VirtualDrive® Network

Windows 2000 SP4/XP/Server 2003/ Server 2008/Windows 7

User Guide

FarStone Technology Inc

Copyright Notice

No part of this publication may be copied, transmitted, stored in a retrieval system, or translated into any language in any form or by any means without the express written permission of FarStone Technology Inc.

FarStone grants you the right to use one copy of the enclosed software program ("SOFTWARE") on a single computer. If the SOFTWARE is installed on a network, or more than one user can run the SOFTWARE at the same time, you must purchase an additional license for each additional user or computer.

Trademarks

FarStone®, VirtualDrive®, VirtualDrive® Network and VirtualDrive® Professional are trademarks of FarStone Technology, Inc.

Microsoft®, Windows® and MS-DOS® are registered trademarks of Microsoft Corporation. Other product names mentioned in this User's Guide may be trademarks or registered trademarks of their respective companies.

FarStone Technology, Inc.
U.S. Headquarters:
1758-B North Shoreline Blvd
Mountain View, CA 94043
Phone: (650)969-4567
Fax: (650)968-4567

Asia-Pacific Offices:
10F-1B, No. 207, DunHua North Rd., Taipei, 105, Taiwan
Phone: 886-2-2546-9898
Fax: 886-2-2546-3838

Technical support:

Please contact your retailer, or use our online support system at

www.farstone.com/support/.

For your convenience, you will find answers to frequently asked questions on our website at www.farstone.com/support/faqs/. Follow the links to the support section or contact a technical support representative: http://www.farstone.com/home/en/shtml/contactus.shtml.

Copyright© 2001-2010 FarStone Technology Inc. All rights reserved.

Software License Agreement

FARSTONE TECHNOLOGY, INC. (FARSTONE) END USER LICENSE AGREEMENT FOR VirtualDrive Network, HEREAFTER REFERRED TO AS THE "SOFTWARE"

PLEASE READ CAREFULLY: THE USE OF THIS "SOFTWARE" IS SUBJECT TO THE "SOFTWARE" LICENSE TERMS OF FARSTONE AND OTHER LICENSORS WHOSE SOFTWARE MAY BE BUNDLED WITH THIS PRODUCT.

BY YOUR USE OF THE "SOFTWARE" INCLUDED WITH THIS PRODUCT YOU AGREE TO THE LICENSE TERMS REQUIRED BY THE LICENSOR OF THE "SOFTWARE", AS SET FORTH BELOW. IF YOU DO NOT AGREE TO THE LICENSE TERMS APPLICABLE TO THE "SOFTWARE", YOU MAY RETURN THE ENTIRE UNUSED PRODUCT FOR A FULL REFUND.

LICENSE AND WARRANTY:

The software which accompanies this license (the "Software") is the property of FARSTONE or its licensors and is protected by copyright law. While FARSTONE continues to own the Software, you will have certain rights to use the Software after your acceptance of this license. Except as may be modified by a license addendum which accompanies this license, your rights and obligations with respect to the use of this Software are as follows:

A. Single User License:

(a) use the "Software" on a single computer system or network, and only by a single user at a time. If you wish to use the "Software" for more users, you will need an additional License for each user.

(b) make one copy of the "Software" in machine-readable form solely for back-up purposes, provided you reproduce FarStone's copyright proprietary legends. Notwithstanding the foregoing, the

"Software" may be used on the home, laptop or other secondary computer of the principal user of the "Software", and an additional copy of the "Software" may be made to support such use. As used in this License, the "Software" is "in use" when it is either loaded into RAM or installed on a hard disk or other permanent memory device. The "Software" may be "in use" on only one computer at any given time. (Different License terms and fees are applicable for networked or multiple user applications.) As a specific condition of this License, you agree to use the "Software" in compliance with all applicable laws, including copyright laws, and that you will not copy, transmit, perform or distribute any audio or other content using the "Software" without obtaining all necessary Licenses or permissions from the owner of the content.

B. Multiple User License:

Make one copy of the "Software" in machine-readable form solely for back-up purposes, provided you reproduce FarStone's copyright proprietary legends.

You must acquire and dedicate a License for each separate computer on which any part or portion of the "Software" is installed or run As used in this License, the "Software" or any part or portion of the "Software" is "in use" when it is either loaded into RAM or installed on a hard disk or other permanent memory device including any networked or shared environment where either direct or indirect connections are made through software or hardware which pools or aggregates connections.

As a specific condition of this License, you agree to use the "Software" in compliance with all applicable laws, including copyright laws, and that you will not copy, transmit, perform or distribute any audio or other content using the "Software" without obtaining all necessary Licenses or permissions from the owner of the content.

C. Restrictions:

You may not distribute copies of the "Software" to others or electronically transfer the "Software" from one computer to

another over a network. You may not post or otherwise make available the "Software", or any portion thereof, in any form, on the Internet. You may not use the "Software" in a computer service business, including in time-sharing applications. The "Software" contains trade secrets and, in order to protect them, you may not decompile, reverse engineer, disassemble, or otherwise reduce the "Software" to a human-perceivable form. YOU MAY NOT MODIFY, ADAPT, TRANSLATE, RENT, LEASE, LOAN, RESELL FOR PROFIT, DISTRIBUTE, NETWORK OR CREATE DERIVATIVE WORKS BASED UPON THE "SOFTWARE" OR ANY PART THEREOF.

D. Limited Warranty:

Farstone warrants that the media on which the Software is distributed will be free from defects for a period of thirty (30) days from the date of delivery of the Software to you. Your sole remedy in the event of a breach of this warranty will be that Farstone will, at its option, replace any defective media returned to Farstone within the warranty period or refund the money you paid for the Software. Farstone does not warrant that the Software will meet your requirements or that operation of the Software will be uninterrupted or that the Software will be error-free.

THE ABOVE WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS, WHICH VARY FROM STATE TO STATE.

E. Limitation of Liability:

IN NO EVENT WILL FARSTONE OR ITS LICENSORS BE LIABLE TO YOU FOR ANY INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES, INCLUDING ANY LOST PROFITS, LOST SAVINGS, OR LOSS OF DATA, EVEN IF FARSTONE OR A LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY. Some states do not allow the

exclusion or limitation of special, incidental, or consequential damages, so the above limitation or exclusion may not apply to you.

F. General:

You acknowledge that you have read this Agreement, understand it, and that by using the "Software" you agree to be bound by its terms and conditions. You further agree that it is the complete and exclusive statement of the agreement between FarStone and you, and supersedes any proposal or prior agreement, oral or written, and any other communication between FarStone and you relating to the subject matter of this Agreement. No additional or any different terms will be enforceable against FarStone unless FarStone gives its express consent, including an express waiver of the terms of this Agreement, in writing signed by an officer of FarStone. You assume full responsibility for the use of the "Software" and agree to use the "Software" legally and responsibly.

Should any provision of this Agreement be declared unenforceable in any jurisdiction, then such provision shall be deemed severable from this Agreement and shall not affect the remainder hereof. FarStone reserves all rights in the “Software” not specifically granted in this Agreement.

Should you have any questions concerning this Agreement, you may contact FarStone by writing to:

FarStone Technology, Inc.

350 S Hope Ave, Suite A103
Santa Barbara, CA 93105

Contents

Chapter 1 Introduction..... 10
1.1 What is VirtualDrive® Network 10
1.2 Features and benefit..... 11
1.3 Benefits for Schools and Businesses..... 15
Benefits for Schools 15
Benefits for Businesses 15
Chapter 2 Installing VDN..... 16
2.1 System requirements 16
2.2 Installing the VDN (VirtualDrive Network) Server..... 17
2.3 Installing the VDN Administrator or Client programs. 18
2.3.1 Default Installation 20
2.3.2 Customized Installation 21
Chapter 3 Using the VDN Administrator Program 25
3.1 Starting the VDN Administrator..... 25
3.1.1 The VDN Administrator Manager 27
3.1.2 VDN Right-Click Menu in Taskbar 27
3.1.3 Administrator Settings..... 28
3.2 Building Virtual CDs (VCDs)..... 34
3.2.1 Building VCDs from the CD Drive 34
3.2.2 Building VCDs from Selected Files 40
3.2.3 Building VCDs from Audio CD-ROMs 47
3.2.4 Building VCDs from Mixed-Mode CDs 54
3.2.5 Conversion between an ISO 9660 image file and a VCD file..... 61
3.3 Managing VCDs in the VDN Server..... 62
3.3.1 Adding VCD folders (CD Jukebox) 62
3.3.2 Changing a VDN Folder Description 63
3.3.3 Adding VCDs to a VCD Folder 64
3. 3. 4 Deleting a VCD Icon or VCD File..... 67
3.3.5 VCD properties & Custom Auto-run Function..... 68
3. 3. 6 Searching VCD 69
3.3.7 Software information..... 73
3.3.8 License Manager..... 73
3.3.9 Extracting files from VCD 74

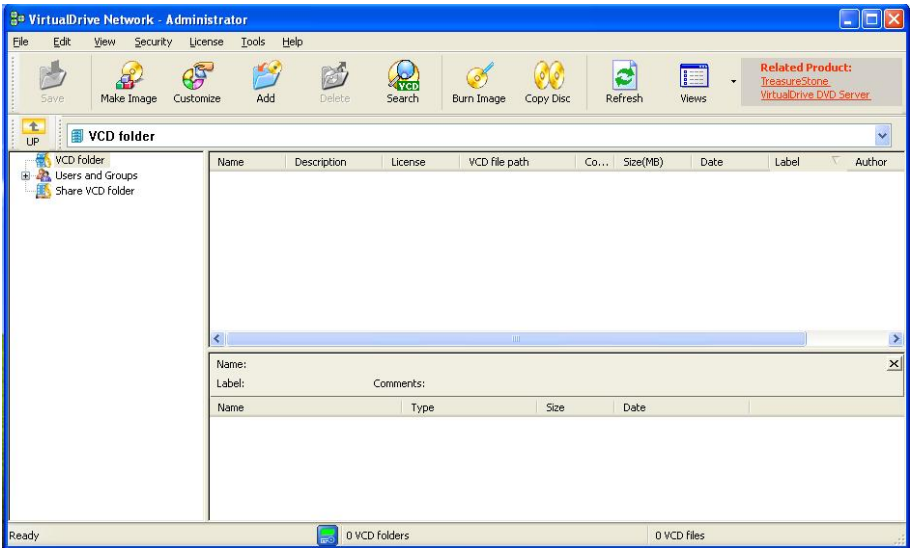
3.4 Managing VCD access on the VDN Server 76
3.4.1 Users and Groups – Overview..... 76
3.4.2 Sharing VCD Folder..... 81
3.4.3 VCD License..... 84
3.5 Viewing Client VCD Usage 86
3.5.1 Viewing VCD Usage..... 86
3.5.2 Viewing User Statistics 88
3.6 Backing up VCD List 89
3.6.1 Backing Up VCD list 89
3.6.2 Restoring VCD List 90
Chapter 4 VDN Command Program 92
4.1 VDN Command Program (VDRIVE.EXE) 92
4.2 Using the command line for creating shortcuts to run VCDs 93
Chapter 5 VirtualDrive CD/DVD Burning Program..... 96
5.1 Copying disc..... 96
5.2 Copying images to a recordable disc 98
5.3 Erasing a Disc 101
5.4 Viewing Device Info..... 103
Chapter 6 Using the VDN Client Program 105
6.1 Starting the VDN Client Program 105
6.2 Running Virtual CD-ROMs (VCDs) 105
6.3 Ejecting a VCD 106
6.4 Viewing VCD Properties..... 107
6.5 Searching VCD 109
6.6 Setting the Number of Virtual Drives..... 111
6.7 Updating changes from the VDN Server 111
6.8 Settings..... 112
Chapter 7 Uninstalling VirtualDrive® Network 116
7.1 Uninstalling VirtualDrive® Administrator Program Group 116
7.2 Uninstalling VirtualDrive® Client 117
7.3 Uninstalling VirtualDrive® Network Server 117
Chapter 8 Appendix..... 118
8.1 Notes: 118
8.2 FAQ 119

Chapter 1 Introduction

1.1 What is VirtualDrive® Network

VirtualDrive Network (VDN) from FarStone Technology Inc., includes the VDN Server, VDN Administrator and VDN Client programs. VCDs created using the VDN Administrator program can be stored on your network and run on Client PCs or Workstations using the VDN Client program.

The VDN Administrator can turn your CDs into VCDs that will run on the VDN Client just like if it were in a physical CD drive.



You can create up to 23 Virtual CD/DVD Drives that are accessible through Windows Explorer just like a regular physical CD/DVD Drive. You no longer need to change CDs by hand, deal with the hassle of trying to find them, and keeping them clean and working.

1.2 Features and benefit

1. Runs applications without CD-ROM:

Select and insert a VCD into the VirtualDrive and the VCD appears as though a CD is actually in a physical CD drive.

2. Supports most disc formats, including:

CD-ROM, Audio CD, DVD-ROM, DVD-Video, Video CD, Mixed-Mode CD, Multi-Session CD, CD-Extra, CD-Text and Photo CD.

3. Automatically recognize CD format

VirtualDrive can distinguish the type and format of the CD it is compressing, and run the correct program.

4. Faster than a 200X CD-ROM drive:

Run CDs directly from the hard drive with incredible 200X speed. (with Ultra DMA drives)

5. 1000 Virtual Jukeboxes:

VirtualDrive Network supports up to 1000 Virtual CD Jukeboxes (CD folders), with each folder able to hold an unlimited number of CDs.

6. Burn your VCDs onto a recordable disc

VirtualDrive combines the functions of CD/DVD emulation software with CD/DVD burning capabilities. It allows users to copy CD/DVD images from the hard disk to a recordable medium.

7. Easy Management:

The Administrator creates and configures the VirtualDrive Network. Changes affect clients instantly. Clients have no need to worry about the details. VirtualDrive doesn't copy hundreds of thousands

of files from the CD. Rather, it actually creates a CD image file on the hard drive. Only this image file needs to be created or removed.

8. Compression:

VirtualDrive incorporates a high performance compression engine and automatically decompresses on the fly when the VCD is accessed.

9. Command Line Support:

You can access VirtualDrive and run VCDs using the command line interface or batch files. For example, you can write batch files to mount a VCD and open a specific program for different users.

10. Removable media:

VCD files can be placed on many different types of removable media extending the capability of such systems.

11. Saves space and hardware costs:

Take no physical space in your office and has no hardware maintenance costs.

12. 100% compatible:

VirtualDrive is completely compatible with all types of CD applications. Some CD applications only run (lock) from a physical CD drive. These applications will not run from a mapped network drive, like a drive mapped to your server CD drive (or Jukebox). VDN supports all such CD applications.

13. Share Resources:

Storing Virtual CD's on a file server allows CD resources to be shared throughout the network.

14. **Built in CD benchmark and browser**:

Evaluate the data transfer rate and access time for any of your CD drive(s).

15. **CD Audio Compression**:

Listening to your favorite music has never been easier. Just select the tracks you like and they will be automatically compressed and converted to an VCD file.

16. **VirtualDrive Custom AUTORUN feature**:

VirtualDrive Network provides a (built-in) comprehensive way to automatically startup VCDs.

17. **Create Custom Virtual CDs from selected files:**

Customize your own VCDs by removing unnecessary files from the source CD.

18. Easy CD Management:

Organize CDs' and manage all CD access from a single workstation.

19. Security

The VirtualDrive Network can set security properties according to clients' demand. Each client can only use the Virtual CD authorized by administrator.

20. MP3

If Windows Media Player MP3 subassembly or other MP3 code/decode programs are installed in system, you may compress audio CD into MP3 files.

21. ISO Support

VirtualDrive Network supports the ISO image file format, so you can transfer you data more conveniently.

1.3 Benefits for Schools and Businesses

Benefits for Schools

1. *Easy management:* As many as 500 CD-ROMs may be needed for a class with 25 computers and 20 educational CD titles. With VDN you no longer have to manage all the discs and worry about damaged discs or losing them. You only need one copy of each title to create a VCD image.

2. *Client machines don't need CD/DVD drive:* Students are unable to install their own personal CD software. You save money by buying computers without CD/DVD Drives.

3. The *VDN Server:* Everyone has 24/7 access to the VCDs on the server from any computer on the network.

Benefits for Businesses

1. *RD departments:* Information is at your fingertips. Keep everything on the VDN CD server such as MSDN resource CDs, and reference guides.

2. *Education*: Employee trainings can be more efficient and cost effective by storing training materials on the VDN Server.

3. *Information Management*: The amount of data to be stored is always increasing. VDN CD server can be used to efficiently manage data resources or totally replace CD Jukeboxes systems.

Chapter 2 Installing VDN

2.1 System requirements

1. VDN Server directory
Windows XP/Server 2003/Vista/Server2008 (32-bit & x64) /Windows 7
7 MB HDD space

2. VDN Administrator:
Windows XP/ Server 2003/Vista/Server2008 (32-bit & x64) /Windows 7
A CD drive
7 MB HDD space if working peer to peer

3. VDN Clients:
Windows XP/Server 2003/Vista/Server2008 (32-bit & x64) / Windows 7
No CD drive is required.

Note
VDN supports Windows and Novell long file names. If your Novell server does not support long file names, use Dos 8.3 file naming conventions for VCD files.

To install VirtualDrive Network successfully, you should notice the following three points:

a. The Network Framework on your operating system is Network Framework 2.0 or higher.
b. The Windows Installer on your operating system is Windows Installer 3.1 or higher.
c. The SQL Server on your operating system is SQL Server 2005 Express Edition or higher.

Otherwise, you will be prompted to install those three

programs during the installation.

2.2 Installing the VDN (VirtualDrive Network) Server

Pre-Installation

Be sure to install the VDN components according to the following order: Please install VDN Server first, then VDN Administrator/VDN Client Module. Make sure that VDN Server works normally during the installation of VDN Administrator and VDN Client Module.

Follows the steps below to install VDN Server:

Step 1 Insert the VDN CD into the CD drive and run the VDN installation program (Setup.exe). Following the popup screen guides to install .NET Framework 2.0, Windows Installer 3.1or SQL Server 2005 Express if necessary.

Step 2 Select your language preference and click **OK**.

Step 3 Click **Next** to continue.

Step 4 Carefully read the **License Agreement** and select **Yes**, if you accept the license conditions.

Step 5 Enter your personal information and then click **Next** to proceed.

Step 6 Select the installation location(e.g.C:). And then click **Next** to begin the installation.

Step 7 Select whether you will restart your computer right now. And then click **Finish** to complete installation of the VirtualDrive® Network program files.

Step 8 Click **Yes** to restart the computer right now, or click **No** to restart computer later.

Step 9 After the installation completes, share(**Manually**) the VDN Server installation directory correctly as the following rules:

Important !

a. Share the entire installation directory(e.g. C:\VDN) as Read Only to everyone within LAN.

b. Share the sub-directory C:\VDN\FsvdnData$ as Read/Write to everyone. Make sure the share name is the same as FsvdnData$.

C. Shared folder setting in Windows 7 platform

Select Fsvdndata$ folder, then right-click and select Propertities; select 'Sharing' tab; click 'Advanced Sharing' button to enter Advanced Sharing setting console; then select 'Share this folder' checkbox, and make sure the share name is the same as FsvdnData$, click OK; after successful setting, the path is set to be as \\Machinename\Fsvdndata$

You will need these two shared directories to install the VDN Administrator/ VDN Client, and make those two work properly. So it is suggested that you check the share setting prior to installing the other two components.

2.4 Installing the VDN Administrator or Client programs

Once the VDN Server have been installed into a shared directory, both the VDN Administrator and the VDN Client installations can be executed by running the **setup.exe** file from the VDN Server shared directory. There are two methods to install the VDN Admin and Client programs ---manual installation and silent installation.

Follow the steps below to run manual installation:

Step 1 Select **Start** on the Windows taskbar, then **Run**.

Step 2 Enter the UNC path to the setup program, the 'shared' VDN Server directory.

Note
The shared VDN Sever directory is composed of the computer name and shared folder name where VirtualDrive® Network sever program is installed. (e.g. \\server\vdn\setup). The “sever” is the computer name, and "vdn" is the shared folder name.

Step 3 Click **Run** to launch the VDN Setup Wizard. Following the popup screen guides to install Network Framework 2.0, Windows Installer 3.1or SQL Server 2005 Express if necessary.

Step 4 Click **Next** to continue.

Step 5 Select **Default Installation** or **Customized Installation** according to the popup hint in the window. The window is shown as below.

2.4.1 Default Installation

If you select **Default Installation** in the last step, please do the following steps to complete the installation.

Step 1 Carefully read the License Agreement and select **I accept the terms in the license agreement**, if you accept the conditions. Click **Next** to continue.

Step 2 Enter your personal information and click **Next**.

Step3 The Install Wizard will suggest a folder to install the VirtualDrive® Network program files. If you would like to store the program files in another location, select **Change** to open the file browser and select a new folder.

Step 4 Click **Next** to continue.

Step 5 Check the box to set the number of virtual drives in the system. You must select at least one drive to install VirtualDrive®. Then click **Next**.

Step 6 Click **Install** after you confirm all the settings you configure. You can also click **Back** to change your settings as you want.

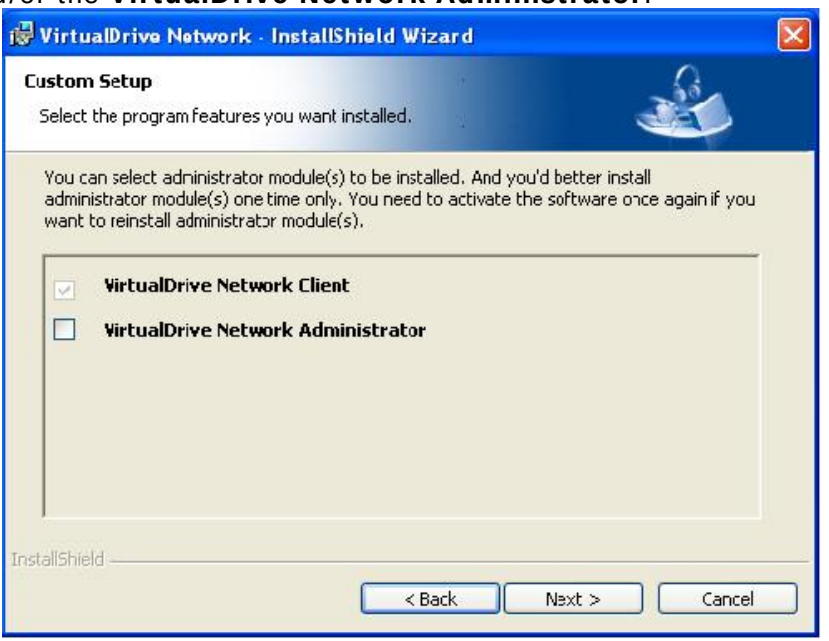
Step 7 You can launch VirtualDrive® Network manager and/or place a shortcut on the desktop after installation by selecting the checkboxes. Select **Finish** to complete the installation.

Step 8 Click **Yes** to restart the computer right now, or click **No** to restart computer later.

2.4.2 Customized Installation

If you select **Customized Installation** in the last step, please do the following steps to complete the installation.

Step 1 Select either to install the **VirtualDrive Network Client** and/or the **VirtualDrive Network Administrator**.



Step2 Click **Next** to continue.

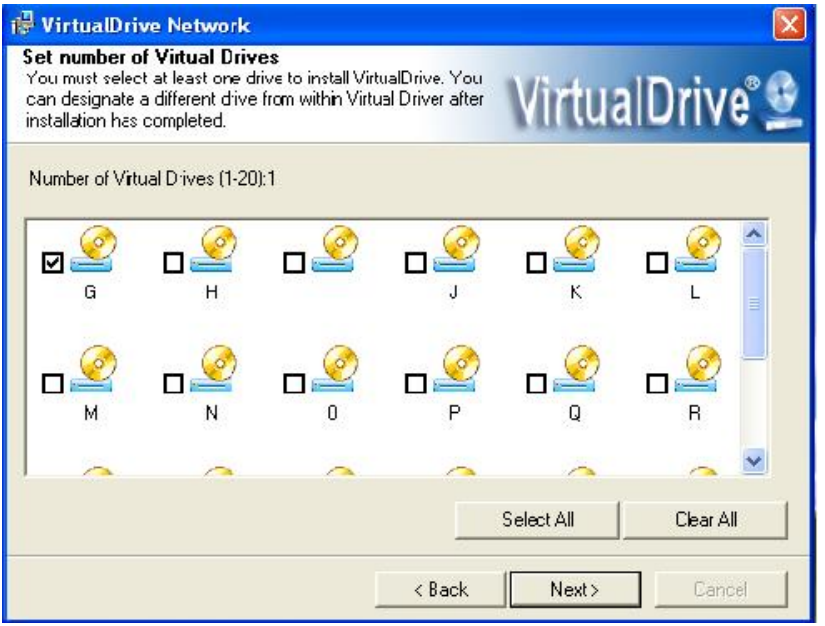
Note
Selecting **Install VirtualDrive Network Client** will install the VDN Client program only. You need to do the following steps.

Step 3 Carefully read the License Agreement and select **I accept the terms in the license agreement**, if you accept the conditions.

Step 4 Enter your personal information and click **Next**. Selecting **Install VDN Administrator** will require you to enter the product serial number: You will use an evaluation version without a product serial number.

Note
If you need to reinstall VirtualDrive Network Administrator, you must reactivate the software.

Step 5 The Install Wizard will suggest a folder to install the VirtualDrive® Network program files. If you would like to store the program files in another location, select **Change** to open the file browser and select a new folder.



Step 6 Click **Next** to continue.

Step 7 Check the box to set the number of virtual drives in the system. You must select at least one drive to install VirtualDrive®. Then click **Next**.

Step 8 Click **Install** after you confirm all the settings you configure. You can also click **Back** to change your settings as you want.

Step 9 You can launch VirtualDrive® Network manager and/or place a shortcut on the desktop after installation by selecting the checkboxes. Select **Finish** to complete the installation.

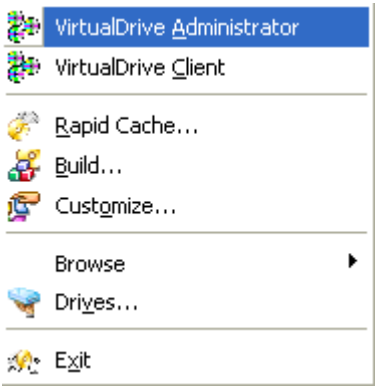
Step 10 Click **Yes** to restart the computer right now, or click **No** to restart computer later.

Chapter 3 Using the VDN Administrator Program

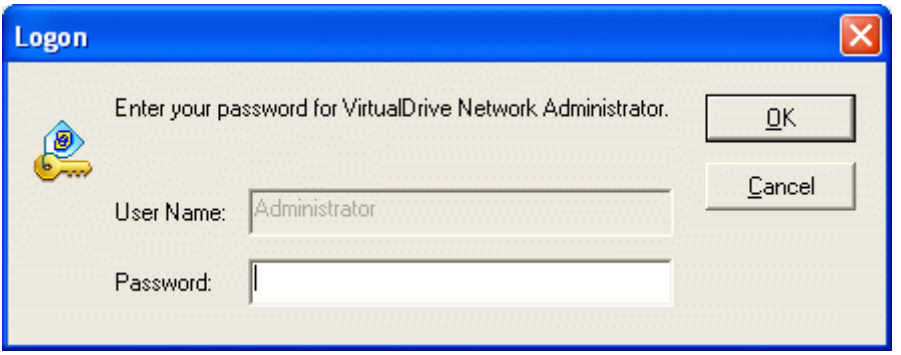
3.1 Starting the VDN Administrator

The “VirtualDrive” icon will be displayed in the bottom-right corner in the Windows Taskbar after the VDN administrator program is successfully installed on the administrator workstation.

To start the VDN Administrator program, double click on the VirtualDrive tray icon or right click on the tray icon and select “VirtualDrive Network Administrator”.



Click **Continue** and a dialog box will pop up:



Note
The default password is nothing.

Click **OK** and you will enter the Administrator console:

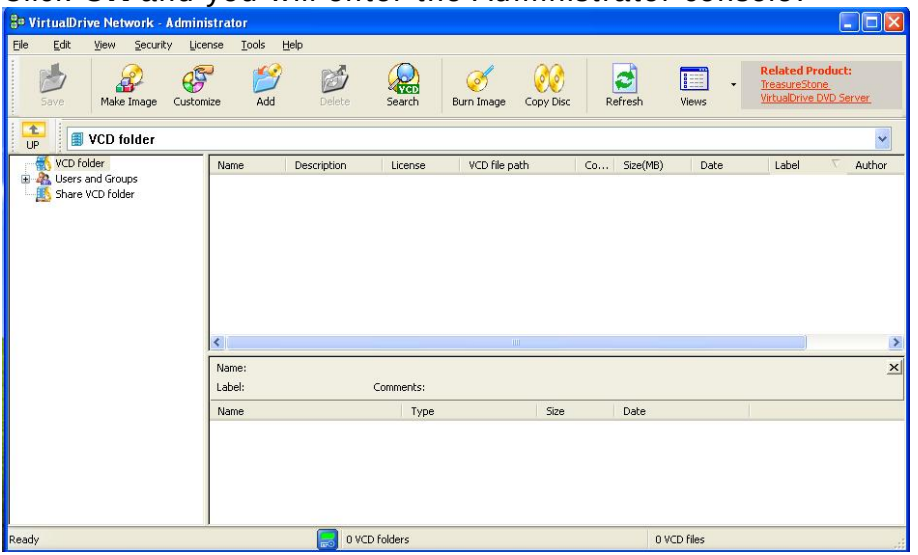
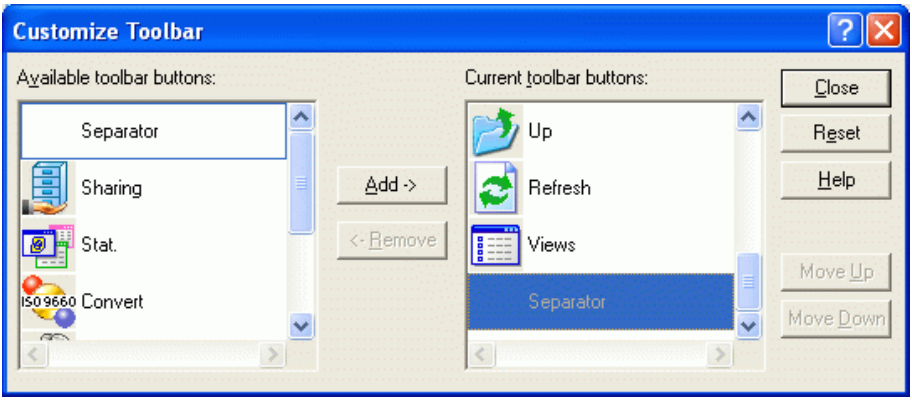


Figure 3.2

3.1.1 The VDN Administrator Manager

Toolbar:

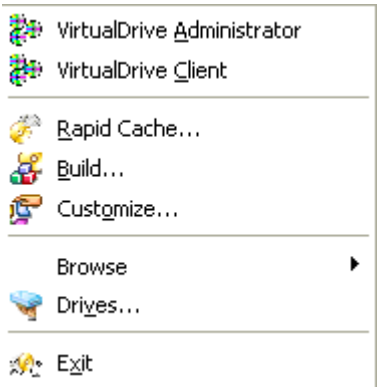
The above figure is the default toolbar of VDN Administrator. You can customize the toolbar by selecting
View -> Settings -> Customize (figure below).



3.1.2 VDN Right-Click Menu in Taskbar

After successfully installing the VDN Administrator program on the administrator workstation, the “VirtualDrive” icon will be displayed at the bottom-right corner in the Windows Taskbar.

Right-click on this icon will open the figure:



- VirtualDrive Administrator: Launch VDN admiinstrator
- VirtualDrive Client: Launch VDN Client
- Rapid Cache: Run Rapid Cache
- Build: Build VCD directly
- Customize: Build VCD from selected files
- Browse: Check the number of virtual drives and inserted CD information
- Drives: Set the number of virtual drives
- Exit: Quit VirtualDrive Network

3.1.3 Administrator Settings

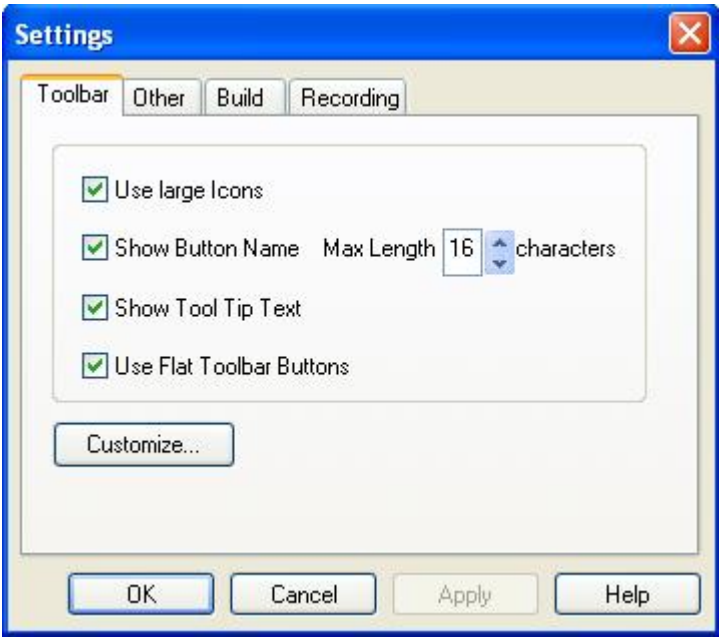
Changing the Password

You can set or change the password to the VDN Administrator by selecting 'Security' on the menu bar. Then select '**Password**'.

You will be required to enter the current Administrator Password, type in the new password and then re-enter the new password to confirm.

Administrator Setup -Toolbar

To open the Administrator Settings dialog, select **View** on the menu bar then Settings.



The available Toolbar settings are described below:

Use large Icons: Sets the size of the buttons icons on the toolbar.

Show button Name: Sets the number of text characters to be displayed within the toolbar buttons.

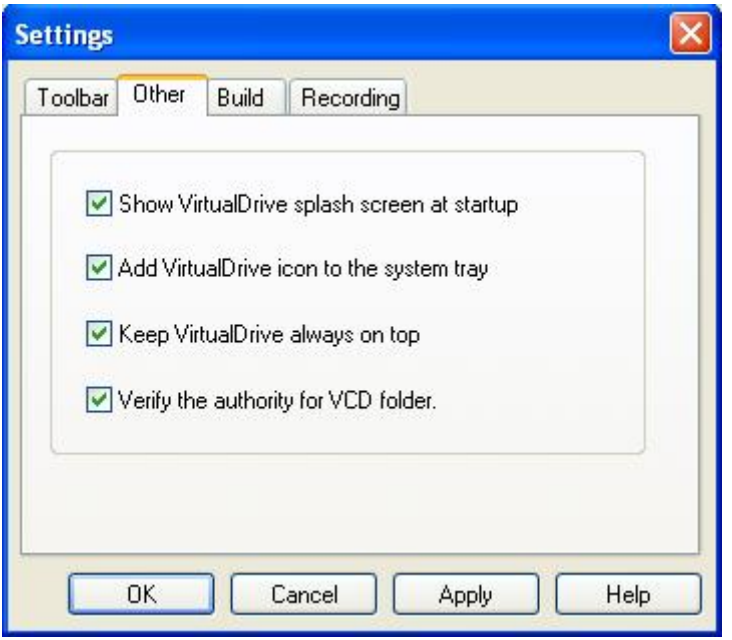
Show Tool Tip Text: Sets whether to display control tips popup, when the mouse pointer hovers over a toolbar button.

Use Flat Toolbar Buttons: Merges the toolbar button “outline” into the toolbar.

Customize: Clicking on '**Customize**' button, opens a dialog offering a selection of buttons available within the VDN Administrator. From here you can add/remove or change the order of toolbar buttons used on the VirtualDrive toolbar.

Administrator Setup- Other Settings

To open the Administrator Settings dialog, select **File** on the menu bar then **Settings** and select the **'Other'** Tab.



Descriptions of the Other Settings are given below:

Show VirtualDrive splash screen at startup: Displays the VirtualDrive logo as the program loads.

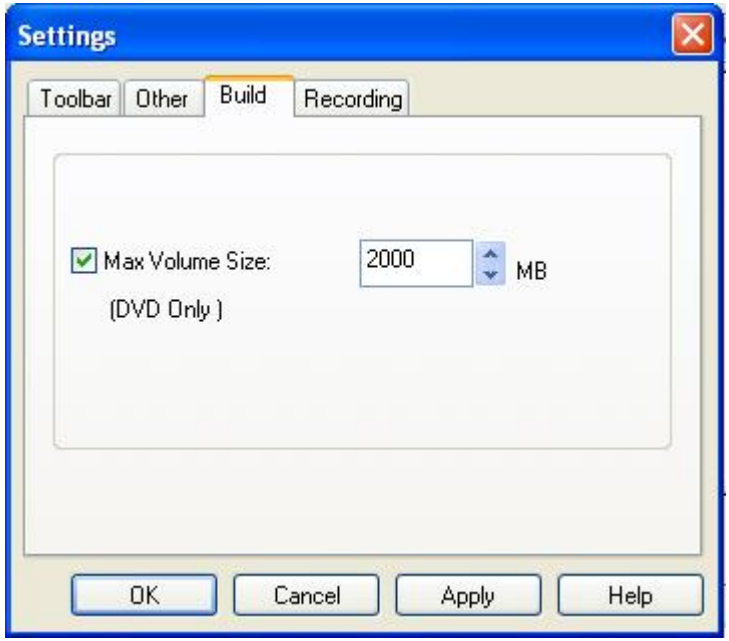
Add VirtualDrive icon to the system tray: Adds the VirtualDrive icon to the bottom right hand side of the Windows taskbar.

Keep VirtualDrive always on top: Keeps the VirtualDrive interface always visible. ie: above all other application windows

Verify the authority for VCD folder: Enables the Password dialog on client side computers.

Administrator Setup- Build Size Settings

From here, you can set the volume size from 1MB to 2048MB for each virtual CD. This feature is designed for building large size files only, e.g. building customized files and DVD. If the file you are building exceed the size you set, the remainder will be created as *.D (01,02…).



Recording options

- **Shut down computer after task is completed**: VirtualDrive will turn off your computer after the Building Image or Burning Image process is complete.
- **Eject disc after recording is completed:** VirtualDrive will eject the disc from the CD recorder once the build operation is complete.
- **Write Image Reader on the disc**: VirtualDrive burns the image, which is created from a physical CD, to the re-writable medium. The use of the images burned on the disc requires the support of a virtual drive. Therefore, you still need either VirtualDrive or another emulation program installed on the PC where the disc is to be used. The Image Reader program can help you to create a virtual drive on the computer system.
- **Delete temporary CD image after task is completed:** This option is designed for the **Copy Disc** feature. You can choose whether to remove the temporary image file, which is created during the "Building Image" process, or keep it after the burning process is complete.

- **Change image location:** Specify a location on your hard disk to hold the temporary image file that is created in the **Copy Disc** section.

3.3 Building Virtual CDs (VCDs)

3.3.1 Building VCDs from the CD Drive

To use VirtualDrive, you must first create an image of a CD on your hard drive. This image is known as a Virtual CD or VCD. You can build a VCD from almost any type of CD, including:

• CD-ROM	• Audio CD	• DVD-Video
• DVD-ROM	• Video CD	• Mixed Mode CD
• CD Extra	• Photo CD	• Multi-Session CD
• CD Text	• CD Cops	

VirtualDrive supports DVD-ROM games, encyclopedias, multi-media content, and other very large file formats.

You can begin to build a VCD, using one of the following methods:

1. Select **Making Image** on the toolbar.

2. Select **File** from the menu bar and select **Making Image**.

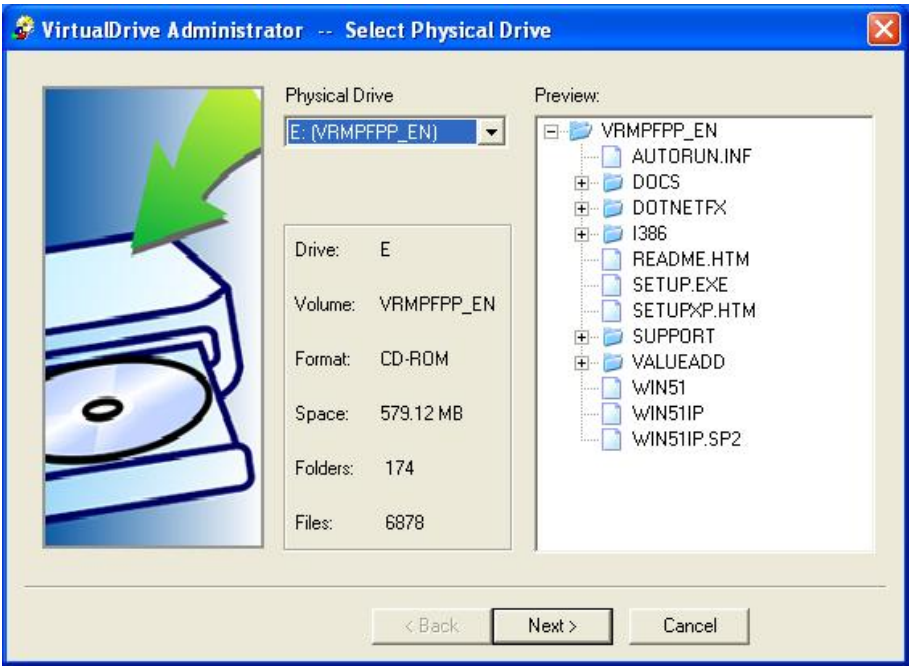
3. Right-click the VirtualDrive icon in the system tray and select **Make Image**.

4. Use the shortcut key **Ctrl+B**.

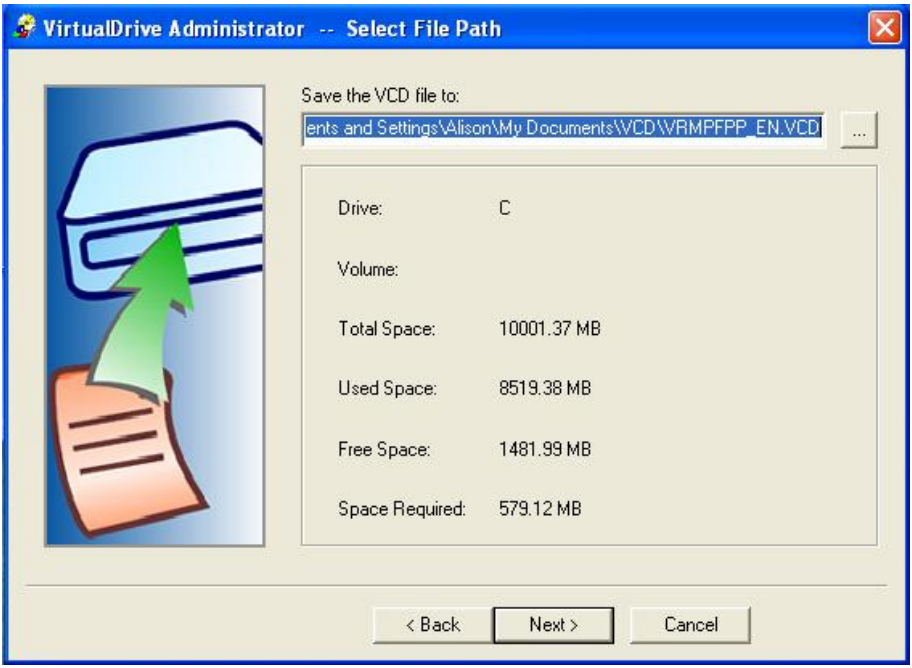
Note: These are the steps for building a VCD from a CD-ROM, DVD-ROM, Video CD, DVD-Video, Multi-Session CD or Photo CD. To

build a VCD from an Audio CD, see Section 4.3 or to build a VCD from a Mixed-Mode CD, see Section 4.4.

Step 1 Select the physical CD drive then click on **Next**.



Step 2 Check that the selected hard drive has sufficient “Free Space” (Figure 3-3a)to store the new VCD. Then use the File Browser to select a location to save the VCD and give the new VCD file a name. If no new name is entered then the new VCD will use the name of the folder in which it is to be stored, as the VCD file name.

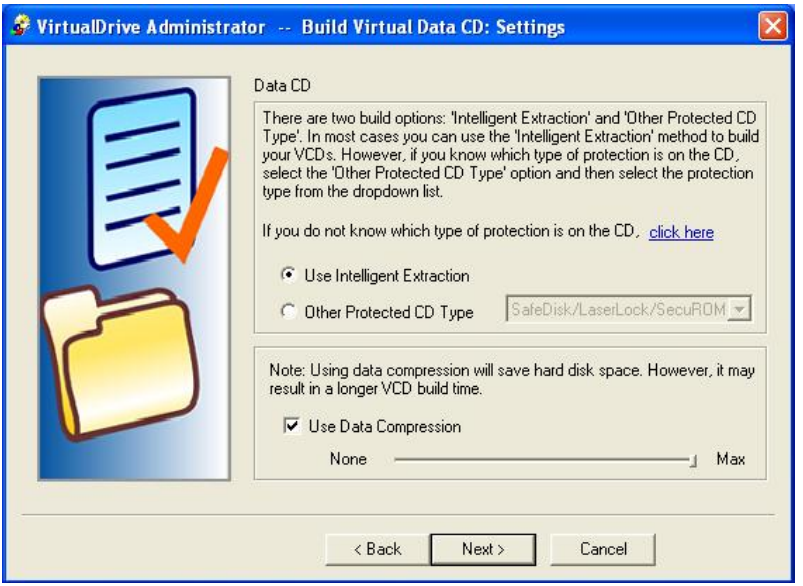


3-3a

Step 3 Select the CD read method and whether to use data compression or not.

You can use the **Intelligent Extraction** to build your VCDs in most cases. Some CDs must be built using **Other Protect CD Type** due to CD Encryption. If you know which protection type is on the CD, you can choose to build with that protection type from the dropdown list.

Using data compression will save hard disk space but will require a longer VCD build time.



Step 4 Enter a Description of the new VCD in the Description box(Figure 3-3b).

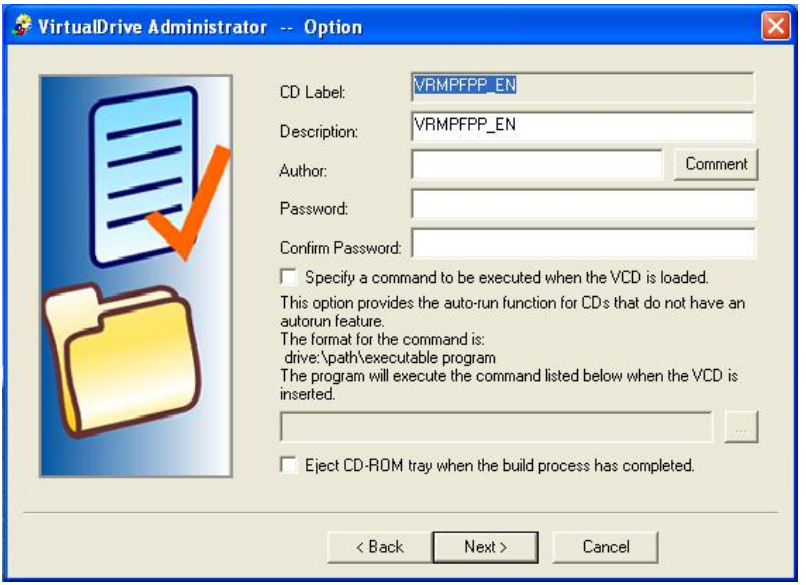


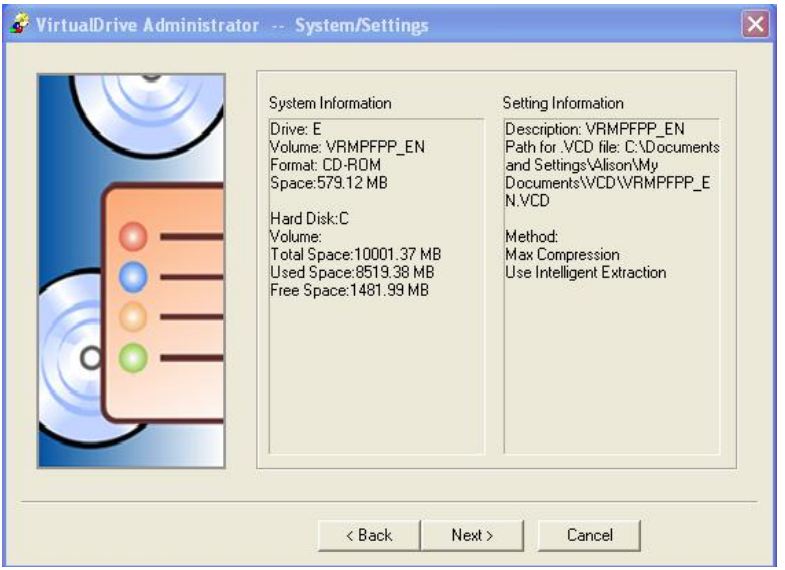
Figure 3-3b

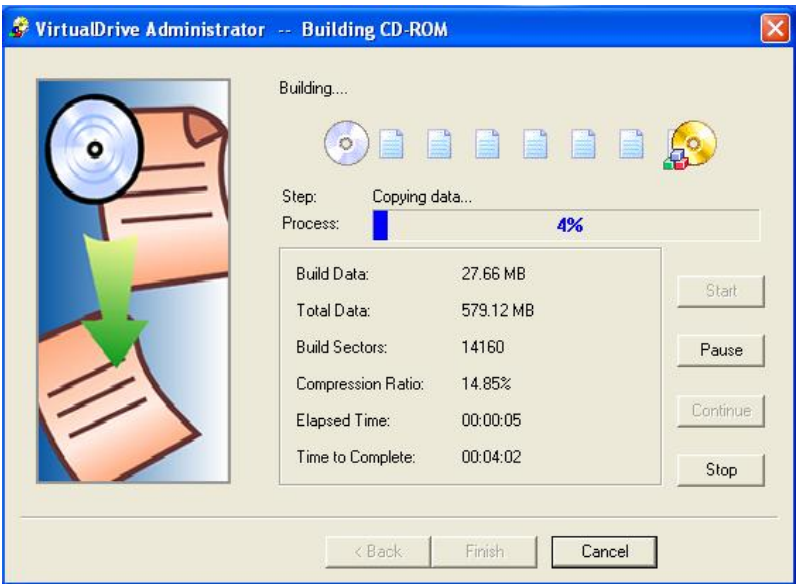
Step 5 (optional) If the CD does not have an Auto-Run the you can specify a program to run when the VCD is Inserted.

You can use the Browse button to locate the executable program.

Step 6 (optional) Choose whether or not to eject the CD from the CD drive once the Build is complete by checking the 'Eject the VCD on completion of the Build process' box (Figure above). Click on Next to continue.

Step 7 Click on **Next** to open the Build window. Virtual Drive will then display the attributes of the VCD about to be created.





Step 8 With the VCD is successfully built, click on **OK** to exit the Build popup then click on **Finish** to close the VCD Build window(Figure 3-3c).

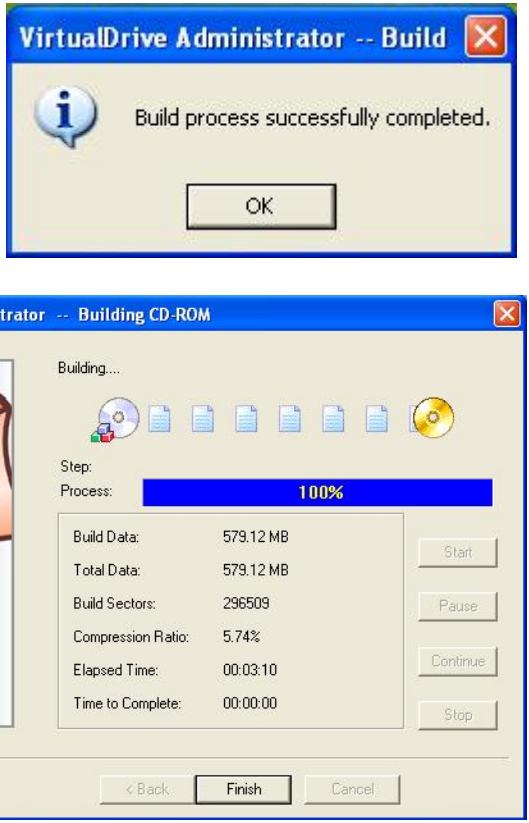


Figure 3-3c

3.3.2 Building VCDs from Selected Files

Create a VCD from files on your hard drive by any of the following methods.

1. Click on the Customize button

on the toolbar.

2. Select **File** from the menu bar and choose **Customized.**

3. Right click the VirtualDrive icon in the System tray and selecting **Customized** from the popup menu.

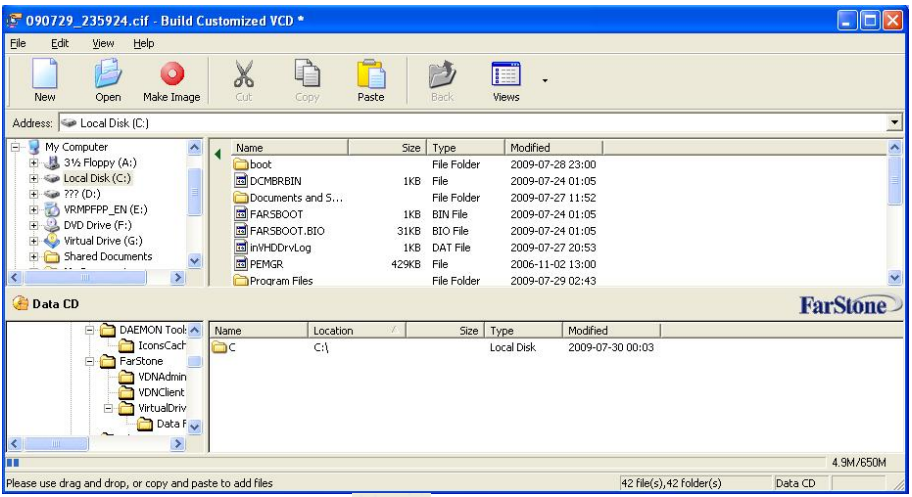
Then follow the steps as described below.

Step 1 Add the files/folders you want included in the new VCD.

There are three ways that files can be added to the VCD.

Method 1 Drag selected files (folders) from top frame and drop them into bottom frame of the Customize window

Method 2 Copy selected files (folders) and them into the bottom frame of the Customize window.



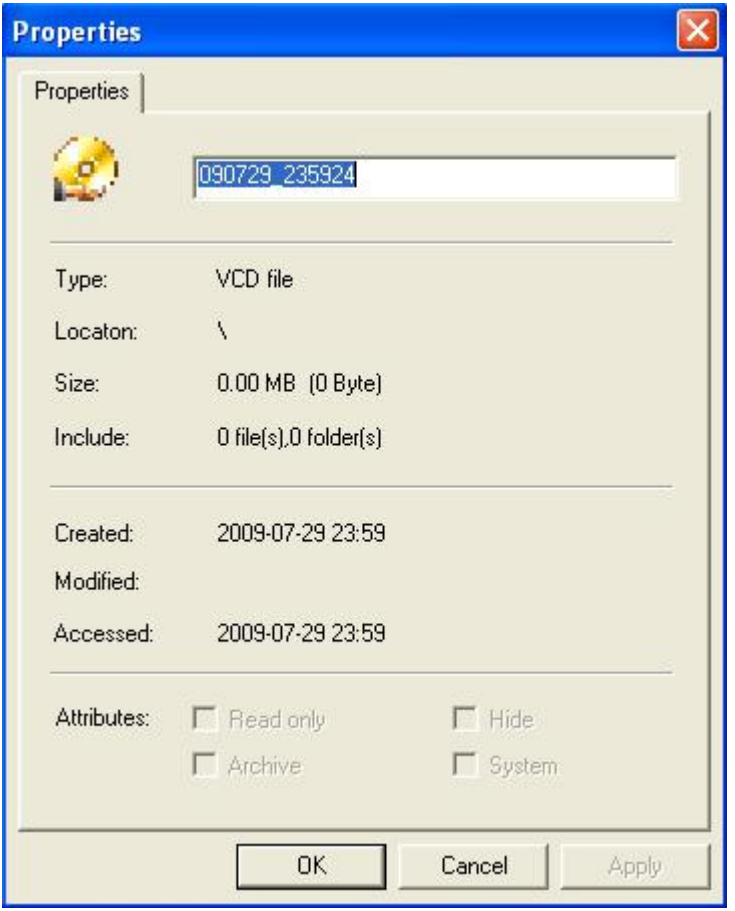
Method 3 Click the **Add**

button to open the VirtualDrive file manager.

VirtualDrive supports VCD files up to **18 Gigabytes** in size.

Note
VCD files created using this method are subject to the ISO9660 standard. See Appendix-Notes for details.

The current attributes of the new VCD can be previewed by right-clicking the CD icon in bottom-left frame and select **Properties** from the drop menu.

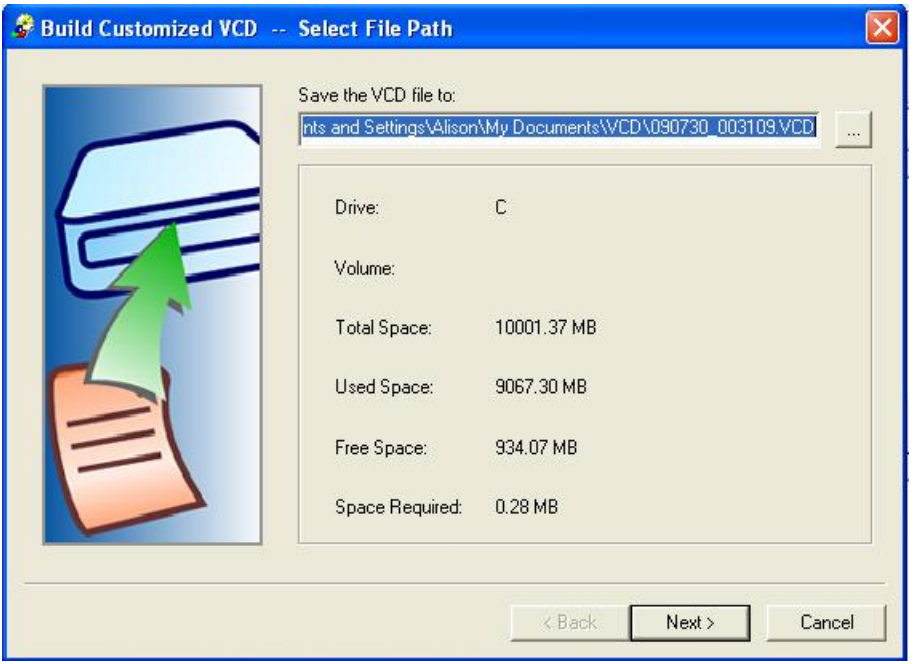


Step 2 Designate a location to save the VCD.

Once you have finished adding files, click the **Make Image**

button.

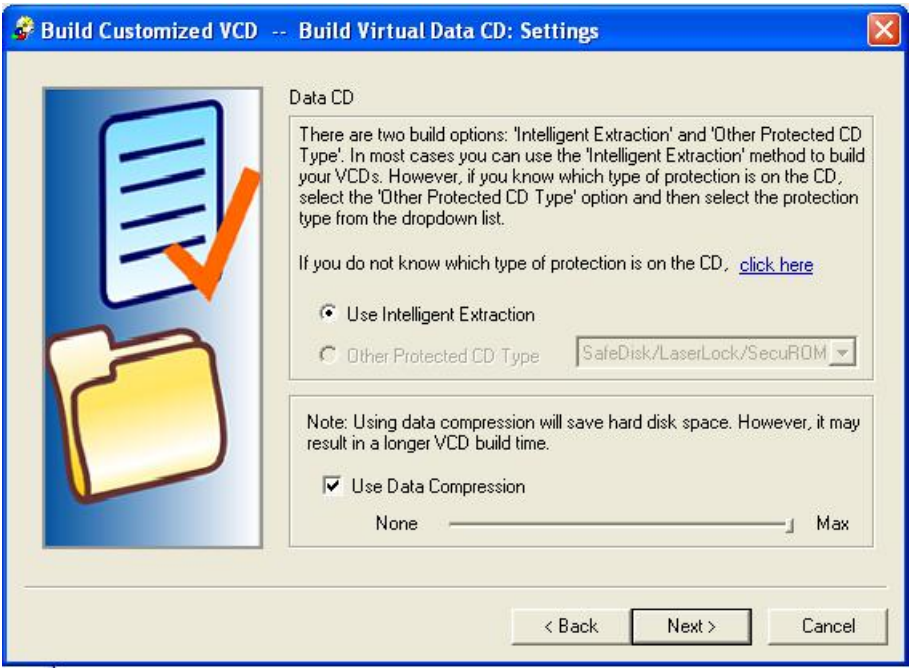
You will be prompted to give the new virtual CD file a name. Enter the name and click **Save** to open the VCD Build window



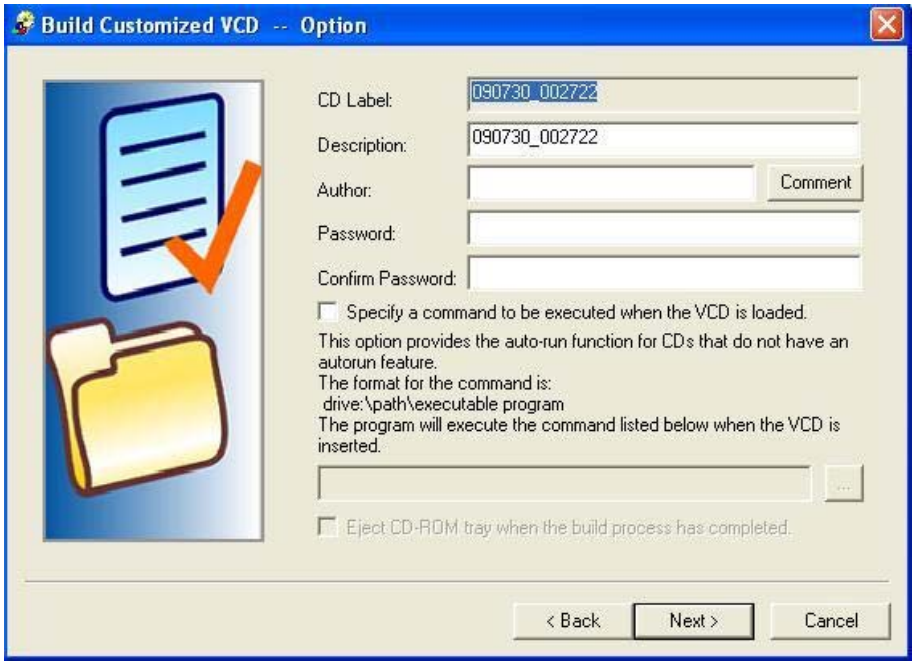
Step 3 Select the CD Read method and whether to use data compression if desired.

You can use the **Intelligent Extraction** to build your VCDs in most cases. Some CDs must be built using **Other Protect CD Type** due to CD Encryption. If you know which protection type is on the CD, you can choose to build with that protection type from the dropdown list.

Using data compression will save hard disk space but will require a longer VCD build time.



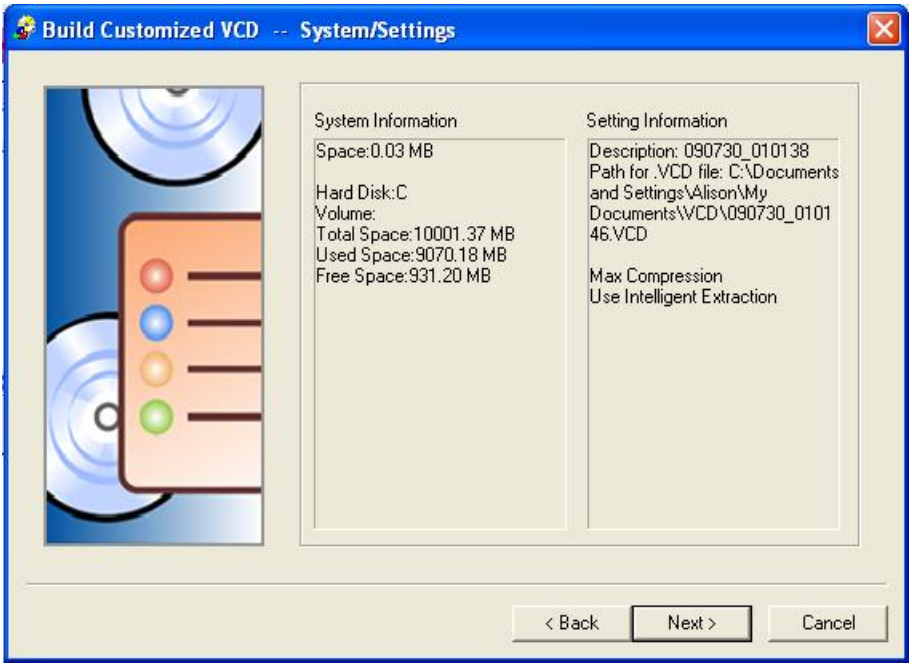
Step 4 Enter a Description of the new VCD in the Description box.



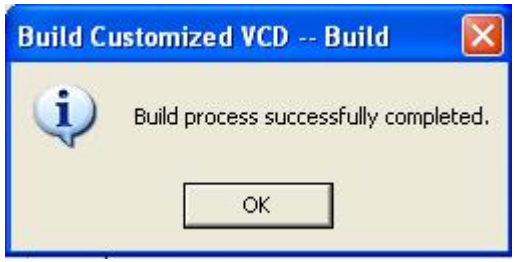
Step 5 (optional) If the CD does not have an Auto-Run then you can specify a program to run when the VCD is inserted. You can use the Browse button to locate the executable program.

Step 6 (optional) Choose whether or not to eject the CD from the CD drive once the Build is complete by checking the 'Eject the VCD on completion of the **Build** process' box (Figure above). Click on **Next** to continue.

Step 7 Click on **Next** to begin the building. Virtual Drive will then display the attributes of the VCD about to be created.



Step 8 When the VCD has been successfully built, click on **OK** to exit the Build popup then click on **Finish** to close the VCD Build window.



3.3.3 Building VCDs from Audio CD-ROMs

To create an audio VCD, open the Build VCD dialog box by 5 methods.

(a) Click on the **Make Image** button

on the toolbar.

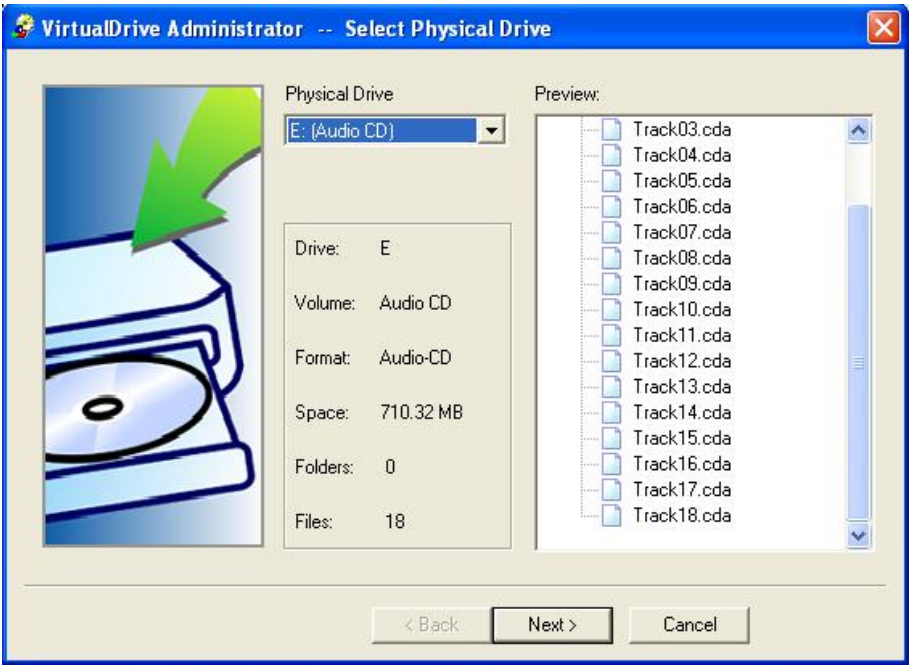
(b) Select **File** from the menu bar and choose **Make Image** from the drop menu

(c) Right click on the VirtualDrive icon in the System tray and select **Make Image.**

(d) Using shortcut key **Ctrl+B**.

Then follow the steps as described below.

Note
VirtualDrive will automatically detect the CD type and run the Build Audio VCD process.



Step 1 Select the physical CD drive then click on **Next**.

Step 2 Check that selected hard drive has sufficient 'Free Space' (Figure 3-3-3a) to store the new VCD.

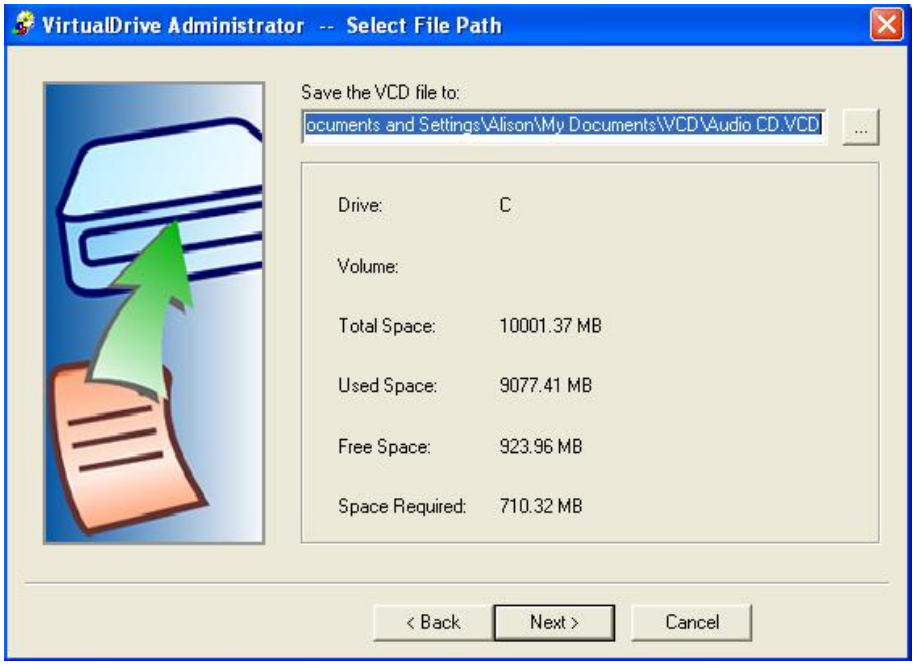


Figure 3-3-3a

Step 3 Use the File Browser ... button (Figure 3-3-3a) to select a location to save the VCD.

Step 4 Give the new VCD file a name and click on **Next** (Figure 3-3-3a).

Note
If no new name is entered then the new VCD will use the name of the folder in which it is to be stored, as the VCD file name.

Step 5 Select the tracks you want to include on the Audio VCD by clicking on the check boxes of Tracks column.

Note: If the CD player is running the Track selection will not be able to view the track list.

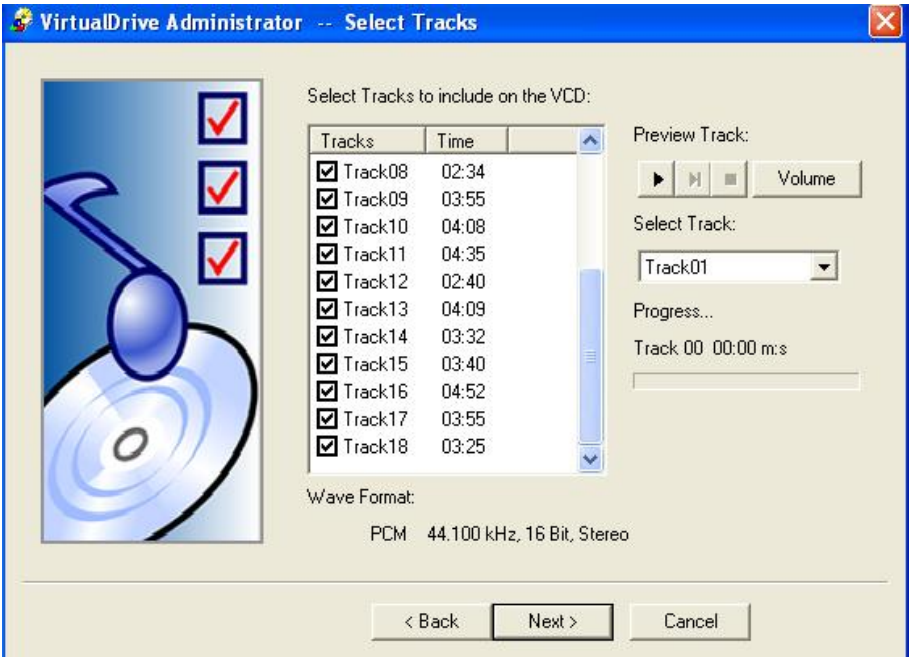


Figure 3-3-3b

Step 6 Set the Preview track

If you don't need to build all tracks, you can click on the Preview track play button to select which track you like to build and click on the Volume button to set the Preview track's level (Figure 3-3-3b above). When you select one track and click on the Preview track play button, you can see the track's playing progress bar from **Progress.**

Audio settings-Step 3 Save your settings.

Any combination of settings provided in the "Sound Selection" window can be saved to a file by clicking on the "Save As" button and giving your custom audio settings a Name. The next time you open the "Sound Selection" window this name will be presented as a choice in the "Name" selection box.

Step 7 Add a description for the new Audio VCD.

Note: This is not the VCD file name.

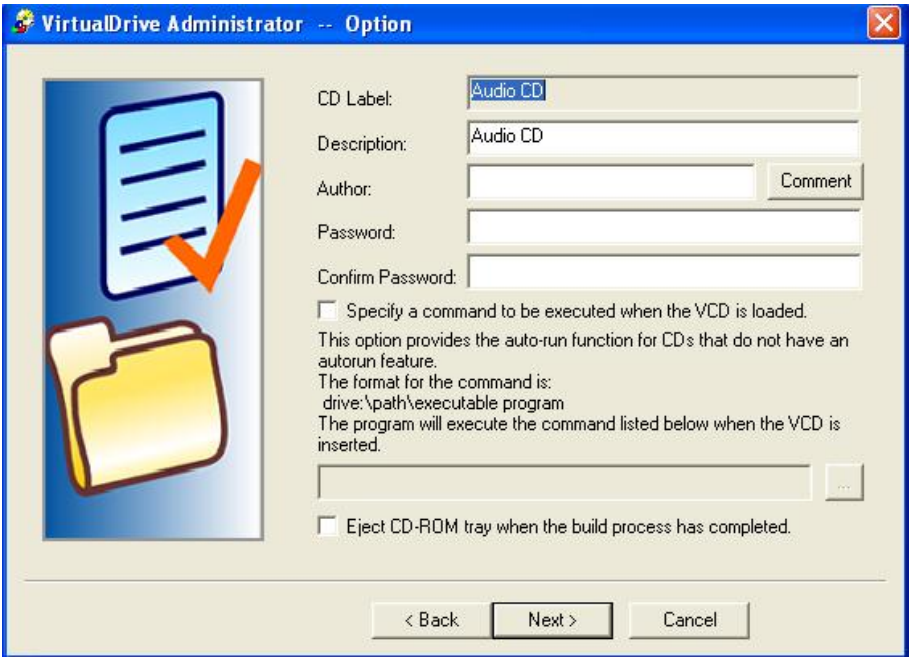


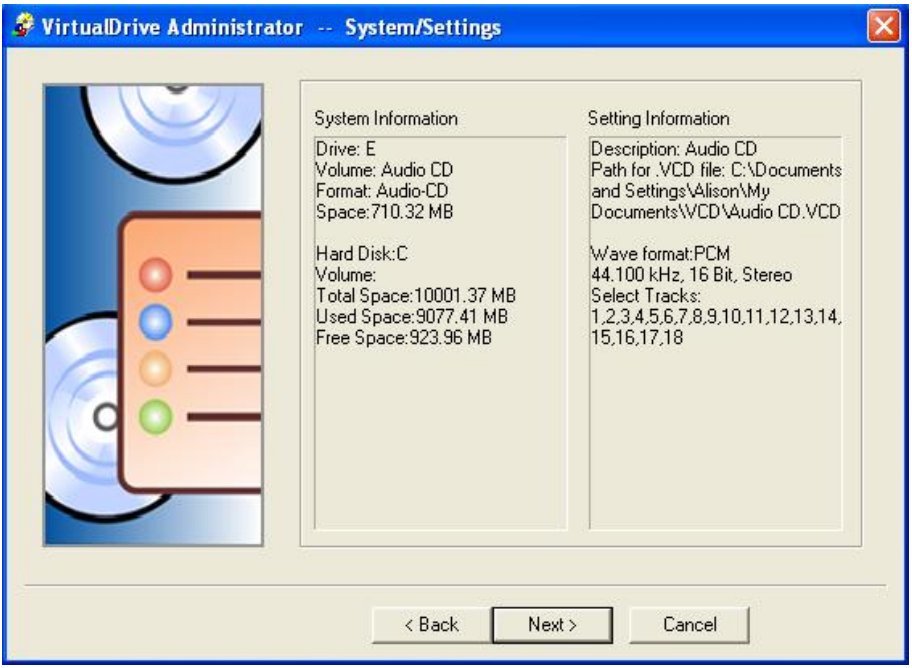
Figure 3-3-3i

Step 8 To Auto-Run the Audio VCD when it is inserted into a VirtualDrive, you should specify a program to run when the VCD

is loaded. To do this, click on the file Browser button and select an appropriate multi-media program.

Figure 4-3i above, shows the Windows Cdplayer.exe has been chosen to play the Audio VCD.

Step 10 Check the **'Eject the VCD'** check box (Figure 3-3-3i above) if you want the CD to be ejected from the CD drive. When the Build has competed, then click on **Next** to open the System Settings dialog. From here you can review the chosen VCD attributes. To continue, click on **Next** to open the Build VCD window(Figure 3-3-3j).



Step 11 If any audio player application is using the physical drive, close it now and begin building the Audio VCD.

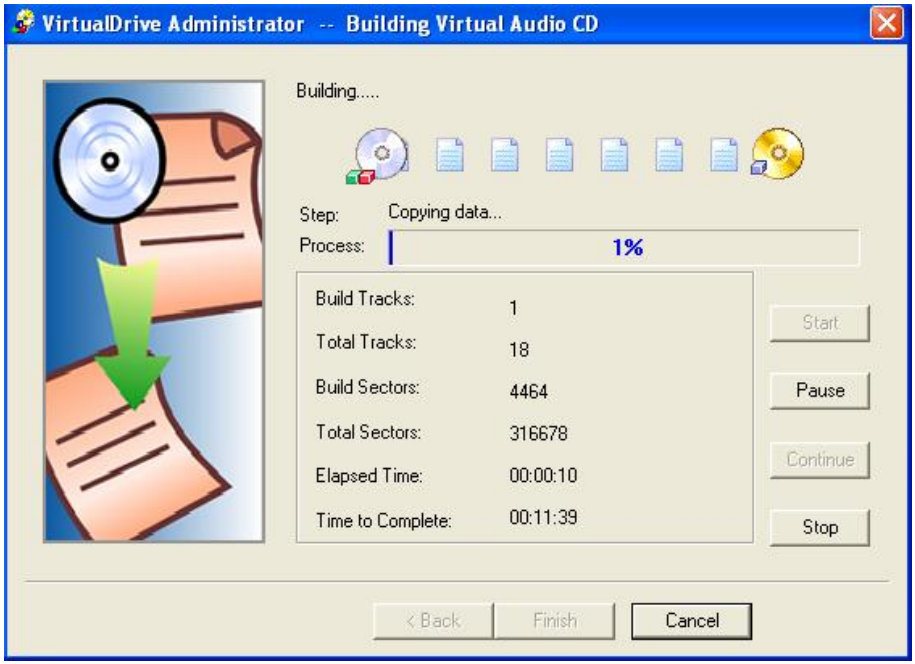
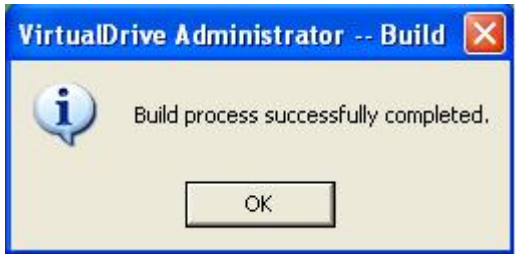


Figure 3-3-3j

Step 12 With the VCD successfully built, click on **OK** to exit the Build popup then click on **Finish** to close the VCD Build window(Figure 3-3-3k)



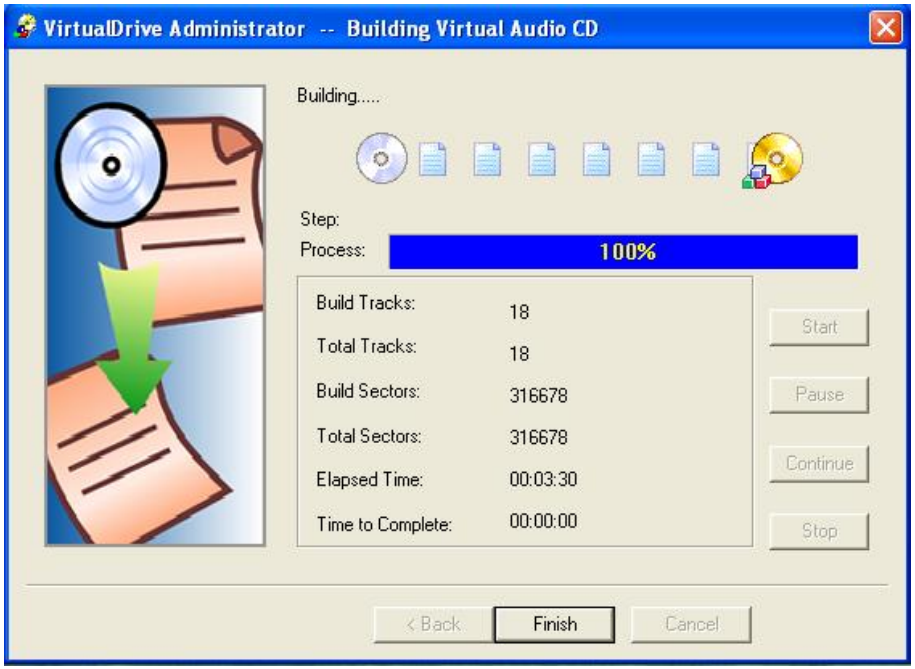


Figure 3-3-3k

3.3.4 Building VCDs from Mixed-Mode CDs

To create a Mixed Mode VCD, open the Build VCD dialog box by 5 methods.

(a) Click on the **Make Image** button on the toolbar.

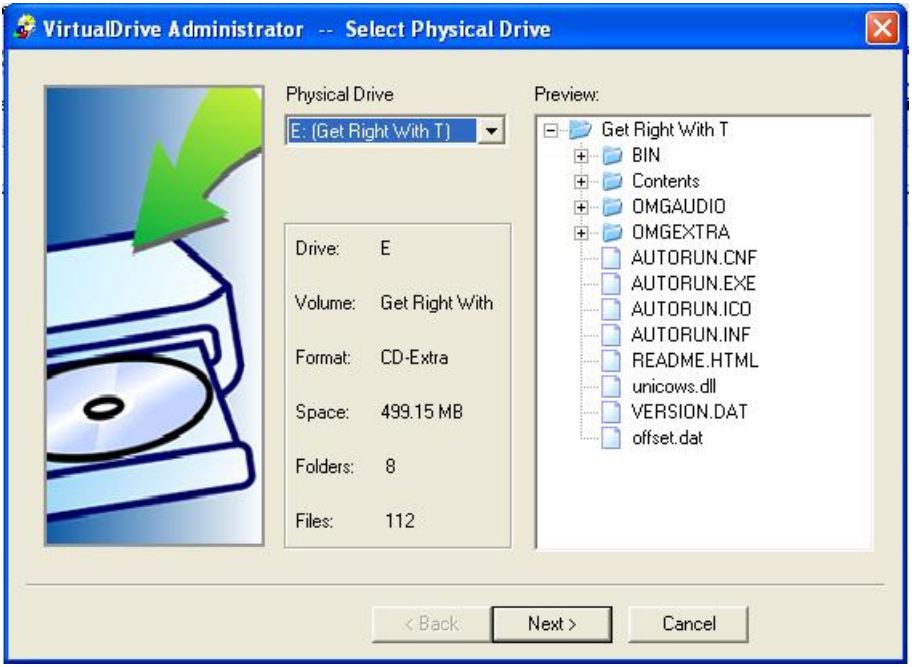
(b) Select **File** from the menu bar and choose **Make Image** from the drop menu.

(c) Right click on the VirtualDrive icon in the System tray and selects **Make Image.**

(d) Using the shortcut key **Ctrl+B**.

Then follow the steps as described below.

Step 1 Select the physical CD drive then click on **Next**.



Step 2 Check that selected hard drive has sufficient 'Free Space' (Figure 3-3-4a) to store the new VCD. Use the File Browser to select a location to save the VCD and give the new VCD file a name. If no new name is entered then the new VCD will use the name of the folder in which it is to be stored, as the VCD file

name.

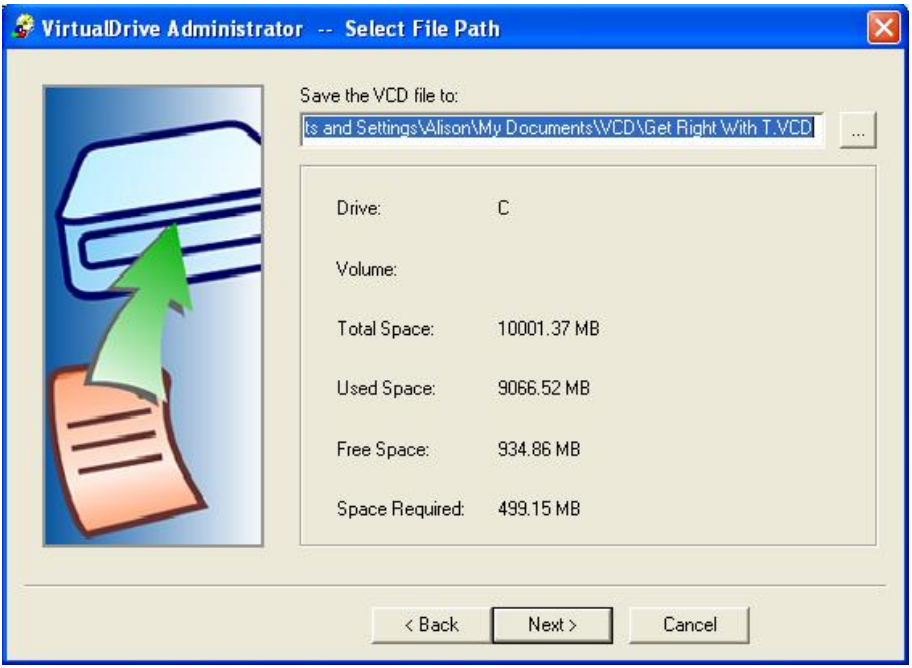


Figure 3-3-4a

Step 3 Select the CD Read method and the CD Record method (Figure 3-3-4b).

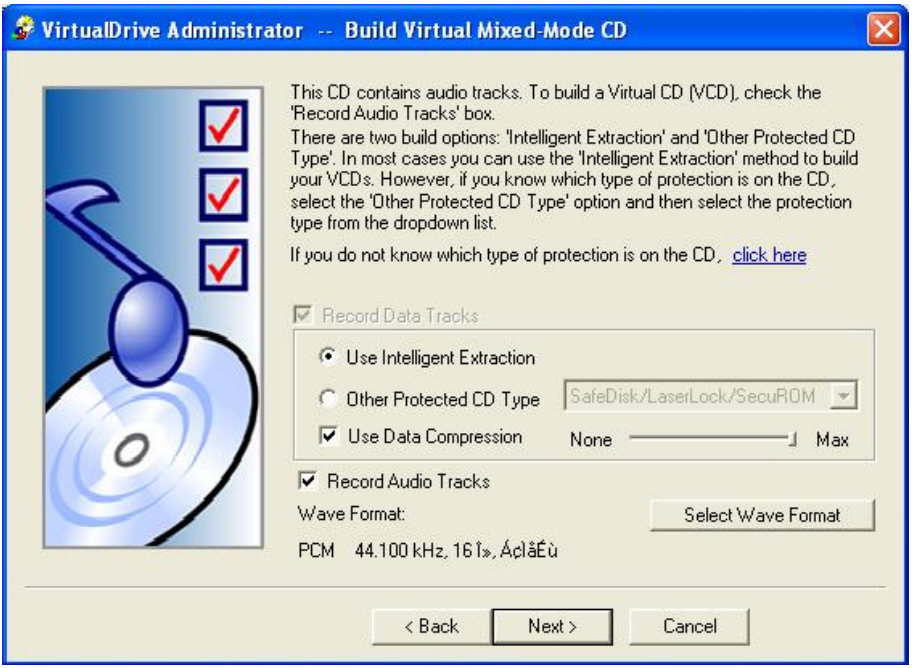


Figure 3-3-4b

The default read method is 'Normal' and it is successful for most CD formats however, because some CDs contain inaccurate volume information, use the 'Intelligent extraction' method if a VCD has been successfully built but does not run properly.

You can use the **Intelligent Extraction** to build your VCDs in most cases. Some CDs must be built using **Other Protect CD Type** due to CD Encryption. If you know which protection type is on the CD, you can choose to build with that protection type from the dropdown list.

Using Data Compression will save hard disk space but will require a longer VCD build time.

If you only select **'Record Data Tracks'**, VDN will ONLY build the Data Tracks of the selected Mixed Mode CDs. If **'Record Audio Tracks'** is selected, VDN will ONLY build the Audio Tracks of the selected Mixed Mode CDs as background music. If both **'Record**

Data Tracks' and **'Record Audio Tracks'** are selected then VDN Will build the Data Tracks and Audio Tracks of the selected Mixed Mode CDs.

Step 4 Set the Preview track

As long as you have selected '**Record Audio Tracks'** and click **Next** button, VDN will open the **'Select Tracks'** window(Figure 3-3-4c). If you are only selecting **'Record Audio Tracks,'** skip step 4 and go to step 5.

If you don't need all Audio tracks, you can click on the Preview track play button to select which track you like to build and click on the Volume

button to set the Preview track's level. When you select one track and click on the Preview track play button, you can see the track's playing progress bar from **Progress.**

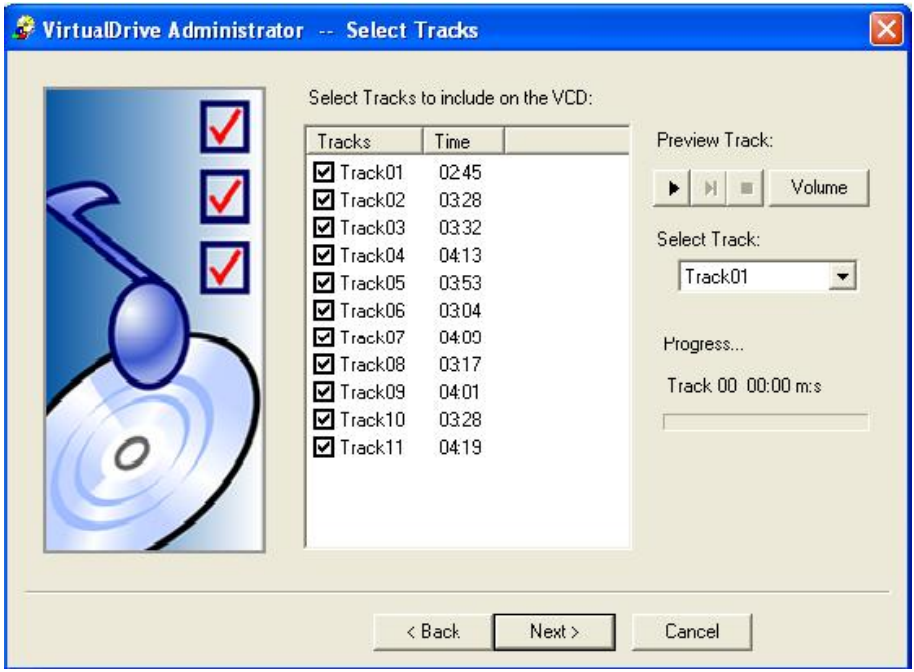


Figure 3-3-4c

Step 5 Enter a Description of the new VCD in the Description box(Figure 3-3-4d).

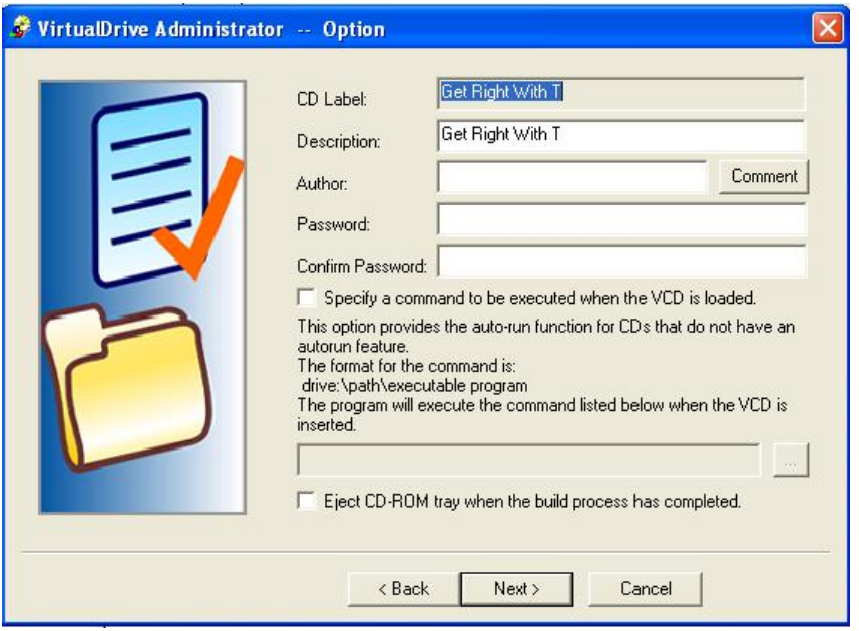
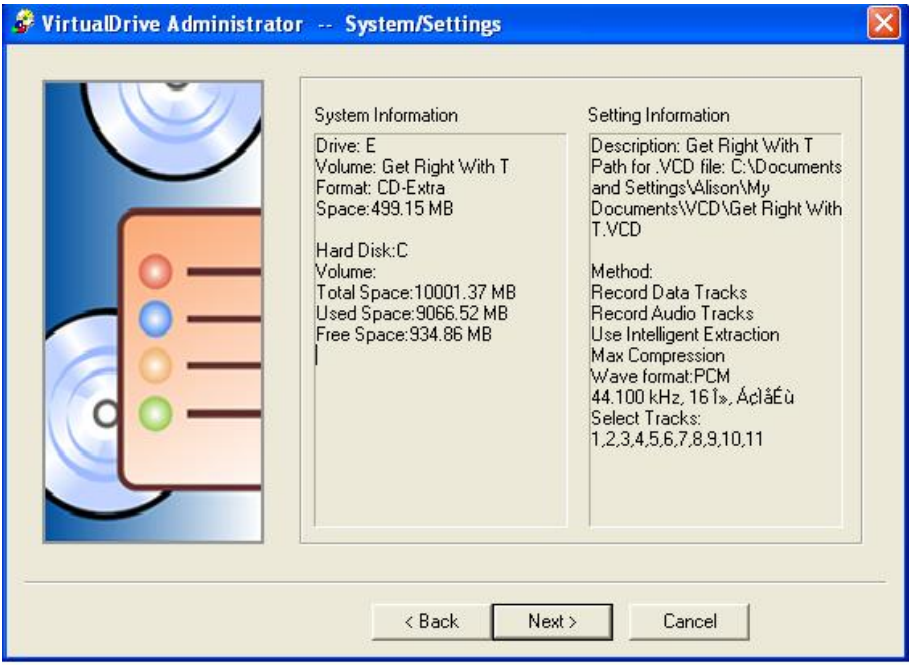


Figure 3-3-4d

Step 6 (optional) If the CD does not have an Auto-Run then you can specify a program to run when the VCD is inserted. You can use the Browse button to locate the executable program.

Step 7 (optional) Choose whether or not to eject the CD from the CD drive once the Build is complete by checking the 'Eject the VCD on completion of the **Build** process' box (Figure 3-3-4d above). Click on **Next** to continue.

Step 8 Click on **Next** to open the Build window. Virtual Drive will then display the attributes of the VCD about to be created.



Step 9 You can check the building process.

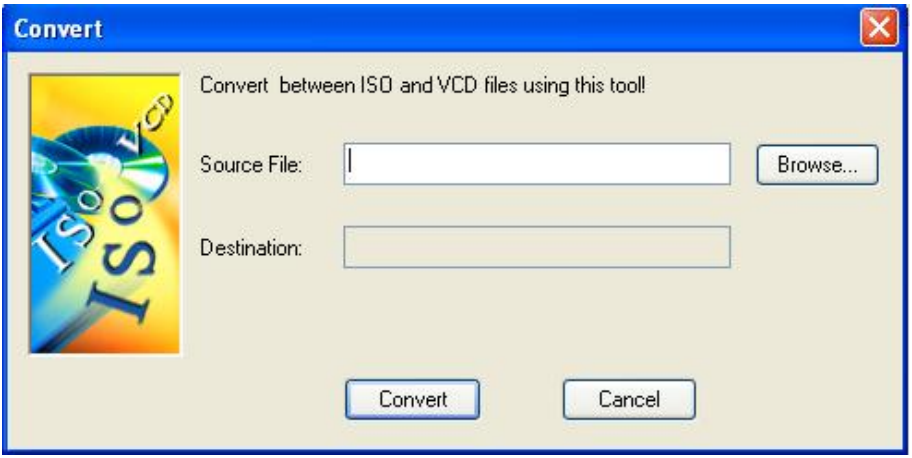
Step 10 With the VCD is successfully built, click on **OK** to exit the Build popup then click on **Finish** to close the VCD Build window

3.3.5 Conversion between an ISO 9660 image file and a VCD file

You may convert an ISO 9660 image file into a VCD file as well as convert a VCD file into an ISO 9660 image file.

Step 1 Select **File** on the menu bar, then select **Convert** from the drop menu to open the Convert file window.

Step 2 Click the **Browse** button to open the Windows file browser.



Step 3 Select the ISO/VCD file you want to convert, then select **Open** to continue.

Step 4 Select **Convert** to start the conversion.

Note: Audio VCD, DVD and compressed VCD file can't convert into ISO file.

3.4 Managing VCDs in the VDN Server

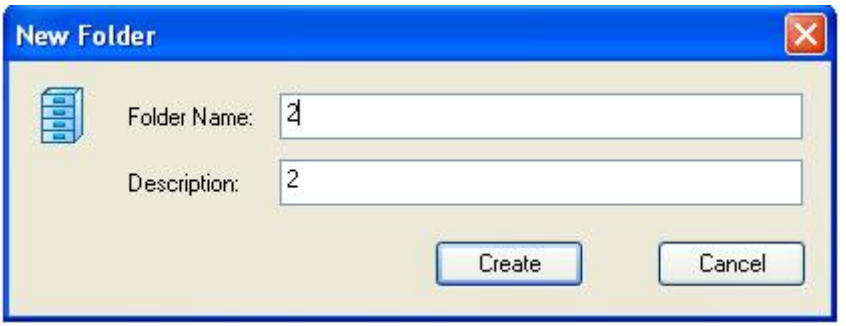
3.4.1 Adding VCD folders (CD Jukebox)

Before VCDs can be added to the VDN Server, a Folder or CD Jukebox must first be created to hold the VCDs.

Step 1 Click on **VCD Folder** located on the left side of the VDN Administrator program window. Then right click on the blank space in right panel of the VDN Administrator window. A popup menu will be displayed. Select **"New Folder"**.

(The same function can also run from the Menu bar by selecting **'File'** then **'VCD files'**)

Step 2 Type in the new VCD folder Name and Description then click **Create** to add the folder. When you have finished adding new folders, click **Cancel** to close the dialog.



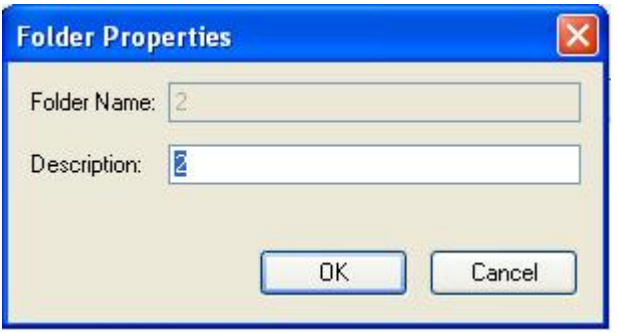
Step 3 Save the new VDN Folder Configuration

Save the new configuration by clicking on the **"Save"**

button or click **“File”** on the Menu bar and select **“Save”.** VDN Clients will see the new configuration only after "Refreshing" their screen or restarting the Client program.

3.4.2 Changing a VDN Folder Description

Open the Folder Properties dialog by right-clicking on the folder and selecting **Properties**. Or, go to **File -> VCD Folder -> Properties** from the **File** menu.



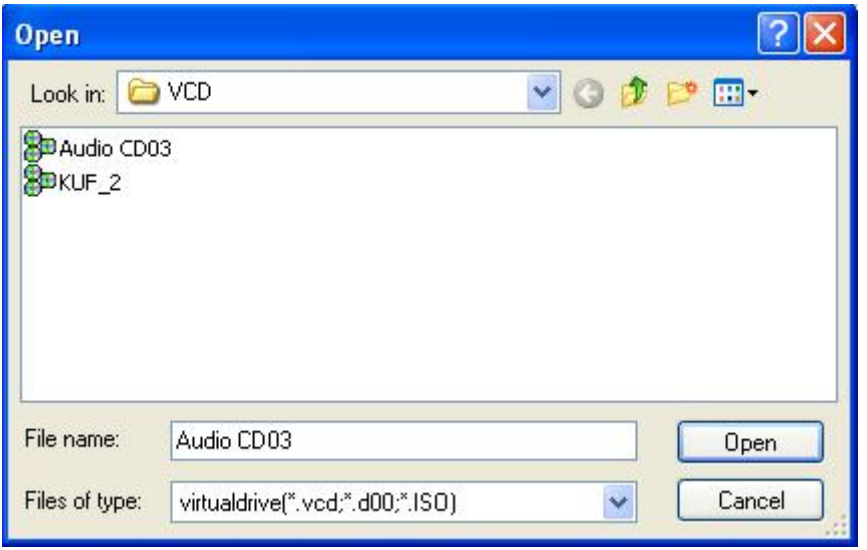
The Folder Properties dialog only allows the editing of the VCD folder description.

3.4.3 Adding VCDs to a VCD Folder

Step 1 To add VCDs to a VCD folder, first click on the VCD Folder name listed on the left side of the VDN Administrator program window. Then right click on the blank space in right panel of the VDN Administrator window. A popup menu will be displayed. Select **"Add VCD".**

(The same function can also run from the Menu bar by selecting 'File' then 'VCD files')

Select the files that you want to add to the VCD folder and then click "**Open**". All of the selected VCD files will be added to the VCD folder.

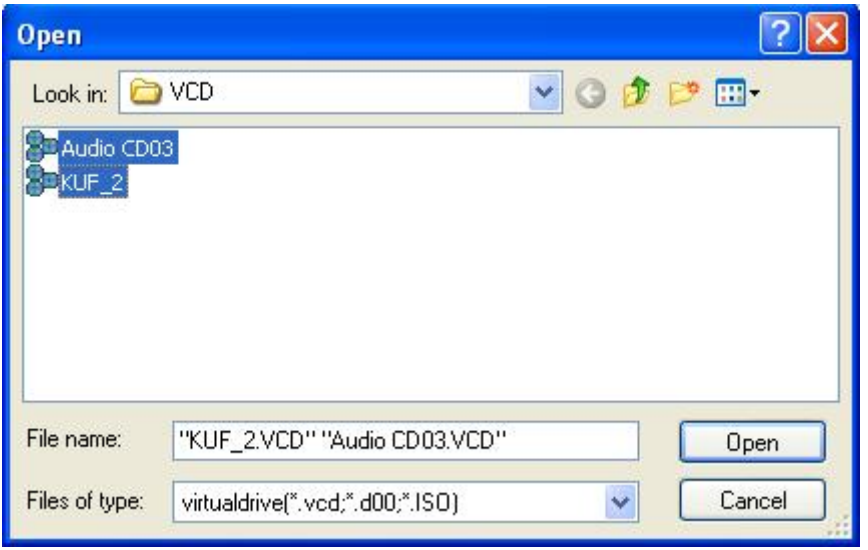


Note
Files selected from the Network Neighborhood are UNC compliant.

Important !
VCDs cannot be added to the VDN server Administrator from:

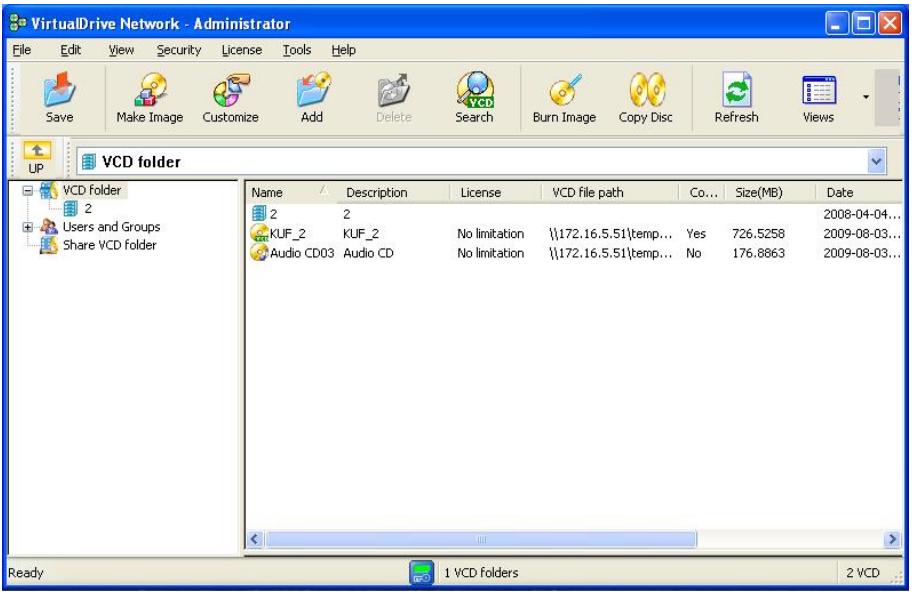
- a local drive e.g. C:\vcds\mykids play.vcd or a mapped drive e.g. F:\math1.vcd (while f: is mapped to \\server\vdn)

VCD files must be stored within 'Shared' folders and may be located on different file servers (as in a distributed network system).



Tips

To add multiple VCD files at a time. Hold down the Ctrl key and click on each VCD to select, or hold the SHIFT down key to select block of VCD files in the file list.



The added VCDs will appear in the Administrator window.

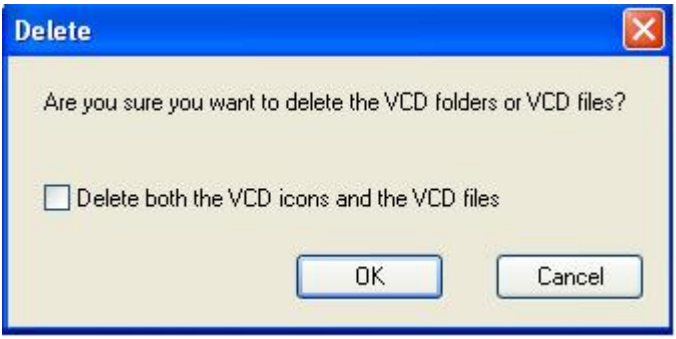
Step 2 Save the new VDN Folder Configuration

Save the new configuration by clicking on the **"Save"** button or Click **“File”** on the Menu bar and select **“Save Configuration”.** VDN Clients will see the new configuration only after "Refreshing" their screen or restarting the Client program.

Note: The VDN configuration file is stored in the \\server\vdn\TvConfg.Bny. Before updating the configuration file, the VDN Administrator program will make a backup copy to “$TvConfg.nnn”. VDN maintains backups for the last 4 configurations.

3.4.4 Deleting a VCD Icon or VCD File

Right click on the VCD icon and select “Delete” to open the popup menu shown below.



Click **OK** to Delete the VCD icon from the VDN Administrator. Only the VCD icon displayed in the VDN Administrator is removed from the VDN CD server, the VCD file remains on the network and may be added to the VDN Server again.

To delete the VCD file and its icon check the **'Delete VCD files in the disk'** then click OK. This will remove the VCD icon from the VDN server and VCD file from the network.

3.4.5 VCD properties & Custom Auto-run Function

To view a VCD's properties, right click on that VCD's icon and select **"Properties"** from the drop menu to open the VCD Properties dialog box (shown below). A VCD's description can be edited from here.

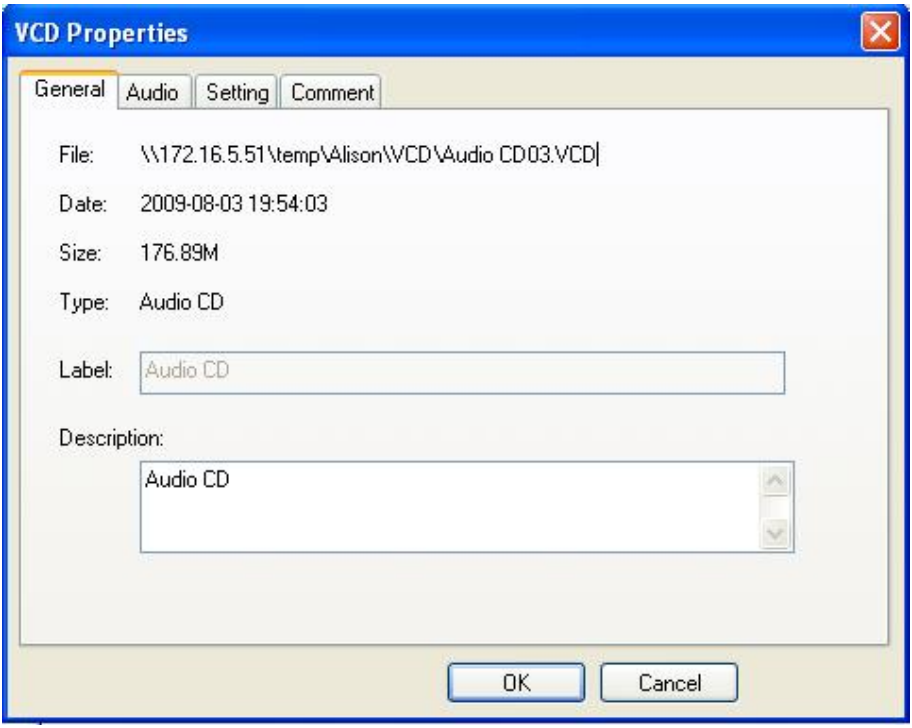
Additionally, VDN provides a comprehensive way to startup VCDs created from CD-ROMs with no built-in Autorun feature.

To set up an Autorun function for a VCD, simply follow these steps:

Step 1 Check the "Run the command listed below when VCD is inserted"

Step 2 Fill out the command line to include the path and the name of the program file to be run.

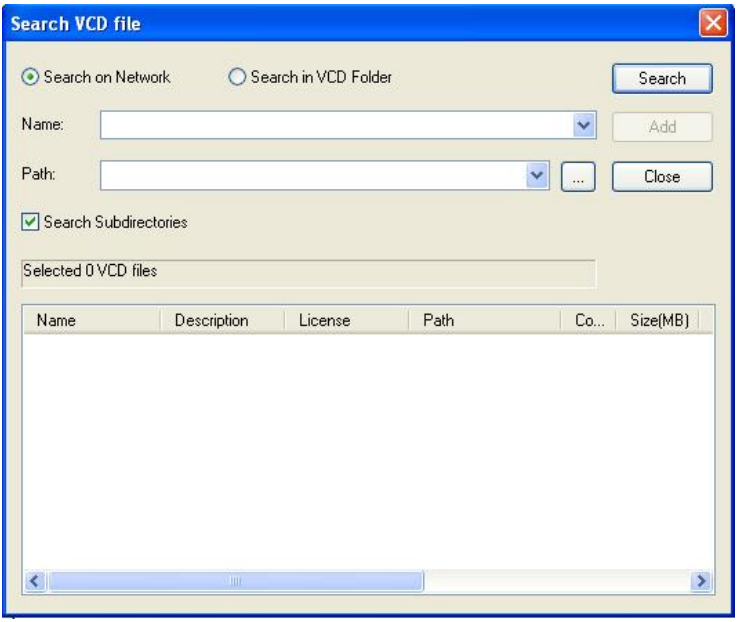
e.g.“\setup.exe”or"\mydocFolder1\myFile.doc" or "\mydocFolder1\myPage.htm"



3.4.6 Searching VCD

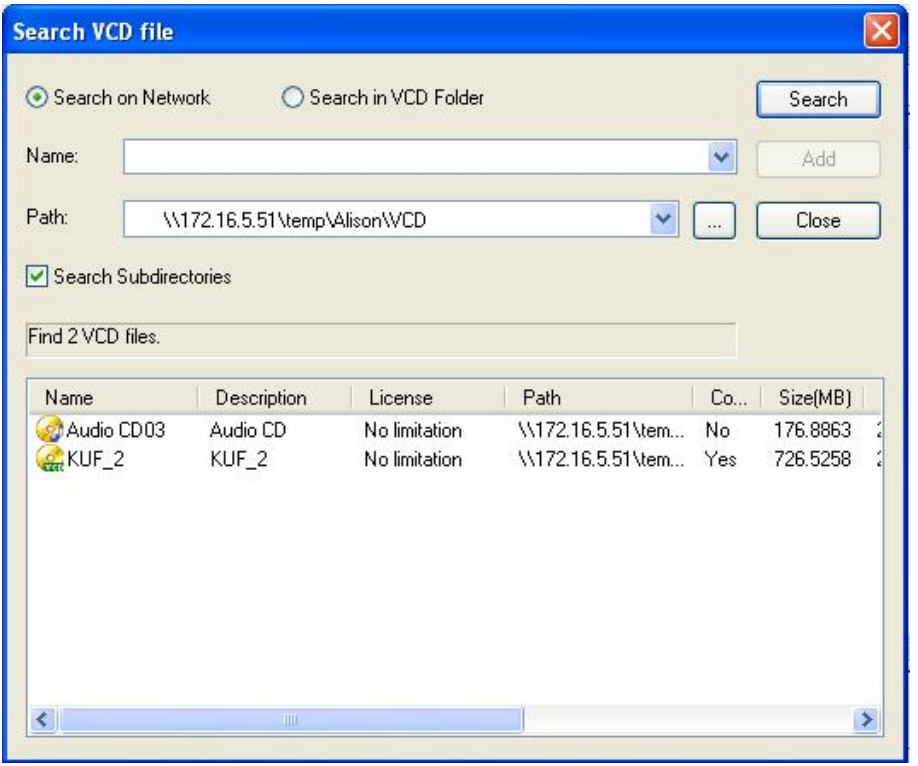
Step1 Select **Search**

button or select **File** from menu bar, then Search VCD from the drop menu to open Search VCD Box.



Select VCD folder in **Path** drop menu or browse for folders by clicking on ... button.

Click on **Search**, the files are being searched will be displayed in the window. Select a certain file or multiple files (by holding down CTRL) you have found, and click **Add** to put them into a folder (figure below).



Path: If **"Search in VCD folder"** radio box is selected, you can select a CD folder by clicking on ... button or in search path box(figure 3-4-6a); you may browse for folder from network drives by selecting "**Search on Network**"(figure 3-4-6b).

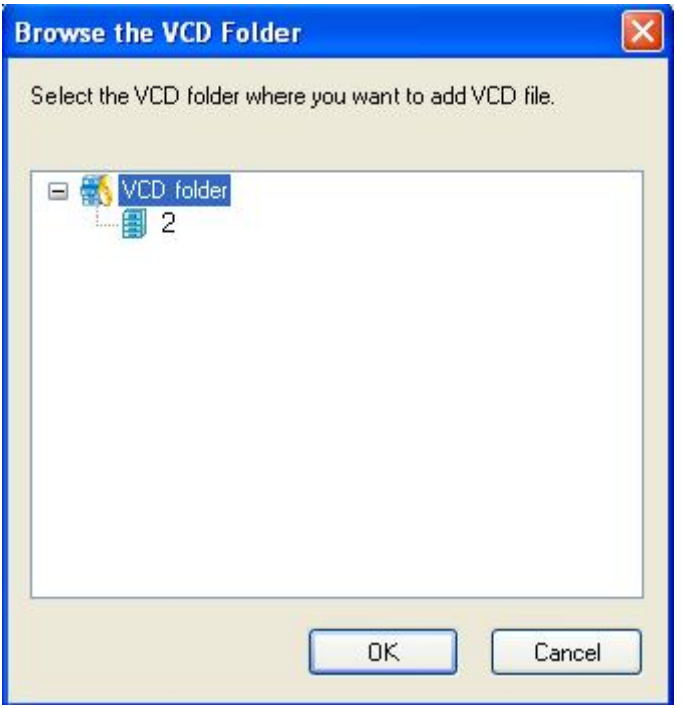

Browse the VCD Folder
Select the VCD folder where you want to add VCD file.
VCD folder
2
OK
Cancel

figure 3-4-6a

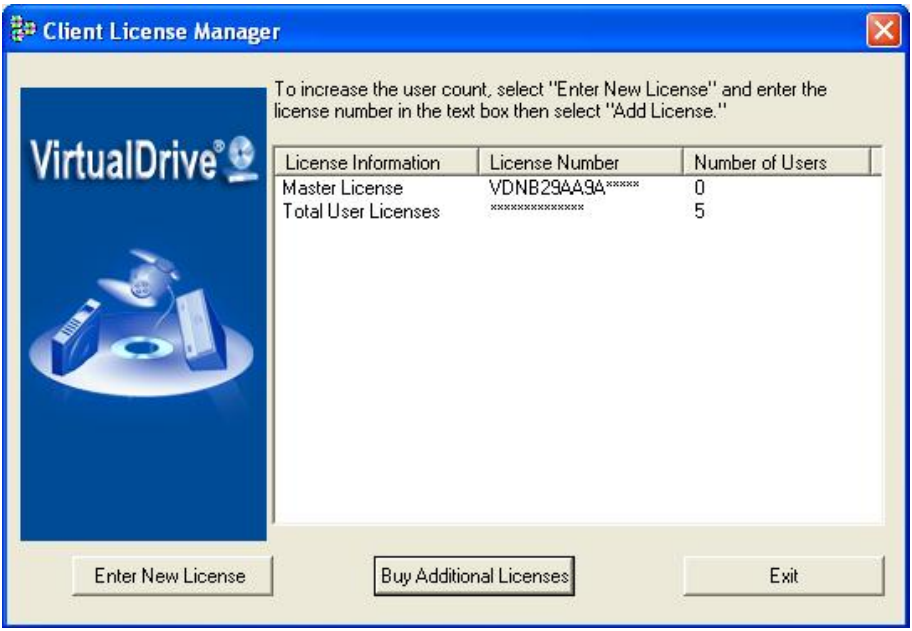
figure 3-4-6b

3.4.7 Software information

Select **Help** and then **About** from the drop menu, the popup window will display the information about software license and version.

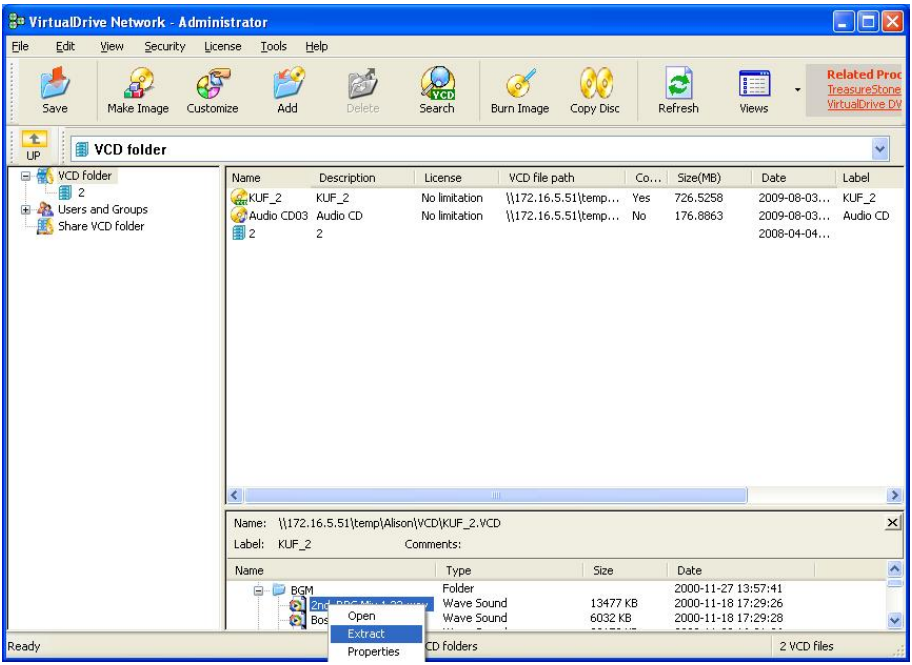
3.4.8 License Manager

To increase the user count, you need to buy additional licenses from FarStone. Select **Help->License Manger**. Then select **Buy Additional Licenses** to purchase licenses from FarStone over the Internet. Select **Enter New License** and enter the new license number in the text box and click **Add License.**

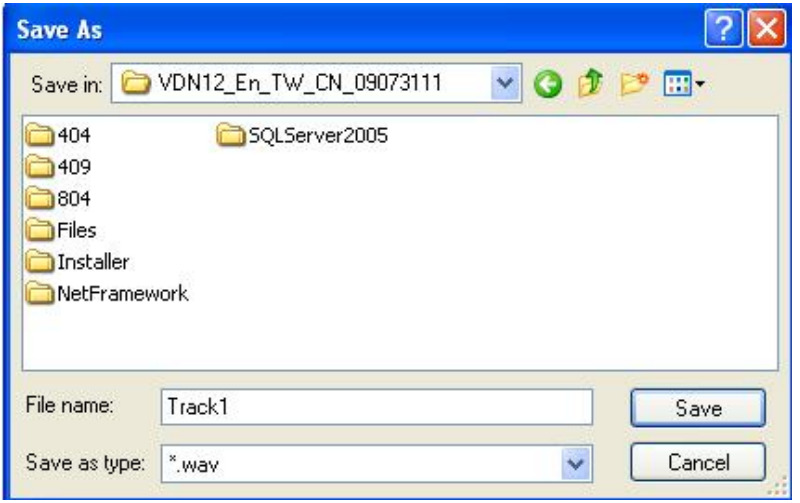


3.4.9 Extracting files from VCD

Users can access files from the VCDs without inserting them into the virtual drive. Click on a VCD icon in VirtualDrive™ tray, all its contents will be displayed in the bottom-right frame. Right click on the selected file and select **Extract** from the drop down menu.



Specify a folder to save the extracted file.



3.5 Managing VCD access on the VDN Server

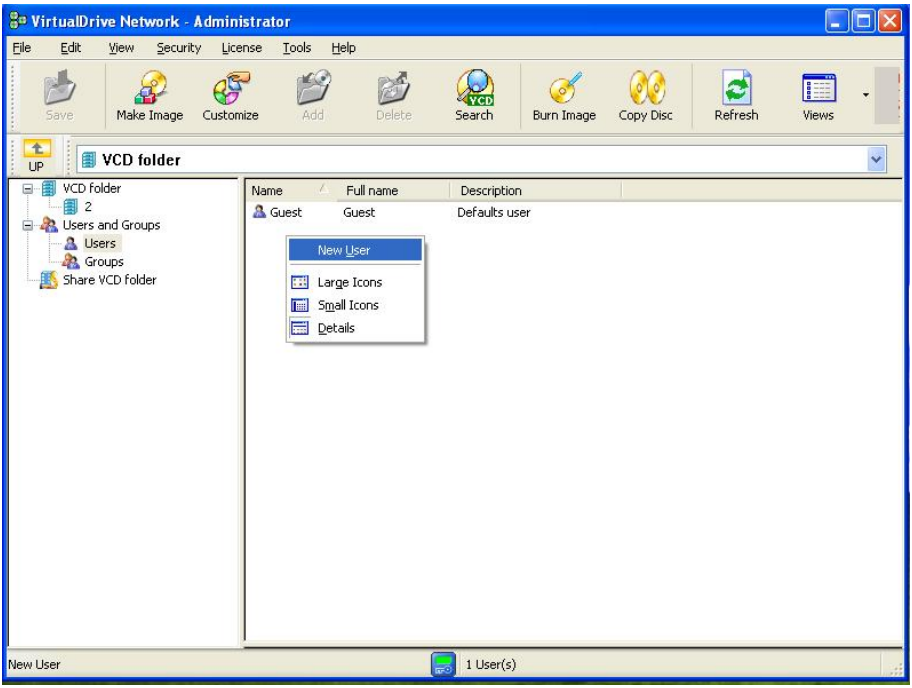
3.5.1 Users and Groups – Overview

A Group can be created to manage multiple users' access to a VCD Folder.

If you use Groups to manage access rights then you must create User Accounts for everyone using VDN and assign them to groups.

3.5.1.1 Adding / Removing Users

Add a new User by right-clicking in the Users and Groups frame then selecting **New User** from the drop menu to open the New User dialog(Figure below).



Enter the User details and a Password if required.

Click **Create** to add the User, or **Cancel** to close the dialog.

Finally, click on **Save** to save the new configuration.

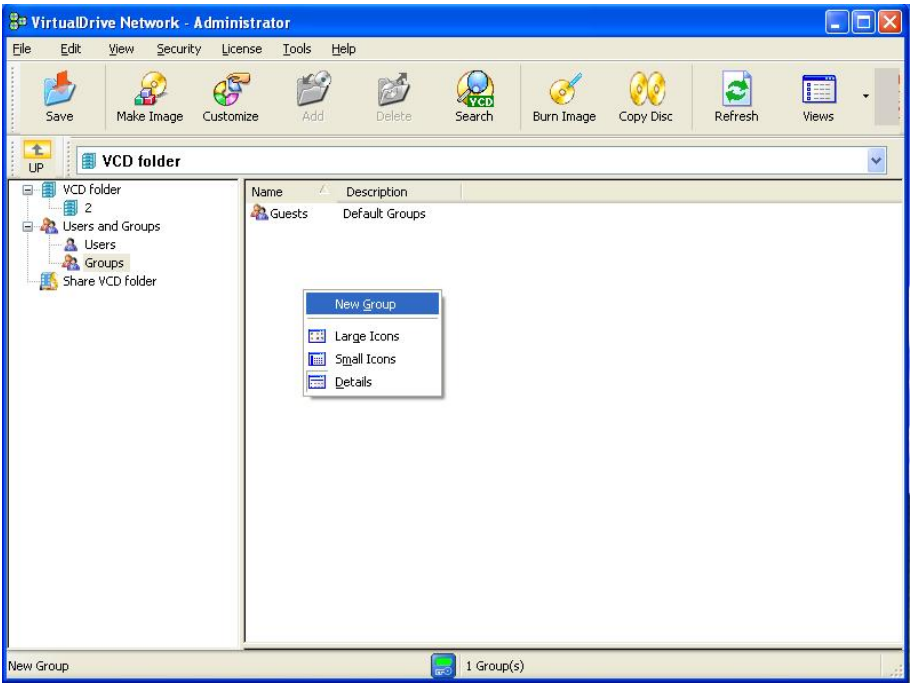
Note
No period, blank, or characters as [\ / [ ] : | < > + = ; , ? *] can be included in the user name.

The new user is added into **guests** group at default setting. Please refer to 3.5.1.2 **Adding users to group** if you want to assign users to another group.

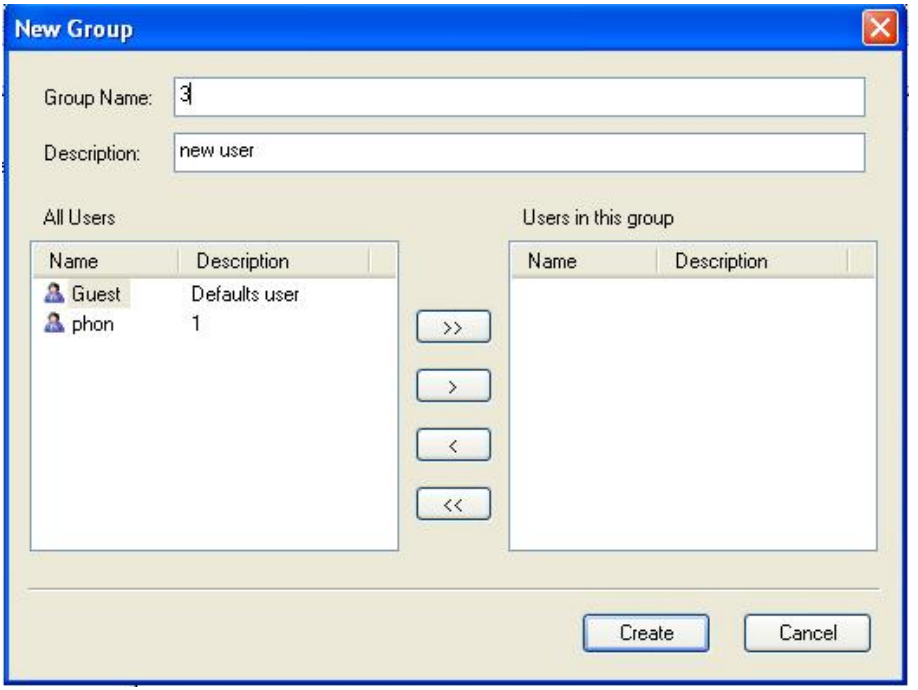
To remove a user select the User Name, right-click and select **Delete** from the popup menu.

Adding/Removing Groups

Right-click on the Groups icon and select **New Group** to open New Group dialog box.



Give the New Group a Name and Description then click on the Create button(figure below).

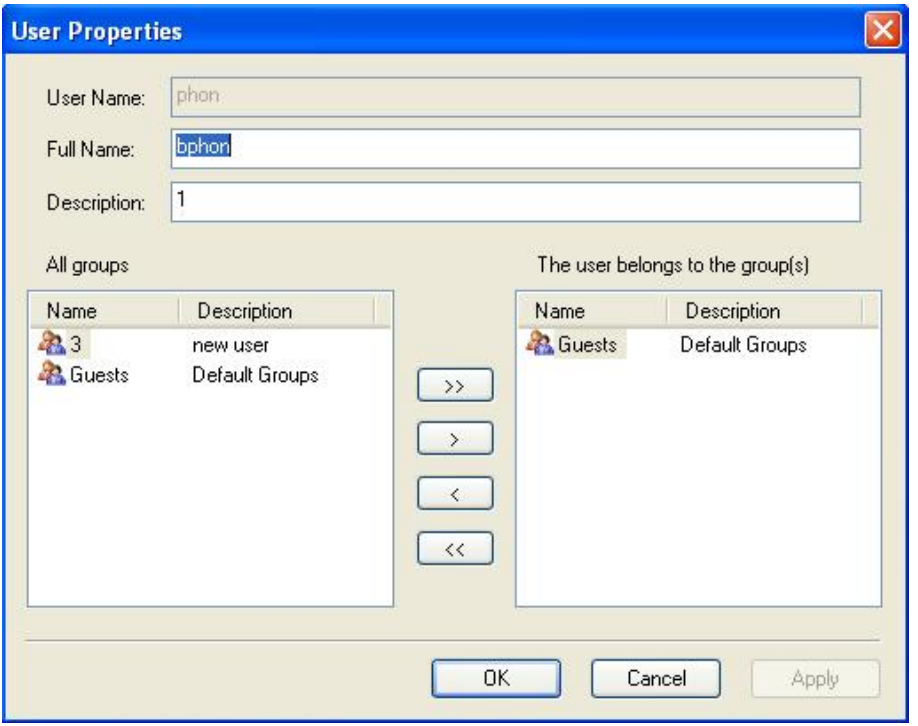


To remove a group, you can either (a) right click the group and select **Delete** from popup menu or (b) select the group and press **Delete** key on keyboard.

3.5.1.2 Adding Users to Groups

Select the User Name right-click and select User Properties from the popup menu. In the popup box, you can either assign single user by using the > button or assign all users by clicking on >> button to any of the listed Groups. On the contrary, use << or < button to remove users from groups.

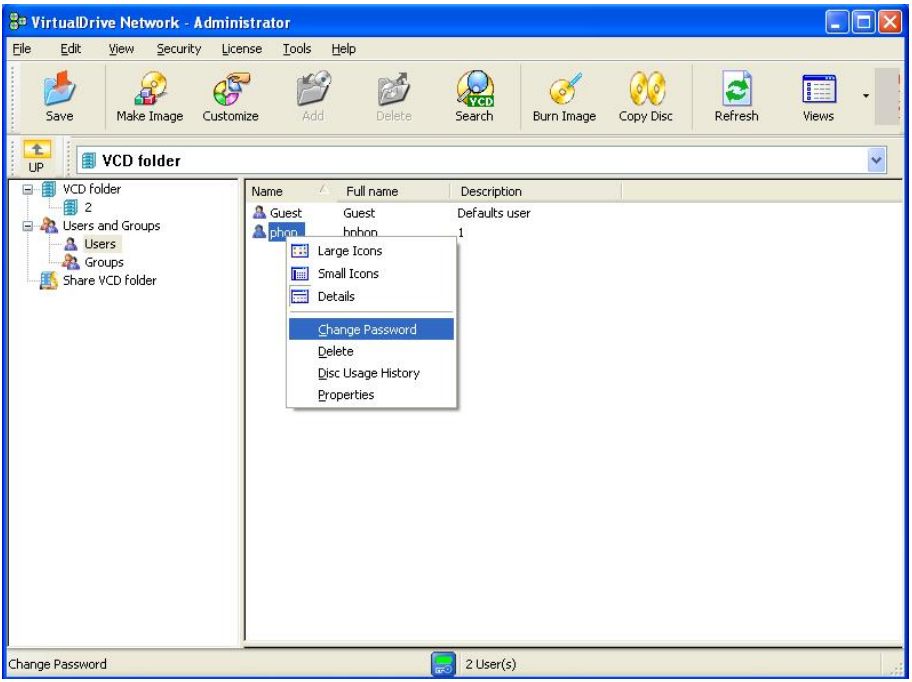
You can then use the 'arrow' buttons to assign the User to any of the listed Groups.



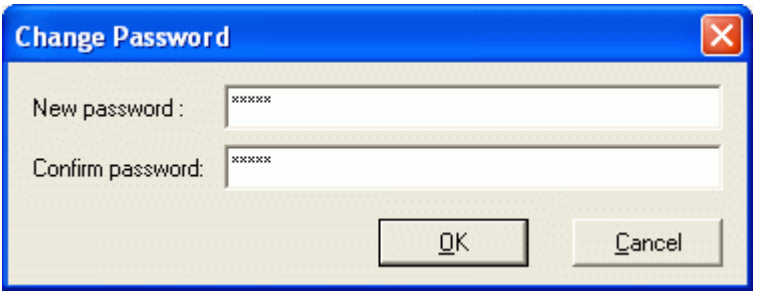
Note
A user in a group has the same access as the group he is subject to.

Changing a User Password

Select the user's name, right-click and select **'Change Password'** from the popup menu.



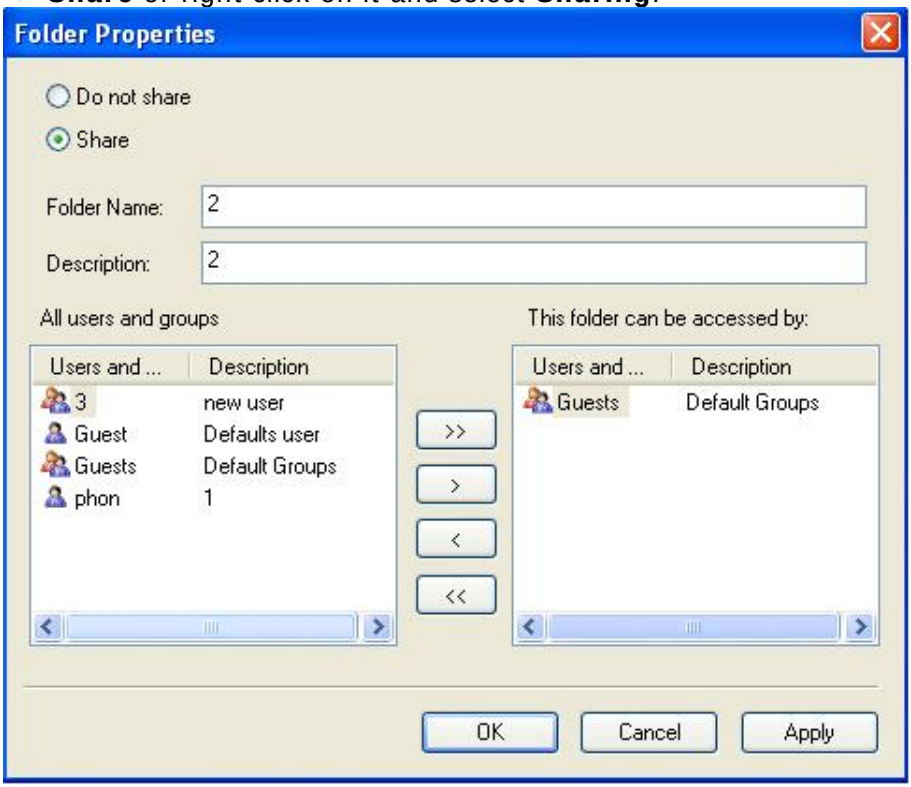
Type the password and confirm it. Click **OK** to finish.



3.5.2 Sharing VCD Folder

Users have access to the VCD files in VCD folders only if they have access privilege assigned by VirtualDrive administrator.

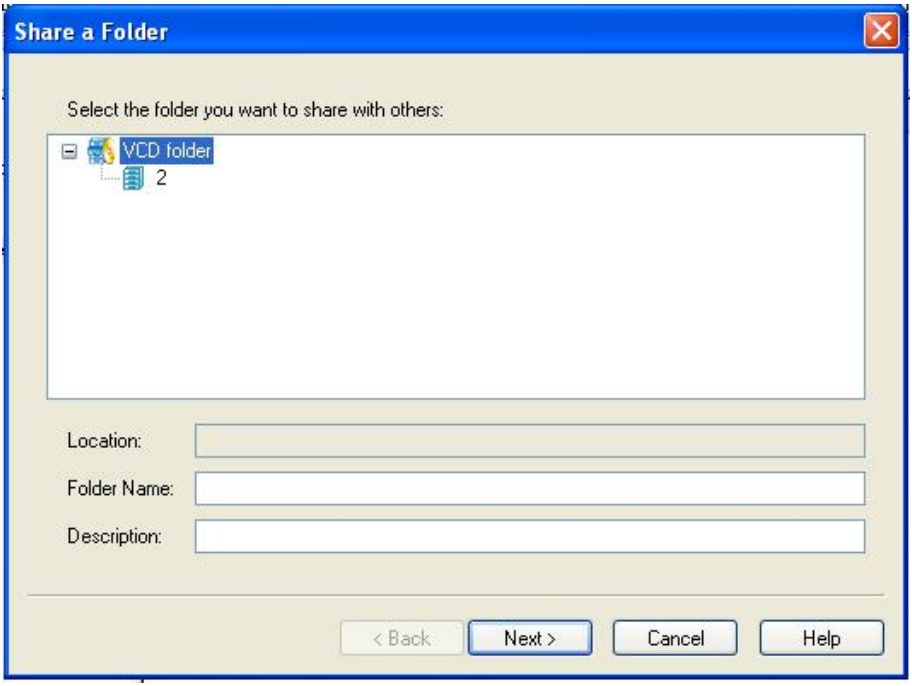
To share a VCD folder to users, select a VCD folder, select **File -> Share** or right click on it and select **Sharing**.



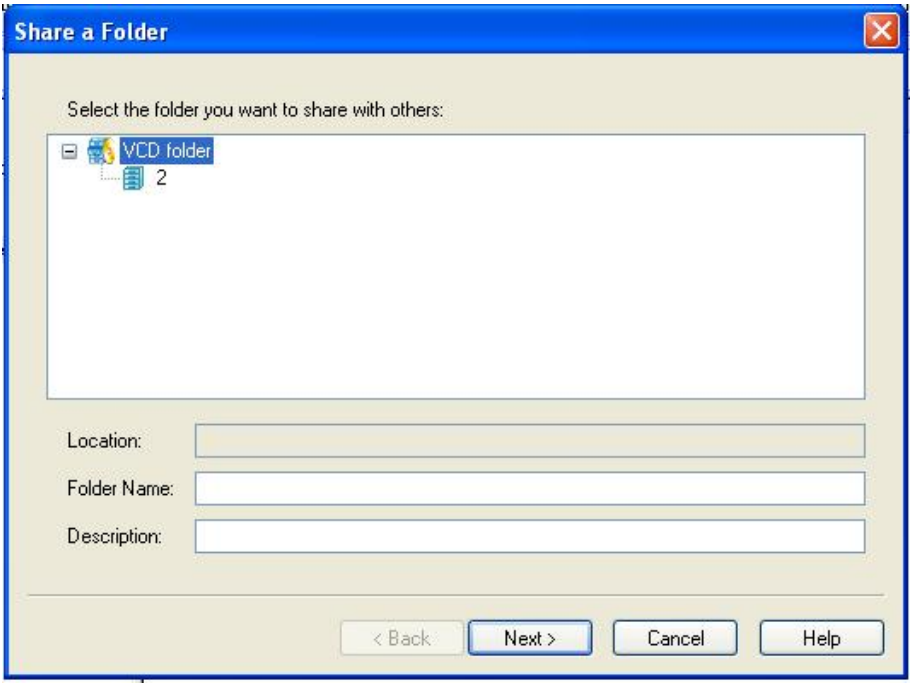
You can share the folder with users and groups by adding or removing them from right pane of the Window.

3.5.2.1 New Sharing

Right click on **share VCD folder** in left pane of VirtualDrive Administrator, select **new sharing** from the popup menu to open select folder window.



Select a folder in this window and click **Next** to enter the next step.



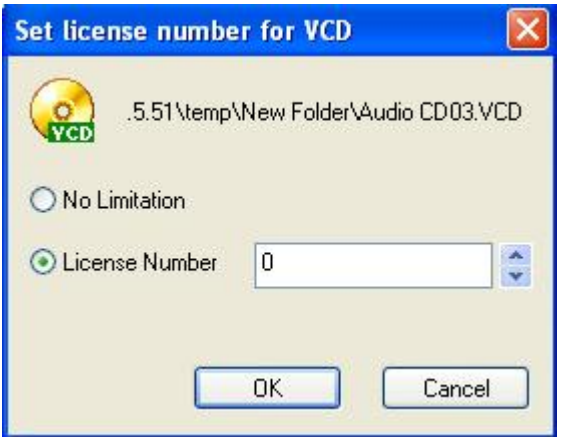
If you want to share this folder with users or groups, add them into the right pane of this window.

3.5.3 VCD License

By using VCD license, you can specify how many users may access VCD files at one time.

3.5.3.1 Set License for a VCD File

You can set the license for a VCD file by (a) Selecting a VCD file and pointing to **License->Set License** on the file menu or (b) Right clicking on a VCD and clicking **Set License** from the drop menu, either method will open the license window (figure below).

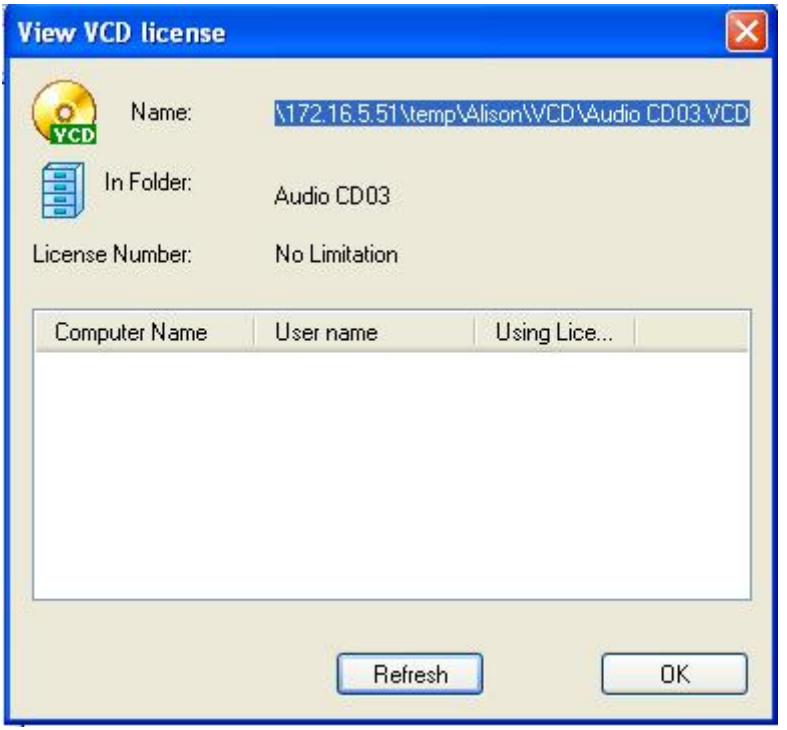


The default setting is **NO Limitation**. You may change the license count by entering a number in the blank box.

AS well, you may set VCD license number for a VCD folder and VCDs in it by repeating the process.

3.5.3.2 View License

You may inspect current license usage of a VCD file by (a) Selecting a VCD and pointing to **License->View License** on the file menu or (b) Right clicking on a VCD and clicking **View License** from the drop menu, either method shall open the window as below.



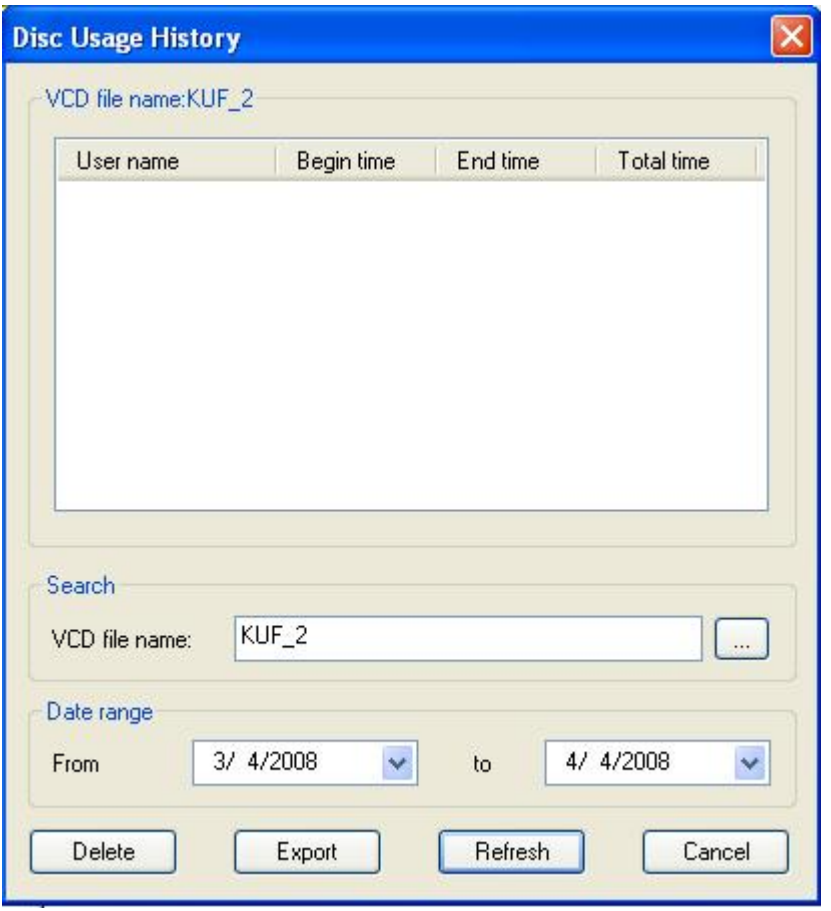
VCD license information is displayed in this window, includes: VCD license number, the location of this VCD and who are using it.

3.6 Viewing Client VCD Usage

3.6.1 Viewing VCD Usage

To view the usage of any particular VCD, click on the VCD name to select it then right-click and select **Disc Usage History** or click on **File**-> **Disc Usage History** to open the Statistic dialog. (shown below)

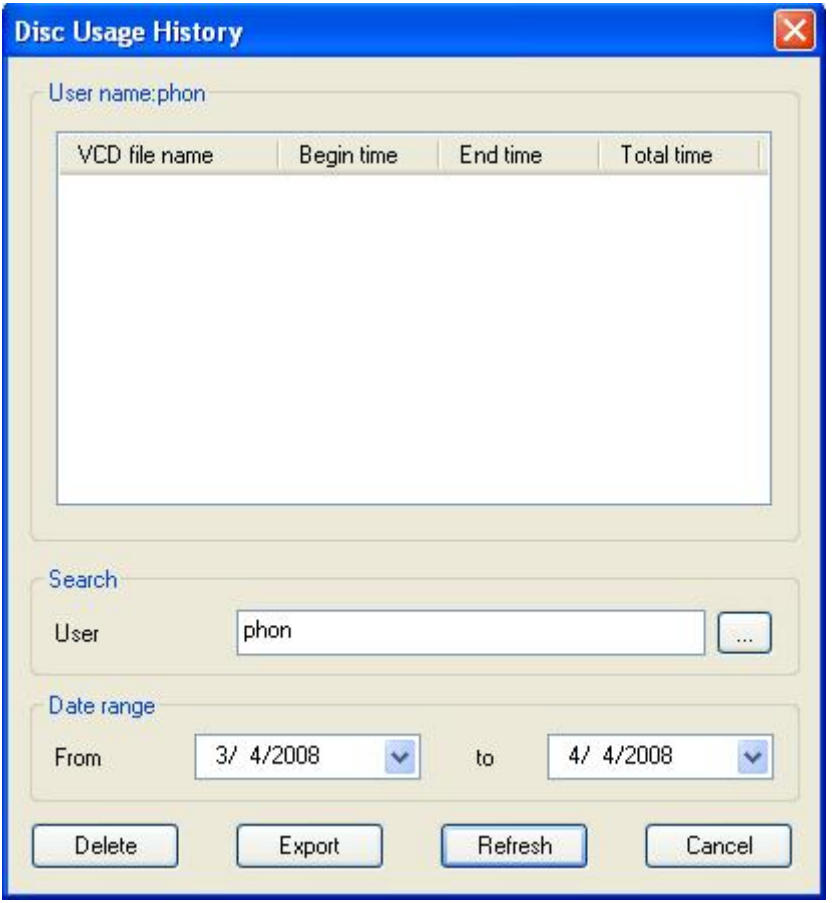
Note
Statistic function can take effect only after enables **->**View->Settings->Other-**>Verify the authority for VCD folder** in VDN administrator.



Click on the **Refresh** button to Refresh the dialog and display the network usage statistics.

3.6.2 Viewing User Statistics

To view the statistics of any user, click on the name to select it then right-click and select **Disc Usage History** or click on **File->** **Disc Usage History** to open the dialog (shown below).



You may view the usage status in a period of time by appointing the date rage in the drop list.

To back up the statistic result, click on **Export** and give a path to save the backup file.

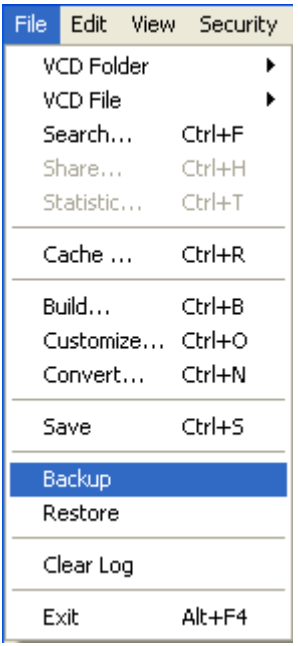
3.7 Backing up VCD List

Using this feature you can back up the information of current VCD list in VirtualDrive® and restore it at any time you want.
Select **File** from VirtualDrive® Manger menu, then **Backup** to save the VCD list in the hard disk.

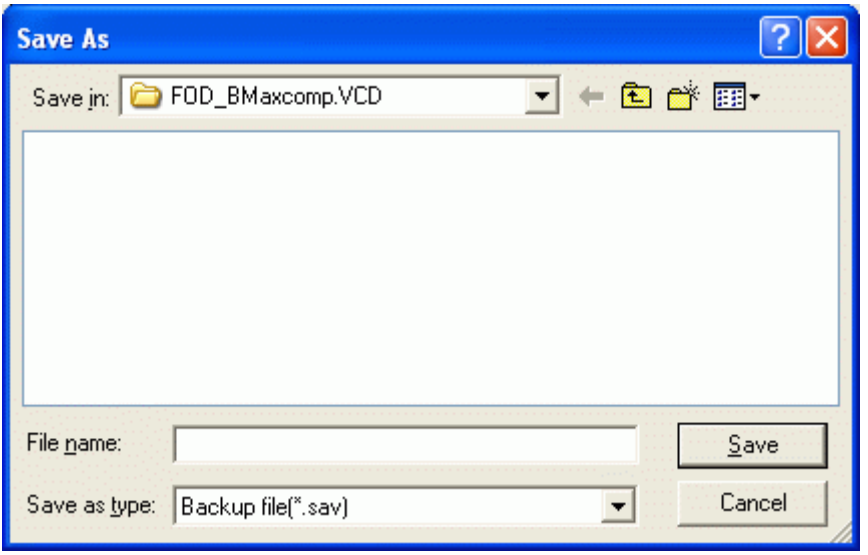
3.7.1 Backing Up VCD list

Using this tool you can back up the information of the current VCD list in VirtualDrive and restore it at any time you like.

Select **File** from VirtualDrive Manger™ menu, then **Backup** to save the VCD list in the hard disk.

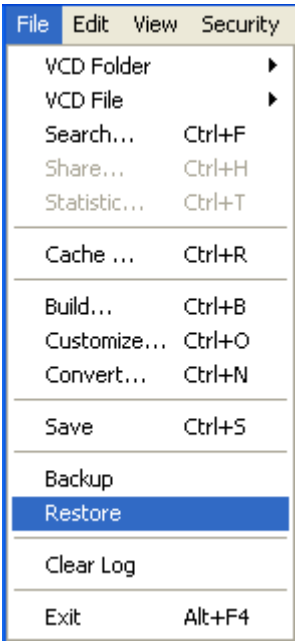


Enter a location to save the backup file (*.vdl).

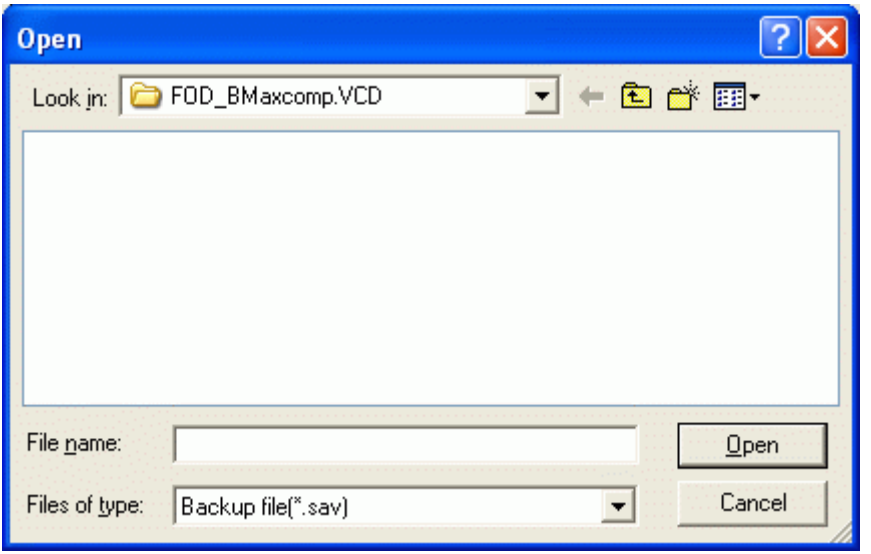


3.7.2 Restoring VCD List

Select **File** from VirtualDrive™ Manger menu, select **Restore**.



Select the VCD list you want to restore and select **Open**.



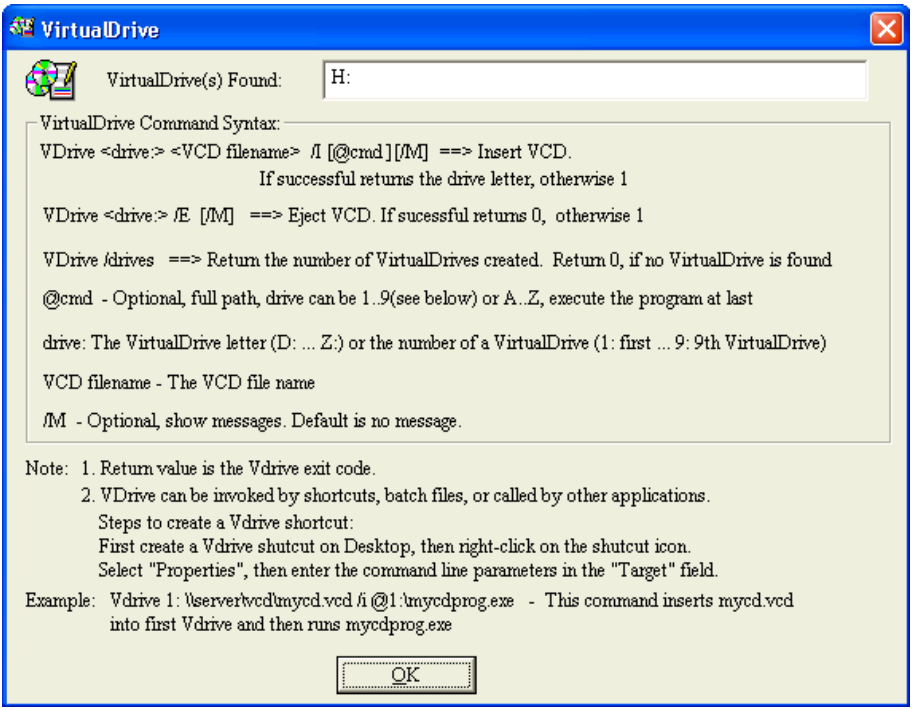
Chapter 4 VDN Command Program

4.1 VDN Command Program (VDRIVE.EXE)

VDRIVE.EXE enables you to create shortcuts to Insert/Play or Eject VCDs. You can use the shortcuts as a quick and easy method of inserting VCDs.

To launch VDrive.exe click Start on the windows taskbar then select:

/Programs/VirtualDriveNetwork/VirtualDrive Command.



Examples for Vdrive.exe:

1. VDRIVE D: \\Server\vcds\Age of Empires.vcd /I

The above command will insert the “Age of Empires.VCD” from server into VirtualDrive (D:) and play it automatically.

2. VDRIVE 1: \\Server\vcds\Age of Empires.vcd /I /M

This command inserts the “Age of Empires.vcd” from server into the first VirtualDrive and launches its autorun program.

4.2 Using the command line for creating shortcuts to run VCDs

Using command line instructions is an ideal method for implementing customized shortcuts to run your VCDs.

Step 1. Write down what you want the short cut to do.

eg. Vdrive E: "C:\VCDCollection\Ages of King.vcd" /I @E:\Age.exe

Vdrive •E:• "C:\VCDCollection\Ages of King.vcd"• /I •@E:\Age.exe

"•" - shows where a blank space must be inserted

The above example, read from left to right works as follows:

Vdrive -Tells Windows that the following commands will be executed by vdrive.exe

E: -selects VirtualDrive E:

"C:\VCDCollection\Ages of King.vcd" -Adds the path and the name of the VCD file to load

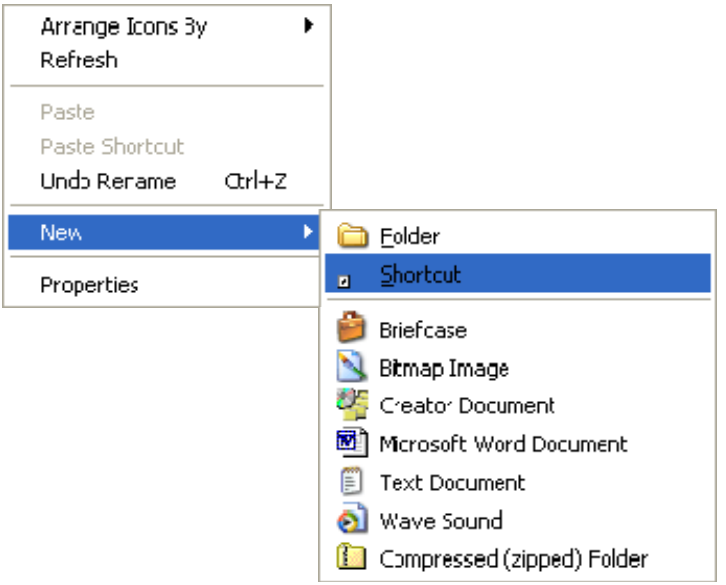
Note : Use brackets around the drive, path and file name of there are any spaces in the character string.

/ I -Tells the Vdrive program to load the VCD

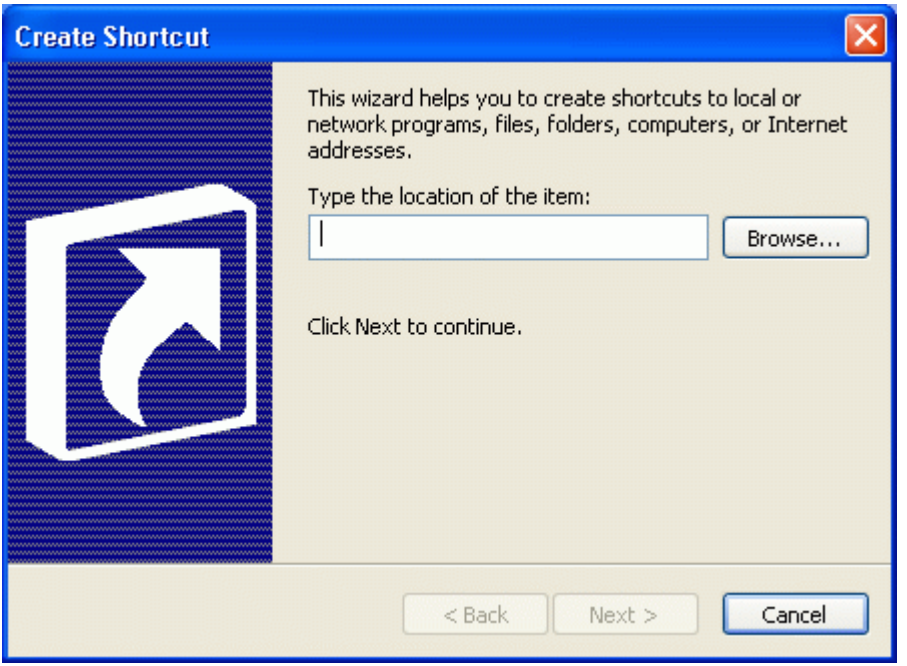
@ -Tells vdrive to run/execute a program

E:\Age.exe-Tells vdrive where the program is by giving the path (E:) and the name of the file to run(Age of King.exe).

Step2 Create a blank shortcut by right clicking on an empty space on the Windows desktop and select "New" then "Shortcut". The drop menus' shown below will be opened.



Step 3 Enter the command line from Step 1 in the "Create Shortcut" Window(shown below)



Vdrive E: "C:\VCDCollection\Ages of King" /I @E:\Age.exe

Chapter 5 VirtualDrive CD/DVD Burning Program

VirtualDrive® combines the functions of CD/DVD emulation software with CD/DVD burning capabilities. It allows users to copy CD/DVD images from the hard disk to a recordable medium.

5.1 Copying disc

With the **Copy Disc** function, you can combine the reading and writing processes. You can create an image(VCD) from the source CD/DVD and copy it directly to a recordable CD/DVD disc. The **Copy Disc** process consists of two main parts: the "Building Image" process and the "Copying Image" process. The "Building Image" process allows you to create an image (VCD) of a source CD on your hard disk. The Copying Image process allows you to burn the image file onto a recordable medium.

To use the **Copy Disc** feature, Click on the

button on the VirtualDrive Manager toolbar or select Tools->Copy Disc from the menu bar to open the **Copy Disc** dialog.

Step 1: Select a source disc to read from and then select **Next**.

Step 2: Find your CD recorder from the dropdown menu, and then insert a recordable disc into the CD recorder. Click the **Device Info** button on the right-hand side of the recorder to learn more detailed information about the CD Recorder and the inserted disc.

Note
If you do have only one CD drive (CD recorder), you can insert the recordable disc later according to the system prompt after the "Building Image" process is completed.

Before starting the "Building Image" process, you can specify the write speed to use. The write speed you select will depend on the speed of your CD writer and the type of recordable medium you are using.

We strongly recommend that you try a **Test Burn** before physically burning the image onto the re-writable disc. The 'Test Burn' option lets users verify whether their devices are able to complete the burning process without ruining the disc. The Test Burning does not actually write any data on the physical disc.

There are other options on this page:

- **Number of copies:** Set how many copies will be burned at this time.

- **Buffer under-run protection:** Buffer Under-run errors are a common problem due to the lower transfer rate of data from the hard drive or CD/DVD reader to the CD/DVD recorder. This function will prevent Buffer Under-run.

- **Finalize CD:** This option lets users decide whether to close the last session of the re-writable disc or not. Checking this box will close the last session, which means that no further data can be written onto this disc after the burning process is finished. If this option is not selected, data can be written on the disc next time if there is enough capacity on the disc. However, we still suggest users enable this function, as some CD/DVD readers cannot read multi-session discs properly.

- **Verify data after Recording**: Select this option to check whether the data on the CD/DVD is readable after recording.

Step 3 Click the **Record** button to open the screen shown below. Select the CD read method and use data compression if desired. The default read method "Intelligent Extraction" is successful for most CD formats.

Step 4 Enter a Description of the new VCD.

Step 5 (optional) If the CD does not have an Auto-Run then you can specify a program to run when the VCD is inserted. You can use the Browse button to locate the executable program.

Step 6 (optional) Choose whether or not to eject the CD from the CD drive once the Build is complete by checking the **'Eject the VCD on completion of the Build process'** box (Figure .4-1b above). Click on **Next** to continue.

Step 7 If you have only one CD drive (CD recorder), when the image has been successfully built, VirtualDrive will prompt you to insert a recordable disc. Insert a recordable medium and click on **OK** to burn the image onto the disc.

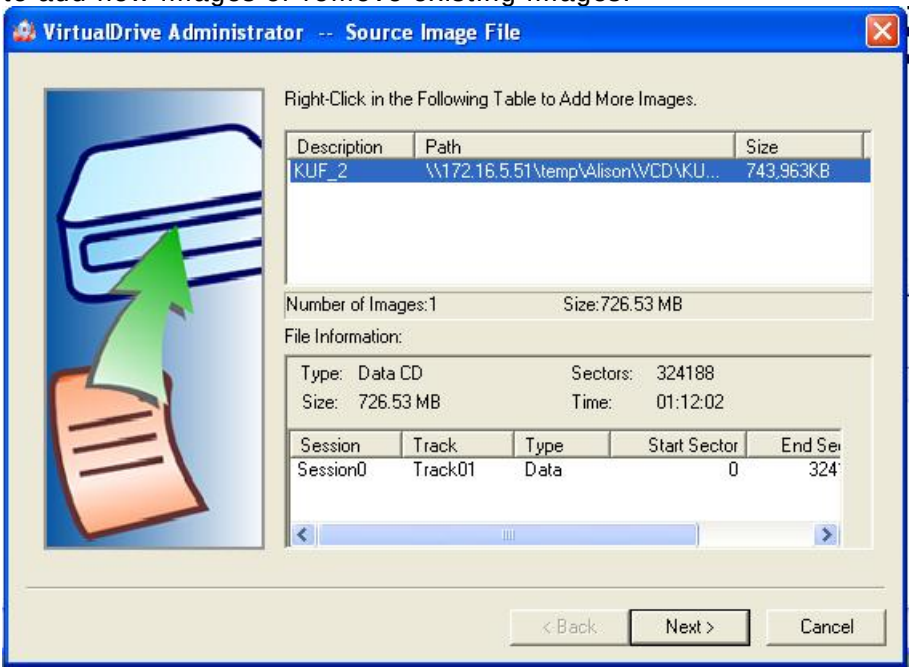
5.2 Copying images to a recordable disc

Step 1 Use either of the following methods to open the VirtualDrive burning program:

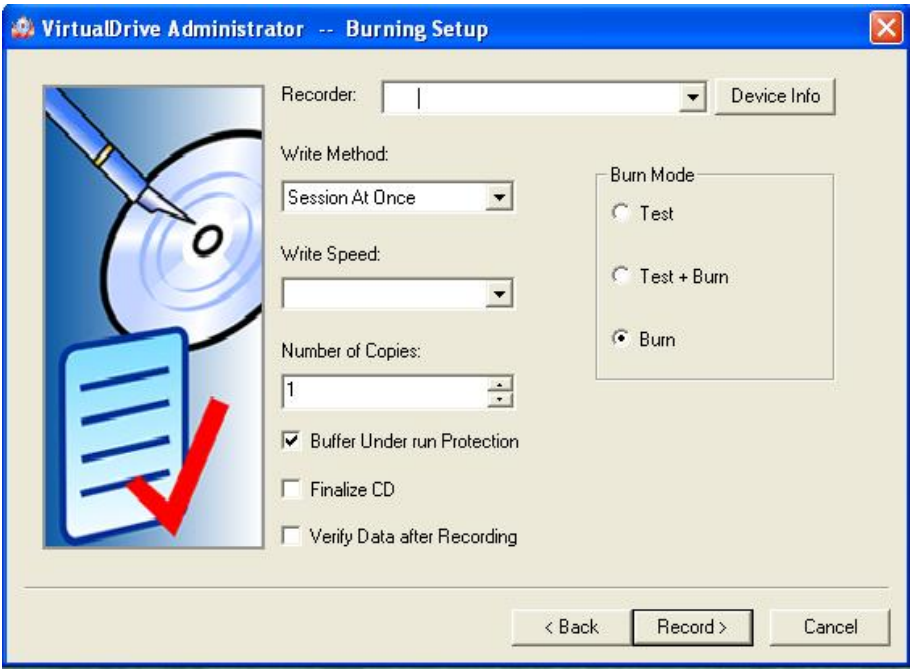
- Select **Tools** from the menu bar and then select **Burn Image**.
- In VirtualDrive Manager, right-click on the VCDs you want to burn and select Burn Image from the dropdown menu.
- Click

button on VirtualDrive toolbar.

Step 2 All selected images (Virtual CDs) and their detailed information are displayed in this window. You can also right-click in the above box and select Add/Delete from the dropdown menu to add new images or remove existing images.



Step 3 After confirming the images to be burned, click **Next** to open the screen shown below:



Find your CD recorder in the dropdown menu, and then insert a recordable disc into the CD recorder. Click the **Device Info** button on the right-hand side of the recorder to learn more detailed information about the CD Recorder and the inserted disc.

Before starting the "Building Image" process, you can specify the write speed to be used. **'Best Speed'** means the maximum speed your CD writer supports. The write speed you select will depend on the capabilities of the CD writer and the recordable medium.

We strongly recommend that you try a **Test Burn** before physically burning the image onto the recordable disc. The Test Burn option helps users to determine whether their devices are able to complete the burning task without risking destroying a medium. Test Burning does not actually write any data on the disc.

There are other options on this page:

- **Number of copies:** Set how many copies of the recordable disc will be burned.

- **Buffer under-run protection:** Buffer under-run errors are a common problem due to the lower transfer rate of data from the hard drive or CD/DVD reader to the CD/DVD recorder. This function will eliminate Buffer Under-run.

- **Finalize CD:** This option lets users decide whether or not to close the last session of the recordable disc. Checking this box will close the last session, which means that no further data can be written onto this disc after the burning process is finished. If this option is not selected, data can be written on the disc next time if there is enough capacity on the disc. However, we still suggest users enable this function because some CD/DVD readers cannot read multi-session discs properly.

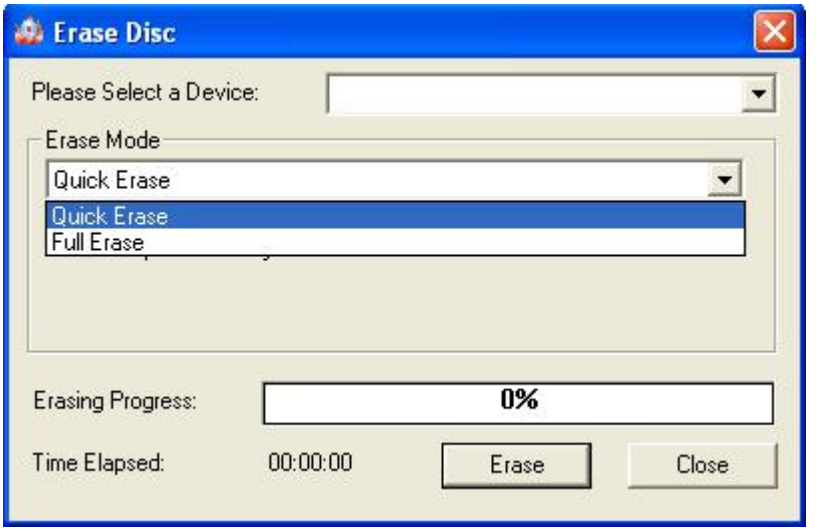
- **Verify data after recording**: Select this option to check whether the data on the CD/DVD is readable after recording.

Step 6 You can check the burning progress. After the burning task is completed successfully, click on **OK** to finish the process.

5.3 Erasing a Disc

Erase Disc enables users to delete the data on a re-writable CD/DVD.
Please do the following to erase a disc using VirtualDrive burning program.

Step 1 Select **Tools** from the menu bar and then **Erase** to open the **Erase Disc** screen.



Step 2 Choose the CD recorder in which a re-writable disc is already inserted.

Step 3 Choose an Erase Mode from the dropdown menu.

There are two Erase Modes in the dropdown menu:

- Quick Erase: Discs erased using this option appears to be empty but data is not physically removed. A quick erase will take a short amount of time to complete and will only erase the Table of Contents (TOC) of the disc. The erased data may be recovered using some special tools.
- Full Erase: Full Erase will physically erase the whole disc. Compared to Quick Erase, Full Erase will take a longer time to complete.

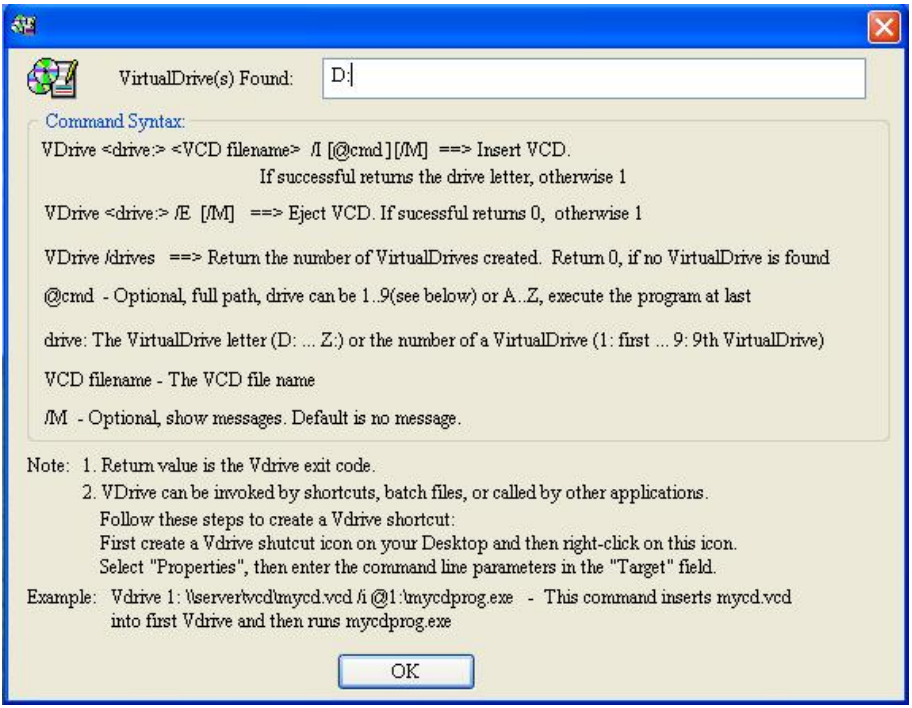
Step 4 Click **Erase** to begin to erase the disc.

Step5 The CD/DVD device will auto-eject after the erasing process is complete.

5.4 Viewing Device Info

The **Device Info** provides the detailed information of the installed CD/DVD device and the inserted CD/DVD.

Select **Tools** from the VirtualDrive menu bar and then select **Device Info** from the dropdown menu to display the device information.



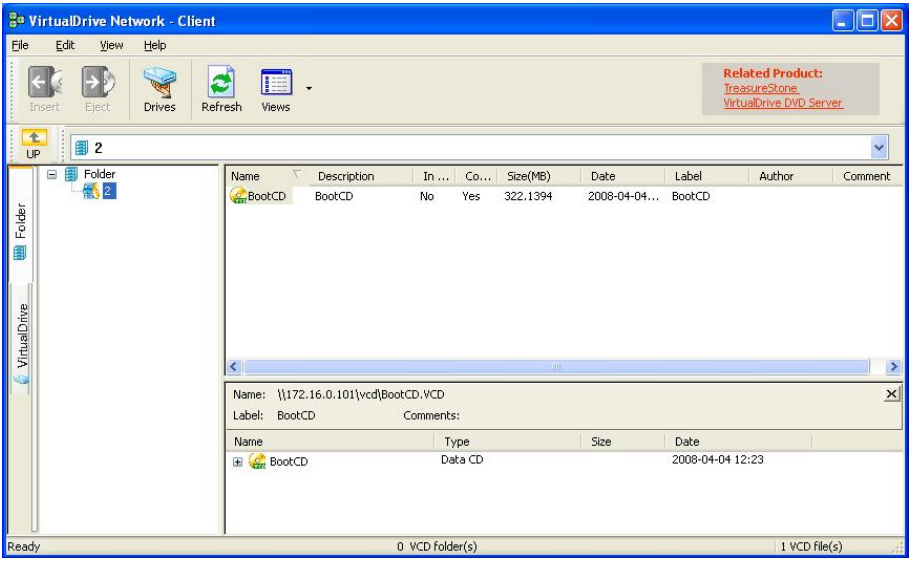
There are three buttons on top right side of the Device Info page:

	Refresh current device information.
	Save your current device information as a text file on your hard disk.
	Send an e-mail about your device information to FarStone Technology. This feature will be helpful for users to collect their system information and report it to FarStone technical support when errors occur when they are using VirtualDrive.

Chapter 6 Using the VDN Client Program

6.1 Starting the VDN Client Program

To launch VDN Client program, you can either (a) right click on the “VirtualDrive” icon and select "VirtualDrive Network client" or (b) click on ->start->programs->VirtualDrive Network->VirtualDrive Network client.



6.2 Running Virtual CD-ROMs (VCDs)

There are several methods of inserting a VCD file. If the VCD has Autorun this will be run when the VCD is inserted.

Click the Virtual Drive tab on the right-hand-side of the VDN window to display all Virtual Drives.

Once in this view, there are several methods for Inserting a VCD.

Method 1 Clicking on the VCD then the "Insert" button

will open a list of available drives. Select a drive to insert the VCD.

Method 2 Double clicking on the VCD icon. will open a list of available VirtualDrives. Select a drive to load the VCD.

(note: If only one VirtualDrive has been created, double-clicking on the VCD will automatically insert the VCD into this drive.)

Note: See VDN Administrator VDrive.exe feature to create a custom Autorun VCD

Method 3 Left click on the VCD and with the mouse button still de-pressed, drag the VCD icon onto a Virtual Drive icon.

Method 4 Highlight a VCD icon and select "insert" from "edit" drop menu.

Method 5 Select a VCD icon then press "insert" button on keyboard.

Method 6 Right click on a VCD icon and select "insert" from the popup menu will open a list of available drives. Select a drive to insert the VCD.

6.3 Ejecting a VCD

Click the Virtual Drive tab on the right-hand-side of the VDN window to display all Virtual Drives.

Once in this view, there are several methods to Eject a VCD.

Method 1 Right click on the inserted VCD and select "Eject

Method 2 Click on the VCD then click on the "Eject"

button.

Method 3 Click on the icon and with the mouse button still de-pressed drag the icon into the right-hand-side frame.

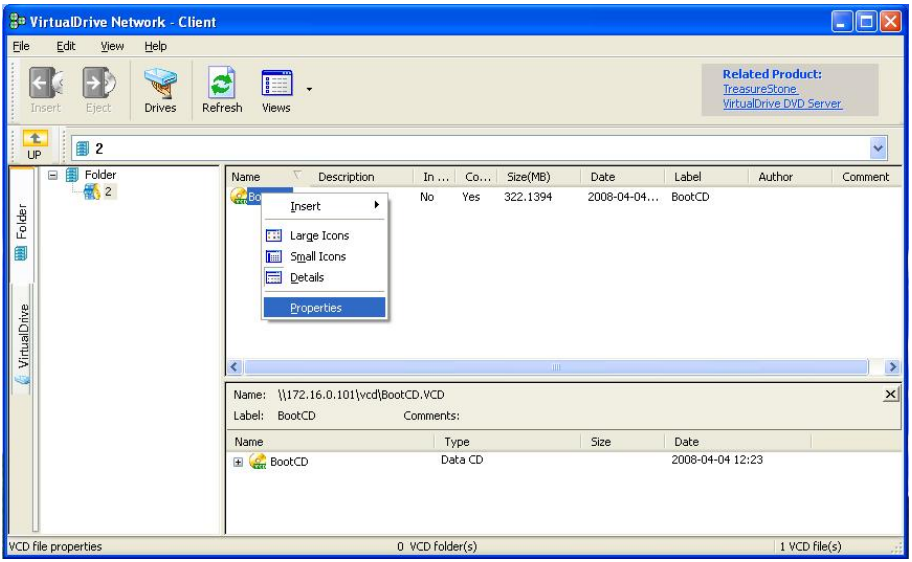
Method 4 Click on the inserted VCD icon and press "Delete" key on the keyboard.

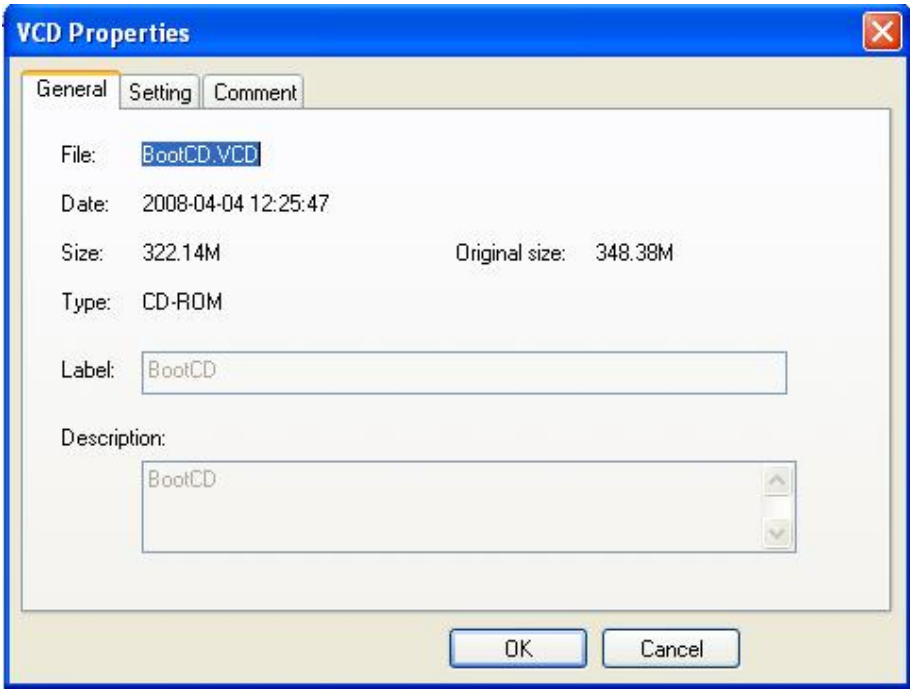
Method 5 Highlight a inserted VCD icon and select "eject" from "edit" drop menu.

Method 6 Right click on the VirtualDrive and select **eject** from the popup menu.

6.4 Viewing VCD Properties

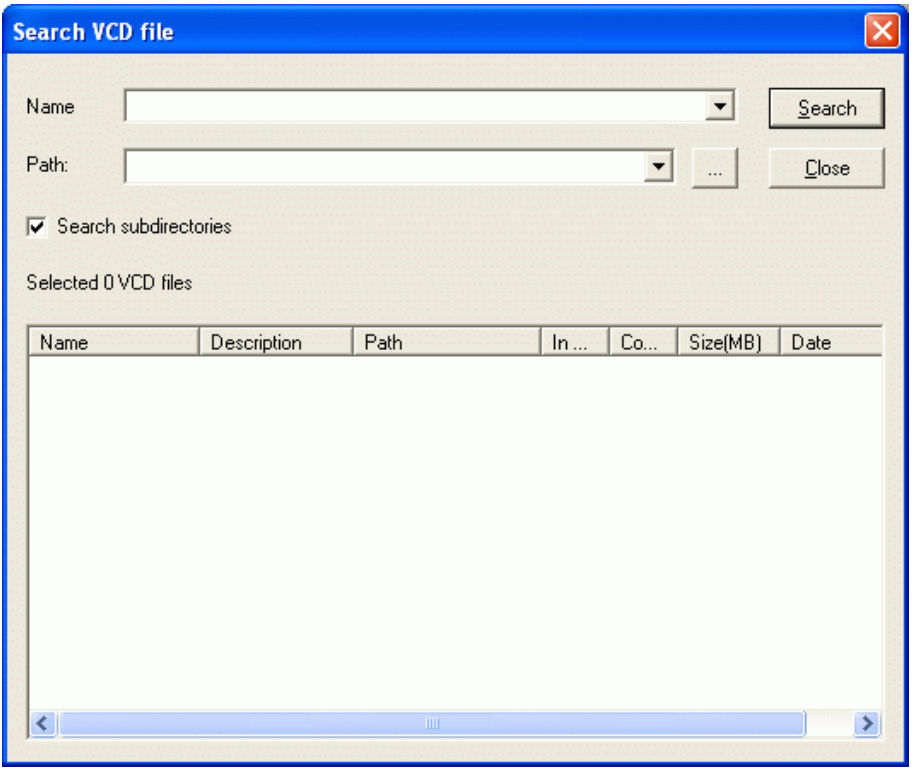
To view the VCD properties, point to a VCD icon and right click to open the VCD properties window (shown below). VCD properties cannot be edited from within the VDN Client program.


VirtualDrive Network - Client
File
Edit
View
Help
Insert
Eject
Drives
Refresh
Views
Related Product:
TreasureStone
VirtualDrive DVD Server
UP
2
Folder
2
VirtualDrive
Folder
Name
Description
In ...
Co...
Size(MB)
Date
Label
Author
Comment
No
Yes
322.1394
2008-04-04...
BootCD
Insert
Large Icons
Small Icons
Details
Properties
Name: \\172.16.0.101\vcd\BootCD.VCD
Label: BootCD
Comments:
Name
Type
Size
Date
BootCD
Data CD
2008-04-04 12:23
VCD file properties
0 VCD folder(s)
1 VCD file(s)



6.5 Searching VCD

Search VCD let users to search for VCDs being shared by the VDN Server. Select **File->Search** or use hot key Ctrl+F to open Search VCD File window (figure below).



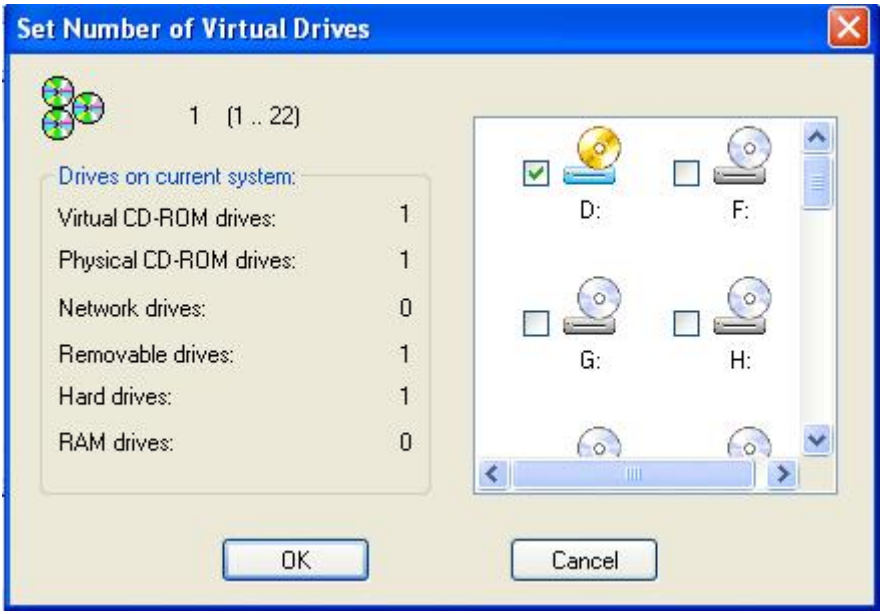
Select VCD folder in **Path** drop menu or browse for folders by clicking on ... button.

Note
You can fill the Name field to narrow the search to VCDs with similar filename. Use * as wildcard to match a search pattern.

Select **Search**, the searched files will be displayed in the window. Right-click on the VCD file and select **Insert** to insert into a Virtual Drive.

6.6 Setting the Number of Virtual Drives

To change the Virtual Drives in your system (the maximum is 23), select **"Drives"** from the **"View"** menu to open the VirtualDrives dialog (Figure 5-6a). Check the drive letter for each Virtual Drive that you want to Add/Remove, and then click **OK** to finish.



5-6a

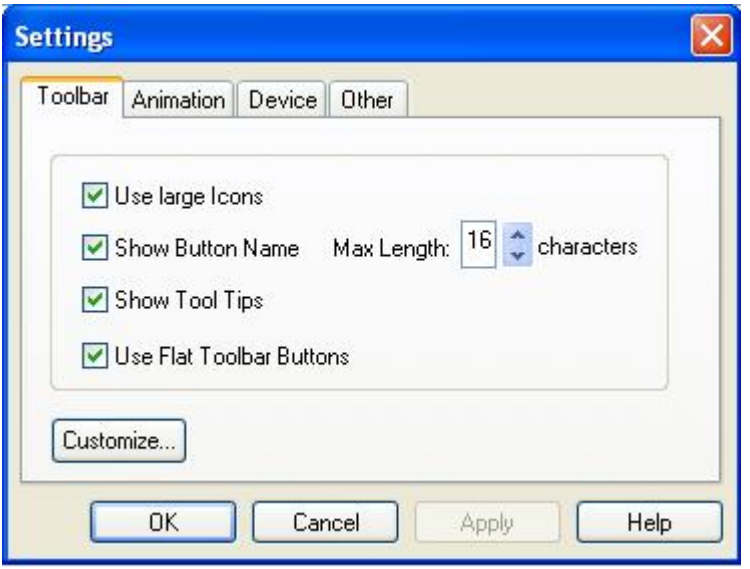
Note
Drive letter A, B, C, and D are normally reserved for Windows to use. Check with your I.T. Administrator to see if any drive letter is reserved for future uses in your organization before allocating Virtual Drives.

6.7 Updating changes from the VDN Server

If you know that the Administrator has made changes to the CD Server, the VDN Client program can be updated to reflect these changes by either restarting the Client program or selecting **'View'** then **'Refresh'** on the Menu bar. Or click on the **Refresh** icon.

6.8 Settings

To open the Administrator Settings dialog, select File on the menu bar then Settings.



The available Toolbar settings are described below:

Use large Icons: Sets the size of the buttons icons on the toolbar.

Show Button Name: Sets the number of text characters to be displayed within the toolbar buttons.

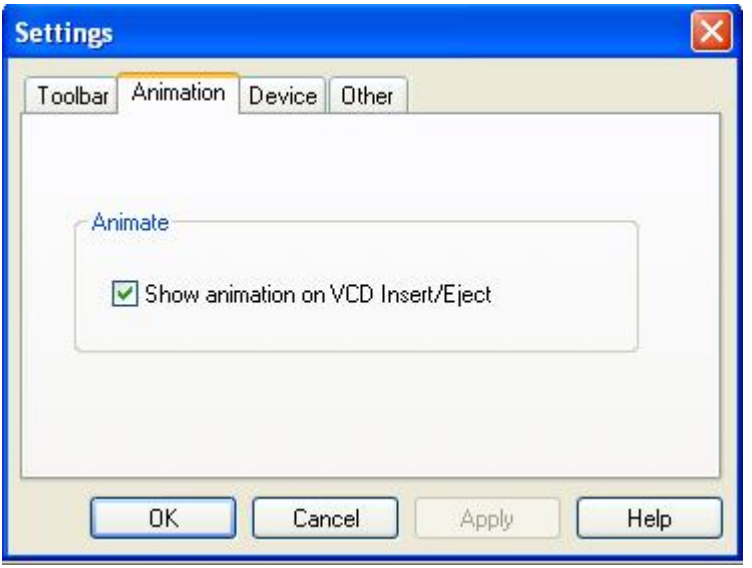
Show Tool Tips: Sets whether to display control tips popup, when the mouse pointer hovers over a toolbar button.

Use Flat Toolbar Buttons: Merges the toolbar button “outline” into the toolbar.

Customize: Clicking on 'Customize' button, opens a dialog offering a selection of buttons available within the VDN Administrator. From here you can add/remove or change the order of toolbar buttons used on the VirtualDrive toolbar.

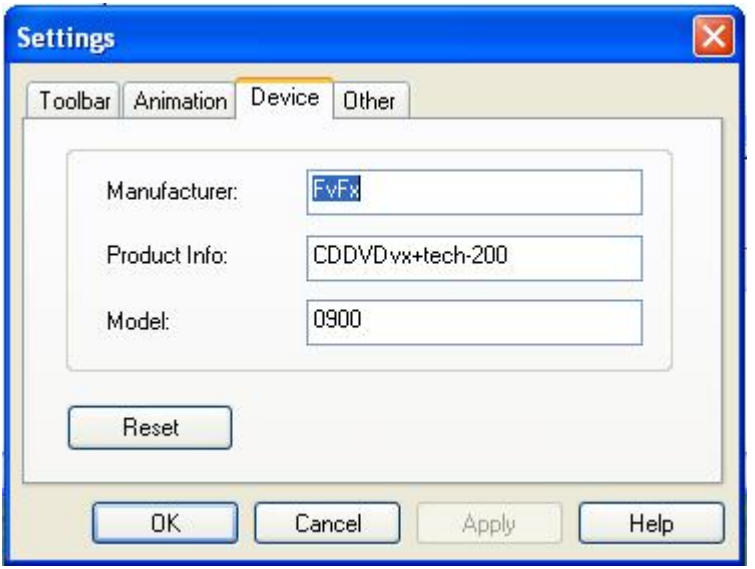
Animation ON / OFF

Set the VCD Insert/Eject animation ON or OFF.

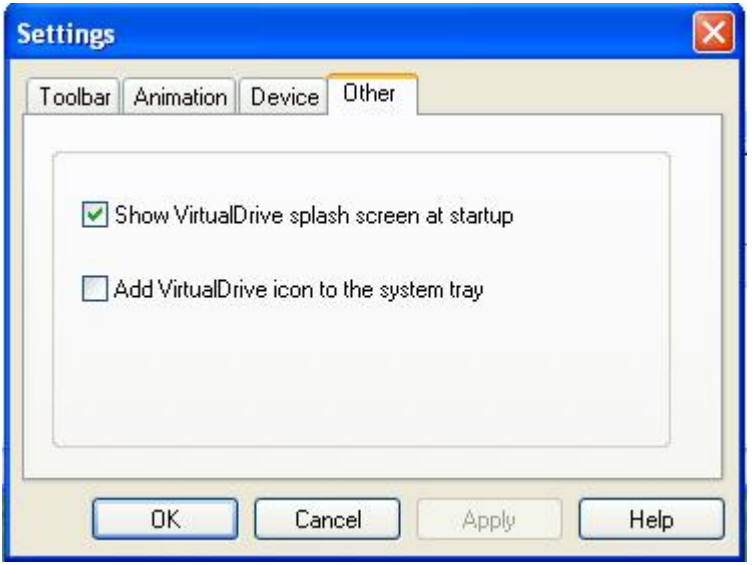


Device Information

Modify the manufacturer name, driver model and edition directly for your virtual drive.



Other Settings



Show VirtualDrive splash screen at startup: The VirtualDrive Manager will display the VirtualDrive logo when the program loads.

Keep VCDs inserted when restarting: VCDs that were inserted into any Virtual Drive on shutdown will be inserted at startup.

Note
this function will not be available if you use **Verify the authority for VCD folder** to manage access rights to VCDs by Users and Groups.

Add VirtualDrive icon to the System Tray: The VirtualDrive icon will be added to the bottom right hand side of the Windows taskbar.

Chapter 7 Uninstalling VirtualDrive® Network

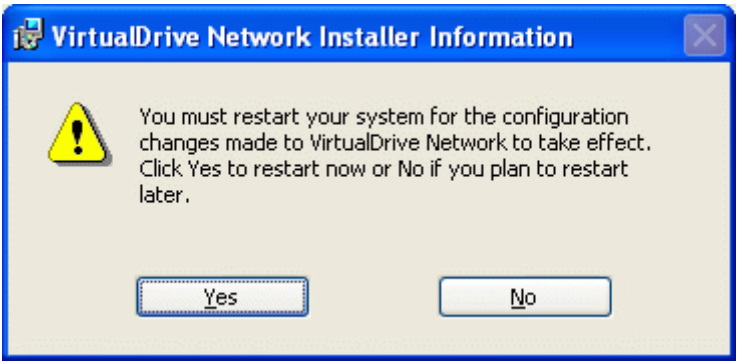
7.1 Uninstalling VirtualDrive® Administrator Program Group

Step 1 click on **Next** to continue:

Step 2 Click on **Remove** to begin removal.

Step 3 Click on **Finish** to complete.

Step 5 With the VirtualDrive Network program files removed, click on **Yes** to reboot your system and have the changes effect.



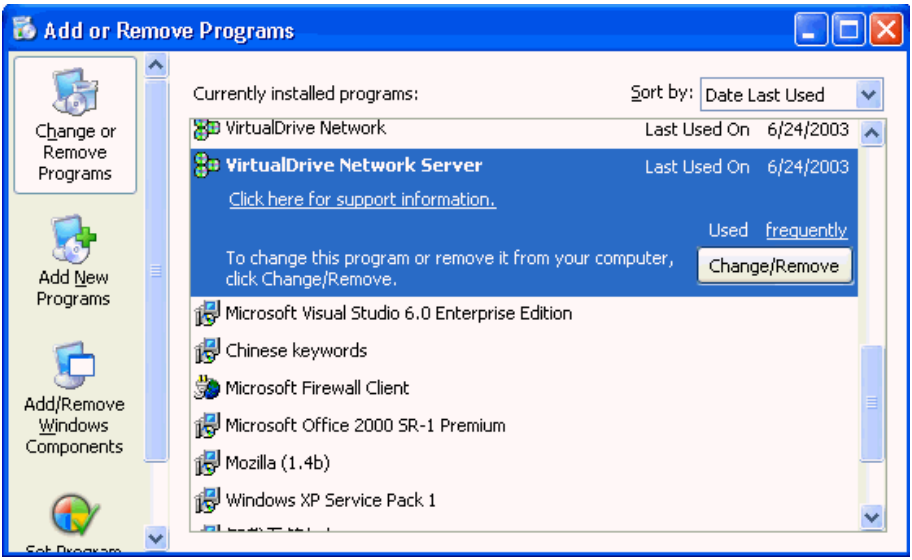
The uninstall program will purge all files created by VirtualDrive Network except files ending with the extension 'VCD'. Your Virtual CD-ROM files can be deleted using the Windows Explorer. If you keep these files, they can be manually added to the VDN Server if you reinstall the VDN Administrator.

7.2 Uninstalling VirtualDrive® Client

Repeat the above process on the client PC.

7.3 Uninstalling VirtualDrive® Network Server

Step 1 To uninstall VirtualDrive Network Server, select **Start / Settings / Control Panel** and double click on the **Add / Remove** Programs icon to open the Add/Remove Programs dialog, select VirtualDrive then click on the **Add / Remove** button.



Step 2 To confirm uninstall, click on **OK**.

Step 3 Click on **Finish** complete uninstall.

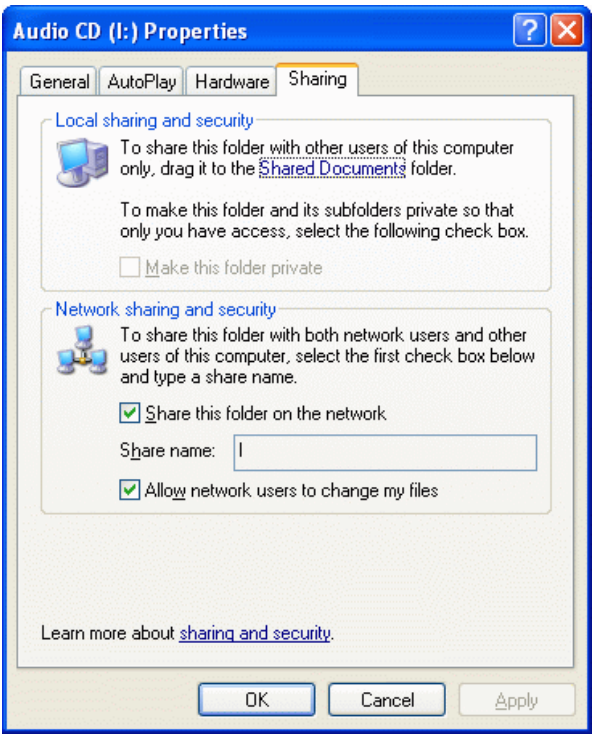
Chapter 8 Appendix

8.1 Notes:

Server Setup: (Peer-to-Peer network)

Create a new shared directory on the administrator (or teachers) computer. (for example: \\server\shared\vdn)

Note: You may want to select multiple clients as administrator workstations. Install the administrator program to as many clients as you want.



Note: To share a directory, use “Windows Explorer” to browse your

hard drive, right click on the folder (for example c:\vdn), select “Sharing”

8.2 FAQ

Q1: Why cannot I fail to install VDN Administrator or VDN Client, or these two components cannot work properly?

Please check the following three points and retry:
1. Make sure VDN Server has been installed successfully.
2. Make sure the two shared directories of VDN Server have been set correctly(More detail about the share setting, please refer to **Installing the VDN Server Overview**).
3. Make sure the computer of VDN Server has started up.

Q2: Why the time for building protected CD is much longer than building other sorts of CDs?

You must build protected CDs with intelligent extraction, otherwise the building is hard to finish because it cost overmuch time or the VCD is unreadable after the building. Another reason for this phenomenon is that at the beginning of the building, VirtualDrive slows down the speed while reading data from some protected area on the CD (as laserlock, safedisk, securom), so the time estimate to finish will be prolonged. The VirtualDrive will speed up once finish the building on this area and the time remains will be reduced as well.

Q3: Does the building time vary depending on the quality of the real CD-ROM drive?

The reading speed of CD-ROM drives produced by different manufacturer diverse varies a lot due to their error-correction ability and other mechanisms. Therefore, the building speed mostly depends on the quality of CD-ROM drive instead of VirtualDrive program.

Q4: Can I convert a VCD file, which is built by intelligent extraction, into a ISO file?

The standard of the VCD file that built by using Intelligent Extraction is different from ISO file. So it can't be converted into a ISO file.

Q5: Does VirtualDrive support IEEE1394 or USB CD-ROM?

VirtualDrive 7.03 or later version support IEEE1394 or USB CD-ROM. If you still possess the old version, you can download the newer one from our website.

Q6: VirtualDrive auto-plays the contents of virtual CD at system start-up. How can I stop the auto-play?

Uncheck **Enable CD autorun** box from **View**-> **Settings** -> **Miscellaneous settings** in VirtualDrive menu bar.

Q7: Can VirtualDrive automatically eject all inserted VCDs from virtual drive(s) after the computer restarted?

Yes, just uncheck **Keep VCDs in drive when system boots** box from **View**->**Settings**->**Miscellaneous settings** in VirtualDrive menu bar.

Q8: Why does the game application still ask me to insert the CD when the virtual CD is already inserted?

You may resolve this problem by trying either of the following methods:

a. Change a CD drive 's drive letter by using "Disk Management" in Windows: right-click **My Computer**->**Manage**->**Disk Management**, right click the interested drive, select "**Change Drive Letter and Paths**" to change drive letter.

b. Build this game CD by using intelligent extraction.

Q9: Why does the system always prompt that 'Please insert a disk into drive….' after I insert a VCD (built from Mixed-Mode CD) into a virtual drive?

The problem may be caused by the file **Filter Driver** in the application **Ahead Nero 5.5.6.4**. The **Filter drive** is not compatible with VirtualDrive, it makes VirtualDrive unable to read data on VCDs with sound tracks. You can resolve the problem by uninstalling Nero from the Computer.

Q10: Why the maximum number of virtual drive is 23?

There are 26 letters in alphabet. We suppose that A: and B: are floppy drives on your computer, C: is the entire hard disk, and therefore there are 23 letters left (D-Z), each one can be assigned to a drive. So you can create at most 23 virtual drives.

Q11: Does VirtualDrive support protected game CD?

The answer is yes, VirtualDrive supports various protected game CDs as: Mixed-Mode protected, Safedisk1，Safiedisk2，Securom，Laserlock, etc.

Q12: Why can't I hear the background music while playing game?

The background music of some mixed-mode CD is available only if the CD is inserted in the first CD-ROM on the system.

Q13: Some games require more than one CD for playing. How can I replace CD without interrupting the game?

VirtualDrive enables users to use hot-key to insert a CD. Preset a hot-key and virtual drive for the CDs and you can insert them into the designated drive by using the hot-key without stopping the game.

Q14: What sort of CD need to be built by using 'Intelligent Extraction'?

Some protected CDs as Securom should use intelligent extraction to build.

Q15: After I set the number and position of virtual drives on WindowsXP/2003 Server, VirtualDrive regards virtual drive as real CD-ROM drive. How can I correct this?

There are two ways to resolve this problem: (1) Restart your computer (2) Refresh in Device Manager

Q16: The drive letter of real CD-ROM was arranged to the tail. How can I change the drive letter sequence? (e.g. change F: to E:)

You can assign a drive letter to a CD-ROM drive by the following steps:

Windows 2000/XP/2003 Server only

（1）Right click on 'my computer' from desktop, select **manage** --> **disk management** .

（2）Make sure which one is virtual drive.

（3）Right click on virtual drive icon, select 'change drive letter or paths' from the drop menu.

Q17: Can two or more administrator programs exist in a local area network?

No, only one administrator is allowed to exist in a local area network.

Q18: I do not want somebody to see the shared VDN directory via My Network Places, how can I hide it?

You can keep the directory invisible on a network by renaming the folder name as VDN$.

Q19: What should I do prior to installation if I want to install VDN Server on Windows 2000?

You need to download Microsoft Data Access Components (MDAC) from Microsoft website and install MDAC on the target computer. After that, VDN Server can be installed successfully. Without MDAC, the VDN Server will fail to complete the installation.

Q20: What if I see the following message during the installation VDN Server:"Error: 2008. Failed to update SQL express 2005 configuration, please refer to FAQ or contact our technical support"?

Please uninstall SQL Express 2005 manually from the control panel and retry.