



User's Manual

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CDRoller - User's Manual

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Introduction

CDRoller is a powerful, easy-to-use and low-cost toolset for CD/DVD data recovery.

Powerful: CDRoller finds, retrieves and copies the lost data from CDs and DVDs that seem to be inaccessible for Windows standard tools. While this does not include the disks that are physically damaged, the program will:

- Effectively retrieve the data from the discs created by "drag and drop" writing software, such as well-known Roxio (Adaptec) DirectCD and Ahead Nero software packages.
- Recover CD and DVD data created by standalone devices that record directly onto disks, including: Sony digital cameras, Hitachi DVD camcorders, personal DVD recorders, etc.
- Retrieve back up files from the discs recorded in the several stages (multisession discs).
- Find and retrieve the lost files on UDF discs, including: accidentally deleted files, files on quick-formatted disc, files on incorrectly closed disc, etc.
- Simply retrieve data from scratched, damaged or defective discs.
- Extract tracks from audio CDs
- Test CD readability

Easy-to-use: All features are integrated into a common intuitive shell similar to well-known Windows Explorer.

Low-cost: A single user's license costs only 29.50 USD.

Toolset: The program contains a set of instruments to work with different formats of CDs (DVDs) and file systems.

CD/DVD Data Recovery: Unfortunately, there is a lot of factors that can cause you to lose access to the data on your disks. System or power failures, hardware problems, media and CD/DVD mastering software problems... Often, when a disc becomes inaccessible more than a single factor has contributed to the problem. Fortunately, many of such problems that prevent "normal" access to the data can be bypassed when using CDRoller.

1. Installing CDRoller

To install CDRoller, you need at least:

- Microsoft Windows 95/98/ME/NT4/2000/XP operating system
- Intel Pentium or compatible CPU
- 16 MB of RAM
- 2 MB free hard disk space
- CD/DVD drive(s). The devices with IDE or SCSI interfaces are highly recommended.

Note. You must have administrator rights to install the program under Windows NT4, Windows 2000 or Windows XP.

There are no special considerations for installing CDRoller. It uses no .INI files, and only uses the registry for holding installation options. It will initially use default options that will be changed further via the user preferences.

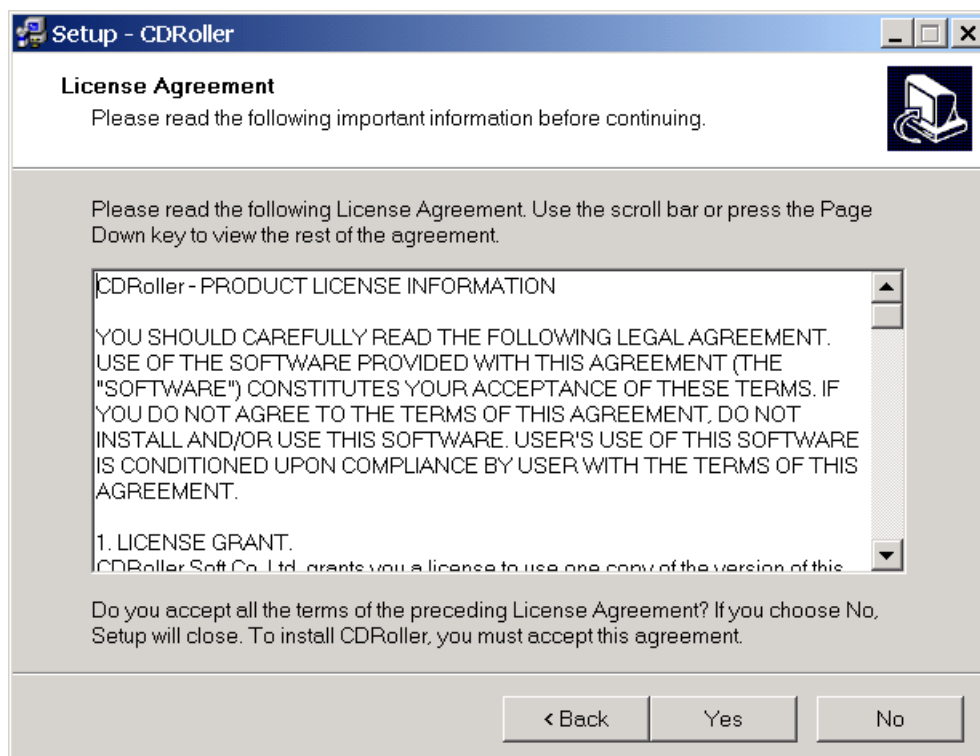
To install CDRoller:

1. Run the installation file. The installation program displays a **Welcome** page similar to the one shown here.



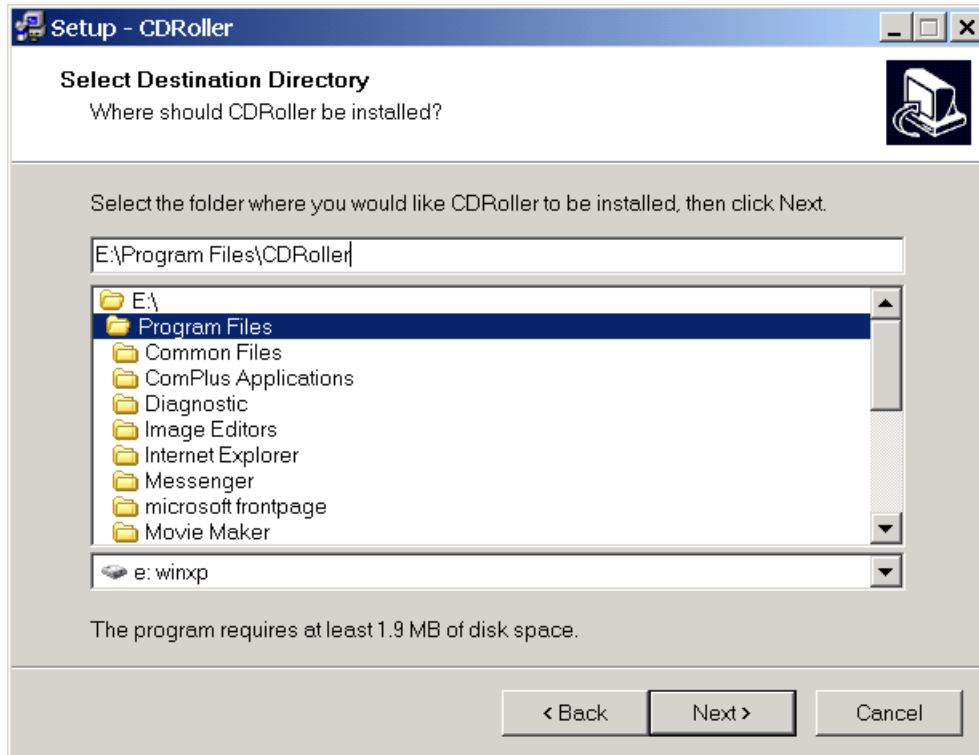
Click the **Next** button.

2. The installation program displays a **License Agreement** page similar to the one shown here.



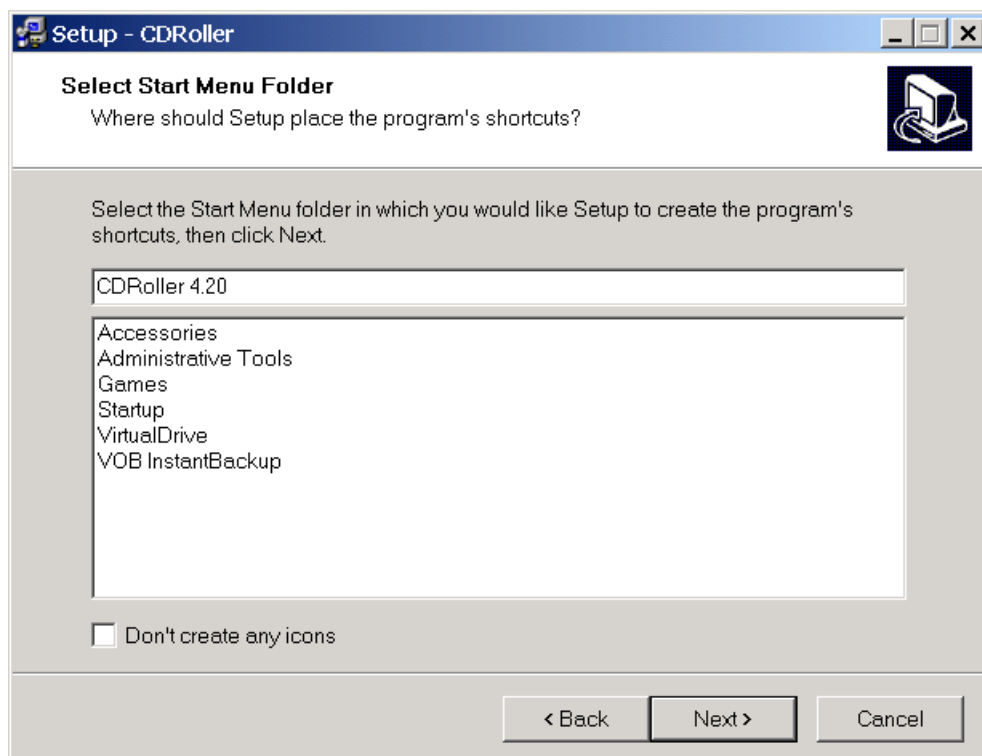
Read the license agreement displayed and if you agree to its terms click the **Yes** button. You must agree to terms of the license agreement to install CDRoller. If you do not agree to the terms of the license agreement, click the **No** button to exit the installation program.

3. The installation program displays a **Destination Directory** page similar to the one shown here.



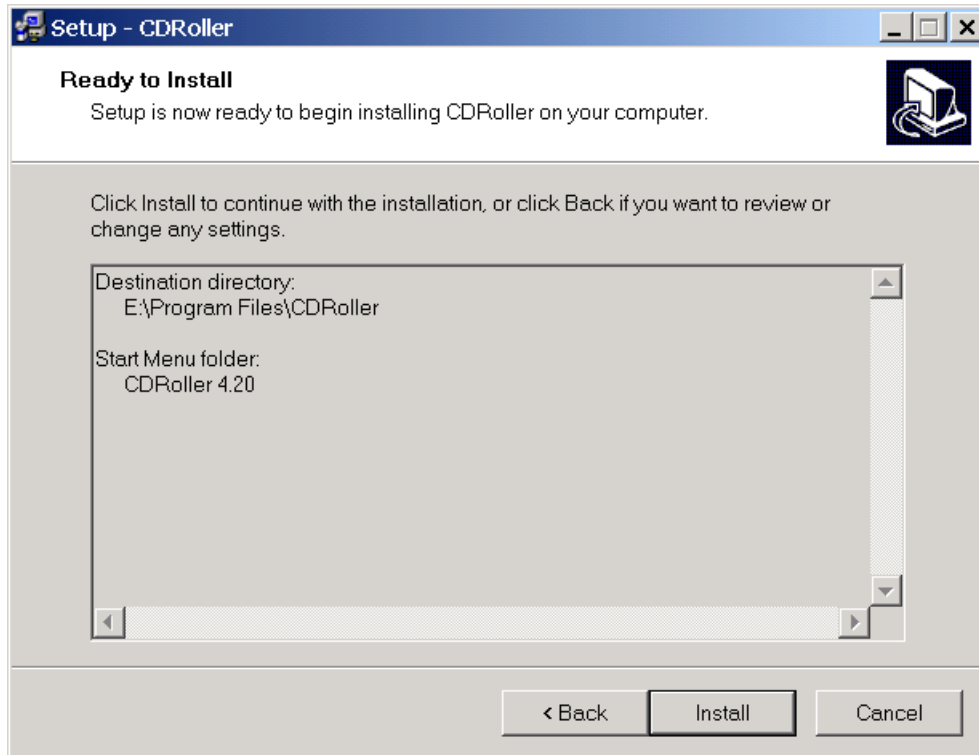
CDRoller consists of a number of files containing the program and help information. It is recommended that you accept the default folder structure provided in the installation program. When you're satisfied with the installation folder specification, click the **Next** button.

4. The installation program displays a **Select Start Menu Folder** page similar to the one shown here.



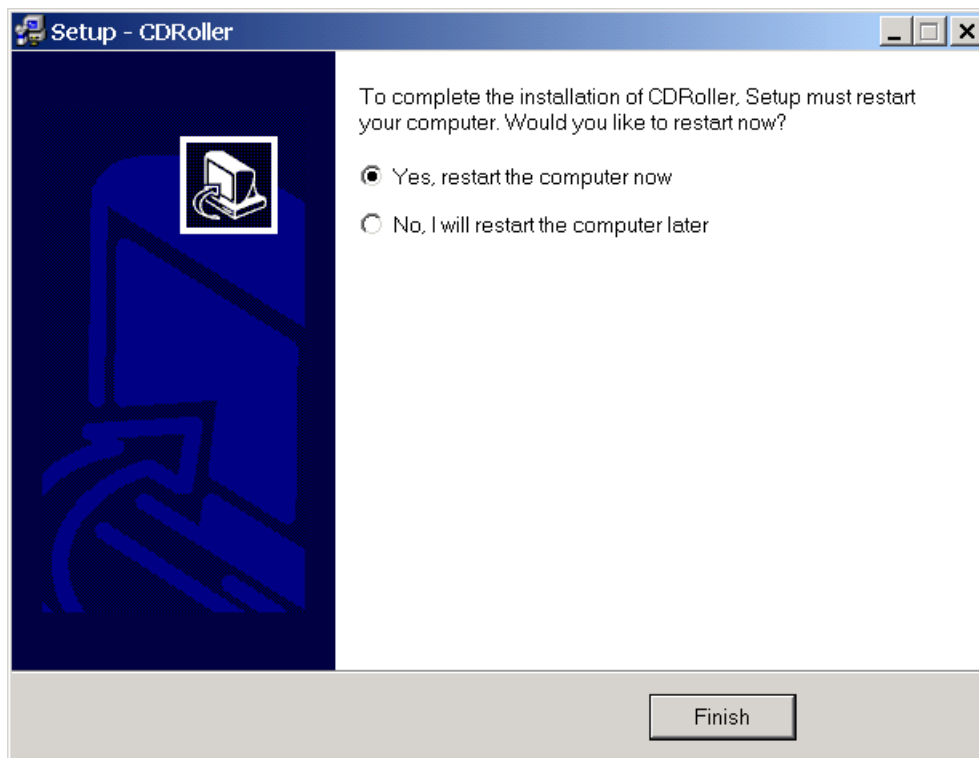
By default, the installation program creates an **CDRoller** folder on your start menu. This is what you'll see when you choose Start | Programs on the Windows taskbar. If you want to use an existing folder, choose it from the list shown; if you want to use a different name, type it in the text field. If the checkbox 'Don't create any icons' is checked, the desktop icon will not be shown. When you're satisfied with your start menu folder selection, click the **Next** button.

5. The installation program displays a **Ready To Install** page similar to the one shown here.



You've made all the choices necessary to begin installation. Click the **Install** button to begin installing CDRoller.

6. After the copying of files to your computer has been completed, the installation program displays a **Finish** page similar to the one shown here.



If you install CDRoller under Windows 95/98/ME, we recommend you to restart your computer. Click the **Finish** button. Installation of CDRoller is complete.

2. Uninstalling CDRoller

To uninstall CDRoller you can either:

- Use the menu selection created for this purpose.
- Select the Add/Remove Programs applet from the Windows Control Panel.

CDRoller does not install any system DLLs and does not modify Windows in any manner. Uninstalling this program will not affect other applications. To uninstall CDRoller, click the **Start** button on the Windows Taskbar, then choose **Programs | CDRoller | Uninstall CDRoller**.

3. Opening and Closing CDRoller

Opening CDRoller.

To open the program, click the **Start** button on the Windows Taskbar, then choose **Programs | CDRoller | CDRoller**.

Closing CDRoller.

Close CDRoller as you would any other Windows application by using the **File | Exit** menu item or **Alt+F4** keyboard shortcut.

4. How to register the program

Unregistered version does not permit copying CD/DVD objects for the purposes of recovering data - the program checks readability of CD/DVD files, but it can not save the files to the destination drive. To enable the full functionality you have to purchase the software and register your copy of CDRoller with the help of your license key.

You can always order CDRoller using credit cards or another methods of payments if you visit web page at <http://www.cdroller.com/htm/purchase.html>.

To register the program:

1. Open CDRoller.
2. Select **Help | About** option in the Main Menu.
3. Click the **Register** button on the About dialog.
4. Enter your name and personal license key.
5. Click Accept button and restart CDRoller.

5. How to upgrade CDRoller

To upgrade CDRoller:

1. [Uninstall](#) an old version of the program.
2. Download a trial copy of CDRoller at <http://www.cdroller.com/htm/download.html> and [install](#) it.
3. [Register](#) a trial copy with the help of your licence key.

6. Recovering CD/DVD Data

Overview

The process of CD/DVD data recovery is not easy and, unfortunately, it's very hard to create a "magic" tool can retrieve all data in all cases. In this section we will try to give you a base recommendations how to achieve a positive result quickly and with a high reliability. Also, you can always receive a technical support at support@cdroller.com, all your questions regarding the problems with CD/DVD data recovery will be responded within 2 to 24 hours.

We consider the following steps can be high-lighted:

1. [Disk recognition](#).
2. [Using Session Selector](#) to access to all sessions on multisession disk.
3. [Searching the lost UDF files on CD-R/DVD-R/DVD+R disks](#).
4. [Applying Scan UDF Disc](#) to search for the lost objects on all types of UDF disks.
5. [Copying CD/DVD files](#) to the destination drive.

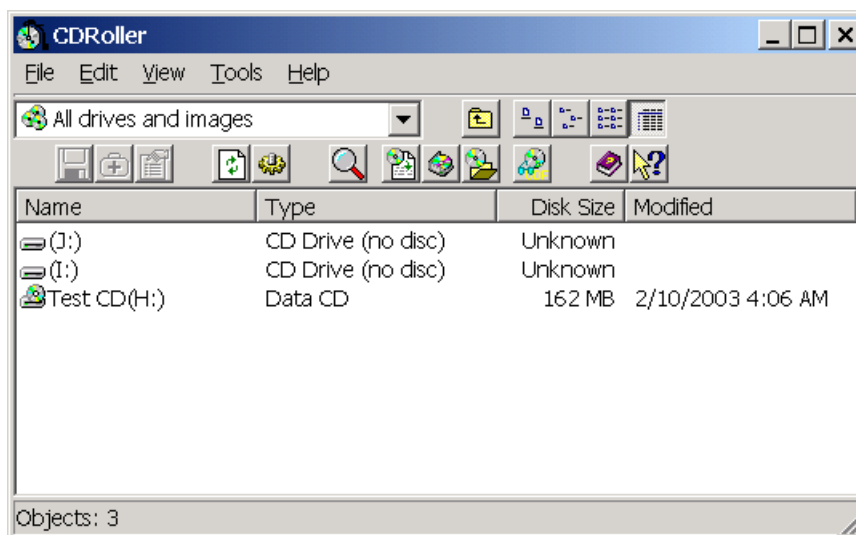
Note. The 2nd...4th steps may be skipped. This depends on the disk type determined at the 1st step.

Separately, we high-light the following problems:

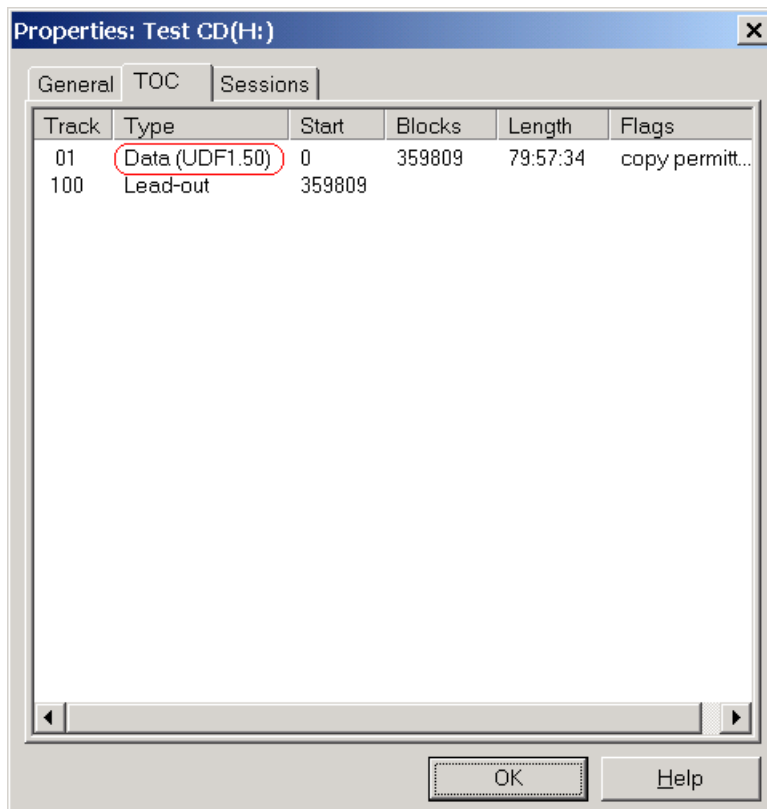
- [Reading mini DVD-R discs created by Hitachi DVD Camcorders](#).
- [Recovering the files from DVD discs created by Roxio Classic Creator 6](#).
- [Retrieving the photos from mini discs created by Sony Mavica CD cameras](#).
- [Recovering video data off the discs created by DVD recorders \(standalone devices\)](#).

6.1. Disk recognition

Open CDRoller and insert the disk into the drive. The program must analyse your CD/DVD immediately after insertion. After the disk has been verified, the **Main Window** displays it similar to the one shown here.



Select the disk name and choose **File | Properties** option. Select the **TOC** tab in the **Properties** dialog.



Look at the **Type** column. This may give us an important info about the type of the disk. In the picture shown above, this is a disk in which **UDF** file system has been placed onto the data track. We will name the disk has **one or more** such data tracks as "**UDF disk**". If **all** data tracks are marked as "Data (ISO)", we will name such disk as "**ISO disk**", i.e the disk with ISO 9660 file system.

Finally, check readability of the root directory (folder), just left double click on the disk name and answer to the following questions: Is the root folder readable or not? Can i browse through the disk contents? The answers may be applicable at the next stages of cd data recovery.

Trouble shootings.

1. If the program can not recognize your disk automatically, use **Refresh** command from the **Edit** menu or insert the disk first and then open CDRoller. Also, to read the unclosed disks, i.e the disks left "as-is" by CD/DVD mastering program we recommend you to use the following method:

- Uncheck **Detect CD insertion by Windows** on the **Browser** tab in the Preferences dialog and wait for the end of disk reading processed by another CD related program.
 - Select **Refresh** command from the **Edit** menu.
2. To read **UDF** disks we recommend you to use CD-RW (DVD-) drives - the disks are recorded with so-called packet-written technology and old CD-ROM drives may not access to their data.
3. Some drives may not support our special methods used by default. These devices may hang the program when analyzing the disk. In this case, uncheck **Always use CD drive capabilities** on the **Browser** tab in the Preferences dialog, insert the disk and try to recognize it again.

6.2. Using Session Selector

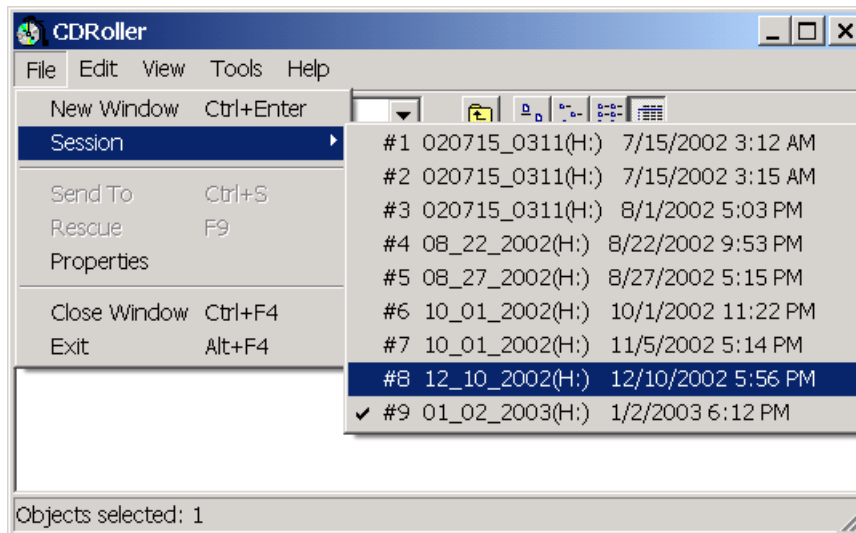
We often receive the emails similar to the following one:

"I have copied back up files to a CDR in several stages, but the last time I backed up, I was only able to see the most recent batch of files. The others seem to have disappeared... I presume they are still there on the CD but "hidden" in some way - may be a different volume ?"

Fortunately, CDRoller offers the tool named as "**Session Selector**" to access to the data placed into different sessions (volumes) on your CD-R/DVD-R. These disks are known as **multisession CD/DVDs**. By default, CDRoller displays contents of the most recent session.

To access to another session:

1. **Select** the disk in the **Main Window**.
2. Choose **File | Session** command. The program displays the list of available sessions similar to the one shown here.



3. Select a new session and try to left double click on the disk (new volume) name in the Main Window. Probably, you will detect a new files that have been "hidden" before.

Hint.

Sessions Selector may be also extremely useful if the root folder of the last session seems to be unreadable at the "**Disk recognition**" stage, but some important files may be located (duplicated) in the previous session(s).

6.3. Searching the lost UDF files on CD-R/DVD-R/DVD+R disks.

A correct reading of UDF files and folders on write-once media (CD-R/DVD-R/DVD+R) is provided by Virtual Allocation Table (VAT). Each time, when you add, change or delete files on CD-R/DVD-R/DVD+R media, UDF mastering program creates a new VAT that reflects a new state of your disk. A new VAT is being placed on the disk physically, when you eject the disk from CD/DVD drive. VAT's location is crucial for the disks created with the help of drag & drop software, such as well-known Roxio (Adaptec) DirectCD and Drag-To-Disc. If the VAT can not be found or is corrupted, files will be missing.

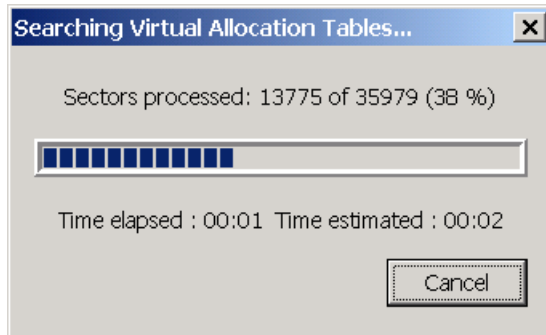
If your CD-R/DVD-R/DVD+R **is recognized as UDF one**, but when you try to open the disk, you get the error message about **unreadable root folder** - this means the last VAT is not found. Also, if you have **accidentally deleted** some files, a new VAT does not point to them. To recover the deleted files, you should use the previous VATs.

There are two main ways to find the lost files:

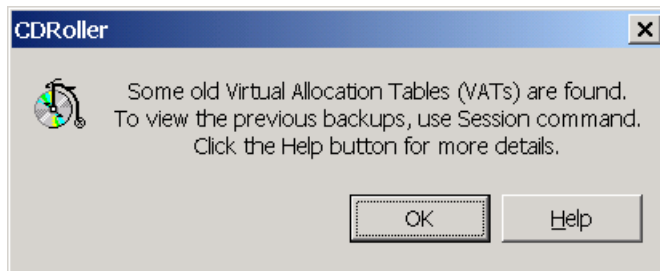
1. Using **Scan UDF Disc** from the Tools menu.
2. Searching an old VATs in order to recover the files from the previous backups.

The first method is described in the section 6.4. To search all VATs, please do the following:

- Click the Preferences option from the View menu. Check on the 'Search of all VATs' box on the UDF Reader tab in the Preferences dialog. Click the OK button to close the Preferences.
- Select Refresh command from the Edit menu. After a while the program will display a progress dialog similar to the one shown here:



- when the process is completed, you should see the confirmation message:



- Click the OK buttons in this and all further dialogs. The program considers an each backup as a **separate "session"**. When you will see a new disk image (icon) in the program window, please use built-in [Session Selector](#) (see the section 6.2) for access to all backups.

Note. Please do not search all VATs on the following disks:

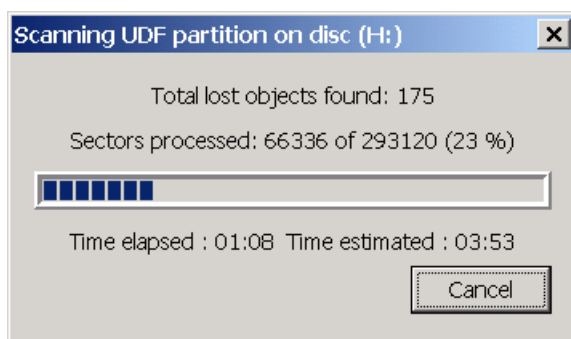
- CD-RW/DVD-RW/DVD+RW,
 - DVD-R and DVD+R created by DVD personal recorder (standalone device) and DVD camcorder.
- These disks do not contain VAT at all.

6.4. Applying Scan UDF Disc

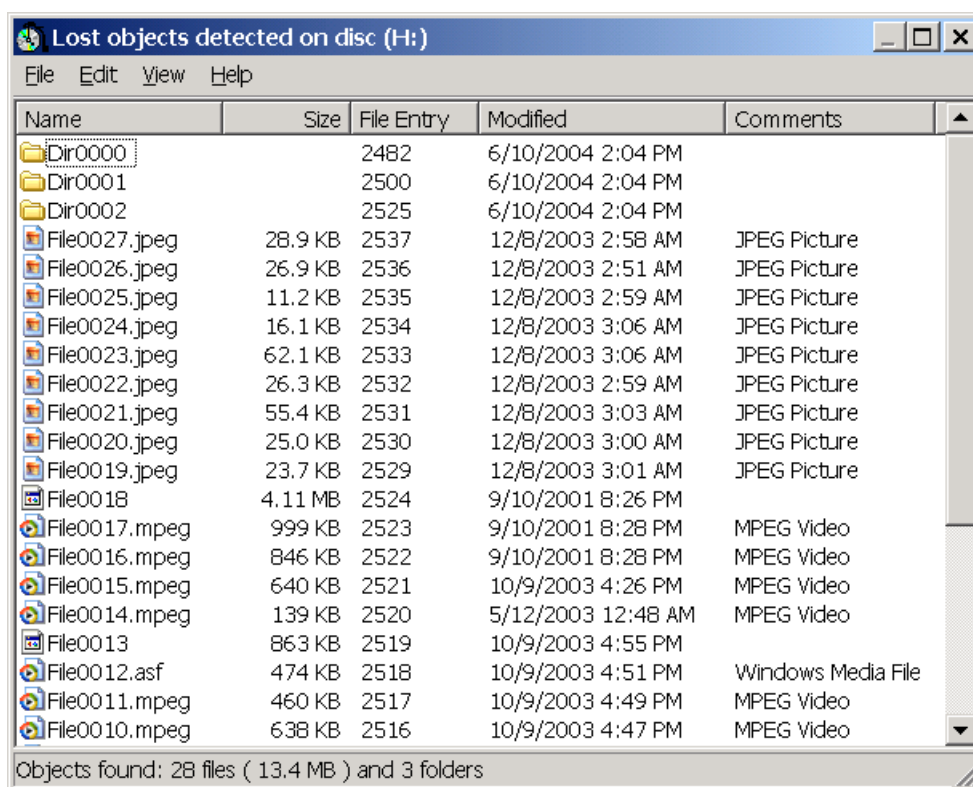
In addition to another methods of CD/DVD data recovery, **Scan UDF Disc** gives you a good chance to retrieve several types of files, including:

- Files are not visible in Windows Explorer - the **writing process was interrupted by a system or power failure** before file directory information was completed, but most or all of the files were written to the disk. This means that the files may be on the CD (DVD), but Windows Explorer cannot see them.
- Lost files - complete files that do not have a file name associated with them. They can also be files that you **accidentally deleted** from the CD (DVD).
- Files on the disks **quick-formatted** by Roxio DirectCD and Nero InCD.
- Files located in **unreadable** (damaged) **UDF folders**, including the root one.
- Files located on **Sony Mavica CD** finalized with failure on the camera.

To start **Scan UDF Disc** select the same option in the **Tools** menu. The program displays a progress dialog similar to the one shown here.



After CD scan is completed or canceled, found files and/or folders are displayed in the **Lost objects detected on disc...** window similar to the one shown here



If the lost folders have been found, try to open them first. This may give you a chance to recover the files with original names that are located in the found folders.

Some displayed files can be **preliminary identified** at the scan stage. To complete the identification **automatically**, we recommend you to use the **Copy and Identify** command.

If you know an original type, you can rename the selected files manually, with the help of **Rename** command, or/and use **New Extension** option to speed up the re-naming process in case of the large list. To save the selected files, you can apply **Send To**, **Rescue** or **drag&drop** operations.

Hints and Tips.

1. First, try to retrieve selected file(s) by **Send To** command. If an error message appears, this means that the part of file is corrupted or erased. In this case, try to recover the file partially with the help of **Rescue** command.

2. If you're going to retrieve UDF files from the same disc at the different times, you can save the table of contents (names, locations, attributes) of the found objects into separate file by **Save Table Of Contents** command from the **File** menu. Further, check on the **Load Table Of Contents from file box** on the **UDF Reader** tab in the **Preferences** dialog. Next time, when you will run **Scan UDF Disc** the program will display the list of the found objects shortly, without scanning the disc, and you can continue to retrieve the files data.

Trouble Shooting.

If the program can not recognize UDF disk, but you are certainly sure the disk contains the files, we recommend you to try the **forced scan** of the disk. This may be useful if the disk was incorrectly finalized, and the system data are not accessible. For example, this problem often occurs on **Sony Mavica CD** when the finalization step failed on the camera.

To start the forced scan, you should initially know what CD/DVD mastering program (or device) formatted your disk. For example: Roxio (Adaptec) DirectCD, Nero InCD, PacketCD or Sony Mavica CD digital camera. Further, you should assign an appropriate profile in the **Forced scan** option on the [UDF Reader](#) tab in the Preferences dialog and select **Refresh** command from Edit menu

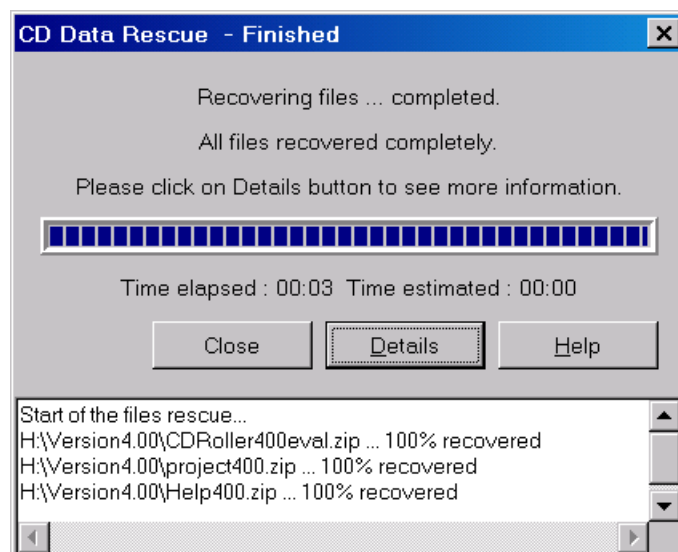
Note.

Obviously, there is no 100% guarantee to recover all displayed files completely, please keep in mind, that some files may be erased or partially re-written by a new ones. The program can restore those FILES DATA, which else it is possible to rescue.

6.5. Copying files

To copy **selected** files and folders to the destination drive you can use **Send To** and **Rescue** options from [File](#) menu or simply drag and drop selected items to the destination you have chosen on your HDD. To perform drag-and-drop, the program copies selected object(s) from CD to Temporary Storage on HDD first, and then sends them to the destination you have chosen on HDD. You should assign or change **Directory for Temporary Storage** on the [CD Library](#) tab in the Preferences dialog.

CD Data Rescue is an extremely useful feature of CDRoller to recover CD (DVD) data while reading the damaged discs. To rescue files and folders from the damaged discs CDRoller utilizes some adaptive methods and algorithms that may result in success. Unlike Windows standard tools, even if it is impossible to recover all the damaged data, CD Data Rescue allows to recover the largest part of the file, or fill unreadable sectors by zeroes to maintain an internal file structure.



The **Details** window contains the results of the process, and also some recommendations. For each file the Details window displays the percentage of the recovery. The results can be simply copied to another document via clipboard, with the help of keyboard shortcuts (Ctrl+C and Ctrl+V). To adjust the parameters of CD/DVD data recovery, you can use different settings on the [CD Data Rescue](#) tab in the Preferences dialog.

6.6. Reading mini DVD-R discs created by Hitachi DVD camcorders.

6.6.1. General requirements and settings.

- DVD-RW drives ("dvd writers") are more preferable in comparing with DVD-ROM drives ("dvd readers").
- You should uncheck the **Detect CD insertion by Windows** and **Always use CD drive capabilities** boxes on the Browser tab in the Preferences dialog before you will insert the troubled disc into the drive.

6.6.2. Reading non-finalized (open) DVD-R disc.

Symptom.

Disc was not finalized, you lost an access to the data due to **Disk Error** message when you turned on the camera.

Troubleshooting.

- Remove any disks from your CD/DVD drive(s).
- Run CDRoller.
- Click the **Preferences** option from the View menu. Make sure that the **Detect CD insertion by Windows** and **Always use CD drive capabilities** boxes are UNCHECKED on the Browser tab in the Preferences dialog. Click the OK button to close the Preferences.
- Insert the troubled DVD-R.
- Click the Preferences option from the View menu again. Set the **Forced scan to Hitachi DVD-R (O)** on the UDF reader tab. Click the OK button and close the Preferences again.
- Select Refresh command from the Edit menu. Do you see the **VTS_01_1.VOB file** in the **Lost objects detected...** window? If yes, go to the step 6.6.4.

6.6.3. Reading DVD-R disc that was finalized with error.

Symptom.

The disc finalization was accidentally interrupted, for example, due to the power failure.

Troubleshooting.

- Remove any disks from your CD/DVD drive(s).
- Run CDRoller.
- Click the **Preferences** option from the View menu. Make sure that the **Detect CD insertion by Windows** and **Always use CD drive capabilities** boxes are UNCHECKED on the Browser tab in the Preferences dialog. Click the OK button to close the Preferences.
- Insert the troubled DVD-R.
- Click the Preferences option from the View menu again. Set the **Forced scan to Hitachi DVD-R (F)** on the UDF reader tab. Click the OK button and close the Preferences again.
- Select Refresh command from the Edit menu. Does the program scan your disc? Are any files found within the first 100..200 sectors? If yes, **rename the largest file** to the .vob one with the help of **Rename** option from the File menu and go to the step 6.6.4.

6.6.4. Copying the found VOB files.

At first, try to copy the found file with the help of **Send To** option from the File menu, or simply drag the file to the destination folder on HDD. If you get an error message, try to apply the **Rescue** option from the File menu in order to retrieve the most part of video data. Also, you can use the different settings on the [CD Data Rescue](#) tab in the Preferences dialog, for example, selecting the **Fill sector by zeroes** in the **Overread** list.

6.6.5 Viewing the VOB files.

To view the VOB files we recommend **PowerDVD** from CyberLink at <http://www.gocyberlink.com/>.

6.7. Recovering files from DVD discs created by Roxio Classic Creator 6.

Symptom. The files and folders only from the first session (backup) seem to be shown on the DVD disc (DVD-R, DVD+R, DVD-RW, DVD+RW) created by Roxio Easy Creator Classic 6.

Cause & Troubleshooting.

If you have not changed the default settings in the Project Properties, Easy Creator Classic (EZ Classic) writes the both UDF and ISO (Joliet) file systems on the DVD discs. Unfortunately, probably due to the bug, EZ Classic hides a new files in UDF folders, but always shows them in ISO/Joliet ones. A solution is the following:

- Run CDRoller without any discs inserted.
- Click the **Preferences** from the View menu and check on **Read only ISO 9660 tracks box** on the [Browser tab](#) in the Preferences dialog. Click the OK button to close the Preferences.
- Insert the DVD into the drive and click the Refresh from the Edit menu. Only ISO/Joliet files and folders will be shown.
- If the disc contains a several sessions, use the built-in [Session Selector](#).

6.8. Retrieving the photos from mini discs created by Sony Mavica CD cameras.

6.8.1. General requirements and settings.

- CD-RW or DVD-RW drives (cd or dvd "writers") are more preferable in comparing with CD-ROM or DVD-ROM drives (cd or dvd "readers").
- You should uncheck the **Detect CD insertion by Windows** box on the Browser tab in the Preferences dialog before you will insert the troubled disc into the drive.

6.8.2. Reading mini disc that was finalized with failure on the camera.

Symptom.

The disc finalization was accidentally interrupted, for example, due to the power failure.

Troubleshooting.

- Remove any disks from your CD/DVD drive(s).
- Run CDRoller.
- Click the **Preferences** option from the View menu. Make sure that the **Detect CD insertion by Windows** is UNCHECKED on the Browser tab in the Preferences dialog. Click the OK button to close the Preferences.
- Insert the troubled disc.
- Select Refresh command from the Edit menu.
- Does the program recognize your disc? If not, please go to the step 6.8.3
- If you can see the disc icon in the program window, try to open the disc by left-double clicking its name. Do you get the message about unreadable root folder? If yes, try to run Scan UDF Disc from the Tools menu and go to the step 6.8.4 if the program has found the lost files.

6.8.3. Reading non-finalized (open) disc.

Symptom.

Disc was not finalized, you lost an access to the data due to **Disk Error**. You was able to view the photos earlier (prior to the disk error).

Troubleshooting.

- Remove any disks from your CD/DVD drive(s).
- Run CDRoller.

- Click the **Preferences** option from the View menu. Make sure that the **Detect CD insertion by Windows** box is **UNCHECKED** on the Browser tab in the Preferences dialog. Click the OK button to close the Preferences.
- Insert the troubled disc.
- Click the Preferences option from the View menu again. Set the **Forced scan to Sony Mavica CD** on the UDF reader tab. Click the OK button and close the Preferences again.
- Select Refresh command from the Edit menu. Does the program scan your disc? Are any files found? If yes, go to the step 6.8.4.

6.8.4. Recovering the found (indexed) files displayed in the "Lost objects detected..." window.

- Click the **Select All** command from the Edit menu and apply **Copy and Identify** command to recover the files (photos) automatically.
- Use **Rename** or/and **New Extension** commands to re-name the indexed files to .jpg ones, and then copy them to HDD with the help of **Send To**, **Rescue** or **drag&drop** operations.

6.9. Recovering video data off the discs created by DVD recorders (standalone devices).

6.9.1. General requirements and settings.

- DVD-RW drives ("dvd writers") are more preferable in comparing with DVD-ROM drives ("dvd readers").
- You should uncheck the **Detect CD insertion by Windows** and **Always use CD drive capabilities** boxes on the Browser tab in the Preferences dialog before you will insert the troubled disc into the drive.

6.9.2. Reading non-finalized (open) disc.

Symptom.

Disc was not finalized at all, you lost an access to the video data when you turned on the recorder.

Troubleshooting.

- Remove any disks from your CD/DVD drive(s).
- Run CDRoller.
- Click the **Preferences** option from the View menu. Make sure that the **Detect CD insertion by Windows** and **Always use CD drive capabilities** boxes are **UNCHECKED** on the Browser tab in the Preferences dialog. Click the OK button to close the Preferences.
- Insert the troubled disc.
- Click the Preferences option from the View menu again. Set the **Forced scan to Rec DVD+RW (O)** (in case of DVD+RW disc created by Thomson RCA, Philips, etc), or **LiteOn DVD+R (O)** (if the DVD+R disc was created by Lite-On DVD recorder) on the UDF reader tab. Click the OK button and close the Preferences again.
- Select Refresh command from the Edit menu. The **Lost objects detected...** window must appear immediately. Do you see the **VTS_01_1.VOB** file? If yes, go to the step 6.9.5.

6.9.3. Reading the disc was finalized with error.

Symptom.

The disc finalization was accidently interrupted, for example, due to the power failure.

Troubleshooting.

- Remove any disks from your CD/DVD drive(s).
- Run CDRoller.
- Click the **Preferences** option from the View menu. Make sure that the **Detect CD insertion by Windows** and **Always use CD drive capabilities** boxes are **UNCHECKED** on the Browser tab in the Preferences dialog. Click the OK button to close the Preferences.
- Insert the troubled DVD.
- Click the Preferences option from the View menu again. Set the **Forced scan to Rec DVD+RW (F)** (in case of DVD+RW disc created by Thomson RCA, Philips, etc), or **LiteOn DVD+R** (if the DVD+R disc was created by Lite-On DVD recorder) on the UDF reader tab. Click the OK button and close

the Preferences again.

- Select Refresh command from the Edit menu. Does the program scan your disc? Are any files found within the first 100..200 sectors? If yes, **rename the largest file(s)** to the **.vob** one(s) with the help of **Rename** option from the File menu and go to the step 6.9.5.

6.9.4. Reading quick-erased DVD-RAM disc.

Symptom.

Disc was accidentally quick-erased by DVD-RAM recorder. All movies seem to be lost.

Troubleshooting.

- Do not record any new movies.
- Remove any disks from your CD/DVD drive(s).
- Run CDRoller.
- Click the **Preferences** option from the View menu. Make sure that the **Detect CD insertion by Windows** and **Always use CD drive capabilities boxes** are UNCHECKED on the Browser tab in the Preferences dialog. Click the OK button to close the Preferences.
- Insert the troubled disc.
- Click the Preferences option from the View menu again. Set the **Forced scan** to **Rec DVD-RAM (E)** on the UDF reader tab. Click the OK button and close the Preferences again.
- Select Refresh command from the Edit menu. The **Lost objects detected...** window must appear immediately. Do you see the **VTS_01_1.VOB** file? If yes, go to the step 6.9.5.

Note. This feature was tested only on the discs erased by Panasonic DVD-RAM recorder. If you have any questions, please contact our Support Dept. at support@cdroller.com

6.9.5. Copying the found VOB files.

- Click the Preferences option from the View menu again. Go to the **CD Data Rescue** tab and set **Force** to the **Low** and **Retry** to the **Min**. Click the OK button.
- Select the VOB file(s) and apply the **Rescue** option from the File menu. In case of non-finalized (open) disc (6.9.2) or quick-erased DVD-RAM (6.9.4), an actual length of the lost video data is unknown. Please use **Recover ... % of the file size** option on the CD Data Rescue tab in order to correct the size of the data for a new recovery. Obviously, the recovery process takes a some time. However, this seems to be a single way to retrieve the lost data.

6.9.6. Viewing the VOB files.

To view the VOB files we recommend **PowerDVD** from CyberLink at <http://www.gocyberlink.com/>.

7. Additional features

Overview

In addition to CD/DVD data recovery the program offers set of features for:

- [Testing CD](#)
- [Extracting Audio Tracks](#)
- [Extracting ISO Image File](#)
- [Creating Short CD/DVD image](#)

All mentioned features are integrated into a common intuitive shell of CDRoller.

7.1. Testing CD

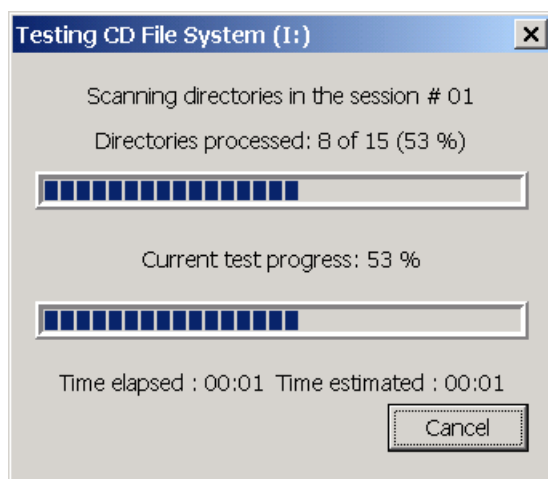
With the help of CD Media Test you can check if a CD(-R/W) contains errors. It can be useful to:

- Check the quality of the CD(-R/W) media.
- If you have a CD recorder, you can check if the data on the CD-R(W) is written correctly.
- Get advanced information from CD Volume.

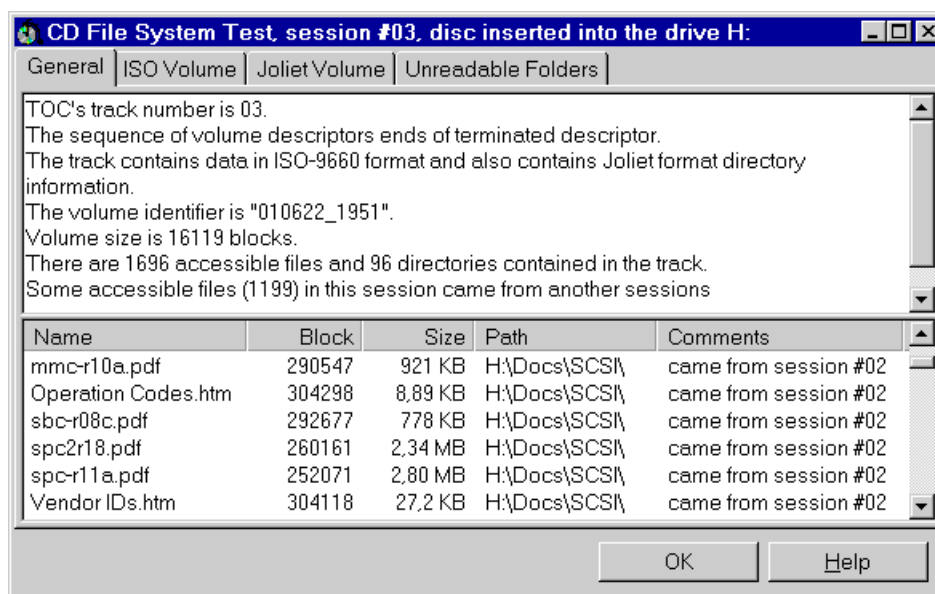
The test can be used for both CD-ROM and CD-Audio. It also examines Multisession and Mixed mode discs.

The list of tests includes **ISO 9660 File System** test, **CD surface** test and **Digital Audio Extraction (DAE) Quality** test. Since the program automatically determines the disc type, it always knows what the test from the list can be applied to the CD inserted into the drive. By [CD Media Test tab](#) options you can manually include (exclude) an appropriate test to (from) the list, set scan ratio while testing CD surface and also select checks of all sessions or only current session on multisession disc.

To start CD test select the **Test CD Media** option in the **Tools** menu. The program displays a progress dialog similar to the one shown here.



After all tests have completed, the program generates the reports. An example of ISO 9660 File System test report is shown here.

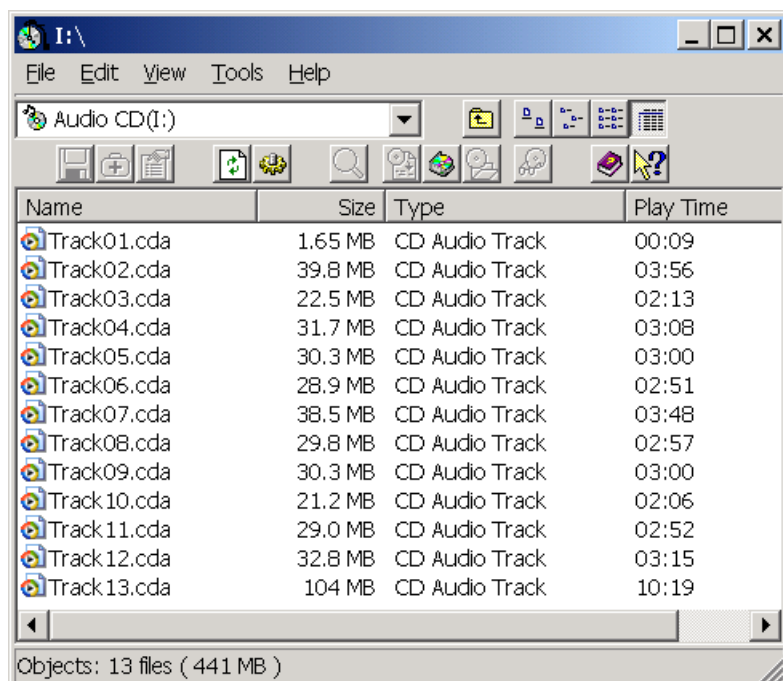


Note. CD Media Test is not available for the **UDF** disks.

7.2. Extracting Audio Tracks

To extract ("rip") audio track(s):

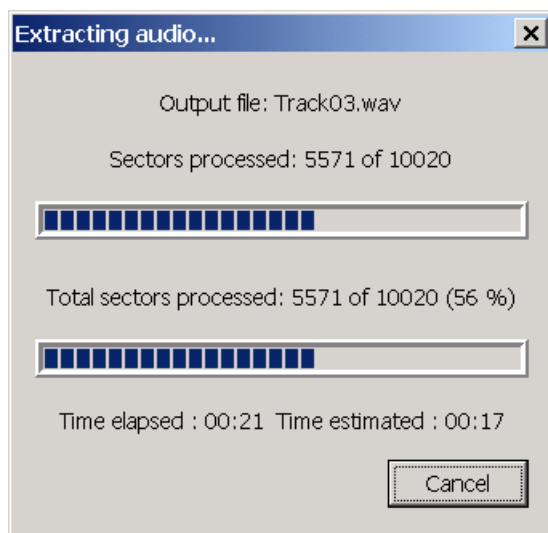
1. Insert CD audio into the drive.
2. After disk recognition left double click on CD name in the Main Window. The program displays the **Main Window** similar to the one shown here.



3. Select the track(s).
4. Choose **File | Send To** command or simply drag and drop selected track(s) to the destination on

HDD.

5. The program displays a progress dialog similar to the one shown here.



To extract audio tracks the program utilize the method known as **Digital Audio Extraction** (DAE). Key features:

- Applies a set of different extraction methods with Dynamic, Fixed synchronization with "jitter" correction, re-read block of sectors in case of error or/and lost of synchronization.
- Autodetects an appropriate read function for CD drive.
- Supports WAV, MP3, MP2, OGG or RAW formats of output file.
- Supports Windows ACM (Windows Audio Compression Manager).
- Supports Lame and Blade MP3 encoders (DLLs) and Ogg Vorbis, high-quality and patent-free audio codec.
- Extracts audio tracks "on-the-fly", directly to the output file without creating an intermediate WAV file.

Hint.

To change default settings (select another encoder, extraction method, etc.) use [Audio Extraction](#) tab in the Preferences dialog.

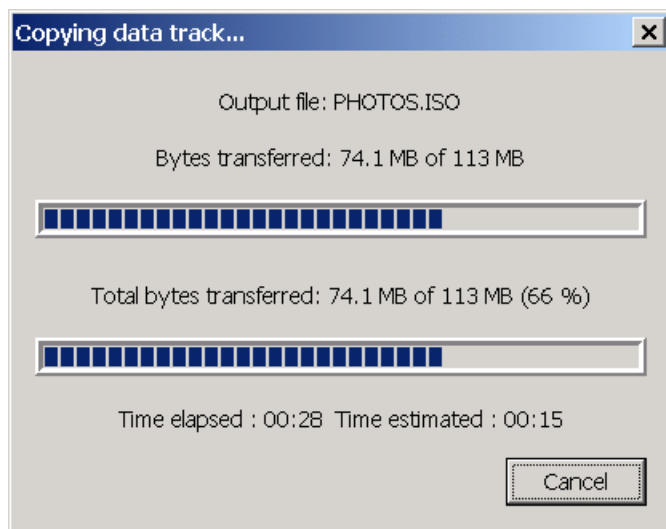
7.3. Extracting ISO Image File

ISO Image is a single large file that is a representation of the whole set of data and programs as it will appear on a CD. A disc image refers to both content and logical format. It can be useful to:

- Replicate your Data CD further using CD mastering programs such as Adaptec Easy CD Creator, Nero Burning ROM, Goldenhawk CDRWin, etc.
- Write the disc image to hard drive once, then record it several times to different CDs to save processing time.
- Create a disc image file to be written to CD on another system (UNIX, Macintosh).
- Back up CD data.

To extract ISO Image File:


1. Insert CD-ROM into the drive.
2. After disk recognition select **Tools | Extract to ISO Image File** option.
3. The program displays a progress dialog similar to the one shown here.

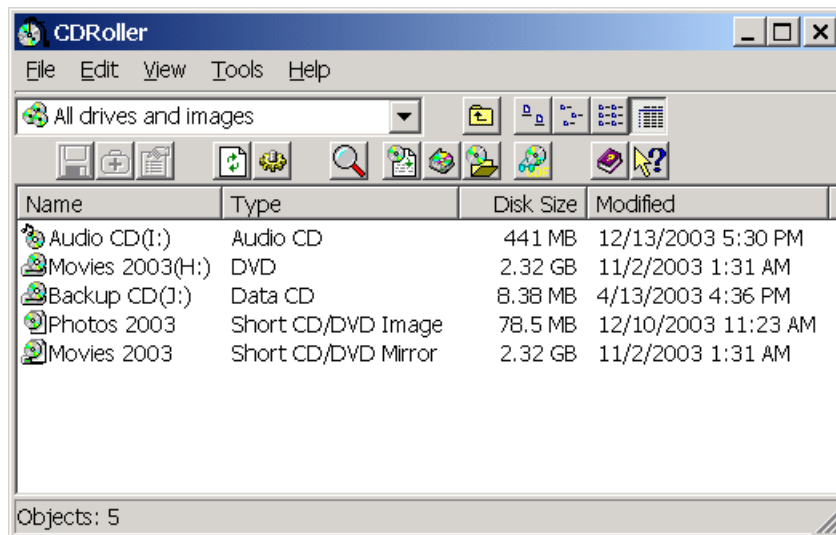


Note. ISO image file can be created only if the disk with a single data track originally was created using ISO-9660 or Joliet format. UDF disks, such as those created with DirectCD, Nero InCD and PacketCD, cannot be copied in this manner.

7.4. Creating Short CD/DVD Image

The Short CD/DVD Image is a file that contains ALL DIRECTORY STRUCTURE (directory tree) of the disk including complete folders and files names with attributes. This enables you to browse through the folders, search for the files or/and folders which you need (with the help of **Tools | Find** option), detect the properties of them using **Properties** command, but in order to retrieve any file, you should insert a "real" CD(DVD). When you insert a disc that has the image that has been created before, CDRoller

determines this image as a "**mirror**" of the real CD(DVD), displays it with an appropriate icon  in the **Main window** and further, utilizes image to access to any folder quickly without reading of inserted CD(DVD). This is an extremely useful if your "real" CD(DVD) has become a disc with unreadable folder(s) and, therefore you can not access to its files.



To create Short CD/DVD Image:

1. Insert CD or DVD into the drive.
2. Select **Tools | Short CD/DVD Image** option.

You can create the image with CD (DVD) name (label) or manually assign a new name for each inserted disk. For **multisession** disk you can create CD/DVD image for each session. All CD(DVD) images automatically are placed into a separate directory assigned on the [CD Library](#) tab in the Preferences dialog.

8. Contacting Technical Support.

The goal of the CDRoller Support Team is to provide our users unrivaled technical assistance when implementing CDRoller technologies. Our commitment to you is very simple. Top-notch support and immediate solutions to your technical problems. Since we have customers throughout the globe, we will do our best to respond to requests 24 hours a day. In fact, our support staff works staggered shifts for just this purpose.

You do not have to purchase the software in order to receive support, all your questions regarding CDRoller will be responded within 2 to 24 hours.

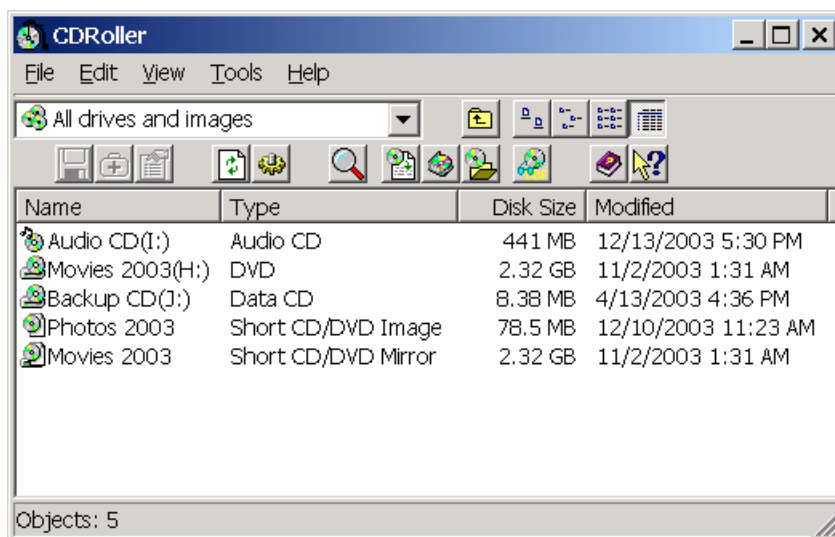
If you have purchased the product, please include the email address that you used when purchasing the software - we use this to confirm your purchase status and support requests from customers receive priority over others.







You can contact our support department via email at: support@cdroller.com. To be notified about new versions of CDRoller and new products please subscribe to our mailing list at <http://www.cdroller.com> or drop the letter to news@cdroller.com with **Subscribe** command in the Subject field. All questions regarding orders, licenses or other services should be directed to sales@cdroller.com. If you have any suggestions or comments regarding CDRoller, we'd like to hear from you. Please feel free to send an e-mail to suggest@cdroller.com. All suggestions will be at least considered and you will probably see them as new program's features in the future releases. If you have any problem with our web site at <http://www.cdroller.com>, please do not hesitate to contact our webmaster at webmaster@cdroller.com.

Annex A Controls and dialog boxes

A.1. Main Window

CDRoller interface is similar to Windows Explorer. The **Main Window** consists of **List Window** (Windows Explorer has Tree Window and List Window), **Status Bar** at the bottom, **List of available folders**, **Toolbars** and **Main Menu** on the top



The List Window displays the disc contents as main folder containing drives, discs, sub-folders, files or audio tracks. A graphic symbol, or icon associates with every folder, file or audio track. CDRoller assigns a proprietary icon to each type of CD/DVD media: CDRom, CD-R, CD-RW and all types of supported DVDs have the icon as , CD-DA (Audio CD) is displayed with  icon, symbol as  associates with Mixed CD (data plus audio) and empty drive (drive without any disc) has the icon as . **Short CD/DVD image** has appropriate icon as , and the icon as  is assigned to the image that is the "mirror" of inserted disc.

To **select an item** in the List Window click on its icon or name. When needed, you can use the vertical scroll bar to scroll up and down. You can also use the *PageUp* and *PageDown* keys, although the selection will change. If you want to work with multiple items in a folder, you can select each of them by holding down the Control (*Ctrl*) key and then clicking on the ones you want. The total size of selected files is displayed by the status bar. To select all items in the current folder you may also use the Edit options from the [Main Menu](#).

The List Window can be presented in either of four ways (large icons, small icons, icon list and details), selectable in the **Main menu** by the View options or with appropriate buttons on the **Main Toolbar**. View as Detail mode (most common for CDRoller) consists of columns, each displaying appropriate type of data.

To adjust a column's width, you may move the mouse pointer to the right border of the column heading box. The mouse pointer changes to a double-headed horizontal arrow with a vertical bar in the middle. That means you move the border. Hold down the mouse button and drag the border left or right as needed. When the border is in its preferred location, release the mouse button.

Every item displayed in the List Window has its own **Pop-up menu** - if you right-click on it, a menu will show up by it, displaying all the options available over the selected item.

All buttons on the both **Toolbars** have a hint - if you don't know what the button does, just place the mouse over it and wait for a second, and a short description will appear.

CDRoller supports drag-and-drop - meaning that any file and/or folder can be copied to desired location on HDD or any audio track can be extracted to the output file by drag-and-drop.

A.2. Main Menu Commands

A.2.1. File Menu (*shortcut Alt + F*)

| Command | Shortcut | Description |
|--------------|--------------|---|
| New Window | Ctrl + Enter | Displays CD/DVD contents (folders, data files or audio tracks) in the new window. |
| Session | - | Selects a new session on multisession CD-R/DVD-R. |
| Send To | Ctrl + S | Executes files copying (for data CD or DVD) or digital audio extraction (for audio CD). |
| Rescue | F9 | Runs CD Data Rescue |
| Properties | - | Displays properties of the selected object(s). |
| Close Window | Ctrl + F4 | Closes the current active window. Terminates the program in case of a single window. |
| Exit | Alt + F4 | Ends your CDRoller session. |

A.2.2. Edit Menu (*shortcut : Alt + E*)

| Command | Shortcut | Description |
|------------------|------------------|--|
| Select All | Ctrl + A | Selects all items (files, sub-folders or audio tracks) in the current folder. |
| Deselect All | Ctrl + D | Unselects all items (files, sub-folders or audio tracks) in the current folder. |
| Invert Selection | Shift + Ctrl + I | By this command selected items will be non-selected and non-selected items will be selected. |
| Refresh | F5 | Causes all discs in all drives to be examined. |

A.2.3. View Menu (*shortcut : Alt + V*)

| Command | Shortcut | Description |
|-----------------|----------|---|
| Main ToolbarBar | - | Shows/Hides Main ToolBar. |
| Extra ToolBar | - | Shows/Hides Extra ToolBar. |
| Status Bar | - | Shows/Hides Status Bar. |
| Large Icons | - | Views the large icons representing the contents of the CD folder. |
| Small Icons | - | Views the small icons representing the contents of the CD folder. |
| List | - | Views the names of the files and sub-folders listed in the CD folder. |
| Details | - | Views the details of the files and sub-folders listed in the CD folder, including file size and the date last modified. |
| Sort By | - | Controls the sequence or order of the folder contents by Name, Type, Size, Date or in Reverse Order. |
| Preferences | Ctrl + P | Sets up program options. |

A.2.4. Tools Menu (*shortcut : Alt + T*)

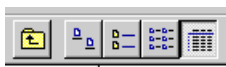
| Command | Shortcut | Description |
|---------------------------|----------|--|
| Find | F3 | Activates the Search Window to search CD contents in the inserted CDs and also in the collection of previously created Data CD/DVD Images. |
| Short CD/DVD Image | Ctrl + I | Creates and adds a new Short CD/DVD image to the library. |
| Test CD Media | Ctrl + T | Runs CD Media Test. |
| Extract To ISO Image File | Ctrl + E | Creates ISO 9660 Image File. |
| Scan UDF Disc | Ctrl + U | Runs Scan UDF Disc |


A.2.5. Help Menu (shortcut : Alt + H)

| Command | Shortcut | Description |
|----------------------|----------|---|
| Contents | F1 | Opens the CDRoller online help. |
| Ordering Information | - | Displays information about ordering CDRoller. |
| FAQs | - | Displays Frequently Asked Questions (FAQs) with answers about CDRoller. |
| Technical Support | - | Displays information about technical assistance. |
| Home Page | - | Visits the CDRoller web page. |
| About CDRoller | - | Displays copyright notice and enables you to register. |

A.3. The Toolbars

A.3.1. Main ToolBar.



 Back One Level button returns focus to the parent item, usually to the parent folder (opens the folder of the higher level) that contains current folder. The next four buttons allow you to select one of the four view modes for the List Window, Windows Explorer gives the same possibility (**View as Large Icons**, **View as Small Icons**, **View as List** or **View as Details**). These buttons duplicate the corresponding options in the [View](#) Menu. The default mode for CDRoller is **View as Details** (the last button) which gives you the most useful presentation of your folder data.

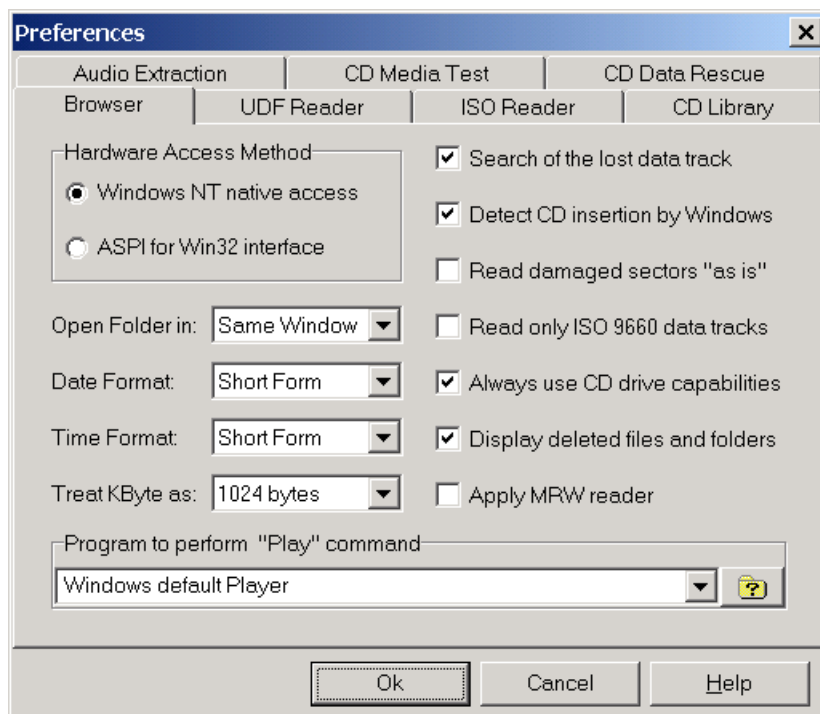
A.3.2. Extra ToolBar.



The buttons of Extra ToolBar duplicate the corresponding options in the [File](#), [Tools](#) and [Help](#) menu.

A.4. Preferences

A.4.1. Browser



Hardware Access Method (default value is: *CDRoller proprietary driver* for Windows 9x/ME or *Windows NT native access* for Windows NT4/2000/XP)

Detects one of two methods to access hardware. We strongly recommend you using default settings, and select ASPI mode only if you have a serious problems with base method.

Note. This option sets the fundamental mode of application operating. To apply new setting you should restart the program.

Open Folder In: (default value *Same Window*)

Is a choice between keeping a single window open while changing the folder contents as you click through the various levels (*Same Window* mode) and opening a new window every time you double-click on a folder (*New Window* mode).

Date Format (default value *Short Form*)

Sets the Date format used by the program to display the Date information.

Time Format (default value *Short Form*)

Sets the Time format used by the program to display the Time information.

Treat KByte as: (default value *1024 bytes*)

Detects the way of 'kilobyte consideration' as 1024 bytes exactly (in 1024 bytes mode) or as 1000 bytes (in 1000 bytes mode). It may be useful for correct file (folders or audio tracks) size calculation, before these items will be sent to hard disk.

Search of the lost data track (default value *Checked*)

If *Checked*, the program searches the lost data track when a new disc is inserted or after **Refresh** command from **Edit** Menu, and, if found, displays its contents in the List Window.

Detect CD insertion by Windows (default value *Checked*)

If *Checked* the program detects arrival or removal of the CD (DVD) using Windows "standard" tools (messages). This starts [CD recognition](#) automatically, without requirement of the refresh. If the program can not recognize your disc automatically, try to uncheck this option and repeat examination of a new disc by selecting **Refresh** command from Edit Menu.

Read damaged sectors "as is" (default value *Unchecked*)

If *Checked*, when reading **system area** and **folders**, unreadable sectors will be accepted "as-is". This may be useful in some circumstances, but it should be understood that the content of these "accepted" sectors could be all zero or partially correct data – there is no way to tell. You should use this mode only if the program can not "recognize" your damaged CD/DVD or you vitally need an access to the unreadable folder. Please keep in mind that your CD/DVD drive may not support reading of disk sector "as is" or the content of that sector may be denied by the further checks in compliance with ISO 9660 and UDF requirements.

Read only ISO 9660 data tracks (default value *Unchecked*)

If *Checked*, the program searches and verifies only ISO system area on data tracks after insertion of new CD. Discs with another file system, such as UDF, require additional recovery procedures that may take a some time, especially while reading multisession CDs. If you are sure that your CD is really recorded only in ISO 9660 format, you should uncheck this option to accelerate CD recognition. Obviously, to read the discs with **UDF** file system, this option has to be checked.

Always use CD drive capabilities (default value *Checked*)

If *Checked*, when reading the damaged sectors, the program will apply some low-level methods and algorithms based on the capabilities of your CD (DVD) drive. In some circumstances the drive can slow the process of CD reading when meeting a bad zones (unreadable sectors). In this case we recommend you to uncheck this option.

Display deleted files and folders (default value *Checked*)

If *Checked*, the program displays files and folders having *deleted* characteristics on CD-RW/DVD-RW disks with UDF system. The objects are shown with special *Inaccessible file* icon in the List Window. You can try to recover them with the help of **Scan UDF Disc** command from [Tools](#) Menu.

Apply MRW reader (default value *Unchecked*)

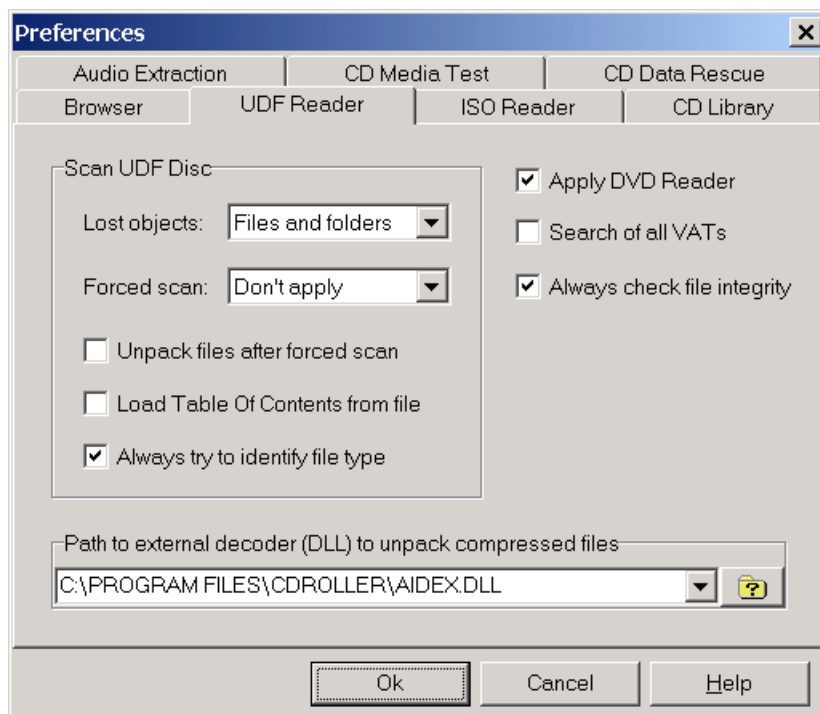
If *Checked*, the program automatically recognizes CD-RW disk formatted in the "[Mt.Rainier](#)" CD-RW format (CD-MRW) placed into non-Mt.Rainier drive, and presents the data portion of the disk as a "read only" UDF format disk. We also recommend you use this to read the disk inserted into CD-MRW drive if your MRW disk was not ejected (closed by cd mastering program). For example, if the writing process was interrupted by a system or power failure.

Hint. To check the drive capabilities, use **Properties** command applied to the "empty" drive in the List window and select **Features** tab in the Properties dialog.

Program to perform "Play" command (default value *Windows Default*)

Assigns the utility that will be used by 'Play' command in the pop-up menu. In the default (*Windows Default*) mode CDRoller uses 'Standard' Windows CDPlayer. Appropriate program can be selected as it was mentioned above to assign the utility to perform 'Explore' command.

A.4.2. UDF Reader



Lost objects (default value *Files and folders*)

Determines what objects (files and/or folders) will be looked for by Scan UDF Disc.

Forced scan (default value *Don't apply*)

If the selected setting is different from the default value, the program will force the drive to scan your CD/DVD in order to find the lost files without using the data of system area. We highly recommend you to use this only if the inserted disk has not been recognized by CDRoller before, and you are also sure the disk contains the files. This may be useful if the disk was incorrectly finalized and system area was not written properly. For example, this problem often occurs on Sony Mavica CD when the finalization step failed on the camera.

If you actually know the name of CD/DVD mastering program (or device) that formatted your disk, try to select an appropriate value from the list of the following profiles:

| Value | Description |
|-------------------|---|
| Sony Mavica CD | The disk was mastered by Sony Mavica CD digital camera |
| DirectCD CD-R | CD-R was formatted by Roxio (Adaptec) DirectCD |
| DirectCD-RW74 | CD-RW 74 min was formatted by Roxio (Adaptec) DirectCD |
| DirectCD-RW80 | CD-RW 80 min was formatted by Roxio (Adaptec) DirectCD |
| InCD3 -RW74 | CD-RW 74 min was formatted by Nero InCD v.3 |
| InCD3 -RW80 | CD-RW 80 min was formatted by Nero InCD v.3 |
| PacketCD-R | CD-R was formatted by CEQUADRAT PacketCD |
| DirectCD-MRW | CD-MRW (" Mt. Rainier " CD-RW) was formatted by DirectCD |
| InCD3 -MRW | CD-MRW (" Mt. Rainier " CD-RW) was formatted by Nero InCD v.3 |
| PacketCD-RW | CD-RW was formatted by CEQUADRAT PacketCD |
| InstWrite CD-RW | CD-RW was formatted by VOB InstantWrite |
| InCD4 -RW80 | CD-RW 80 min was formatted by Nero InCD v.4 |
| InCD4 -DVD-RW | DVD-RW was formatted by Nero InCD v.4 |
| InCD4 -DVD+RW | DVD+RW was formatted by Nero InCD v.4 |
| InCD4 -MRW | CD-MRW (" Mt. Rainier " CD-RW) was formatted by Nero InCD v.4 |
| DragTo CD-RW | CD-RW was formatted by Roxio Drag-To-Disc |
| DragTo CD-MRW | CD-MRW (" Mt. Rainier " CD-RW) was formatted by Roxio Drag-To- |
| DragTo DVD-RW | DVD-RW was formatted by Roxio Drag-To-Disc |
| DragTo DVD+RW | DVD+RW was formatted by Roxio Drag-To-Disc |
| DragTo DVD-R | DVD-R was formatted by Roxio Drag-To-Disc |
| DragTo DVD+R | DVD+R was formatted by Roxio Drag-To-Disc |
| LiteOn DVD+R | DVD+R was mastering by LiteOn DVD recorder |
| LiteOn DVD+R (O) | DVD+R is still open (non-finalized) by LiteOn DVD recorder |
| Hitachi DVD-R (F) | DVD-R was created and finalized by Hitachi DVD camcorder |
| Hitachi DVD-R (O) | DVD-R is still open (non-finalized) by Hitachi DVD camcorder |
| Hitachi DVD-RAM | DVD-RAM was mastering by Hitachi DVD camcorder |
| Rec DVD+RW (F) | DVD+RW was created and finalized by standalone DVD Recorder (Thomson RCA, Philips, etc.) |
| Rec DVD+RW (O) | DVD+RW is still open (non-finalized) by standalone DVD Recorder (Thomson RCA, Philips, etc.) |
| Rec DVD-RAM | DVD-RAM disc was mastering by standalone DVD recorder |
| Rec DVD-RAM (E) | DVD-RAM disc was quick-erased by standalone recorder (e.g Panasonic DVD-RAM recorder) |

Warning. Please use the forced scan at your own risk. There is no 100% guarantee to retrieve all files

from all disks in all cases. Please keep in mind, that some files may be incorrectly written, erased or partially re-written by a new ones.

Unpack files after forced scan (default value *Unchecked*)

If *Checked*, the program will try to decode the files found by the forced scan on the disks compressed by Roxio (Adaptec) DirectCD . The found files can be recovered with the help of **Send To, drag & drop** or **Rescue** options in the "Lost objects detected..." window.

Hint. AIDEX RunTime decoder (aidex.dll) must be assigned in the **Path to external decoder (DLL) to unpack compressed files**.

Load Table Of Contents from file (default value *Unchecked*)

If *Checked*, you are prompted to select a file with the table of contents of the objects found by Scan UDF Disc before, instead of new scan of your disk physically.

Always try to identify file type (default value *Checked*)

If *Checked*, the program will try to identify the types of found files at the scan stage (preliminary identification). On some discs and drives this may slow the scan process.

Apply DVD Reader (default value *Checked*)

If *Checked*, the program will try to recognize and verify DVD disk automatically. However, in some circumstances, for example when the disk is extremely corrupted, it is more useful to present DVD disk as a "read only" UDF format CD. If *Unchecked*, only CD identification methods will be applied.

Search of all VATs (default value *Unchecked*)

Virtual Allocation Table (VAT) is an important part of the UDF File System. VAT's location is crucial for CD-R/DVD-R/DVD+R disks created with the help of drag & drop software, such as well-known Roxio (Adaptec) DirectCD and Drag-To-Disc. If the VAT can not be found or is corrupted, files will be missing.

If the option is *Checked*, the program will try to search all VATs. This may give you a chance to find and recover the files from the previous backups, including the **files accidentally deleted** by drag & drop software. If some old VATs are found, the program displays their files and folders in a separate sessions. Further, all sessions can be viewed by the built-in [Session Selector](#).

Always check file integrity (default value *Checked*)

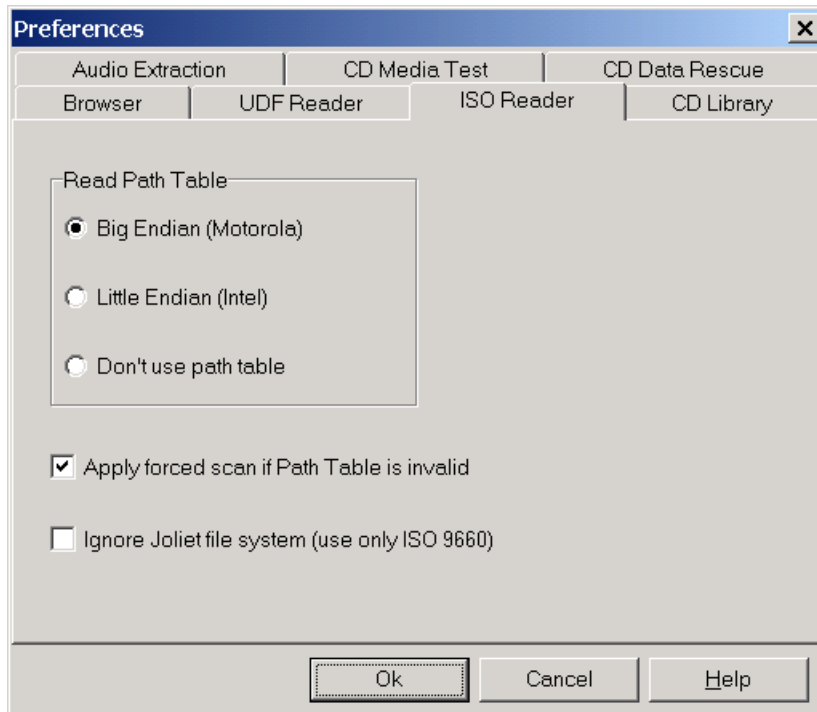
When *Checked* the program always test the file before decompression, using the data of file header. If an important file data seem to not be recovered, try to uncheck this option. Please keep in mind that you may get an unpredictable results, so try this only at your own risk.

Path to external decoder (DLL) to unpack compressed files (default value *None*)

Assigns an external decoder (DLL) for "on-the-fly" decoding the files compressed by Roxio (Adaptec) DirectCD directly to the destination file when selecting **Send To, Open, Rescue or drag&drop** operations. **AIDEX RunTime decoder** (DLL) (c) 2003 AIDEX Team is tested and highly recommended.

Note. There is no 100% guarantee to unpack all compressed files on all disks, please keep in mind, that some files may be partially erased or incorrectly packed. Our tests indicate that more than 80% of files are successfully decompressed.

A.4.3. ISO Reader



Read Path Table (default value *Big Endian (Motorola)*)

By default, the program does use the Path Table because this is the most fast method to access the directories on your ISO 9660 CD. CDRoller uses the Big Endian addresses by default, because Windows doesn't use them, so CDRoller offers an alternative method at once, if your CD is not visible by Windows. However, for a particular disc, if the default settings doesn't work properly, you can try another settings. For example, if the Path Table seems to be invalid, you can select **Don't use path table**. This will force CDRoller to start from the Root directory and scan all directories on the CD.

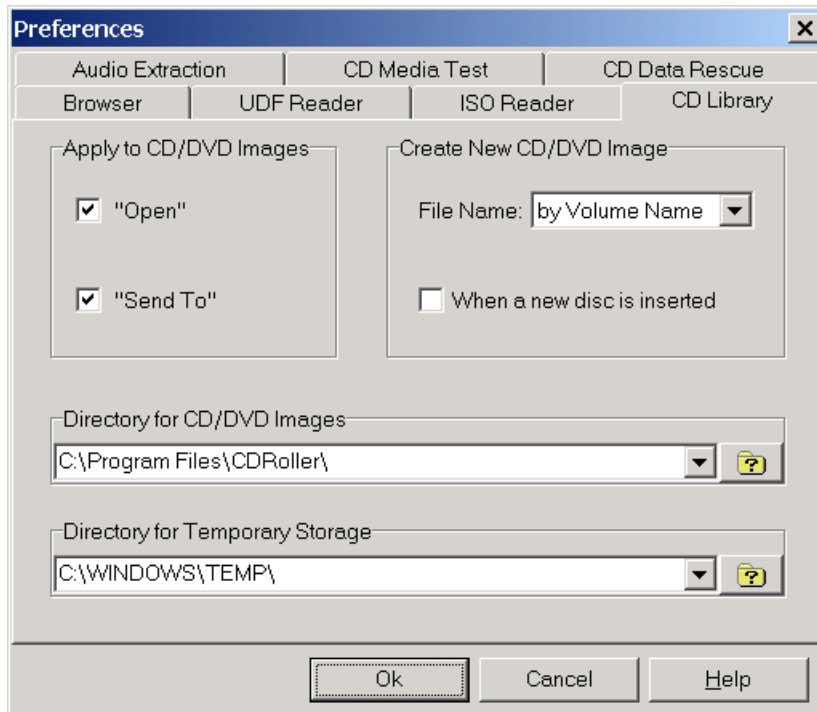
Apply forced scan if Path Table is invalid (default value *Checked*)

If *Checked*, the program will automatically scan the directories in case of inaccessible Path Table.

Ignore Joliet file system (use only ISO 9660) (default value *Unchecked*)

If *Checked*, any Joliet directory information on the disc will be ignored and only the ISO-9660 directory will be displayed. This may be useful if the Joliet directory information is corrupted and the CD files seem to be inaccessible. With the help of ISO-9660 directories you can try to access the files data, bypassing the Joliet file system.

A.4.4. CD Library



Apply To CD/DVD Images, group of options :

- **"Open"** (default value *Checked*);
- **"Send"** (default value *Checked*);

When *Checked* the program tries to perform appropriate command for CD(DVD) image. If there is no disk inserted into CD/DVD drive, the program prompts you to insert the disk to perform Files Open and Files Copying.

File Name (default value *by Volume Name*)

The File Name can be created either by choosing the Disk Volume Name (*by Volume Name* mode) or summarizing the word 'CDIM' with four random digits (*Random* mode) or inputting CD(DVD) Image file name manually (*Manual* mode).

When a new disc is inserted (default value *Unchecked*)

When *Checked* the program creates CD/DVD Image for a newly inserted disc.

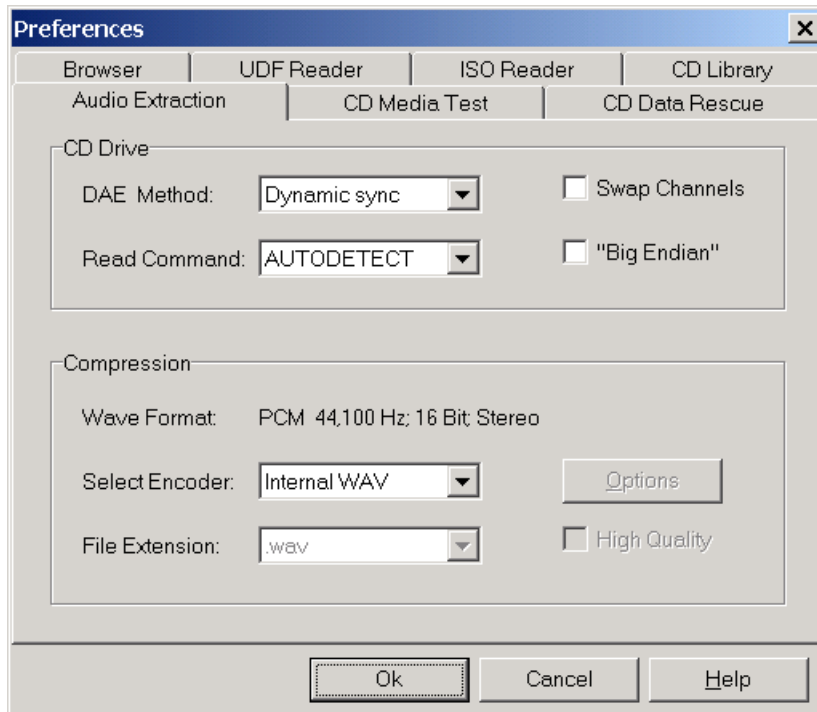
Directory for CD/DVD Images (*program directory path* by default)

Assigns the directory on your HDD to store created CD/DVD Images.

Directory for Temporary Storage (default value *Windows Temporary Directory*)

Assigns the directory on your HDD to be used as Temporary Storage for drag-and-drop and Files Open.

A.4.5. Audio Extraction



DAE Method (default value *Dynamic Sync Width*)

By the *Dynamic Sync Width* method the program tries to synchronize new audio data with the previously read block of audio sectors by changing the overlap area between two consecutive read blocks. *Fixed Sync Width* means that a set amount of frames is used for blocks synchronization. Read error detection and lost synchronization control also occur in both methods. The audio extraction by *Burst Copying* method is the fastest. Burst copy doesn't use any synchronization and error recovering.

Read Command (default value *AUTODETECT*)

If *AUTODETECT* (recommended setting) option has been selected, the program tries itself to find an appropriate read algorithm for user's CD drive.

SCSI READ CD function is the base command recommended by SCSI-3 Standard for reading audio frames. It is supported by all ATAPI drives that have DAE feature, and some SCSI devices.

SCSI READ (10) function may be used for DAE on SCSI drives support SCSI-2 Standard.

Note. The list of audio read commands used by program in *AUTODETECT* mode is not limited by two ones mentioned above. Some known read functions are absent in the selection list because a wrong chosen extraction command may cause problems on some SCSI systems.

Swap Channels (default value *Unchecked*)

When checked, the program itself will exchange left and right channels in the audio samples before writing them into output file. This may be suitable for some CD drives to exchange stereo channels while extraction.

"Big Endian" (default value *Unchecked*)

Motorola "Big Endian" mode is often used on drives from Grundig, IMS, Kodak, Ricoh and some others.

WARNING. Check this option only if the extracted output file seems to consist of noise!

Wave Format (default value *44,100 Hz; 16 Bit; Stereo*)

Indicates a brief description of audio compression format that has been selected.

Select Encoder (default value *Internal WAV*)

Assigns an appropriate encoder from the list of available ones.

File extension (default value *.wav*)

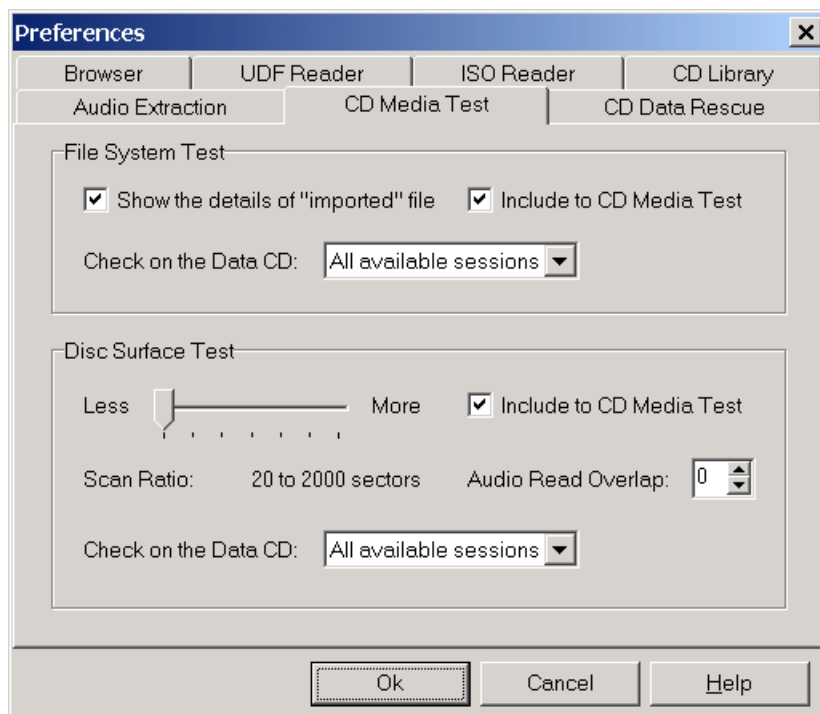
Indicates the extension of output file (.wav, .mp3 or .raw).

Options

Activates an options dialog box to select audio compression format.

High Quality (default value *Unchecked*)

For some audio compression formats, specifying this flag might improve the audio quality or other characteristics.

A.4.6. CD Media TestFile System Test group.**Show the details of "import" file** (default value *Checked*)

For multisession discs only. This option indicates whether or not report window contains a line for each file which is found in a prior session or if counts of the files linked to in prior sessions is sufficient. The default is to display only the counts of linked files from each session.

Include to CD Media Test (default value *Checked*)

When *Checked* File System Test will be included to the list of available tests.

Check on the Data CD (default value *All available sessions*)

If *All available sessions* option has been selected the program checks file systems of all sessions on multisession CD. In case of *Selected session only* the selected session is examined.

Note. There is no difference between these two settings for single session disc.

Disc Surface Test group.**Scan ratio Track Bar** (default position *20 to 2000 sectors*)

Sets the current ratio of read sectors to total sectors in the block. For example, "20 to 2000 sectors"

setting means that the program reads 20 sectors in the block of 2000 sectors and therefore, then skips (2000 - 20) sectors before the next reading. This setting is used for Data CD Surface test and also for DAE Quality test.

Include to CD Media Test (default value *Checked*)

When *Checked* Disc Surface Test is included to the list of available tests. For mixed CDs it means that as Data CD Surface test as DAE Quality test will be included to the list of available tests.

Check on the Data CD (default value *All available sessions*)

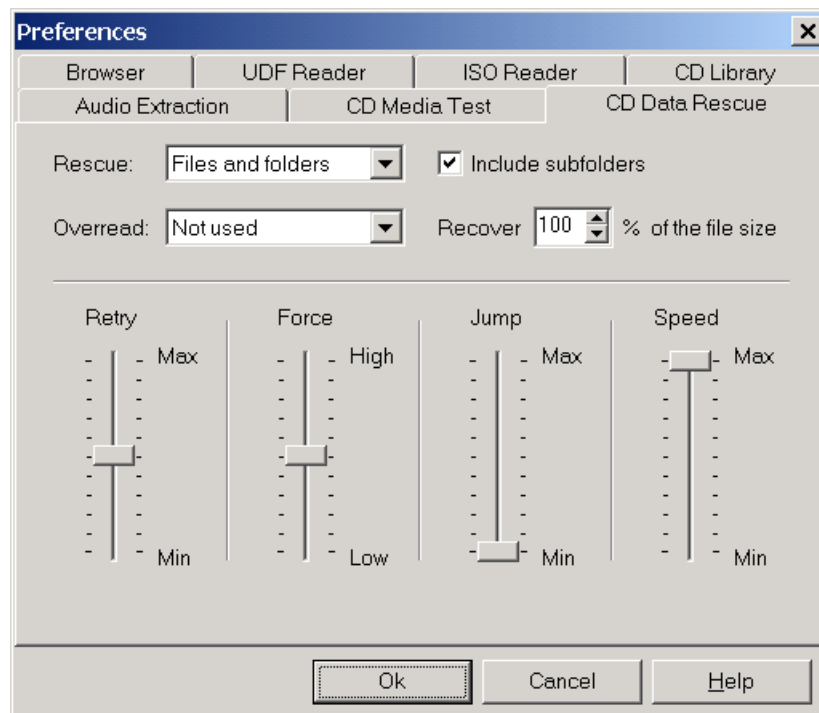
If *All available sessions* option has been selected the program scans disc surface on all sessions. In case of *Selected session only* the selected session is examined on multisession CD.

Note. There is no difference between these two settings for single session disc.

Audio Read Overlap (default and minimum values are 0, maximum value is 7)

Sets the number of overlapping sectors for DAE Quality test. This may be useful to determine the value of overlap for so-called "jitter correction" while reading CD audio data.

A.4.7. CD Data Rescue



Rescue (default value *Files and Folders*)

Determines what objects will be recovered.

Include subfolders (default value *Unchecked*)

Check it if you wish to rescue not only contents of the folder you have chosen, but also its subfolders. This option is disabled if **Rescue** is set to *Files only*.

Overread (default value *Not used*)

If you assign *Accept sector "as is"* or *Fill sector by zeroes* values, the recovery of the disk data will be processed in so-called "Overread" mode. This allows to maintain an internal file structure. If *Accept sector "as is"* is selected, all sectors in error will be accepted as-is. This may be useful in some circumstances, but it should be understood that the content of these "accepted" sectors could be all zero, partially correct data or random garbage - there is no way to tell. If *Fill sector by zeroes* is assigned, the program will ignore unreadable sectors replacing the damaged data with zeroes.

Notes.

1. Use *Accept sector "as is"* and *Fill sector by zeroes* values only if all your attempts to recover CD/DVD data with the help of *Not used* setting have been failed.
2. The functionality of the recovered file will depend on the number and importance of the damaged sectors.

Recover ... % of the file size (default value 100)

Limits the size of the file for recovery. This may be useful for the recovery of the first part of extremely damaged file.

Retry

Sets the number of retries that the program will try again to recover data after an error has occurred.

Force

Detects the level of utilizing the internal CD/DVD drive capabilities for error recovering.

Jump

Sets the length of "jump running" while reading a bad sector. It may be a pretty useful in working with some old CD drives.

Speed

Controls the maximum CD read speed.

Note. The program controls the maximum CD read speed for CD drives that support 'Set CD Speed' command listed in SCSI-3 MMC2 standard.

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