

**Virtual CD v9
File Server**





Table of Contents

| | |
|--|---------------|
| Introduction | 1 |
| Foreword | 1 |
| Legal Notices..... | 2 |
| Document Conventions | 2 |
| What Virtual CD FS can do for you | 3 |
| New Features in Version 9 | 4 |
| Virtual CD FS Licensing | 4 |
| System Requirements | 5 |
| Technical Support..... | 5 |
| Installation and Configuration | 7 |
| Notes on Installation..... | 7 |
| Installation | 7 |
| After Installation..... | 8 |
| The Virtual CD FS Service | 9 |
| Configuring Virtual CD FS for Network Access | 9 |
| Removing Virtual CD FS from Your System..... | 12 |
| Working with Virtual CD FS | 13 |
| Making a Virtual CD Available over the Network..... | 13 |
| What you need to know about the VCD File Server edition | 13 |
| Sharing a Virtual CD | 14 |
| Sharing a Recordable DVD-RAM | 16 |
| Important Notes on Administration of Shares | 19 |
| Collections | 20 |
| About Virtual CD Collections | 20 |
| How to turn 23 into 5865 | 21 |
| Creating a Virtual CD Collection | 22 |
| Editing Collections | 25 |
| Collection vs. Virtual CD: Pros and Cons | 26 |
| What you need to know about sharing a collection | 26 |
| Notes | 27 |
| Differences between VCD and VCD FS | 27 |
| How to use existing virtual CDs with your new Virtual CD FS system | 28 |
| What you need to keep in mind when using VCD FS | 28 |

| | |
|------------------------|----|
| Troubleshooting | 31 |
| Stay up to date! | 31 |
| Questions and Answers | 31 |
| Contacting VCD Support | 32 |
| Glossary | 33 |
| Index | 35 |

Introduction

Foreword

Thank you for choosing Virtual CD File Server Edition. Virtual CD FS is an expanded version of the classic Virtual CD program that lets you turn any file server into a full-fledged CD-ROM server solution without adding hardware drives.

As a supplement to the standard Virtual CD documentation, the following pages describe the additions, special features, and differences between Virtual CD FS and the classic Virtual CD edition. Like the main documentation, this can be read straight through for a close look at how the program works and how you can work with it, or used as a reference for looking up specific points as you need them. The information provided here is divided into the following sections:

Introduction: Provides an overview and general information.

Installation and Configuration: Describes the procedures for installing and configuring your Virtual CD FS program on a file server.

Working with Virtual CD FS: Explains special features that are particular to the FS edition and gives step-by-step instructions for distributing virtual CDs over a network.

Troubleshooting: Lets you know how and where you can find answers if any question arise.



This documentation describes the special functions that are available only in the File Server edition of Virtual CD. For details on functions that are available both in the basic Virtual CD program and in the FS edition, please refer to the standard Virtual CD documentation.



This documentation was written on the basis of a full Virtual CD FS version installed under Windows Server 2003. If you use a different operating system or have already changed some of the Virtual CD settings, the windows displayed and the controls available may not be the same as those shown here.



The examples given in this documentation often describe only one of several possible methods for executing a particular task. Once you know your way around the program, you may find other techniques for activating the functions you need.



This documentation refers on occasion to some of the administrative functions in a Windows network. The reader is assumed to be familiar with these functions in the network in which Virtual CD FS is being installed. If you have any questions about these administrative functions, please refer to the documentation on your network system.

Legal Notices



If you use Virtual CD with CDs or DVDs that are under license, then creating or providing access to multiple virtual images from a given CD/DVD or running the Virtual CD program with a given virtual CD on more than one computer at a time may constitute a breach of the software licensing agreement you entered into with the manufacturer of the CD/DVD in question. Make sure to check the licensing agreements you have with the CD/DVD manufacturer(s) for detailed information.

Copyrights on the software, the Virtual CD trademark and all corresponding documentation are owned by H+H Software GmbH. Microsoft and Windows are registered in the US as trademarks of Microsoft Corporation. The names of products mentioned in this manual are used for identification purposes and may be trademarks or registered trademarks of their manufacturers.

Document Conventions

For added clarity in these texts, this documentation uses the following conventions: **Bold** font indicates texts quoted from the program (buttons, menu items, dialog texts, etc.) and important notes.

Information that is particularly important is marked by one of the symbols shown below. These notes contain information that is essential for trouble-free operation of the software.



Notes or procedures that are especially important are marked by the “exclamation point” symbol you see here.



Tips and tricks for simplifying procedures are marked by the “light-bulb” symbol shown here.



Features or procedures in which the FS edition differs from the standard edition are marked by the symbol shown here.

In some cases, step-by-step examples are given of certain tasks or configuration procedures. The individual steps are marked as follows:



Step 1



Step 2

What Virtual CD FS can do for you

With Virtual CD FS you can insert a virtual CD in a virtual drive, and then make it available to all your users by sharing the drive in the network. All you have to do is install Virtual CD FS on a file server – no additional hardware or extraneous components are required. This is why we say:

“Virtual CD FS is the CD-ROM server solution for your network.”

And this is not an empty claim – Virtual CD FS provides a number of controls that make it a unique CD-ROM server solution.

Virtual CD FS:

- ✓ requires no client installation for distributing access to virtual CDs.
- ✓ enables the use of up to 5865 virtual CDs simultaneously (using virtual CD “collections”).
- ✓ supports applications that can access CD data displayed in directory trees.
- ✓ is seamlessly integrated as a system component on your file server.
- ✓ lets you control access by granting or denying permissions to virtual CD shares.
- ✓ can be operated when no users are logged on.
- ✓ comes with a second user license so you can create and test virtual CDs on a workstation of your choice.
- ✓ employs familiar network mechanisms so you can start using it right away, without a time-consuming learning phase.
- ✓ – starting with v9 – supports the 64-bit operating systems in the Windows series.
- ✓ now stores collections in UDF format. This removes a lot of limitations that were imposed by storing collections in Joliet format (for example, regarding the length of file names).
- ✓ now supports virtual burners. You can use this feature to provide network shares that users can write in.



Virtual CD FS uses network shares to provide access to data stored on virtual CDs. This means CD-ROM-specific properties (such as playing audio CDs, copy-protection issues, etc.) that work only in conjunction with a CD drive cannot be utilized.

New Features in Version 9

In case you are already familiar with an earlier version of Virtual CD FS, the following list will fill you in on the new features available in the latest version.

- ✓ Version 9 of Virtual CD FS supports 64-bit operating systems.
- ✓ Collections created by the Collection Wizard are stored on shares in UDF format, to ensure full support by virtual burners.
- ✓ Integration in the Virtual CD Network Management Server (NMS) has been improved. Virtual CD NMS enables direct access to all virtual CD drives without logging on to your file server.
- ✓ File server share licenses can now be made available and allocated quickly and easily using the Network Management Server.



The Virtual CD Network Management Server enables highly efficient administration of the Virtual CD clients in your network. Network Management Server is available separately; it is not included with Virtual CD FS.

In addition to these file server-specific functions, Virtual CD FS supports all of the new features integrated in the standard edition of Virtual CD v9.

Virtual CD FS Licensing

Virtual CD FS is licensed on a per-computer basis. In other words, you need one license code for each server on which Virtual CD FS is installed. One Virtual CD FS license code enables the following:

- Installation of Virtual CD FS on one file server, for use as a virtual CD-ROM server with access to virtual CDs granted according to network shares.
- Installation of the standard Virtual CD edition on one workstation. The standard Virtual CD edition may be used for creating and testing your virtual CDs before they are stored on your file server for general access.

The license code must be entered during program installation. If no license code is entered when prompted, installation will be canceled. You can have Virtual CD FS retrieve its license from Virtual CD NMS.

If you wish to test the Virtual CD FS program, please download the **30-day** test version from the Virtual CD Web site.



When you purchase Virtual CD your license code is included in the packaging, or will be transmitted to you electronically.



It is not possible to upgrade a test version to a full version by entering a license code.

System Requirements

The following system specifications are required for running Virtual CD v9:

- Windows 2000 Server with service pack 4 or Windows Server 2003
- Microsoft Internet Explorer version 7 or later
- 100 MB hard disk space for installation of the Virtual CD FS software
- Recommended display resolution: 1024 x 768



Virtual CD FS must be installed on a Windows-based file server that meets the minimum requirements. You can store the configuration files and your virtual CDs on a network server that uses any platform (Windows, Novell, Linux, etc.) as long as the Virtual CD FS server can access this data.



How much hard disk space you will need in addition to the 100 MB required for installation of the Virtual CD FS program depends on how many virtual CDs or DVDs you create and the volume of data they contain.

Technical Support

If you have any problems with Virtual CD FS, please check the manual, the Help program and our continuously updated Web pages for assistance:

Virtual CD Online: <http://www.virtualcd-online.com/>

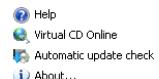
Knowledge Base: <http://www.virtualcd-online.com/kbase>

Support Forum: <http://www.virtualcd-online.com/support>

You might find that your question has already been answered. You are also welcome to publish your own questions in the support forum.

The Virtual CD software is continuously under development. We offer **service packs and new program versions** on our Web site as they become available, so you can keep your software up to date. If you activate the **automatic update check** function in your Virtual CD program, the program will automatically check our site for updates at intervals that you define.

This setting, as well as links to our Web site, are easy to find in CD Management, the main program window of Virtual CD; for example, under "Tasks."



We are always interested in hearing from you, whether you have questions, suggestions or complaints. After all, we make this software for **you**, so we need to know what you want. Please use the Virtual CD Support Forum to let us know what you think.

If you have questions that are not answered in any of the resources listed above, please do not hesitate to contact us.

Installation and Configuration

Notes on Installation

Please observe the following when installing Virtual CD FS:

Virtual CD FS and the Virtual CD Network Management Server:

If you already have a license code for Virtual CD FS, this code must be entered during installation. If no license code is entered when prompted, installation will be canceled. You can have Virtual CD FS retrieve a license code from Network Management Server. To do this, enter the NMS server name and port number during installation.



Unlike previous versions of Virtual CD FS, Version 9 cannot be upgraded from a test version to a full version by entering a license code. The test version and the full version are two different and mutually independent programs. The test version does **not** need to be de-installed before installing the full version. The full-version setup detects the test version and automatically executes an upgrade.

Creating virtual CDs on your own workstation:

The Virtual CD FS license code permits a separate single-user installation on one workstation. This is intended to allow you, as administrator, to create and test virtual CDs before making them available over the network. This single-user version **cannot** be installed using the Setup program that installs Virtual CD FS. You need the standard Virtual CD v9 Setup, which is included on your Virtual CD installation CD or can be downloaded over the Internet.



For details on the installation and configuration of Virtual CD v9, please refer to the Virtual CD documentation.

Installation



If you are updating an earlier version of Virtual CD FS, you need to **deinstall** the older version and then **restart** the server before installing the new Virtual CD program.

Place the installation CD in a CD drive and wait a moment for Windows to detect it and run the Setup program.

If installation does not start automatically, double-click on “**My Computer**” in your Explorer and then on the icon representing the drive in which you have inserted the installation CD.

When the program starts up, select “**Installation**” to run the Setup program. If you access the CD content directly, or have downloaded your Virtual CD program over the Internet, you need to run the Setup program “manually.”

Follow the instructions as the Setup Wizard guides you through the installation procedure. After the prompts for license code and target directory, you can configure certain program settings and specify the number of virtual drives to be set up.



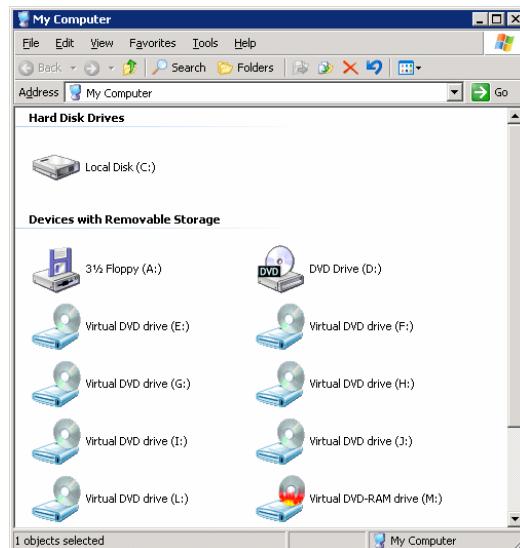
All of the settings you configure during installation can be changed at a later point. If you are not sure which settings you should choose, simply accept the default values for the time being.



Virtual CD comes with a Plug & Play driver, which means you do not have to restart the computer after the virtual drives are set up, or after changing the number of virtual drives at a later stage. In some cases, however, you may be prompted by your Windows operating system during VCD installation to restart your computer. **It is important that you do *not* restart the computer before the installation has been completed, regardless of any operating system messages. Otherwise, the installation will not work.**

After Installation

Following installation, you can see the virtual drives in your Windows Explorer. The view shown in your program window depends on the drive letters you selected for your virtual drives.



In this example, D: is the physical CD drive and E: through L: are virtual CD drives. Drive M: is a virtual burner. For easy recognition, a special "Virtual CD" icon is

shown next to the drive letter of a virtual CD drive (unless there is a CD in the drive, in which case the CD might provide its own icon):



And for virtual burners:



In our example, the virtual CD drive is empty since the program has just been installed and no virtual CDs have been created yet. In a way, installing the Virtual CD program is roughly equivalent to installing a hardware CD-ROM drive in your computer.



In some cases, the special “Virtual CD” icon might not be shown until after the next computer restart.

The Virtual CD FS Service

All Virtual CD programs install a service called the Virtual CD v9 Management Service. **Virtual CD FS installs another service as well, called the Virtual CD FS Service**, on the computer on which Virtual CD FS is installed. This service provides a number of functions for managing virtual CD drives in the file server environment. One of its main tasks is to make virtual drives accessible when there are no users logged on to the file server.



The service is installed to start up automatically. If this service is not running, a number of important Virtual CD FS functions will not be available.

Configuring Virtual CD FS for Network Access

If you plan to store all your virtual CDs on the same file server on which Virtual CD FS is installed, no further steps are necessary to complete the installation procedure. On the other hand, if you will be providing access over the network to virtual CDs stored on other servers, you need to configure a few more settings first.

When a user is logged on to the file server, that user’s account – or the “user context” – is what defines the permissions and makes it possible to access virtual CDs. To insert a virtual CD, the user in question must have “read” privileges covering the desired CD. When the user logs off of the file server, the Virtual CD Service takes over control of the virtual CD drives and any virtual CDs inserted in them. Directly following logoff, the user context is still active and can be used by the server to enable access to the drives. This user context will become inactive at some stage, however; for example, when the user’s computer is restarted. Without the user context the service can no longer make virtual CDs available,

since it has rights only in the local system which do not permit access to data over the network.

To solve this problem, we recommend creating a special user account, called a "gateway user." The purpose of the gateway user account is to provide a user context that grants "read" privileges covering all virtual CDs in the network. The procedure for configuring this account is described in the following.



The easiest method is to create the gateway user account in a domain or ADS. If there is no domain nor ADS available, however, you have to create more than one instance of this user account: one as a local user on the file server on which Virtual CD FS is installed, and another on the server on which your virtual CDs are stored. It is essential that these accounts use the same password.



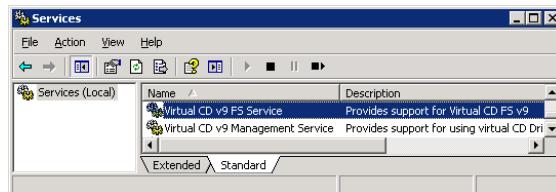
Create a gateway user account – in our example, this account is called "**vcdgeway**" – and give it „read“ privileges in all directories in which virtual CDs are stored.



To check whether the assigned privileges are effective, log in on a network station under this account and make sure you can see all virtual CDs in the Explorer.

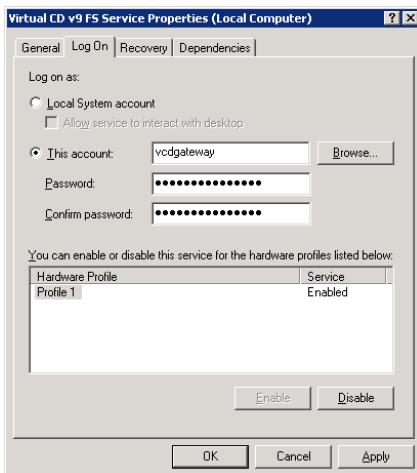


Open the services on the file server on which Virtual CD FS is installed and double-click on **Virtual CD FS Service** to open its properties.





Select the **Login** page and enter your new gateway user with password under **This Account**.



Before this user context can be used to access data over the network, the service must be shut down and then started again. From this point on, all virtual CDs that the gateway user account can read are available through this service, regardless of who is logged on to the file server or whether the server has been restarted or not.



When you create a new directory for storing virtual CDs, remember to grant “read” privileges in that directory to the gateway user account; otherwise the Virtual CD FS Service will not be able to access virtual CDs in that directory.



It is essential that you configure this gateway account any time virtual CDs are provided over the network. Otherwise, when a user inserts a virtual CD that is accessed over the network and then logs out without ejecting the virtual CD, that CD will no longer be available at all once the computer has been restarted.

Removing Virtual CD FS from Your System

To remove the Virtual CD FS program from your file server, use the **Add/Remove Programs** function in the Windows Control Panel. Select „Virtual CD v9 FS“ and begin the deinstallation. The Setup Wizard removes all components of the Virtual CD FS program from your file server.

Working with Virtual CD FS

Making a Virtual CD Available over the Network

What you need to know about the VCD File Server edition

Virtual CD FS enables access to virtual CDs over the network for any number of users. The virtual CDs are made accessible by sharing the virtual drives that the Virtual CD FS program sets up on the file server. When a virtual CD is inserted in a shared virtual CD drive, the data on the CD is available to all users that have access to that drive.

One of the main differences between Virtual CD FS and the standard Virtual CD edition is the fact that data on CD is accessed through a share rather than a virtual CD drive. This method has the following advantages:

- It provides you with a CD-ROM server solution that enables centralized administration and control of all available virtual CDs.
- The data on your CDs is available immediately, without requiring installation of additional software on the network client stations.
- You can use Windows network mechanisms to control access to the data on your virtual CDs.
- The data can be accessed by any number of users.

On the other hand, because no virtual CD drives are set up on the workstations, Virtual CD FS is subject to the following restrictions:

- If an application checks for its CD drive (e.g., as a copy-protection technique), it cannot be run from a virtual CD under Virtual CD FS.
- CD content that requires a local CD drive (such as audio tracks) will not run under Virtual CD FS.



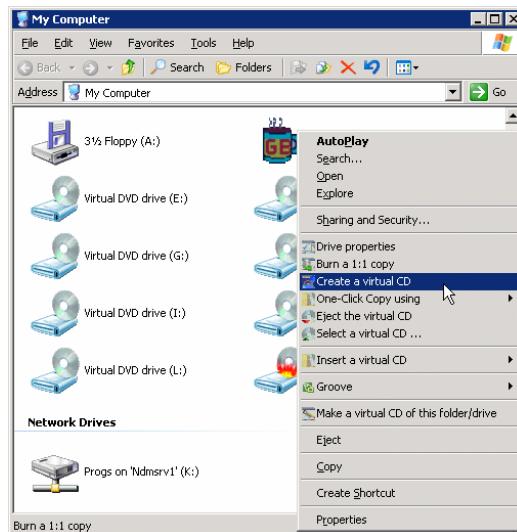
If you use both data CDs and CDs that run applications requiring a local drive, we recommend a mixed Virtual CD solution. In other words, you can use Virtual CD FS to provide central access to your data CDs, and install the classic Virtual CD edition on workstations that run applications requiring a local CD drive. In this way, access to CDs over the network can be tailored to fit your specific needs.

Sharing a Virtual CD

The procedure for sharing virtual CDs is very simple. A step-by-step description follows:



First, you need a virtual CD to share. To create one, start by placing a CD that contains user data (as opposed to an application) in your physical CD-ROM drive. Run your Windows Explorer. If a program started automatically when the CD-ROM was detected by Windows, please shut that program down before continuing. Select the physical CD drive and right-click on it. Select the **Create a virtual CD** item from the shortcut menu to open the Image Wizard.

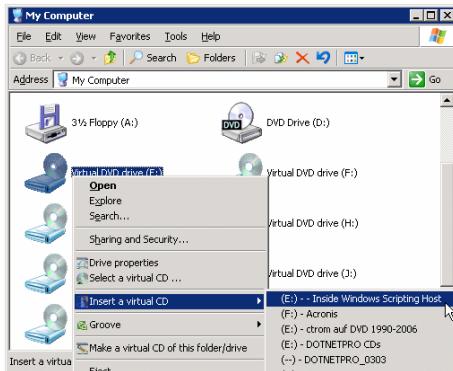


Once all the settings have been configured in the Image Wizard, click **Finish** to start the process that writes the virtual CD (the „build“ process).

 In Expert Copy Mode, Virtual CD lets you define a number of properties (“autoplay” program, hotkeys, etc.) for the virtual CD. Many of the settings available here will have no effect when the virtual CD is run from a share rather than from a virtual drive on a workstation. If you define a keyboard shortcut, you can use it to insert the virtual CD when you are working at the file server console.



Now you can share the virtual CD you have created. To do this, begin by inserting it in one of the virtual CD drives on the file server. One way to insert a virtual CD is to select the desired virtual drive and right-click on it, and then select **Insert a virtual CD** from the shortcut menu. This opens a list of the available virtual CDs; Select the virtual CD you wish to insert.



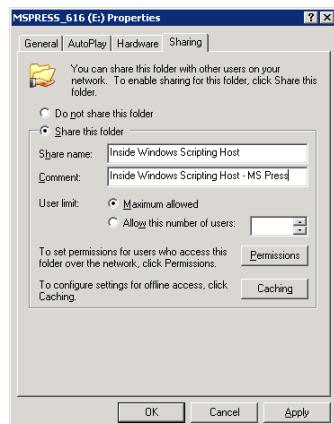
If a program starts automatically when the CD is detected, it shuts down again.



To make the CD content available over the network, select **Sharing and Security...** and open the „Properties“ window for the virtual CD drive. Then activate **Share this folder** on the **Share** page. Enter the designation under which this drive will be addressed in the **Share name** field.

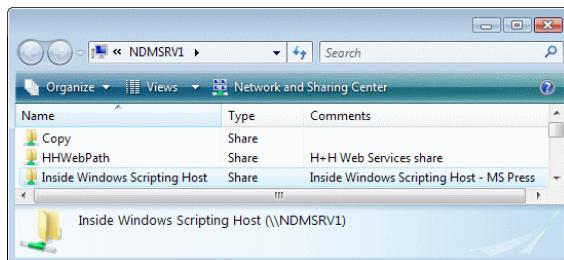


The **share name** is not entirely user-definable. For this reason, it is important to enter a meaningful **Description** that conveys information about what can be accessed under that share.





This CD content is now available to all workstations in the network, and can be accessed under the share you have defined. Here is an example, showing a Windows Vista workstation:



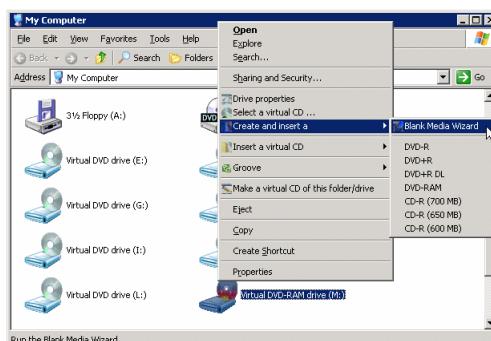
Sharing a Recordable DVD-RAM

Virtual CD FS v9 lets you create virtual CD burners. This opens up the whole new possibility of providing a recordable medium in the network that has all the advantages of a virtual CD. For example, you can store data on an encrypted virtual DVD-RAM to protect it from unauthorized access.

The procedures for creating and sharing an encrypted DVD-RAM are described in detail in the following.

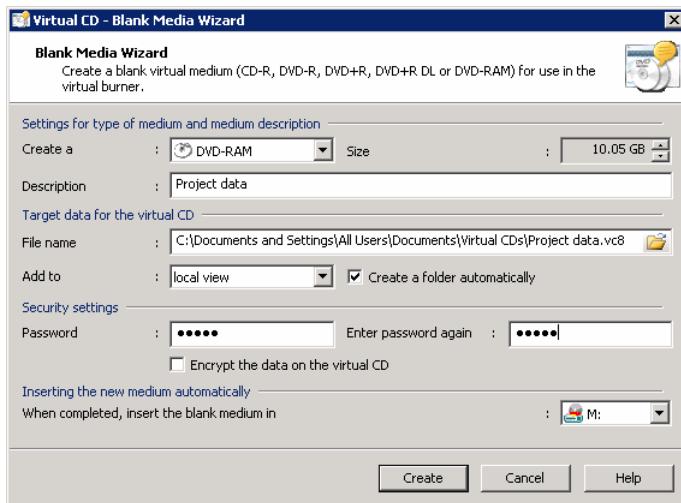


Open "My Computer." In the example shown here, drive M: is a virtual burner. If you do not have a virtual burner, open the Emulation Settings and create one before proceeding. Right-click on the virtual burner and select "Create and insert a..." to run the Blank Media Wizard.





In the Blank Media Wizard, specify “DVD-RAM” as the type of medium to be created.



In the example above, the size is approximately 10 GB. A password is defined for access authorization. Select “Encrypt the data on the CD” for added security.

When completed, insert the blank medium in: Select this option to have the new DVD-RAM inserted automatically in the specified drive as soon as it has been created.



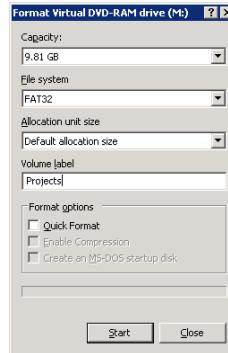
The password serves only to restrict access to the DVD itself; in other words, the DVD cannot be inserted unless the password is entered. To protect the data that is on the DVD from unauthorized access, you need to assign user privileges to the share accordingly.



Once the DVD has been created and inserted, it needs to be formatted. You are automatically prompted to format the medium when it is inserted. Confirm the prompt and, if a password has been assigned, enter the password. The formatting dialog opens.



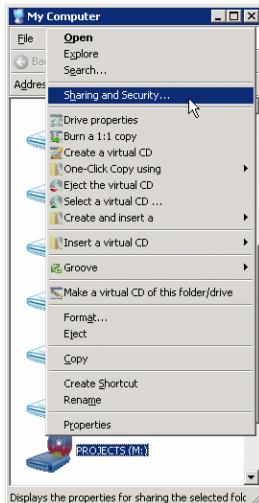
There are several things to keep in mind when formatting the DVD: NTFS formatting is not supported. For FAT32 formatting, the data medium must have at least 192 MB disk space. FAT is not supported by Windows Server 2003. The FAT32-system limits the volume label length to 8 characters.



If you wish to format a data medium with less than 192 MB, simply use a different operating system to perform the formatting. Your Virtual CD FS software includes a workstation license for a Virtual CD installation that you can use, for example, for testing your new DVD-RAM.



Once the DVD-RAM has been formatted, you can share the drive in the usual manner.



Users who are allowed to write in this drive require “read” and “write” privileges. Once it has been shared, the DVD-RAM is available to authorized users as a kind of “virtual data safe” in the network.



You can assign both “read” and “write” privileges using the permissions defined for the Windows share. Exercise caution and grant permissions in accordance with your requirements.



Make sure you do not use any other format, besides DVD-RAM, as a “data safe.” Writing on DVDs of other formats can be far more complicated. Furthermore, do not add the DVD-RAM to a collection, as DVDs in collections are not recordable.

Important Notes on Administration of Shares

Creating shares to distribute access to your virtual CDs over the Windows network interface is a very simple procedure. It is so easy, in fact, that you may soon find you have a huge number of shares, all of which require management. This is why we recommend adhering to the old adage:

“Less is More”

In other words, make sure you create only the shares you really need. When you are sharing a resource, you can select a virtual CD drive or the content of the virtual CD (i.e., a folder) that is in a virtual drive.



The share you create is effective for the particular virtual CD drive in every case, even if you had selected a folder on the virtual CD, rather than the virtual CD drive. If you share CD content rather than the virtual drive, the drive in which that CD was inserted will only be accessible when it contains that particular CD.



When you change the number of virtual CD drives in your file server, existing shares may become invalid. Any time you add or remove one or more drives, be sure to check all of your shares.

A share remains effective – i.e., visible to all users – until you remove it, regardless of whether the virtual CD required by the share is inserted or not. Furthermore, your users can see all shares, regardless of any restrictions on user access privileges. This is why we recommend observing the following, to help keep problems to a minimum:

- Enter meaningful texts for share names and descriptions, so your users can tell what is available under each share.
- Change the share name when you change the content of the share.
- Remove shares from virtual CDs that are not available, even if the virtual CD will be unavailable for only a short time.
- Let your users know which shares they can use; for example, if you assign privileges that restrict access to specified users only.



Keeping your users well informed with regard to the content of shared virtual CDs can reduce the administrative workload by avoiding unnecessary questions.



It might sound like a lot of work, but in the long run this will save you a great deal of time and trouble. If your users know which virtual CDs they can – and, more importantly, cannot – access, they are less likely to find themselves faced with cryptic Windows error messages that they need to ask you about.

Collections

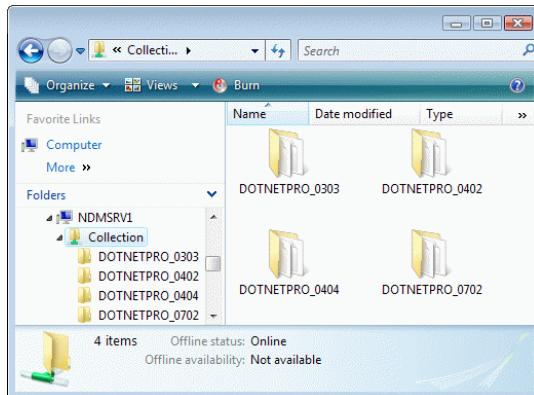
About Virtual CD Collections

The number of virtual CD drives that Virtual CD FS can set up on your file server is, of course, limited. The FS edition of Virtual CD, however, lets you extend the number of virtual CDs that you can insert in a given drive, by putting virtual CDs together in what we call “collections.”

A virtual CD collection is characterized by the following properties:

- ✓ A collection can contain up to 255 virtual CDs.
- ✓ Only data CDs/DVDs that are neither encrypted nor password-protected can be added to a collection.
- ✓ Because collections are stored in the UDF format, the CDs they contain are not subject to restrictions imposed by the Joliet format with regard to length and similar aspects.
- ✓ Collections can be used only with the FS edition of Virtual CD.
- ✓ Virtual CDs must be registered in Virtual CD FS – i.e., visible in the CD Management program – before they can be added to a collection.

- ✓ When you insert a collection in a virtual drive, it is displayed as a directory containing one folder for each virtual CD in the collection. The folder names are derived from the CD labels.



Some applications have data distributed over a large number of CDs, and require a directory tree to make all data available at one time. Collections can also be used simply to make multiple virtual CDs available simultaneously in a single virtual CD drive. The icon displayed in the CD Management program for a collection shows a stack of virtual CDs.



How to turn 23 into 5865

Under ideal conditions, Virtual CD FS can set up 23 virtual CD drives on your file server – assuming the server has only one floppy disk drive, one CD drive and one hard disk drive. In a standard solution, this would make it possible to provide 23 virtual CDs over the network. Twenty-three CDs, however, are too few for a viable CD-ROM server solution, and even for some applications.

This is why we have developed virtual CD collections. A collection can consist of up to 255 virtual CDs; thus if you have 23 virtual drives, you can insert up to 5865 virtual CDs at one time.



This value is just given as an example, and be realized only under a certain set of conditions. Most file servers have more than one hard drive, and many have more than one physical CD drive. Thus it isn't always possible to have 23 virtual CD drives on a file server. Still, with only 10 virtual CD drives you can make 2550 virtual CDs available at one time. Even with just one virtual drive, you can make more CDs available at one time than you could with any solution that uses only physical drives.

Creating a Virtual CD Collection

Collections are created using the Collection Wizard. You can create a collection as soon as you have more than one virtual CD. The procedure is described in detail below.



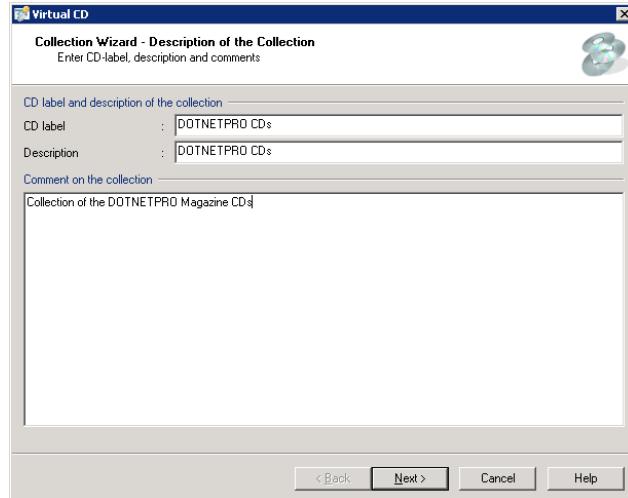
The Collection Wizard is available only with a Virtual CD FS installation on a file server. This program does not exist in Virtual CD installations on workstations. This is why collections must be created on the file server.



To open the Collection Wizard, select **Create a collection** in the Tasks sidebar of CD Management. Under **Description of the Collection** you can enter the **CD label**, **Description** and **Comment** for the collection.

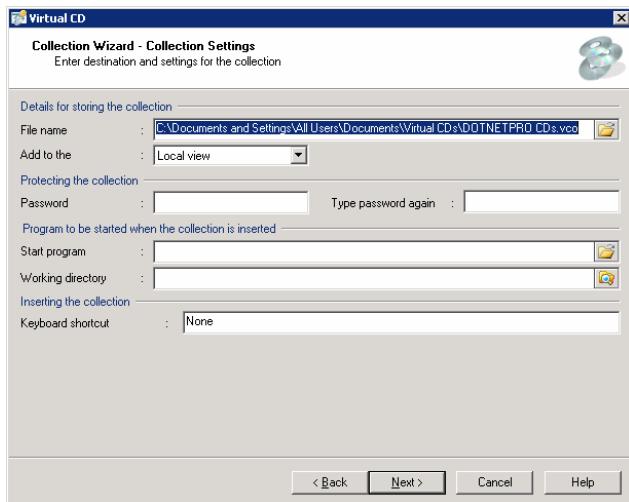


Enter descriptive texts that convey information about the purpose of the collection and which CDs it contains.





Click on **Continue >** to open the **Settings for the Collection** dialog.



Many of the **Settings for the Collection** are the same as those configured for virtual CDs. Keep in mind when configuring these settings that they are only for managing the collection on the file server, and will not be used on a workstation.

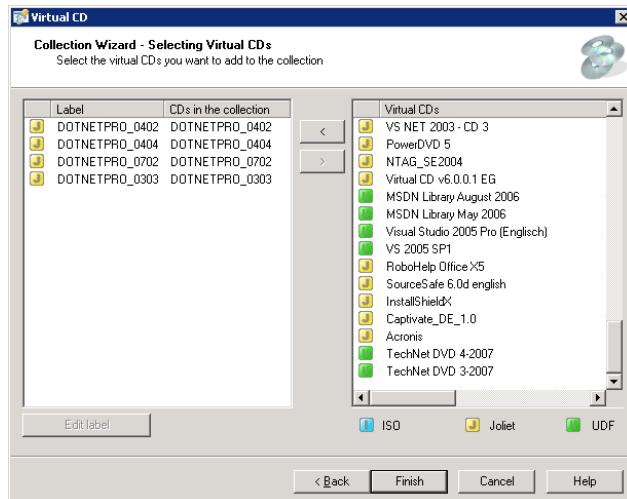


Collections are distinguished from virtual CDs by their file name extension, **.vco**. Do not enter a different file name extension for a collection; otherwise, the collection will not be correctly recognized by all Virtual CD programs.

After configuring these settings, click on **Continue >** to open the next page.



On the **Selection of virtual CDs** page, you can choose the virtual CDs you wish to include in the collection. To do this, mark the desired CDs in the **Virtual CDs** list and click on the arrow pointing to the left. The selected virtual CDs are added to the list under **CDs in the collection**.



This procedure is even simpler if you start by selecting the desired virtual CDs in your CD Management program, right-clicking on your selection, and then opening the Collection Wizard from the shortcut menu. This way, the CDs are added to the **CDs in the collection** list automatically.

Once all of the CDs you want to include in the collection have been added to the list, click **Finish** to begin creating the collection.



This can take as long as several minutes, depending on the number and type of CDs to be added to the collection. At the conclusion of this process, the collection is displayed in CD Management. The collection can now be inserted and used.

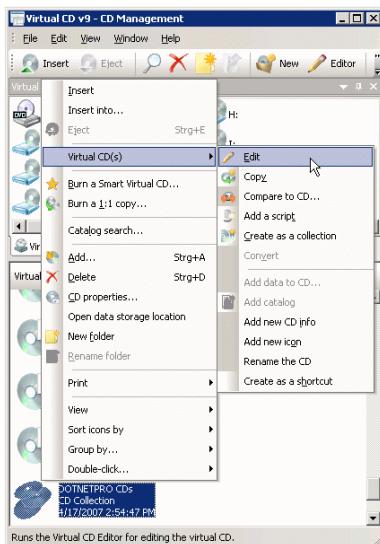
Editing Collections

To edit an existing collection, load the collection in the Collection Wizard by selecting it in CD Management.

You cannot edit a collection while it is in a virtual drive.



Select the desired collection in CD Management, right-click on it, and select **Edit** from the shortcut menu.



The Collection Wizard opens, and loads the data from the selected collection. Modify the collection as desired, and click on "Finish" to write your changes.



This method is particularly useful when one of the CDs in the collection has been replaced. In this case, all you have to do is load the collection in the editor and click on "Finish" to update the content.

Collection vs. Virtual CD: Pros and Cons

Collections have a lot in common with virtual CDs. For example, they have the same types of properties (CD label, keyboard shortcuts, etc.), and they are managed in the same manner (insertion, ejection, etc.). There are a couple of decisive differences, however, besides the fact that a collection consists of multiple virtual CDs:

You cannot create catalogs for collections. Catalogs can be made for individual CDs, but not for collections.

Any time you change a virtual CD, you need to re-write any collections which include that CD. This fact can help you decide whether or not you wish to add a particular virtual CD to a collection. If you have a virtual CD that is frequently updated, for example, you might prefer not to have it in any collection, since both the CD and the collection have to be updated.

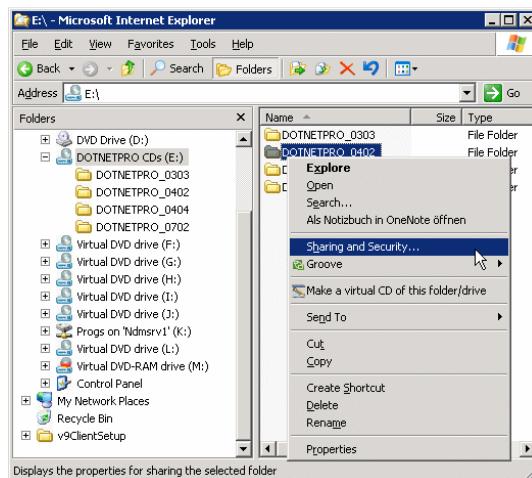
When you re-write a virtual CD that is part of a collection, you have to re-write the collection as well (i.e., load for editing and save); otherwise, the collection will contain invalid references and can no longer be used.

What you need to know about sharing a collection

You can share a collection just like you can share a virtual CD. When a collection is inserted in a shared virtual CD drive, the CDs it contains are displayed in a directory tree on the network workstations.

This can cause difficulties, since some applications cannot work with CDs that are in directory trees. When a share on the workstation is assigned a drive letter, applications that look for data directly below the CD drive letter will not function properly, because they detect CD folders rather than the expected data.

To share a particular CD in a collection, just share the folder displayed for that CD.



In this case, the CD content is available on the workstation just as if the CD itself was shared.

Be sure to consider the following aspects when deciding whether to share individual virtual CDs in a collection or share the entire collection:

- The way the application handles the data it requires.
- Whether you wish to assign access privileges to individual CDs in a collection.



If you share an entire collection, you cannot restrict access to its individual CDs by assigning user privileges.

Notes

Differences between VCD and VCD FS

Virtual CD collections have been developed specifically for the use of Virtual CD as a CD-ROM server solution. Because Virtual CD FS runs on a file server, it differs from the standard Virtual CD edition in the following respects as well:

Virtual CD FS makes your virtual CD drives available even when there are no users logged on. This is implemented by the **Virtual CD FS service**, which makes virtual drives and the associated shares available at all times, even when there is no network user logged onto the file server.

It is not possible to create Client Setup programs. Since Virtual CD FS does not entail any installation on client machines, the Client Setup feature is not included with this edition of Virtual CD.

Virtual CD FS must be installed on a file server. Unlike Virtual CD, which is usually not installed on a server, the Virtual CD FS edition must run on a server.

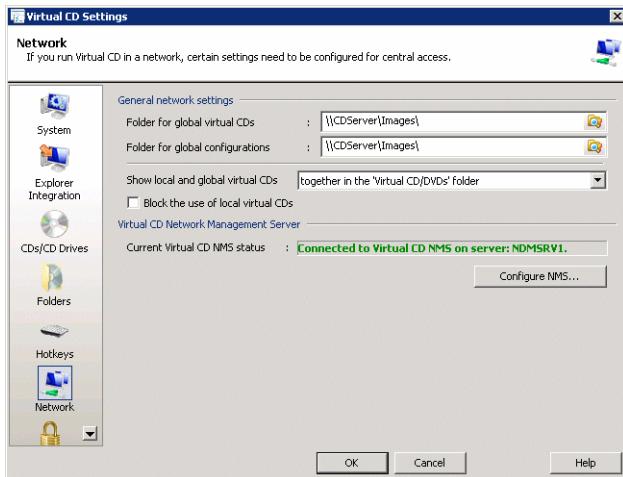


If you install Virtual CD FS on a workstation—for testing purposes, for example—you will not be able to use all of its capabilities, because the Microsoft network limits workstation access to a maximum of 10 users. Additional attempts to access the machine will be blocked by the Windows operating system, with an error message that might not be particularly informative.

There is no limit on the number of users per share. The standard edition of Virtual CD automatically limits each share to one user at a time. Under Virtual CD FS, a share can be accessed by any number of users unless you explicitly configure a restriction.

How to use existing virtual CDs with your new Virtual CD FS system

If you have a number of “global” virtual CDs that you wish to use with Virtual CD FS, you need to enter the name of your global configuration path and the path to global virtual CDs on the “Network” page of your Virtual CD FS settings.



 Make sure the gateway user account has permissions in the directory you have designated as the global configuration path, so that the “global” virtual CDs are available when no users are logged on to the file server.

 For more information on integrating Virtual CD in a network, please see Virtual CD in Networks in the Virtual CD documentation.

What you need to keep in mind when using VCD FS

With Virtual CD FS, you can make a large number of virtual CDs available in your network quickly and easily. To keep your Virtual CD FS system from becoming complicated, please be sure to observe the following tips:

 Store your virtual CDs in centralized locations. The easiest way to do this is to create one directory for all your virtual CDs, on a hard disk that has sufficient space available for this purpose. The fewer different locations you have for storing virtual CDs, the easier it will be to keep track of them and to perform all administrative tasks. If you use a global configuration path, for example, we recommend storing your “local” virtual CDs in one location and your “global” CDs in another.



Re-organize your virtual CDs regularly. Virtual CDs and, in particular, DVDs take up a lot of disk space. It is a good idea to take stock regularly and delete any CDs you no longer need; otherwise, you might be in the middle of making a new virtual CD when you discover that there is not enough space for it.



Keep track of your shares. You can share CD drives, folders in CD drives, and the folders shown for individual virtual CDs in a collection. Since shares are not automatically removed when shared CDs are ejected, make you remove each share as soon as it is no longer needed. Otherwise you will have to remember which virtual drive a particular CD must be inserted in to enable use of its share.



Collections only work with the Virtual CD FS edition of Virtual CD. If you have defined a global configuration path in your Virtual CD FS program—for example, in order to share virtual CDs with workstations that use the standard edition of Virtual CD—it is possible to allocate collections to the “global” view. Since collections are used only by Virtual CD FS, however, they should always be stored locally.

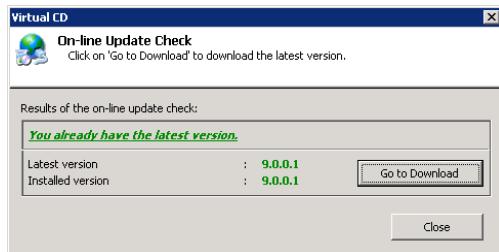


Make sure the gateway user account has “read” privileges for all virtual CDs and, if necessary, “write” privileges as well. This ensures that the virtual CDs and any associated shares are available immediately following a server restart, before any users have logged on to the file server.

Troubleshooting

Stay up to date!

We are continuously developing the Virtual CD software. When a problem is reported, we release an update that solves it. If you have a problem with Virtual CD, please check whether you have all the updates that have been released. To check whether you are using the latest program version, select **Automatic update check** in CD Management.



If you do not have the latest version, please download and install it and then check whether the problem still exists.

Questions and Answers

Virtual CD FS is a complex software suite that gives you a wide range of controls for working with CDs. In our effort to supply the best possible user support, we provide a number of on-line and off-line sources you can check for answers to your questions:

Documentation: This documentation gives you an overview of the controls and functions available in Virtual CD. It includes step-by-step examples of many of the procedures used in Virtual CD, and can provide very useful tips even for the experienced user.

On-line help: The on-line help describes each of the individual Virtual CD programs. It also contains details that we did not find space for in the documentation.

Knowledge base: Our on-line knowledge database at <http://www.virtualcd-online.com/kbase> has the answers to a lot of frequently-asked questions. If anyone else has reported the same problem you are having, you will probably find the solution here.

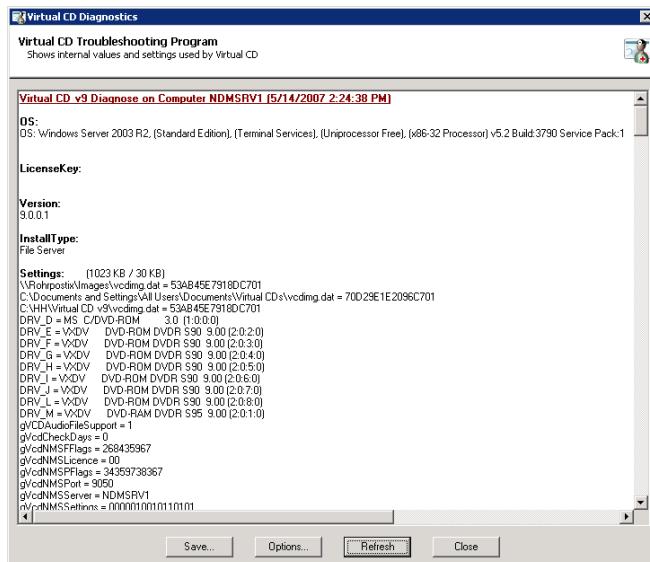
Forum: The latest issues concerning Virtual CD are discussed around the clock in the VCD users' forum, at <http://www.virtualcd-online.com/support>. Here, too, you can find help with problems that have already been solved for others.

Contacting VCD Support

If you do not obtain an answer to your question, or a solution to your problem, from any of the sources listed under "Questions and Answers," please send your request for support to the VCD Support Forum (<http://www.virtualcd-online.com/support>). To help us help you as quickly as possible, please observe the following as far as applicable:

1. Formulate your question as precisely as possible.
2. Describe the steps that preceded the problem.
3. Check beforehand whether the problem is reproducible.

In the process of looking for a solution to your problem, we may find that we need additional information about your system. If this is the case, please run the VCD Diagnostics program from the **Help** menu in CD Management.



The Diagnostics program detects a number of parameters relating to your system and your Virtual CD installation which can be helpful in tracking down and eliminating problems. Once you have run the program, click **Save** to store the results in a file and send the file to our Support Department.

Please send only complete Diagnostics files. If anything is deleted from the file, you will be sent a request for a complete file, which will delay the process of solving your problem.



Glossary

C

Collection: A collection is a compilation of multiple virtual CDs and can be inserted in a virtual CD drive, just like a virtual CD. When the collection is in a drive, the virtual CDs it contains are displayed in the Explorer as subdirectories of the collection.

F

File Server: A type of server the main purpose of which is to make data available over a network.

FS: The “File Server” edition of Virtual CD. This Virtual CD version is specifically designed for use on a file server and provides special controls for this particular purpose.

G

Gateway user account: This is a user account used by the Virtual CD Management Service to access virtual CDs on the network users when no users are logged on to the file server. This user account requires only “read” privileges to the virtual CDs.

U

User Context: Data processed at login (such as user privileges and other settings) defining which data the particular user is allowed to access over the network, and how the data is accessed. The Virtual CD FS Service requires a gateway user account with “read” privileges for all virtual CDs, in order to make these available when no users are logged on.

V

vco: The file name extension for collections.

Virtual CD Service: A service installed by Virtual CD for administration of the virtual CD drives on the file server.

Index

A

About virtual CD collections 20
After installation 8
Automatic update search 31

C

CD-ROM server solution 3
Collection 20, 21, 22, 25, 26
Collection vs. virtual CD 26
Collection Wizard 22, 25
Complete diagnostics file 32
Configuration 7, 9
Contacting VCD Support 32
Create 22
Creating a virtual CD collection 22

D

Diagnostics 32
Differences between VCD v9 and VCD FS 27
Documentation 31
Document Conventions 2

E

Edit 25
Editing collections 25

F

File server 3
Foreword 1
Forum 31

G

Gateway user account 9

H

How to turn 23 into 5865 21
How to use existing virtual CDs with your new Virtual CD FS system 28

I

Individual virtual CDs 26

Installation 7

K

Knowledge Base 31

L

Legal Notices 2

License code 4, 7

Licensing 4

N

Network 9

Network access 14

New Features in Version 9 4

Notes on installation 7

O

On-line help 31

Q

Questions and answers 31

R

Registered users 27

Removing Virtual CD FS from your system 12

S

Service 9

Share 14, 26

Shares 28

Shares,Configuring shares 19

Share names 19

Sharing a Recordable DVD-RAM 16

Sharing a virtual CD 14

Sharing resources 19

Stay up to date 31

Support 32

System Requirements 5

T

Technical Support 5
Technical support 32
To share 14
Turning 23 into 5865 21

U

Updates 31
Users 27
User context 9

V

Virtual CD 4, 7, 14
Virtual CDs in groups 20
Virtual CD FS 4, 7, 27
Virtual CD FS components 9
Virtual CD FS licensing 4
Virtual CD FS service 9
Virtual CD v9 27

W

What Virtual CD FS can do for you 3
What you need to keep in mind when using VCD FS 28
What you need to know about sharing a collection 26
What you need to know about the VCD File Server edition 13

