# Table of Contents

<table>
<thead>
<tr>
<th>Virtual CD TS</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>Document Conventions</td>
<td>4</td>
</tr>
<tr>
<td>What Virtual CD TS Can Do for You</td>
<td>5</td>
</tr>
<tr>
<td>New Features in Version 10</td>
<td>6</td>
</tr>
<tr>
<td>Virtual CD TS Licensing</td>
<td>7</td>
</tr>
<tr>
<td>System Requirements</td>
<td>8</td>
</tr>
<tr>
<td>Technical Support</td>
<td>9</td>
</tr>
<tr>
<td>Installation</td>
<td>11</td>
</tr>
<tr>
<td>Virtual Drives vs. Virtual Burners</td>
<td>12</td>
</tr>
<tr>
<td>After Installation</td>
<td>14</td>
</tr>
<tr>
<td>Virtual CD TS Services</td>
<td>16</td>
</tr>
<tr>
<td>Configuration for Network Access</td>
<td>17</td>
</tr>
<tr>
<td>Repairing or Deinstalling Virtual CD TS</td>
<td>19</td>
</tr>
<tr>
<td>Working with Virtual CD TS</td>
<td>21</td>
</tr>
<tr>
<td>Administration of Virtual CD Drives</td>
<td>22</td>
</tr>
<tr>
<td>Profiles</td>
<td>23</td>
</tr>
</tbody>
</table>
Virtual CD TS

Thank you for choosing Virtual CD Terminal Server Edition. Virtual CD TS is an expanded version of the classic Virtual CD program that lets you manage and publish virtual CDs on a terminal server independent of sessions. This manual is a supplement to the standard Virtual CD documentation and describes the additions, special features, and differences between Virtual CD TS and the classic Virtual CD edition. Like the main documentation, this can be read straight through for a close look at how Virtual CD TS 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** – Describes the procedures for installing and configuring your Virtual CD TS program on a terminal server.
• **Working with Virtual CD TS** – Lists the differences between Virtual CD TS and the standard VCD edition and contains step-by-step instructions for publishing virtual CDs and using profiles for administration.

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

This documentation describes a full Virtual CD TS version installed on Windows Server 2008. 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 might find other techniques for activating the functions you need.

This documentation refers on occasion to some of the administrative functions in a Windows network and assumes that the reader is familiar with these functions in the network in which Virtual CD TS is installed. If you have any questions about these administrative functions, please refer to the documentation on your system.
Introduction

This section supplies some very basic information about Virtual CD TS, including a list of the new features in v10, the system requirements and details on obtaining technical support.

Legal Notices

If you use Virtual CD with CDs that are under license, then creating multiple virtual images from a given CD 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 in question. Make sure to check your licensing agreements 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 product names mentioned in this manual are used for identification purposes only and may be protected by copyrights owned by the respective companies.
Document Conventions

For added clarity in these texts, this documentation uses the following conventions: Texts quoted from the program (buttons, menu items, dialog texts, etc.) are in **bold type**.

Passages that are particularly significant are 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 the TS edition that differ 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:

1. **Step 1**

2. **Step 2**
What **Virtual CD TS Can Do for You**

Virtual CD TS lets you configure the presentation of virtual CDs in user sessions on your terminal server. You can use profiles to configure the use of virtual CDs and have your settings applied automatically at login without requiring any further action on the part of the user.

What you can do with Virtual CD TS:

- Provide user-specific access to virtual CDs in each session.
- Let your users access virtual CDs without letting them make changes in any CDs.
- Provide access to a given virtual CD in all sessions, or only specified sessions.
- Use both virtual drives and virtual burners.
- Use profiles for automatic configuration of Virtual CD settings and features at the start of a session.
- Add virtual CD drives without having to restart the system.
- Use existing network resources to identify users and user groups, for simplified profile configuration.
- Install the standard Virtual CD program, and create and test virtual CDs, on up to 5 workstations.
New Features in Version 10

If you have already used an earlier version of Virtual CD TS, you will notice that the Virtual CD TS program has been redesigned and adapted to the classic edition of Virtual CD in its latest version. All of the new features that affect terminal server operation are listed here:

- Easier Virtual CD TS licensing.
- AD support when allocating permissions for profiles.
- Improved procedures for working with profiles.
- Support for Server 2008 R2.

In addition to the terminal server-specific improvements listed above, Virtual CD TS includes all of the new features integrated in the standard edition of Virtual CD v10.
Virtual CD TS Licensing

One Virtual CD TS user license is required for each session in which a virtual CD is inserted. One license code must be entered when Virtual CD TS is installed. To enter additional license codes, select License in the main menu of the CD Control Center.

License codes are allocated on a per-server basis. In other words, a given license code can be used only on one server.

Unlike earlier versions of Virtual CD TS, this version does not use base licenses and supplementary licenses. The Virtual CD TS license code can be updated to v10 only if the number of users is the same (e.g., a 5-user base license for v9 requires a 5-user license code for v10).

A Virtual CD TS license is in use from the moment a virtual CD is inserted in a virtual drive within a session. When all virtual CDs inserted within a given session have been ejected, the license is released.

The Virtual CD TS license code includes licensing for 5 single-user versions of the classic Virtual CD edition for installation on 5 separate workstations. The standard Virtual CD edition may be used for creating and testing your virtual CDs before they are stored on your terminal server for general access.

The license code must be entered during program installation. Alternatively, you can specify during installation that a license will be retrieved from your Virtual CD Network Management Server.

If you wish to test the program, you can obtain the special test version and use it for up to 30 days. The test version is available for download 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. If a test version is already installed, you do not need to deinstall it before installing the full version; Virtual CD upgrades the installation automatically.

The Virtual CD Network Management Server, or NMS, is a Virtual CD product designed for centralized administration of all Virtual CD clients in a network. Virtual CD NMS can be used for administration of multiple Virtual CD TS servers as well. With Virtual CD NMS, Virtual CD TS licenses are distributed to sessions as required from one central location. No license codes need to be entered on the terminal servers in this case.

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 TS.
System Requirements

The following system specifications are required for running Virtual CD v10:

- Windows Server 2003 (any version) with the latest service pack, or
- Windows Server 2008 (any version) with the latest service pack
- 100 MB hard disk space for installation of the Virtual CD TS software
- Windows Scripting Host 5.6 version or later

Virtual CD TS must be installed on a Windows-based terminal 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 TS 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 TS 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 TS, 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 under continuous development. We offer service packs and new program versions on our website 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 regularly for updates at intervals that you define.

Both this setting and a link to our Web site are available the Ribbon of the CD Control Center.

We are always interested in hearing from you, whether you have questions, suggestions or criticism. After all, we make this software for you, so it's important that we know what you want! Please use the Virtual CD Support Forum to let us know what you think.
Installation

Please observe the following when installing Virtual CD TS:

- **Virtual CD TS and Virtual CD Network Management Server** - If you already have a license code for Virtual CD TS, enter it during installation. Alternatively, you can enter a path to your Network Management Server during installation to have the license code retrieved from NMS. Unlike earlier versions, the new version does not require subsequent input of a local license code, as NMS v10 can provide the necessary server license. options (either entering a license code or retrieving a license from NMS); otherwise, the installation will not be completed.

- **Virtual CD TS does not have demo mode** - If you want to test Virtual CD TS, you need to download a test version over the Internet. The test version of Virtual CD cannot be converted into a full version by entering a license code.

- **Creating virtual CDs on your own workstation** - The license code included with Virtual CD v10 TS permits you to install the standard Virtual CD v10 edition on up to 5 workstations. This is intended to allow you, as administrator, to create and test virtual CDs before making them available over the network. The single-user version cannot be installed using the Setup program that installs Virtual CD TS. You need the standard Virtual CD v10 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 v10, please refer to the Virtual CD documentation.
Virtual Drives vs. Virtual Burners

Virtual CD TS supports virtual burners. Unlike a virtual drive, a burner can read and write data. This opens up the possibility of letting your Virtual CD TS users make their own virtual CDs or DVD-RAMs; for example, for use as network storage space. Images created with the virtual burner can subsequently be burned on a physical CD using a local CD writer.

Virtual CD TS can support only standard virtual CD drives or virtual burners – not both. Which type your TS installation uses is defined during installation.

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Virtual CD TS can support only standard virtual CD drives or virtual burners – not both. Which type your TS installation uses is defined during installation.

Keep in mind that if you decide to use virtual burners, Virtual CD TS will create 64 virtual burners in series. Some programs cannot function properly in a system that has that many CD burners.

The use of virtual burners entails a somewhat greater administrative workload than standard virtual drives. Your users will require access to a data storage location that has sufficient capacity for the images made with the virtual burners.

If you choose to set up virtual burners, you should make some decisions about storage of virtual CDs before you begin installing VCD TS. During installation the setup program prompts you to name a local data storage location for virtual CDs. The default is the "All Users" directory. If you accept this setting, all new virtual CDs made by all users are stored in a single directory. This is not a problem as far as creating blank virtual media is concerned. If an existing virtual CD with the same name is found when a new virtual CD is stored, a sequential number is appended to the name of the new medium. Just remember to give all users access to this directory; otherwise, they will not be able to create virtual CDs. To have virtual CDs stored in separate drives, you can implement user-specific configuration by specifying during installation that virtual CDs are to be stored in the Windows user directories. To do this, enter any Windows user directory, such as: "...\Documents and Set-
tings\Administrator.” This input is analyzed by Virtual CD during installation and automatically replaced by the %USERPROFILE% variable. The result: when a new virtual CD is created, it is displayed in the user directory of the user that created it. As a rule, the user has both “read” and “write” privileges in this directory. Not only are CDs stored in the user’s own directory, but the user cannot access virtual CDs that are not in that directory.

Virtual burners can be used for creating virtual DVD-RAMs for data storage. The advantage of this method is that the data on the DVD-RAM can be encrypted. This means each user can create his or her own “data safe.” For details on creating and using a virtual DVD-RAM as an encrypted hard disk, please see Safe for Sensitive Data in the Virtual CD documentation.
After Installation

Once you have installed Virtual CD TS, its programs are stored on your server and, in some cases, running. Since the virtual CD drives (or virtual burners) are mapped by profiles at login, no virtual CD drives are visible in your Explorer at this point.

To test Virtual CD TS now, run the Virtual CD Settings and add a virtual CD drive.

Open the Settings program

In the Virtual CD Starter, click on Configure settings to open the Virtual CD Settings program.

Make sure the Virtual CD Settings program runs with administrative rights, so that your changes can be stored correctly. If user account control (UAC) is active, a prompt to use an administrative account is shown when you open the Settings program.

Add a drive

In the Settings program, open the Virtual Drives page for configuring virtual drives.

You can add a drive or a burner here. Which option is available here depends on the type of drive you selected during installation: virtual drives or virtual burners.

In our example, we add a virtual burner. Click on the Burner button. The new drive uses the next available drive letter; in this case, “E:”.

To save your changes and close the Settings program, click on OK.
**Use the new drive**
Once the drive has been registered in your computer, it is available for use.

In the above example, we created a virtual burner. At this point in our example, however, the virtual CD drive is still empty.

The procedure for setting up a virtual CD drive has been described here as a way to test the functioning of Virtual CD TS. Generally, virtual CD drives are mapped automatically by a profile when a user logs on in a session.
Virtual CD TS Services

All Virtual CD programs install a service called the Virtual CD v10 Management Service. Virtual CD TS installs another service as well, called the Virtual CD v10 NetAccess Helper, on the computer on which Virtual CD TS is installed. The two services have different tasks:

- The Virtual CD v10 Management Service provides many of the functions for managing the virtual CD drives.
- The Virtual CD v10 NetAccess Helper is responsible for ensuring that virtual CDs can be accessed over the network.

With the default settings, the Virtual CD v10 Management Service starts automatically. If this service is not running, a number of important Virtual CD TS functions will not be available, which in turn will result in errors.

The Virtual CD v10 NetAccess Helper service is required only if you have images accessed over the network. With the default settings, it does not run when you launch Virtual CD, and has to be started manually. For details, see Configuration for Network Access.
Configuration for Network Access

If you plan to store all your virtual CDs on the same terminal server on which Virtual CD TS 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.

Because there can be a large number of users with various access privileges accessing your system in a terminal server environment, Virtual CD TS Service has the final word, so to speak, on access to virtual CDs (insert/eject privileges). To insert a particular virtual CD, the NetAccess Helper service requires “read” privileges for that CD. Since the service uses a system account, NetAccess Helper has no problem with virtual CDs that are stored on the terminal server. If you have virtual CDs stored on other network resources, however, the service will not be able to mount them.

To solve this problem, we recommend creating a special user account, called a „gateway user,” to provide a user context that grants „read“ privileges for all virtual CDs in the network. The procedure for configuring and using 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 terminal server on which Virtual CD TS is installed, and another on each of the servers on which your virtual CDs are stored. It is essential that these accounts all use the same password.

Create a user for image access

Create a gateway user account and give it “read” privileges in all directories in which virtual CDs are stored. In our example, this account is called vcdgateway.

To check whether the assigned privileges are effective, log in on a network station using this account and make sure you can see all virtual CDs in the Explorer.
Select the Virtual CD v10 NetAccess Helper service

Now open the Server Manager, select Services and find the Virtual CD v10 NetAccess Helper. Double-click to open the properties of the service.

Set up the Virtual CD v10 NetAccess Helper service

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. To have the service start automatically the next time the computer is rebooted, open the General page and set the startup type to Automatic. From this point on, all virtual CDs that the gateway user account can access are available through this service, regardless of who is logged on to the terminal 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 NetAccess Helper—and thus your users—will not be able to access virtual CDs in that directory.

If you do not perform this step, Virtual CDs that are stored on the network cannot be used—even if they are visible to users.
Repairing or Deinstalling Virtual CD TS

If you have a problem with your Virtual CD program, or if you need to remove the program from your computer, select **Control Panel -> Programs -> (Programs and Features-) Uninstall a program.** Select “Virtual CD v10 TS” and begin the deinstallation (or program repair).

- **Repair:** The Setup wizard restores the Virtual CD installation to its initial state. If you have a problem with Virtual CD, use this option to reset Virtual CD to a defined state.

- **Uninstall:** The Setup wizard removes all components of the Virtual CD program from your computer. Afterwards, your computer needs to be re-started. If you want to remove Virtual CD configuration files as well, you need to select the corresponding options.

  Configuration files contain references to registered virtual CDs and the tree structure. Do not remove these elements unless you are certain they are not in use.

  Work from the terminal server console when deinstalling the program, and make sure beforehand that no sessions are active.
Working with Virtual CD TS

User profiles were introduced in Virtual CD specifically for the Terminal Server edition of the program. Because Virtual CD TS runs on a terminal server, it differs from the standard Virtual CD edition in the following respects:

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

• Virtual CD TS must be installed on a terminal server. Unlike Virtual CD, which is not recommended for installation on a server, the Virtual CD TS edition has to be installed on a server.

• You cannot configure security settings for physical CDs. Because Virtual CD TS is used within sessions, the features for defining security settings to control the use of physical CD drives and CDs are not available.

• The drives created by Virtual CD during setup are either all standard virtual drives, or all virtual burners. The type of drive is defined during installation. Unlike Virtual CD, the TS edition does not support the use of both types of drive.

The administration of Virtual CD drives in Virtual CD TS differs from that in the standard edition as well. Details on managing virtual drives and working with profiles in Virtual CD TS are given in the following pages.
Administration of Virtual CD Drives

With a terminal server as platform, the administration of virtual CD drives and virtual CDs differs in many ways from administration on a standard workstation. Because a large number of users can be logged on to the terminal server at any one time, Virtual CD TS requires a high degree of flexibility in providing virtual CD drives within individual sessions at run time. This is why the installation program creates 64 virtual CD drives as devices, but does not map any drive letters to them. These devices can be seen in the Windows Device Manager.

The number of devices is limited to 64 because some programs, including the Windows operating system, can create difficulties if the total number of virtual and physical devices is too high.

The devices are made available by the profile at run time when the session is started, or during the session if the number of devices is changed while the session is open. When a virtual CD is required in a particular session, Virtual CD TS inserts it and then maps it to a drive letter designated for use as a virtual CD drive in the user profile under which that session was opened. In other words, the virtual CD is inserted in exactly one instance and then distributed.

The limitation entailed by this technique is that the number of virtual CDs available at any one time is restricted to a maximum of 64 per terminal server. This number, however, is usually sufficient.
Profiles

You may have noticed that Virtual CD TS did not set up any virtual CD drives during program installation. In the example, we created virtual drive „by hand“ on the Virtual Drives page of the Virtual CD Settings to test program function post-installation. However, you probably don’t want to leave it up to users to create whatever drives they may need, or want. That is why have developed user profiles, which make it easy for you to configure the VCD conditions that are effective when a user opens a session. Individual profiles can be edited in the Virtual CD Profile Editor, which is opened from the Quick Start utility, or from the Tasks and Tools tab in the Ribbon of the CD Control Center.

If your Virtual CD TS installation is connected to a Network Management Server, open the Profile Editor from the NMS program window. You need to use the NMS Profile Editor for editing profiles in this case, because the NMS is responsible for configurations within the network.

Profile files for Virtual CD TS without NMS are always stored in the %ProgramData%\Virtual CD v10\Data\Profiles directory. Users can edit profiles using the Profile Editor only if they have permission to write profile files. Users in general only need “read” privileges.

Each user must have “read” permission in the profile file; otherwise, they will be unable to run Virtual CD TS, because the settings that configure VCD TS access are retrieved from user profiles.

When you change the properties of a profile, the new settings are active only after:

• the changes have been saved, and
• a new session is opened.

Your new settings are not effective in sessions that were already open when the changes were made.

It is a good idea to back up your profile file regularly, so that you always have a recent version available in case of emergencies.

Types of Profile?

Virtual CD TS distinguishes between two types of profile:

• Virtual CD basic profile: This profile comes with your VCD TS installation and cannot be deleted. It is applied to all users for whom you have not designated a specific profile. There cannot be more than one basic profile at any time.
User profiles: You can assign these to user groups. A profile must be explicitly assigned to a user in order to have its configurations applied; otherwise, the settings defined in the basic profile are applied. The Profile Editor can be used to create and delete only user profiles.

The following profile settings can be configured for both kinds of profiles:
- Defaults for program operation and management of virtual CDs.
- Definition of which programs are available in sessions.
- Guidelines relating to function control and security.
- Directories used for Virtual CD data.
- Which virtual drives are available in a session.

Profile Editor

The main window of the Profile Editor shows all of the existing user profiles. Before you create your own profiles, this list contains only the Virtual CD basic profile, which is applied by default to users for whom no specific profile has been designated. The basic profile cannot be deleted.

The Profile Editor lets you create, edit, print and save profiles. The main window lists the profiles with their descriptions. Each profile can be activated or deactivated by clicking in the checkbox to the left of the profile name. Profiles are processed in the order in which they appear in this list (top to bottom). This is relevant if a user is allocated more than one profile has been allocated. Settings configured by a profile are overwritten by the settings specified in a subsequent profile. You can change the order of the profiles by clicking on the Up and Down buttons. The other buttons have the following functions:
- New - Creates a user profile
- Edit - Opens the Profile Settings for editing the profile.
- Save - Stores the changes.
- Delete - Deletes the selected profile.

Changes in profiles must be saved before you close the Profile Editor. Changes not saved will be discarded, with the exception of any new profiles created.
Virtual CD Basic Profile

The first time you run the Profile Editor, the Virtual CD Basic Profile is the only user profile available. The basic profile lets you define the configuration status for all users who log in on the terminal server and for whom no other profile is explicitly designated. For example, you can edit the basic profile so that any users who are not assigned to one of your customized profiles are denied access to some—or all—Virtual CD functions. The Virtual CD basic profile differs from your customized profiles in the following aspects:

- It cannot be applied simultaneously with any other user profile. (If you assign a customized profile, more than one user profile may be applied.)
- The basic profile is applied by default; i.e., to any user for whom no other user profile has been allocated.
- Permissions (e.g., users or user groups) cannot be explicitly assigned to the Virtual CD basic profile.
- It cannot be deleted.
- It cannot be deactivated.

When you first install Virtual CD TS, the settings in the basic profile permit all users to access all functions in Virtual CD TS.

If you want to have a single configuration applied to all of your terminal server users, simply configure the Virtual CD basic profile as desired; no further configuration of profiles is necessary.

Creating a User Profile

To define properties of Virtual CD TS that will be applied only to a specific set of users, you need to create at least one user profile of your own. In the following example, we will create a user profile for Virtual CD TS administrators.

Create a new user profile

Run the Profile Editor and select New in the Ribbon to create a new profile.

Enter a name for the new profile. Under Description, enter a meaningful text from which you will be able to recognize
the purpose of the profile in future. In the Copy from field, you can select an existing profile to have its settings loaded in the new profile.

To start with a profile that has all options activated and no restrictions in its user privileges, select <blank profile>.

When you have completed input in this dialog, click on OK to close it; The new profile is added to the list shown in the Profile Editor.

New profiles are saved automatically. Profiles that have not yet been assigned to any user are not applied when a session is opened.

Configure permissions
So far, the new profile has not been assigned to any user or user group. This is performed in the next step, which entails editing settings in the profile properties. Open the Permissions page in the Virtual CD Profile Settings.
This is where you specify the users to which the profile will be applied. In this example, we select the group of local administrators.

If you are following this example and you do not belong to the “Administrators” group, add your user account to the list of users in this profile now so that you will still be able to run administrative programs after this profile has been stored.

**That’s it!** Since the new profile is for administrators, you do not need to configure any more settings. Click on **OK** to conclude configuration.

**Profile Settings**

The **Profile Settings** are configured in a comprehensive program that can define the various settings for Virtual CD TS and enables explicit assignment of permissions for users, stations and groups. This lets you define fixed security policies for working with virtual CDs. The Profile Settings program for editing profiles is started from the Profile Editor program.

The settings options are on the following dialog pages:

- **Settings.** - Defines which Virtual CD functions are available in a session.
- **Programs.** - Defines which Virtual CD programs may be used in a session.
- **Directories.** - Determines which paths Virtual CD uses for its folders.
• CD Drives. - Enables management of the virtual drives in a session.
• Permissions. - Lets you assign permissions (users and groups) to the profile.

For the Virtual CD basic profile, you can configure settings only on the **Settings, Programs, Directories** and **CD Drives** pages. Because the Virtual CD basic profile is automatically applied to sessions for which no profile has been allocated, no permissions can be assigned to it.

Changes in the settings are applied as soon as you close the program by clicking on **OK** or confirm the changes by clicking on **Apply**.

**Settings**

On the **Settings** page, you can configure general options, values for function controls and security settings.

The following general options are configured here:

• **Check for virtual CD files (seconds):** Defines the intervals (in seconds) at which the program checks for virtual CDs registered in the system.

• **Display of drives:** defines which drives are displayed by dynamic desktop icons:
  • All drives: Shows all drives at all times.
  • Show only virtual drives: Shows only virtual drives and other drives in which virtual media can be mounted.
  • All virtual and physical drives that currently contain media: Shows all drives that contain media.
The **Function control** section defines the Virtual CD user interface in the client and determines which Virtual CD functions are available:

- **Eject all virtual CDs when a session is closed**: When the session is closed, all virtual CDs in that session are ejected.

- **Do not show Explorer extension controls**: The Virtual CD Explorer extension is deactivated: The Explorer extension adds Virtual CD controls and functions to shortcut menus opened in the Windows Explorer.

- **Quick Start utility**: The Virtual CD Quick Start utility is available in the Windows taskbar.

- **Virtual CDs are displayed in a list**: Enables display of images as a CD overview.

- **Virtual CDs are divided into local and global views**: Enables the display of virtual CDs in a global and a local view.

- **Enable Starter**: The Starter for Virtual CD is activated.

- **Permit editing of CD labels**: Enables the user to edit CD labels.

- **Download audio CD information from CDDB server**: Track titles and artist information are downloaded from the Internet. If CDDB Internet access has not been configured, a dialog opens prompting this configuration.

- **Show default drive**: The lists of CDs shown by the Quick Start utility and the Explorer extension show the default drive for each CD as well.

- **Show desktop icons for media in CD drives (DDA)**: Activates the dynamic desktop icons.

- **Show list of all images in Quick Start menu (Insert and Properties items)**: When the Insert or Properties item is selected from the Quick Start menu, a list of available images is opened. If you have a large number of images, you might want to deactivate this function, as opening the list could cause some delay.

- **Automatically check for Virtual CD updates**: Activates the automatic update function.

In the **Security Settings** section, you can configure the following settings for virtual CDs:

- **No permission to use local virtual CDs**: You can prevent access to local virtual CDs; in this case, only virtual CDs available over the global configuration path can be accessed.

- **Hide virtual CDs for which components are not found**: If there are any virtual CDs that are classified as “not found” when Virtual CD starts up, those CDs are not shown if this option is selected.

- **Deny access to unregistered virtual CDs**: CDs that are not listed in the Virtual CD configuration file cannot be used.
Programs

Settings on the Programs page define which programs can be used in a session.

You can deactivate programs that you do not want to allow users to execute. Deactivated programs are not available to profile members. The programs are grouped according to function. When you deactivate a program in the profile settings, it is no longer available to the user(s) assigned to that profile, but is still present on the hard disk. If a user attempts to start a program that is not permitted—for example, by double-clicking on the executable in the Windows Explorer—the following error message is shown.
Directories

On the **Directories** page, you can configure the paths to be used for the program directories required by Virtual CD:

For each path, you can choose from the following options:

- Use the program path defined in the local settings (“Use local settings”).
- Use the path in which Virtual CD is installed (“Use the installation path”).
- Specify the path yourself (“Select the path”).

The default for all directories is “Use local settings;” i.e., the paths used are those specified on the Folders page of the VCD Settings program on the local machine.

CD Drives

On the **CD Drives** page, the virtual drives for use in sessions are mapped for profile members and actions can be defined for the drives as desired. For example, you can have a virtual CD automatically inserted in a specified drive when a profile member logs in.
Click on Action to assign an action to the selected drive type. You can choose from the following actions:

- **Release.** If the selected drive had been locked, this action releases it.
- **Lock.** The selected drive is locked for profile members by default.
- **Eject inserted CD.** When the profile is loaded, the CD in the selected drive is automatically ejected.
- **Remains unchanged.** No action is performed. This is the default setting for all drives.
- **Insert a virtual CD.** Inserts a virtual CD when the profile is loaded.
- **Map in a session.** Activates the selected drive for use in terminal server session.

We recommend not assigning more user profiles than you really need to any given user, in order to maintain a clear overview of the Profile Settings applied in the various cases.

**Permissions**

On the **Permissions** page, you can assign permissions to profiles.

Profiles are assigned and evaluated based on the permissions assigned. You can allocate user privileges on the following levels using profiles:

- AD users
- User

In your Active Directory, you can also assign profiles to OUs.
User and groups to which the profile applies are shown in the list. Click on Delete to delete the selected entry from the list.

You cannot assign Active Directory permissions if the server is not a member of an AD.

You cannot allocate any privileges to the Virtual CD basic profile, because this profile is automatically applied to any user for whom no other profile is assigned.

Profile Analysis

When a user logs on, any profile(s) in which they have permissions are analyzed to determine which settings will be activated. A user can have:

- no user profile assigned. In this case, the settings in the Virtual CD basic profile are activated.
- one user profile assigned. In this case, only the settings in that profile are assigned.
- multiple user profiles assigned. This case is a little more complicated, since the various profiles generally have different settings.

We recommend having only as many profiles applied to a given user or group as are absolutely necessary; otherwise, it can be difficult to keep track of which Virtual CD profile settings are active.

When multiple user profiles are applied, the settings are analyzed in accordance with the following rules:

1) The list of profiles is processed from top to bottom in the order in which they are listed here. The profile settings that are active for a given user at the end of this processing are referred to as the cumulative profile for that user. Settings other than simple “Yes” or “No” options are determined by the last configuration processed. For example, the settings defined on the Directories dialog page are determined by the last profile in the list of profiles assigned to the particular user.

2) For settings defined by simple Yes or No options, a Yes setting retains validity even if a subsequent profile contains a No for the same option. The Function Control options provide an example. All of these options can be activated (“Yes”) and deactivated (“No”). If a function is activated in one of the profiles assigned to a given user, then that function is available to that user regardless of whether it is deactivated in another of that user’s profiles. The same applies for settings on the Programs page. If access to a program is activated in any one of multiple profiles assigned to a user, the program is available regardless of settings in subsequent profiles.
3) If the “Check for files...” option, also in the Security settings, is set to 0 (or “Off”) in any one of a user’s profiles, that remains the active setting for that user regardless of subsequent profile settings. For other settings, if there are differing values greater than 0, the highest value over all a user’s profiles is set for that user.

4) If CD drives are configured in a user’s profiles, the sum of all drives specified are mapped to that user’s session. If a particular virtual CD drive is specified in more than one profile, the status of the drive (e.g., the virtual CD inserted, etc.) is set in accordance with the last profile that specifies drive definitions. A virtual CD drive is locked if any of the user’s profiles specifies “locked” as the status for that drive.

Ground Rules for Using Profiles

The Profile Editor makes it easy to manage your profiles. Still, there are a couple of points that you need to keep in mind to make sure your profile specifications have the desired effects:

• **First save, then test:** Do not forget to save changes made in the Profile Editor. Your changes do not take effect in Virtual CD TS until you have stored them.

• **No login = no change:** When you change a profile, the new settings are not effective until a new session is started.

• **Activate your profiles:** In the list of profiles shown in your Profile Editor, the profiles can be activated and deactivated. Remember: only activated profiles are processed when a user logs in.

• **The order makes a difference:** When a user’s profiles are analyzed, some profile settings (such as directories) are set according to configuration of the last profile in the list. Make sure that the changes you configure will be active once the entire list of profiles has been analyzed. You can change the order of profiles as needed.

• **Profiles need users:** After you create a profile and edit it in accordance with your requirements and preferences, remember to assign users and/or user groups to it on the Permissions page of the Profile Settings; otherwise, it will not be applied to anyone.

If you find that Virtual CD TS does not behave as expected when the next new session is opened, check whether the user in question is assigned to multiple profiles, and whether any of the settings in the various profiles cancel each out when processed. Remember the old saying: “Less is more.” Make this your motto, and create only as many profiles as you really need.

For a clear overview of all your profile properties, use the integrated printing function to print the profiles and keep these hard-copies handy.
Unable to Run Profile Editor

Virtual CD permits access to its programs in accordance with the profile settings. As administrator, you should make sure that you have access to all Virtual CD programs at all times. Inadvertent changes in the profile settings may block access to certain programs, but this is not a problem as long as you still have access to the Profile Editor.

The Profile Editor can be launched by any user who has permission to run administrative programs (configured in the user profile properties). If you somehow have lost your right to run the Profile Editor, the Profile Editor program is not shown among the Virtual CD programs, nor can it be launched from the Windows Explorer. In this case, you have to replace the affected profile file before the Profile Editor can be started again.

1. **Delete the profile file**
   Open the `%ProgramData%\Virtual CD v10\Data\Profiles` directory. This is the folder in which profile files are stored. Delete the relevant profile file, or move it to a different directory. If you are not sure which profile file caused the problem, remove all the profile files.

2. **Open a session to launch the Profile Editor**
   Now log out and open a new session in which no profile is loaded. As long as the current session (without permission to run administrative programs) is active, you will not be able to run the Profile Editor and thus cannot re-write the profile file.

3. **Create a new basic profile**
   If you removed all profile files from the profile directory, the following message is shown the next time you run the Profile Editor:

   ![Virtual CD - Profile Editor](image)

   No basic profile found in the profile directory (C:\ProgramData\Virtual CD v10\Data\profiles). A default profile has been created (C:\ProgramData\Virtual CD v10\Data\profiles\Virtual CD basic profile.prf).

   OK
Click on **OK**. Now you can run the Profile Editor. The new basic profile is now shown in the list of profiles. This profile is stored automatically.

It is essential that you have “write” privileges in this profile file directory. Otherwise, Virtual CD cannot create a new basic profile using your account and an error message is shown.

**Configure profiles**
Your customized profiles must be created and configured all over again.

**Examples - Using Profiles**

The user profiles in Virtual CD TS give you a powerful tool for configuring user-specific settings that are applied automatically on login. To get the most out of this tool, we highly recommend taking a little time to familiarize yourself with all of the options available. To help you get to know the program we have put together some practical examples, under „Example of a Basic Configuration“ and „One CD for All,“ to demonstrate a few of the possibilities.

As you go through the examples, you will need a few virtual CDs if you want to test the functions described. If you have not created any virtual CDs yet, now is a good time to do so, before continuing with the examples.

**Example of a Basic Configuration**

This example describes the procedure for creating a basic configuration of Virtual CD TS with the following defaults:

- Users who are not assigned to any specific user profile cannot run Virtual CD TS.
- There is a group of Virtual CD TS administrators who can use all Virtual CD functions, but for whom no virtual CD drives are explicitly mapped.
- There are users who can insert and eject any of the virtual CDs registered in the program and for whom V:, W: and X: are mapped as virtual CD drives.

**Create a new user profile for administrators**

Run the **Profile Editor** and select **New** in the Ribbon to create a new profile. Enter a **name** and a **description** and select `<blank profile>` in the Copy from field. The profile is created when you click on **OK**.
Because the new profile is created using the blank profile as a template, all of the functions are configured to grant maximum user privileges. In the Profile Settings, on the Permissions page, allocate the user accounts to which you wish to grant admin rights.

The procedure for creating a user profile for Virtual CD TS administrators is described in detail under Creating a User Profile; this example presents only a brief summary.

**Edit the basic profile**

Run the Profile Settings by double-clicking on the Virtual CD basic profile, deactivate all entries on the Programs page, and click on **OK** to close the dialog.
Create a profile for working with virtual CDs
Select **New** again in the Ribbon to create a profile for those users for whom you wish to permit restricted access to Virtual CD functions.

In our example, we enter **VCD TS User** as the name, and **Working with virtual CDs** as the description. Select **<blank profile>** in the Copy from field again; this time we will change some of the settings. Click on **OK** to write the profile.

Specify programs
Run the Profile Settings*** by double-clicking on the new profile. On the Programs page you can now define which programs will be accessible for members of this profile. In our example, we grant permission to use the CD Control Center, the Starter, the Quick Start utility, the command line program and the Explorer extension.

The control interfaces (CD Control Center, Starter, etc.) are left active to allow users maximum convenience. The command line program and Explorer extension are accessed by Virtual CD in certain instances; for example, when you double-click on an image in the Explorer. If you deactivate these functions, the corresponding programs will not be available.
Define virtual drives
Open the CD Drives page and map V:, W: and X: as virtual CD drives by putting a checkmark (i.e., by clicking) in the boxes next to these drive letters.

Allocate permissions
The last step is to assign the desired users to this profile, on the Permissions page.

If you do not assign any users, the profile will be stored as you have configured it, but will never be used.

Test your settings
When you have finished, click on OK to close the dialog. This completes the configuration.
That’s it! - Test your configuration by logging on under various user accounts to activate the different profiles
One CD for All

You may at some point have one virtual CD that you want to make available to all users who log on. This is easy to implement with a user profile. In the following example, we will use the Z: drive to provide a virtual CD that cannot be ejected.

Creating a New Profile

Run the Profile Editor and select New in the Ribbon to create a new profile. In this example, we will create a profile that permits all users to access the virtual CD(s) affected.

1. **Virtual CD - Profile Editor**

   - **Name**: Virtual CDs for all
   - **Description**: Virtual CDs for all users
   - **Copy from**: <blank profile>

We give it the name “Virtual CDs for all” and enter “Virtual CDs for all users” as the description. Select <blank profile> in the Copy from field; afterwards, we will change some of the settings. Click on OK to write the profile.

Deactivate programs

Double-click on the new profile to edit its settings, and deactivate all of the options on the Programs page. Since the sole purpose of this profile is to make certain CDs available to all users, you can deactivate the programs in this profile and use other profiles to activate individual programs as desired for particular users or user groups.

If you do not deactivate all the programs in this profile, all users will be able to use all Virtual CD TS features.

Allocate virtual CDs

Open the CD Drives page and activate Z: as a virtual CD drive by putting a checkmark (i.e., by clicking) in the box next to this drive letter. Click on Action and select Insert a virtual CD. A dialog opens showing all of the available
virtual CDs. Select the virtual CD to be inserted in the CD drive and click on **OK**. Click on **Action** again, and select Lock to lock the virtual CD drive.

- **Configure permissions**
  On the **Permissions** page, specify the users for whom you wish to allow access to this CD. In our example, we select the predefined Everyone group.

  When you select the Everyone group, this profile is applied to every user who logs on for a session. In this case, the Virtual CD TS basic profile is not used. That is why we deactivated all functions in this profile. Keep in mind that "Everyone" is a domain user account. If your terminal server is not a member of a domain, you need to use a different account, such as "Users."

- **Test your settings**
  When you have finished, click on **OK** to close the dialog. This completes the configuration.

  **That’s it!** - Test your configuration by logging on under various user accounts to activate the different profiles