructions in a virtual computer environment) to be one of the methods used for virus detection during scanning.
- Scan for potentially unwanted programs check to scan for spyware as well as for viruses. Spyware represents quite a questionable category: even though it usually represents a security risk, some of these programs can be installed intentionally. We recommend to keep this feature activated as it increases your computer security.
- Scan cookies check to define that tracking cookies should be also detected during



scanning (HTTP cookies are used for authenticating, tracking, and maintaining specific information about users, such as site preferences or the contents of their electronic shopping carts).

- **Recognize hidden extensions** check to report detected files with hidden extensions (a hidden extension can make a possibly malicious file appear quite harmless. E.g. the suspicious file "something.txt.exe" might appear as the harmless text file "something.txt").
- Report documents with macros check to report detected files containing macros (a macro is a predefined sequence of steps designed to make certain tasks easier for a user
 MS Word and Excel macros are widely known. As such, a macro can contain potentially dangerous instructions).

Basically, the more options are selected, the longer the scanning takes (while being more thorough).

Selected scanning options are marked with and asterisk. Move around with the **up/down arrow keys**, and select/deselect the options as required with the **spacebar**. Confirm with **OK**, and start the scan with the respective option in the last window:

Scan can be inter	rupted by Ctrl+c.			
Run scan?				
< Yes >	< No >			

Pressing **Enter** will launch the scan. Currently scanned locations will be shown on screen. As mentioned in the last window, you can stop the running scan by pressing **Ctrl+C**. Pausing the scan is not possible.



5.2. Scan Result

Once a scan is finished (or interrupted), you will see a dialog looking like this (you can also view it by selecting the **Scan Result** option in the <u>Main Menu</u>):



The **Continue** options takes you to the dialog allowing you to perform actions on infected files:



	Select F	i les	
[×] [[8FC93827-7C38-406E-9FBE-8FEBB173CD6	3}-eicar.com Virus identi	fied EICAR_Test
K <u>A</u> ct	tion > < Select All >	<pre>Deselect All></pre>	Return >

Navigate through the list using the **up/down arrow keys**, and select/deselect the files as required with the **spacebar**. You can also the **Select All/Deselect All** buttons to hasten your selection. Once you are satisfied with your selection, press the Action button to trigger a new dialog:

Action Menu Choose action for 1 selected files:								
Heal all selected filesRenameRename all selected files.DeleteDelete all selected files.Report FileDisplay report file.								
<select></select>	<return></return>	< Help >						

The so called **Action Menu** allows you to handle detected infected files. There are three possible options:

- *Heal* this will try to strip selected files from infection. However, it might not be successful some files simply can't be healed. Such files will be deleted (with the exception of so called "white-listed", i. e. system critical files, whose deletion may damage the whole system beyond recovery).
- **Rename** this will rename all selected files. Such files will remain on the disc, but won't be loaded during system startup. This will make any infection harmless, as the renamed file



cannot be used to spread infection or harm the computer. You can boot your OS safely now, and sort out the infection (heal or move to the virus vault) after performing full scan via AVG standard client.

Note: If you choose to rename a file, it will be renamed automatically according to the following pattern: File.extension will be renamed to file.extension_INFECTED.arl; renamed files remain in the original location.

• **Delete** - this will remove all selected files from the computer. Be careful, as some files can be crucial for the Windows system and deleting them can make it inoperative!

Note: All deleted files will be removed from the system permanently; this action cannot be reversed. Be really careful, as some files can be crucial for the Windows system and deleting them can make it inoperative! Whenever unsure, we recommend to rename files, so that you do not lose them and can restore them if their absence causes trouble.

You can also click the *Report File* option to display summary of the detected files.



6. AVG Virus Vault

This option allows you access the AVG Virus Vault. The Virus Vault is a virus quarantine where all files removed by AVG application, virus infected or suspicious, are stored. All these files are encrypted and cannot do your computer any harm. However, a situation might occur, when i. e. a system file removed to the Virus Vault makes the whole PC unbootable. This is one of those cases when the AVG Rescue CD is particularly useful, since it enables to recover the file from the Vault, and make the system bootable again.

Note: The files are never removed from the AVG Virus Vault. It is always only their copy that is being restored to original (or chosen) location.



In this dialog, you can view all files stored in the AVG Virus Vault. Sometimes, the list is so long that you might wish to use some *filter* in order to view only some of them. To filter the files out, only a part of file, path, or infection name can be used *(e.g. C:\Windows*.dll EICAR)*. Choosing the *Detail* option will show you more info about this particular infection, while the *Select* option opens a new dialog, allowing you to handle the chosen file:



Uault File Action C:\Users\tester\Downloads\eicar.com.txt Vault filename: /mnt/sda1/\$AUG/\$VAULT/U_00000001.fil Infection:									
<mark>< <u>R</u>eturn →</mark>	<	Restore	>	<	Restore to	>	<pre> dl with></pre>		

The following actions are available:

- **Restore** the file is being restored to its original location. If this location no longer exists, it is created. When file with such a name already exists in this location, you can overwrite it, or restore the file from the Virus Vault to another location of your choice.
- **Restore to** the file is being restored to some other location. You will be prompted to enter a full path and possibly a new file name.
- **Restore all with** all files with this particular infection are being restored to their original locations.

Note: If a file is restored to a location that will be scanned in the future (which is mostly the case), it will probably end up in the Virus Vault again (even if that really was just a false alarm). To avoid that, try updating your AVG immediately after you reboot your OS. This way, your AVG will receive the newest virus database with the false detection (hopefully) removed.



7. Utilities

Administration utilities on AVG Rescue CD are accessible from the main menu *Utilities*, and include the following:

- <u>File Manager</u> Midnight Commander, an alternative to the standard Windows file manager intended for more IT-experienced users
- <u>TrueCrypt</u> a utility for mounting encrypted file system
- Registry Editor AVG Registry editor tool for system registry processing
- Fix MBR this tool allows you to rewrite the master boot record (MBR) of selected volume
- <u>TestDisk</u> a tool for analyzing and testing hard disk integrity with optional automatic error correction
- Smartctl a tool to monitor the reliability of the hard drive and predict possible failures
- PhotoRec useful tool for recovering deleted files
- <u>Ping</u> (ICMP Echo request) utility for testing the availability of network resources (servers, domains, IP addresses)
- <u>Links</u> simple text web browser
- <u>AvgDiag</u> simple utility, allowing you to send diagnostic data to AVG

7.1. File Manager

Midnight Commander is a visual two-panel file manager; a feature rich full-screen text mode application that allows you to copy, move and delete files and whole directory trees, search for files, and run commands in the subshell. Internal viewer and editor are included.

To navigate around Midnight Commander, use the menu in the bottom of the screen (keys F1 to F10). For onscreen help, press F1.

Midnight Commander is licensed under GNU General Public License, and therefore qualifies as Free Software. More up-to-date information on the Midnight Commander, its features and usage, can be found at <u>http://www.midnight-commander.org</u>.

7.2. TrueCrypt

TrueCrypt is a software for establishing and maintaining an on-the-fly-encrypted volume (data storage device). On-the-fly encryption means that data is automatically encrypted right before it is saved and decrypted right after it is loaded, without any user intervention. No data stored on an encrypted volume can be read (decrypted) without using the correct password/keyfile(s) or correct encryption keys. Entire file system is encrypted (e.g., file names, folder names, contents of every file, free space, meta data, etc).



7.3. Registry Editor

Registry editor is a simple application for editing the Registry. *Please note that only advanced users familiar with the Registry structure and functions should be using this tool!*

The keys can be easily selected using the navigation tree. You can add new keys and variables and change their values; you can also remove them, if needed.

Note: All records are stored with [KEY_FULL_PATH] on separated lines with a few variables below: "VARIABLE_NAME" = "VALUE" for strings or "VARIABLE_NAME" = dword:NUMBER for numeric values. New keys or variables can be created by changing the current ones or by adding new lines.

7.4. Fix MBR

Fix MBR is a simple yet powerful utility allowing you to rewrite the master boot record of the selected drive.

Note: A master boot record (MBR) is a type of boot sector, a data sector at the beginning of many types of computer mass storage. Problems with the master boot record may prevent the system from booting. The MBR may be affected by malicious code, become corrupted by disk errors, or be overwritten by other boot loaders when experimenting with multiple operating systems on a host.

Rewriting the master boot sector can save your system and make it running again; however, it is also a potentially dangerous operation, since it may cause irreversible damage and render the whole OS permanently unbootable. Therefore, you should use this utility wisely, and only when you really know what you are doing.

7.5. TestDisk

TestDisk is a free data recovery software designed to help recover lost partitions and/or make nonbooting disks bootable again when these symptoms are caused by faulty software, certain types of viruses, or human error (such as accidentally deleting a Partition Table). It can be also used to repair some filesystem errors.

Information gathered during TestDisk can be saved into a text file for later use.

To use TestDisk, read and follow the instructions on the screen.

TestDisk is OpenSource software, and is licensed under the terms of the GNU General Public License (GPL). More up-to-date information on the TestDisk, its features and usage, can be found at <u>http://www.cgsecurity.org/wiki/TestDisk</u>.

7.6. Smartctl

Smartctl controls the Self-Monitoring, Analysis and Reporting Technology (SMART) system built into many many hard drives. The purpose of SMART is to monitor the reliability of the hard drive and predict drive failures, and to carry out different types of drive self-tests.

More up-to-date information on the this tool, its features and usage, can be found at <u>http://smartmontools.sourceforge.net/man/smartctl.8.html</u>.



7.7. PhotoRec

PhotoRec is a tool that serves for recovering (undeleting) of removed files from the computer but also from connected devices – like digital cameras, mp3 players or generally any flashdisk memory. Please note that if you want to recover some file, it is vital not to save any other files in the meantime. Newly saved files may overwrite the physical disk space, where the file you want to recover is located. This is also a reason, why you should save the recovered file to different partition or other disk. More up-to-date information on this application, its features and usage can be found at the web page of its vendor: http://www.cgsecurity.org/wiki/PhotoRec_Step_By_Step.

7.8. Ping

Ping is a standard tool for testing Internet Protocol network connection. Type an IP address to test the connection; the result will be shown on the screen.

7.9. Links

Links is a text web browser similar to Lynx. It only displays texts of visited pages, as well as basic positioning on a page. This is a reason why some pages may not be readable via Links (like pages consisting mainly of pictures, using Adobe Flash, or generally any pages requiring some additional plugin to be displayed).

7.10. AvgDiag

AvgDiag is a simple, one-step diagnostic utility for all AVG-based security software. It automatically collects any error files and sends these for analysis.

First, fill in your *e-mail address* so that the Technical Support team can contact you to collect further information and provide a solution to the problem. Next, provide a *short description* of the problem - however, this step is only optional. Should you wish to enter a comment, please be sure to explain the problem clearly and describe the circumstances under which it occurred. To complete the procedure, press the *Send* button. AvgDiag will then take care of collecting the diagnostic data.



8. Contact and Support

There are several places that you might wish to visit, if you are looking for additional info about your AVG Rescue CD:

- <u>AVG Rescue CD official website</u>: contains basic description, as well as several video tutorials
- <u>AVG website Support Center</u>: here you can find a structured overview of thematic groups dealing with both sales and technical issues
- <u>Frequently asked questions</u>: the AVG website also contains a separate and elaborately structured section of frequently asked questions. Again, all questions are divided in a wellorganized way into sales, technical, and virus categories
- <u>About viruses & threats</u>: a specific part of the AVG website is dedicated to virus issues. This page provides a structured overview of information related to online threats. You can also find instructions on removing viruses, spyware, and various advices on how to stay protected
- <u>Discussion forum</u>: if none of the previous helps you to find your answer, try visiting AVG users discussion forum perhaps your answer awaits you there