

## **NTI Web Resources**

NTI is committed to your success! We hope to make your experience with CD-Maker Deluxe the best possible by making available news and information, product updates and upgrades, Frequently Asked Questions and our Technical Support from the Internet. Our web site is at [ntius.broderbund.com](http://ntius.broderbund.com).

## **Company or Product News and Information**

Find out the latest about NTI what we are doing at [ntiuscorp.broderbund.com](http://ntiuscorp.broderbund.com) or any of our world-class products at [ntiusproducts.broderbund.com](http://ntiusproducts.broderbund.com). Learn about the latest features or supported drives for CD-Maker Deluxe You can even download a trial version of any of our products directly from our web site giving you the easiest way to give our software a test drive before you buy.

## **Frequently Asked Questions (FAQs)**

You can browse the latest information and commonly asked questions about CD-Maker Deluxe from our web site at [ntiusfaq.broderbund.com](https://ntiusfaq.broderbund.com). Find out what questions other CD-Maker Deluxe users had about it. Get quick answers to the most commonly asked questions.

## **Updating your CD-Maker Deluxe Software**

From time to time, we release product updates and upgrades from our web site. Product updates generally contain patches and other corrections to the CD-Maker Deluxe software and are available for registered users to download for free. Upgrades involve major product enhancements along with patches to reported problems. They will also be available for download but may involve a nominal fee.

Updates can be installed by executing the downloaded file. All updated files and patches will be applied to your CD-Maker Deluxe software automatically! It is highly recommended that you download and install any updates prior to contacting our Technical Support Department.

Visit our web site at [ntiusdownload.broderbund.com](http://ntiusdownload.broderbund.com) for the latest updates for all NTI products!

## **What is CD?**

CD stands for *Compact Disc*, which is a general term for all formats of CD media. CD formats available on the market now include Audio CD, CD-ROM, CD-ROM XA, Photo CD, Video CD and others.

Among this variety of CD formats, the most familiar one is perhaps *Audio CD*, which is a standard CD format used for storing audio sound tracks, for example, music and songs. Due to the immense success of Audio CD, today the use of this media has been expanded into storing data, for the purpose of data archival and distribution.

Compared to traditional data storage alternatives such as floppy disk and tape, CD is best for the storage of large amounts of data. CDs can store any form or combination of computer files, audio data, photo image files, software applications and video data. The benefits of using CD include durability, convenience, and cost effectiveness.

## **A Brief Overview of CD-R Technology**

In 1989, Taiyo Yuden Company of Japan developed an organic dye-based CD medium that was coated with a thin layer of gold. This new medium not only provided the same physical characteristics and capacity as silver pressed CDs, but also had better reflective properties than commercially replicated CDs. Two types of devices that are able to write information to a CD Recordable (CD-R) disc are (1) Compact Disc Recorder (CD Recorder) and (2) Compact Disc ReWritable Recorder (CD-RW Recorder). A CD-RW Recorder can write to a CD-R disc as well as a CD ReWritable Recordable (CD-RW) disc. The invention of CD-R and CD-RW technology brings many benefits:

1. You are able to make your own CD-ROM discs on a desktop PC at a low cost.
2. You are able to select a suitable CD format to record your information.
3. You can now avoid expensive mastering costs associated with commercial mastering & replication facilities.

Since a typical CD-R medium has a life span of 70 - 100 years, it is ideal for durable data archival. This is a remarkable enhancement over magnetic media, which has a much shorter life span. CD-R technology is a breakthrough that will usher in the next revolution in data storage technologies as the need for large capacity forever increases in this age of information explosion.

## **A Quick Look at CD Recorders**

The first manufacturers of CD Recorders were Yamaha and Sony. The first generation CD Recorders produced were single speed (150 Kbps) drives, also called *1X* drives. Since then, a number of CD Recorders from various manufacturers have become available on the market. The speed of the later generation of recorders has improved to *2X*, double speed (300 Kbps), *4X*, quad speed (600 Kbps), *8X* (1200 Kbps), and *12X* (1800 Kbps). With the rapid progress of CD recording technology, the recording speed of CD Recorders is expected to increase.

CD Recorders can be either *external* or *internal* devices. An external drive can be situated separate from a PC body, while an internal drive must be installed within the PC. Operationally, compared to floppy or hard disk drives that you are familiar with, one of the characteristics of CD Recorders is that during a write operation they require a *steady flow of data*. All CD Recorders have a buffer memory called cache. During a write operation to the disc, the cache contains a certain amount of data to be written to the disc. During the entire write operation, the cache should never be depleted. There must be a steady stream of data that is neither too fast nor too slow, constantly flowing from the PC (RAM or hard disk) into the recorder's buffer cache. Driving this steady data stream may require a powerful PC and its dedicated resources.

CD Recorders have IDE, SCSI or USB interfaces. For SCSI CD Recorders, you need to connect it with a SCSI cable to the PC with a SCSI controller installed.

Current CD Recorders were designed for CD recording and can be used as a CD-ROM drive.

## About CD-Recordable & CD-ReWritable Recordable Technology

A CD-ReWritable (CD-RW) Recorder is a CD Recorder with the additional capability of being able to write CD-ReWritable (CD-RW) Recordable discs. It is both a CD Recorder and CD-ReWritable Recorder. It can be used to write to a CD-Recordable (CD-R) disc as well as CD-ReWritable (CD-RW) Recordable disc.

As previously stated, if your CD Recorder is a CD-RW Recorder you have the option of using the two different types of CD-Recordable media.

Both CD-Recordable (CD-R) disc and CD-ReWritable Recordable (CD-RW) disc have their own unique benefits as shown:

### CD-Recordable (CD-R) Disc

- v Excellent for long-term archived data storage.
- v Low inexpensive cost per CD-Recordable (**CD-R**) disc.
- v CD-Recordable (**CD-R**) disc can be read by any CD-ROM drive.
- v CD-Recordable (**CD-R**) Audio (Music) CD's can be played in any CD player!

### CD-ReWritable (CD-RW) Recordable Disc

- v Excellent for short-term data storage (i.e. data file back-ups).
- v Cost effective daily data backup alternative.
- v CD-ReWritable (**CD-RW**) Recordable discs may be erased and re-used up to 1000 times!
- v Allows you to test your **CD-RW Recorder** as well as allowing you to practice making CDs without wasting or ruining CD-Recordable media.

### **M Note:**

If you want to read back a written CD-RW disc using a CD Recorder or CD-ROM drive, the CD Recorder or CD-ROM drive must be either ReWritable playback or Multi-Read compliant.

### **About CD Standards (ISO 9660)**

ISO 9660 is an internationally accepted logical level standard that defines the format of files and directories on a CD-ROM. The ISO 9660 standard allows different computers with different operating systems to access the same data format. CD-ROMs current success is due to not only the media's own distinct advantages but also to the universal acceptance and interoperability of the media, accomplished through standards like ISO 9660.

## **ISO 9660 File System**

All computer platforms address the data on the compact disc as a file system. The file system was designed to be common to UNIX, VAX/VMS, MS-DOS and Mac, and their various derivatives. ISO 9660 is meant to be compatible with various operating systems.

Such compatibility is accomplished by using the common capabilities of all target systems. Consequently, ISO 9660 has several restrictions, including the following:

- No directory tree of more than eight (8) levels in depth
- No long filenames: a filename including its extension must be less than 30 characters. However, for use in MS-DOS, it is much more restricted: up to 8 characters for the file name, and 3 characters for the extension
- No extensions in directory names
- Uppercase characters only
- Some special characters, such as % or @, are not allowed.

CD-Maker Deluxe will help you create an ISO 9660 image file before you formally send data for recording to your CD Recorder. This is convenient and helps eliminate run-time recording errors.

## **Joliet and Romeo File Systems**

There are a few restrictions in ISO9660 such as character set limitations, file name length limitations and directory tree depth limitations. These restrictions may prevent some users from copying their data onto a CD-ROM that can be read by different computer platforms. Therefore, several operating system vendors have extended the ISO9660 file system in several ways.

### **Joliet**

The Joliet file system was proposed and implemented by Microsoft. Joliet is based on the ISO9660 (1988) standard.

If a CD is created using the Joliet file system, it may only be read back under Windows 95 / Windows NT 4.0 or later, and may not be read back on other platforms. Under the Joliet file system, the number of characters allowed in long file name is up to 64 and the allowed number in a long directory is up to 64 characters. However, the total number of characters for a file name plus its full path cannot exceed 120.

### **Romeo**

Romeo is defined as Windows 95 long file names only, up to 128 characters. NTI CD-Maker Deluxe, Version of 3.0 and above, supports the Romeo file system.

## About NTI CD-Maker Deluxe

CD-Maker Deluxe is a CD mastering software. Using NTI CD-Maker Deluxe and a supported CD-Recorder, you can produce Compact Discs in various formats, including CD-ROM, CD-ROM XA, Audio CD, Video CD, Mixed Mode and CD Extra.

The familiar Windows interface makes CD-ROM publishing as easy as pointing and clicking a mouse. Simply *drag and drop* files from your source hard disk or other media to the CD layout and in minutes you will have mastered your own CD.

CD-Maker's intuitive user interface allows you to instantly navigate your way around your computer to locate files easily. Our all-new user interface has never been easier. All operations are accomplished in very simple steps. Each step is clearly identified by CD-Maker Deluxe.

Recording most CD types is a simple two-step process. Step one, layout the target disc using tools like Explorer and Find directly from the CD-Maker program window. Step two, write the CD. Creating your own CDs has never been easier or faster and now, you can create your own personalized jewel case covers and CD labels with NTI's JewelCase Maker program.

CD-Maker Deluxe offers the following advantages, making it the best and easiest solution for making your own CDs.

- Takes advantage of 32-bit power of Windows and supports long file names
- Supported CD formats: CD-ROM, CD-ROM XA, Audio CD, Video CD, Super VCD, Mixed Mode and CD Extra.
- Drag & Drop files to create CD images
- Adjustable software settings make CD recording a smooth and reliable operation.
- Read track will backup a track from a disc in the CD-Recorder to a hard disk.
- Compile Audio CD sounds from various source CDs to a CD-R disc with a minimum hard disk space requirement
- Multi-session support
- SCSI-IDE Scan Utility, Session Explorer, File Compare Utility and JewelCase Maker
- Track-At-Once, Disc-At-Once and Session-At-Once recording

## Supported CD Format Types

Using CD-Maker Deluxe, you can create five types of CD-R discs: CD-ROM, Audio CD, Video CD, Mixed-Mode CD and CD Extra.

A *CD-ROM disc* contains data only. For example, when you back up all the data files from your hard disk to CD, the disc that will be created is a CD-ROM disc.

An *Audio CD disc* contains only digital audio information. The sources of digital audio are Audio CD (music or songs) on a disc in a CD-ROM drive, sound (WAV) files on your hard disk or live Audio input from a microphone connected to your PC's sound card.

A *Video CD disc* may include video clips, converted from MPEG-1 files. Video clips must conform to the MPEG for Video CD 2.0 specification.

A *Super Video CD disc* may include video clips, converted from MPEG-2 files. Video clips must conform to the MPEG-2 (ISO 13818-1, 1994) specification.

A *Mixed Mode disc* contains both data and digital audio. Data is recorded on the first track, while audio is on tracks 2 to 99 of the same disc.

*CD Extra*, also known as CD Plus or Enhanced CD, includes two sessions with the first session containing up to 98 audio tracks and the second session containing a data track written in the CD-ROM XA format.

## **System Requirements**

Please check the following system requirements before installing CD-Maker Deluxe.

### **Hardware Requirements**

- 266 MHz Pentium II or faster
- 64 MB RAM
- Minimum 20 MB free hard disk space
- 800x600 display, High Color 16-bit
- CD-Maker Deluxe-supported CD Recorders. We are continuously adding support for new CD Recorders. Please visit our web site @ [ntiuscdsupport.broderbund.com](http://ntiuscdsupport.broderbund.com) for the latest list of CD-Maker Deluxe-supported CD Recorders.

It is important that your system meet the above requirements. If you have questions, please contact your software vendor for further information.

### **Software Requirements**

- Windows® 98/Me
- Windows® NT4 (SP6)/2000/XP (Administrator)

### **Optional**

- Internet access
- 22 MB free hard-disk space for AOL software installation
- Sound Card & Speakers

### **System Configuration:**

May require minor adjustments to the configuration of your system and/or updates to the hardware component drivers. The amount of hard disk space required may vary if you already have one or more of the required components (such as Microsoft Internet Explorer) installed on your system. Internet Explorer may require up to an additional 50 MB of hard disk space. User is responsible for all Internet access fees and phone charges.

## Installing NTI CD-Maker Deluxe

To install CD-Maker Deluxe you will need approximately 35 MB of free hard disk space. An automated SETUP program is provided to guide you through the installation. The default target directory (the directory where CD-Maker Deluxe resides) is C:\Program Files\NewTech Infosystems\NTI CD-Maker Deluxe. The setup program will walk you through the installation process.

### Ä To install NTI CD-Maker Deluxe:

1. Insert the CD-Maker Deluxe CD into the appropriate drive.
2. The installation screen is automatically displayed.

**Note:**

☞ If the install screen is not displayed then Click Start and select Run. In the Open text box type:

**E : \INSTALL . EXE**

(Enter the CD-ROM drive letter that contains the CD-Maker Deluxe CD)

3. Select the Install Products
4. On the Welcome panel, click on the Next button.
5. Read the END-USER LICENSE AGREEMENTS and click the Yes button if you accept the terms of the license agreement and wish to continue with the installation of the CD-Maker Deluxe software.
6. Enter your user information and click Next..
7. Select the installation directory from the Choose Destination Location dialog and click the Next button. Click the Browse button to select a different installation directory if desired.
8. Enter the Program Folder where the CD-Maker icons will be added and click Next.
9. CD-Maker Deluxe will now be installed in the target directory. A CD-Maker Deluxe program group with the appropriate shortcuts will be added to the Start menu.
10. You will be asked to restart your computer. The Setup Complete dialog will let you reboot now or later. It is recommended to select the "Yes, I want to restart my computer now." option and Click the Finish button and reboot your computer.

## **Contacting Technical Support**

Many different types of on-line help are available with CD-Maker Deluxe within the specified applications. You can browse through the CD-Maker Deluxe Help file to become familiar with all the features available within that application. You can also use context-sensitive help to display information about specific commands, dialog boxes, and other window elements.

If you still experience problems using CD-Maker Deluxe that this documentation cannot solve, please contact Technical Support at [ntiussupport.broderbund.com](http://ntiussupport.broderbund.com).

## **Getting Started**

In this Chapter, we will show you how to build, edit, validate and record a CD image to a CD-R disc.

Before we start, let's go over a few important concepts related to the above procedure.

## What is a Virtual CD Image (CD Layout)?

A virtual CD image is a simple database file that contains information about the files to be recorded on the target CD. It contains pointers to the file(s) that you want to record on the new CD. These pointers tell CD-Maker Deluxe where to find the actual files and folders on your system. The actual contents of the files or folders are still on the original storage media. In other words, without duplicating the content of any file, a virtual CD image, or CD layout file, maintains and contains a file structure and information about where each file resides. The image is "virtual" since it does not contain the actual file or its contents. Using this "virtual" image scheme effectively cuts your hard disk space requirement in half. We use the terms *virtual CD image* and *CD layout* interchangeably throughout this guide.

This explanation may seem complicated but the important parts here are:

1. A virtual image contains information about the selected folders and files to be recorded.
2. It allows you to easily create multiple CDs containing the same data but recorded in different formats.
3. It saves hard disk space.

## **File System Tab**

NTI CD-Maker Deluxe gives you the following options for the File Name:

- ISO 9660 Level 1 compliant MS-DOS names (8+3 restricted character set)
- MS-DOS file names (8+3)
- Joliet MS-DOS (8+3) and Windows 95, up to 64 characters
- Romeo, Windows 95 Long filenames up to 128 characters.

### **ISO 9660 File Name Restrictions**

Since a CD-ROM disc was designed to be read across various platforms, such as PC, Mac and UNIX, the ISO 9660 standard is very restrictive on file and folder names. The allowable characters for file and folder names are A-Z, 0-9 and `_`. ISO 9660 also restricts the subdirectory name and the depth of subdirectories to eight levels deep.

### **MS-DOS File Names**

All MS-DOS file names are valid under this option. If the CD is for DOS or Windows 3.1x, then this option is recommended.

#### **⚠ Note:**

If you are working on Windows 95, some long file names may exist. In this case, if you choose the MS-DOS file name restrictions, you should vary the first eight characters of each file name so that every file name remains unique in MS-DOS format.

### **Joliet File Name Restrictions**

This file system is designed for use with Windows 95. It allows long file names. However, it still conforms to MS-DOS restrictions for short file names. If a CD is created using this file system, the disc can be read back only under Windows 95 and/or Windows NT 4.0.

### **Romeo**

Romeo is defined as Windows 95 long file names only, up to 128 characters. It is supported by all CD-Maker software, Version 3.0 and above. If a CD is created using this file system, the disc can be read back only under Windows 95 and/or Windows NT 4.0.

## **Automatic file-name restriction checking**

CD-Maker Deluxe will automatically perform file-name restrictions checking during the validation phase of a simulated recording (Test) or a write operation. This means:

1. A CD layout (virtual CD image) you create does not have to conform to any file name standard. It contains information about the original files and folders that reside on hard disk or floppy or CD-ROM drive.
2. Before you start to record a CD layout to a disc, CD-Maker Deluxe will automatically validate the virtual CD image to follow your selected file name standard.

This is a very useful feature. For example, you can create a virtual CD image and use it to record a CD following the ISO 9660 standard. Now you want to use the same CD layout to record a CD following the Joliet file system standard. With CD-Maker Deluxe, this is a snap!

## **Getting familiar with CD-Maker Deluxe**

The opening screen displays the program selection dialog on one of four background bitmaps. In the upper right-hand corner of the background there is a hot link to our web site. Simply click the NTI logo for quick access to the latest program information and updates. To choose a program function simply select it from the program selection dialog. Selecting Close from the File menu exits the current function and returns to the CD-Maker Deluxe opening screen.

The background changes at various times of the day. You can customize the existing background bitmaps or use your own. There are four preset times of day to choose from: Morning(5:00 AM – 8:00 AM), Day Time(8:00 AM – 5:00 PM), Evening(5:00 PM – 8:00 PM) and Night Time(8:00 PM – 5:00 AM). You can select the Background Pictures tab of the Options dialog (Tools Menu) to customize the CD-Maker Deluxe backgrounds.

One of the first things that you will notice about CD-Maker Deluxe is how it automatically customizes itself based on the type of CD you wish to create. Its intuitive Step Interface walks you through the recording process. The Layout Area is automatically configured when you select the type of CD you are going to create. It is split into two panes. The upper pane is the Source Pane. It is used to locate the files and folders that you want to write to the new CD. In most cases, it will contain a Windows' Explorer View as shown above.

The lower pane is the Destination Pane. It will display one of the following layouts:

1. Data Track Layout – Contains information about the files and folders that make up a data track. It is used for Data CD, Mixed-Mode CD and CD Extra discs.
2. Audio Track Layout - Contains information about the files that make up a audio CD layout. It is used for Audio CD, Live Audio CD, Mixed-Mode CD, CD Extra and Custom CD discs.
3. Video Track Layout - Contains information about the files that make up a video CD layout. It is used for Video CD discs.

The source and destination panes may be resized horizontally by dragging the splitter bar between them. Dragging the splitter bar up will display more of the destination pane and reduce the visible portion of the source pane.

### **Step Interface**

CD-Maker's new Step Interface guides you through the layout and recording process. Most disc types can be created in two steps. Step one — Create the CD layout image. Step two — Record the new CD. Mixed-Mode CD and CD Extra discs require a third step. These CD formats contain both a data track and an audio track. CD-Maker Deluxe splits these into separate steps for ease of use. As you can see above, it is just a simple click of a button and you are on the next step of the CD creation process.

### **New Toolbar & Menus**

The number of buttons and menu items has been significantly reduced in CD-Maker Deluxe. This was made possible by the newer, more efficient design and operation of CD-Maker Deluxe. CD-Maker automates most of the work required to create a CD. You simply drag-and-drop the files you want from the source pane to the destination pane, save your CD layout and then record your CD. It is that simple, just a few clicks of the mouse and you have a new CD. Anyone familiar with standard Windows programs like Find and Explorer will instantly feel at home with CD-Maker Deluxe.

### **All New CD-Info Bar**

CD-Maker Deluxe adds a new informational display called the CD Info Bar. It is located at the bottom of the program window, just above the Status Bar and displays information about the size of the current CD layout. It displays in MB or in minutes depending on the type of CD being created. It provides a quick visual queue showing you the amount of space used as you add files to the current CD layout. For Incremental Multisession recording, the CD Info Bar is a two color display. You will see a pink bar indicating the amount of data included on this layout that is already recorded on the target disc followed by a green bar showing the amount of new data to be added to the CD.

## Using the Source Pane

As mentioned above, the source pane will be used to identify the information to be recorded on the destination CD. In most cases, you will use a Windows Explorer view to locate the files to be copied. Once identified, you simply drag the files/folders and drop them on the destination pane. It's that easy!

## Using the Windows Explorer pane

The Explorer pane is split vertically into two panes. The left pane displays the system resource tree while the right pane displays information about the item selected in the resource tree. Generally, the right pane displays the files and folders contained in item selected in the resource tree. The two panes may be resized vertically by dragging the splitter bar between them. Dragging the splitter bar to the left will display more of the file information in the right hand pane while reducing the visible portion of the resource tree in the left-hand pane.

The information pane has four columns displaying the file/folder name, its size, the file type and the last modified date. The files may be sorted on any one of these columns by clicking on the column header. By default, files are sorted alphabetically (ascending) by name. Click the Name column heading to sort them in descending order by name. Click it again and the files are now sorted in ascending order by name.

### **Note:**

For data track layouts, the destination pane will also have a resource tree pane and file information pane that resembles the Explorer view found in the source pane. Items can be dropped on either pane and positioned accordingly. For Audio or Video CDs, there is no resource tree pane. Items dropped into the destination pane will be added to the end of the list. You can move them up or down the list by dragging and dropping them where you want them in the track list.

## Using the Destination Pane

For data tracks, the destination pane mirrors the source (Explorer View) pane and operates in much the same manner. You can Drag and drop files/folders to new positions within the CD layout image, create new folders, rename or even delete files and folders. It is important to remember that moving, renaming and deleting files from the destination pane only impacts the CD layout and not the original files/folders on your system. These changes will only affect the file names and directory structure of the virtual CD image and any subsequently recorded CD. If you rename a file in the destination pane, the resulting CD will use the new name while the original source file name is not changed on the source device.

Similar to the Explorer view found in the source pane, the left pane of the data track layout contains a resource tree. The resource tree works just like the tree found in Windows Explorer. You can expand or collapse branches with the click of your mouse. Files and folders can be moved with a drag and drop operation. You can add a new folder to your layout or access Cut, Copy, Paste and other frequently used functions through a shortcut menu activated by a click of your right mouse button.

The right-hand pane is an information pane similar to that found in the Explorer View. It has six columns displaying the file/folder name, its size, the file type, last modified date, status and it's source. The files may be sorted on any one of these columns by clicking on the column header. By default, files are sorted alphabetically (ascending) by name.

As mentioned above, the Audio and Video Track layout panes do not contain a resource tree. Instead, they have a single pane to drop files. By default, new files are appended to the Track List found in the destination pane. Once dropped onto the destination pane, they can be re-ordered in the track list with the mouse. Simply select the track to move and drag it to the new position in the list.

## Opening a new Data CD layout

There are two ways to create a new Data CD layout file:

➤ To open a new Data CD layout file:

1. Click the first (New) button  on the tool bar.

↳ **Note:**

Click on the selection arrow of the New button and choose Data CD from the drop-down list. If you are currently working with a Data CD layout and wish to open a new one, click the New button itself to create a new Data CD layout image.

2. Choose New from the File menu and select Data CD from the menu list.

## **Setting the Volume Information**

Volume information is located in the CD Layout Properties dialog box. To change it you must select the CD Layout Properties item from the File menu and select the corresponding tab.

## **Volume Tab**

The ISO 9660 Standard allows you to describe certain information about the CD. Such information is called the Volume Description, and will be recorded on the CD. The following briefly explain the fields in the Volume Description.

- ***Volume Name***

You can specify an identification of the volume in this field. It allows up to 32 alphanumeric characters, which include 0-9 and A-Z. This field is recommended.

- ***Volume Set Name***

If the disc you are preparing is part of a set of discs, every disc in the set may have the same name recorded in this field. It allows up to 32 d-characters. This field is optional.

- ***System Name***

It refers that the operating system under which the application will run. It allows up to 32 a-characters. This field is optional.

- ***Publisher Name***

You can identify the publisher of the disc. It allows up to 128 a-characters. This field is optional.

- ***Data Prepare Name***

You can specify an identification of the person or other entity, which controls the preparation of the data to be recorded on the volume. It allows up to 128 a-characters. This field is optional.

**Date & Time Tab**

Specify the below Dates and Times of this CD volume.

- ***Creation***

You can specify the date and the time of the day at which the information in the volume was created.

- ***Modification***

You can specify the date and the time of the day at which the information in the volume was last modified.

- ***Expiration***

You can specify the date and the time of the day at which the information in the volume may be regarded as obsolete.

- ***Effective***

You can specify the date and the time of the day at which the information in the volume may be used.

## **Saving the new layout file**

We strongly recommend that you save your work frequently enough to avoid loss of data in case of a system crash.

**Ä To save your Data CD layout file:**

1. Choose the Save command from File menu.

or

2. Click on the save button  on the toolbar.

## **Building a Data CD layout**

To build your Data CD layout you will need to import files and/or folders from the source to the layout file. Importing files is easy with CD-Maker Deluxe. There are two basic ways to import files into your Data CD layout.

**Using the Add File method**

You can manually select files to be imported by clicking the Add button on the toolbar or choosing the Add... item from the Edit Menu. When selected, CD-Maker displays a standard Open dialog box allowing you to select the files to be imported.

### **Using the Explorer View (Drag-and-Drop)**

As discussed above, CD-Maker will display an Explorer view when creating or editing a Data CD layout. From this view, you can select the files or folders you wish to import and drop them to the desired position in the data track layout.

#### **Ä To Add a file/folder to the Data CD layout:**

1. Navigate the resource tree to locate the desired file or folder.
2. Click on the desired file or folder.
3. Hold the mouse button down while dragging the selection to the destination pane.
4. Release the mouse button to drop the selected file/folder in the destination layout.

## **Editing a Data CD layout**

A saved Data CD layout may be edited at any time in CD-Maker Deluxe. Files may be added, deleted or moved around during the editing of your layout.

### **⚠ Note:**

The following editing commands have no effect on the original files (or folders) on your hard disk. However, they do change the Data CD layout itself, and consequently, any CD-ROM discs recorded from the edited layout.

## Moving a File or Folder

Files and folders can be moved to any location in your Data CD layout with a simple drag and drop. Select a file or folder to be moved by clicking the left mouse button and then, while holding the left button, drag the file to a new home folder and drop it by releasing the left button. The selected file or folder will be moved and displayed in its new location in the Resource Tree of the data track layout.

### Ä To move a file or folder in the Data CD layout:

1. Select the file or folder to move. You make this selection from either Resource Tree or Information Pane of the Data Track Layout.
2. While holding down the left mouse button, drag the selection to the desired location in the Resource Tree.
3. Drop it in the new location by releasing the left mouse button.

#### 🔑 Note:

CD-Maker highlights the home folder as you drag the folder on top of it. The selected file or folder will become a branch of the highlighted folder.

## Copying a File or Folder

You can copy selected files or folders to any folder in your Data CD Layout.

### Ä To copy a file or folder in the Data CD layout:

1. Select the file or folder to copy. You make this selection from either Resource Tree or Information Pane of the Data Track Layout.
2. While holding down the left mouse button, drag the selection to the desired location in the Resource Tree.
3. Press the Ctrl key while dragging the selection to the new location.
4. Drop it in the new location by releasing the left mouse button.

#### Notes:

- ☞ CD-Maker highlights the home folder as you drag the folder on top of it. The selected files or folders will be copied to the highlighted folder.
- ☞ The copy and paste functions are also available from the toolbar and the Edit and Quick Command Menus.

## **Deleting a File or Folder**

You can delete selected files or folders from your Data CD Layout.

### **Ä To delete a file or folder from the Data CD layout:**

1. Select the file or folder to delete. You make this selection from either Resource Tree or Information Pane of the Data Track Layout.
2. Click Delete on the CD-Maker Deluxe toolbar.
3. Click Yes to confirm the deletion.

#### **⚡ Note:**

The delete function is also available from the Edit and Quick Command Menus.

## Renaming a File or Folder

You can rename selected files or folders to any folder in your Data CD Layout.

### Ä To rename a file or folder in the Data CD layout:

1. Select the file or folder to rename. You make this selection from either Resource Tree or Information Pane of the Data Track Layout.
2. Choose the Rename item from the Edit Menu.
3. Enter the new name.
4. Press the ENTER key to complete the operation.

#### Notes:

- ☞ Hitting the Escape key will exit the rename operation and leave the name unchanged.
- ☞ You can also access the Rename function by right-clicking your mouse and selecting it from the Quick Command Menu.

### **Viewing File or Folder Properties**

You can view the properties for any file/folder in a layout. In the Properties Dialog Box, you will see the name, path, size, contents, MS-DOS name and created & modified date of the selected file or folder. If you want the file (or folder) to be hidden, you can choose to hide it by checking the corresponding check box.

#### **Ä To view the properties of a file or folder in the Data CD layout:**

1. Select the desired file or folder. You make this selection from either Resource Tree or Information Pane of the Data Track Layout.
2. Click Properties on the CD-Maker Deluxe toolbar.
3. Click OK to close the dialog and save your changes you may have made.

#### **☞ Note:**

The Properties function is also available from the Edit and Quick Command menus.

## **Step 2 - Writing a Disc**

Once you have prepared your Data CD layout, you can perform the writing (recording) to a disc. NTI CD-Maker Deluxe allows you to test the creation of your CD in two ways. First, CD-Maker will validate your layout. It checks to see if the files and folders listed in your layout exist on the source drive. If a file is not found you will be prompted for what to do. This validation step occurs just before a test or actual recording of your layout to the CD-Recorder.

CD-Maker Deluxe also will let you do a test recording or simulation of your CD layout before an actual write is attempted. It is a good idea to run this test before creating a Data CD. Once the Data CD layout has been verified and a test write successfully completed then it is time to write your new CD.

## **Setting the Data CD Layout Properties**

The Data CD Properties dialog allows you to set the following: File Name Restrictions, Data Format, Volume Info and Data & Time. These field definitions will be used to validate your Data CD layout to the selected standard and format and make it ready for recording. By default, CD-Maker sets these fields to the Joliet file name restriction, CD-ROM Mode 1 and Original file date and time, respectively.

## **File Name Restrictions**

Different file systems have different restrictions on file names. NTI CD-Maker Deluxe provides you with the following options for the file system.

- **ISO 9660 standard, level-1**

If you need the disc to be readable on different platforms, you have to choose this command to standardize all the file and folder names according to the rules of ISO 9660.

Since the CD-ROM disc is designed to be read across various platforms such as PC, Macintosh O/S and UNIX, ISO 9660 is very restrictive in its naming characteristics of files and folders. The allowable characters for file and folder names are A-Z, 0-9 and . ISO 9660 restricts the extension to three characters and the depth of subdirectories to 8 levels.

- **MS-DOS file names**

If you are certain that the created CD-ROM disc will be used only in a DOS or Windows 3.1 or 3.11 environment, you can choose this option.

- **Joliet**

If the recorded CD will be used on Windows 95 only, in order to resolve the ISO 9660 restrictions and make long file names that can be fully read back, you should follow Joliet file name restrictions.

- **Romeo**

If a recorded disc is created using this file system, the disc can be read back only under Windows 95 and/or Windows NT 4.0.

**Data Format Tab**

You should set the Data Format of your CD-ROM disc to either CD-ROM Mode 1 (CD-ROM) or CD-ROM Mode2 (CD-ROM XA).

## **Write CD Options**

NTI CD-Maker Deluxe displays the Write CD dialog when you attempt to record a CD. You may choose to Test (Simulated Recording), Test & Write or Write operation. You may also select the Writing Speed and the number of Copies from this dialog. The writing method may be selected from the Advanced section of the Write CD dialog. The following is a brief description of the Write CD dialog and all associated options:

### **Test**

Perform a test recording of the current CD layout to your CD Recorder. This option writes all data exactly as it would during the actual writing process except the recorder does not write the incoming data to the media. All settings, except for Copies are utilized in the simulation process.

### **Test & Write**

Perform a test simulation and upon successful completion write the data to the CD media. All settings are utilized during this operation.

### **Write**

Writes the current CD layout to the CD-R or CD-RW media. All settings are utilized during a write operation.

### **Speed**

Select the recording to be used in the Test or Write operation. The combo box will list all writing speeds supported by the selected CD Recorder.

### **Copies**

Specify the number of copies of the current CD layout will be written. This setting is not used during the Test operation.

### **Write CD Text**

Enables the writing of CD Text information to your Audio CD.

#### **⚡ Note:**

This option is only available when mastering an Audio CD. Your CD recorder must support the writing of CD Text (See the Write Tab of the CD Drive Properties dialog to verify your drive's capabilities.)

## **Advanced Options**

Displays the Advanced Write CD options.

## **Write Method**

NTI CD-Maker Deluxe supports the following writing methods:

### **Smart decision**

NTI CD-Maker Deluxe automatically selects the writing method based on the type of CD you are going to write. This is the default selection and the best choice in most cases.

### **Track-At-Once**

Track-At-Once writing mode will write one track at a time. CD-Maker will copy from the original source to the program cache buffer first, and then send them from the program cache buffer to the CD Recorder, which in turn writes to the target disc all on one track. Select one of the following choices to tell CD-Maker if you wish to leave the session and disc open or closed at the end of the writing process:

1. **Close session, leave disc open** – Closes the session but does not finalize the disc at the end of the write operation.
2. **Leave session and disc open** – Does not close the session or finalize the disc at the end of the write operation.
3. **Close session and disc** – Closes the session and finalizes the disc at the completion of the write operation.

### **Session-At-Once**

Session-At-Once writing mode will write all data from a single session at one time. CD-Maker will copy all source tracks from the original source to the program cache buffer on the hard disk first, and then send them from the cache buffer to the CD Recorder.

### **Disc-At-Once**

For Disc-At-Once writing mode, it is required that all the source tracks must be on the hard disk. If you want to make a master CD, you must use Disc-At-Once writing mode.

## **Validating the Data CD layout**

NTI CD-Maker Deluxe automatically validates your CD layout before a write or simulation test is performed. Remember that a virtual CD image consists of pointers to the source files on your hard disk. If any changes, such as rename, delete, or move has occurred to the actual source files, the pointers in the virtual CD image are no longer valid.

CD-Maker Deluxe also validates source files from network or removable media. Validation is necessary because once the recorder starts recording, if any problem occurs, it may ruin the whole disc.

## Test Writing a disc (Simulated Recording)

Simulated Recording is the last step before the actual recording of your CD layout to your CD-Recorder. To do this, you must have a CD-Recorder connected properly to your system in with a CD-R disc inside. The Data CD Properties must have been completed before attempting a test simulation.

During a simulation, just as in actual recording, CD-Maker Deluxe will transfer all the data to the recorder, however unlike actual recording, the CD-Recorder will not actually record the data to the disc. Some older CD-Recorders do not support such test simulations—in that case, you will not be able to perform this test.

### Ä To perform a test simulation:

1. Click the Step 2 button from the layout area to display the Write Disc dialog box.
2. Check Test or Test & Write from the Write dialog box.
3. Select the Writing Speed, Number of Copies and any desired Advanced options from the dialog box.
4. Click Start to begin simulated recording.

### Notes:

- ☞ Selecting Test & Write will automatically begin the recording of the CD once the test simulation has successfully completed. This is the default selection in CD-Maker Deluxe.
- ☞ CD-Maker Deluxe can be set to automatically lower the writing if errors are encountered during the testing process. This ensures that your CD is created using the fastest writing speed available to you. See the Preference Tab of the Options dialog (Tools Menu) to this setting.
- ☞ The number of copies entry is not used for a test simulation but be sure to make this setting if you are using the Test & Write option above.

When simulated recording is in progress, a status panel will display how much of the recording has been completed. Once you successfully finish the simulation, it is time to make your own CD. Test mode will also be indicated with a green indicator next to the Cache level display.

## **Writing a Data CD disc**

After a successful simulation, you can write to the disc. The steps to write your CD are the same as those listed above for a test simulation. You must select either the Test & Write or Write option from the Write dialog box. Review the other settings and click Start to record your new CD. Write mode will also be indicated with a red indicator next to the Cache level display.

## **Overburning™**

Overburning allows you to burn a CD that contains more data than is normally possible on a standard CD. It is only supported on certain CD recorders and only works when you use the Disk-At-Once (DAO) writing method.

There are many uncertainties when overburning a CD. It is even possible that your CD recorder can be damaged in the process. Additionally, you may experience read or write errors at the end of the disc or other SCSI/ATAPI command failures.

There is no way to automatically determine how much additional capacity will be available on your CD recorder. In some cases, you may be able to write up to 78:00.00 but you might want to stop at 76:30.00 if you do not know the overburn capacity of your CD recorder.

### **Warning!!!**

The use of this option is always at your own risk! We cannot guarantee its success or that damage will not occur to your recorder!!!

## **Ninety-Nine (99) Minute Media**

Beginning with Version 5.0, NTI CD-Maker Deluxe now supports the writing to ninety-nine (99) minute CDs under certain conditions. These CD-R discs use a tighter spiral and when combined with Overburning it is possible to achieve recording capacities up to nine-nine minutes. It must be noted that only a very few drives can actually reach the nine-nine minute limit and then only at the slower writing speeds of 2x or possibly 4X. In fact, many drives will not record beyond ninety minutes and again, the vast majority of drives do not recognize nine-nine minute media at all. This is because this media is completely outside of the Red Book specification. If you are not able to use eighty minute media then you are not likely to be able to use the nine-nine minute media either.

Again, there can be many problems when using this type of media. In addition to the lack of support by most drives, many problems can be encountered when trying to play a nine-nine minute CD as well. It will be up to you to find the best combination of media, recorder and player should you decide to use the nine-nine minute media.

## **What is a Session?**

A CD-ROM disc can contain many sessions (up to 99), where each session can hold up to 99 tracks. A session is a set of data that is written in a single operation.

The physical components of a session include a lead-in, data, lead-out, and a Table of Contents, which is called a TOC.

There is 23 MB of overhead (information written to the CD recordable disc by the CD file system) between the first and second session and 14 MB of overhead between each subsequent session. Therefore, the more sessions you make on your CD-ROM disc, the more overhead you will incur.

## **What is Multisession?**

A multisession disc contains more than one session, on a single disc. There are two types of multisession discs: Incremental Multisession, and Independent Multisession.

### **Incremental Multisession**

Since CD-ROM discs are write-once and read-only, there is a misconception that it is impossible to do any modification to the old contents of a CD-R disc. This is wrong—it is indeed possible on the file and directory structure level. The key to solving this problem is Incremental Multisession Recording.

Suppose you do incremental backups on a disc, very often you want to modify a file (or directory) in the last session and in the meanwhile import some other new files from your hard disk. To do this, you can do a multisession import. You can retrieve the last session from the CD into your CD layout; import new files from the hard disk and then do the required editing. With this new virtual image, you can, in effect, re-edit files in the last session, for example, you can delete, copy, move and rename files. After everything is done, you can record the image to your disc as a new session.

This new session will contain (1) information (referred to as file pointers) about the last session where the old files actually reside within that session and (2) the new files you have just imported from the hard disk. The new Path Table and directory files in the new session will be updated according to your editing. For example, while editing your new CD layout, you deleted various files and/or folders that were included in the last session of the existing CD. Once you record the new image to the disc, the new updated Path Table and directory files will not contain any information about those files and/or folders that have been "deleted" from the image.

By default, most CD-ROM drives will only access the last session of a CD-ROM disc. Through information contained in each session, starting from the last session, you will be able to access old files recorded in the previous sessions on the disc.

The basic idea in Incremental Multisession is to use pointers in each session to link all the sessions together; these links enable you to access the latest information starting from the last session on the disc.

**Independent Multisession**

The difference between incremental multisession and independent multisession is that each session in an independent multisession disc is not linked back to a previous session in any way. The idea is to organize multiple sessions as completely separate volumes, each with its own directory of information.

Your CD-ROM drive must be capable of reading independent multisession discs. Most CD-ROM drives (as of this writing) are only able to read either the first or last session from the disc without a special driver or "session explorer."

If you accidentally make a multivolume disc, with two independent sessions on the disc, you still can make the disc Incremental Multisession by importing these two sessions into your CD layout when you create your third session CD image. CD-Maker Deluxe allows you to import more than one previous session from the disc.

## **How To Use It**

With CD-Maker Deluxe, you can create both Incremental and Independent Multisession discs.

### **Incremental Multisession**

You can import multisession at any time as long as your CD Recorder is connected and contains a disc that has at least one session on it. NTI CD-Maker Deluxe automatically senses any sessions recorded on a disc. If you have a CD in your CD-Recorder when you attempt to import files into a new Data CD layout, CD-Maker will advise you of the existence of recorded sessions on the current disc and ask if you wish to import them into the current CD layout. If you say yes, all sessions on the existing CD are automatically imported into the current layout and any data written to the CD will be treated as an incremental multisession recording. If you say no, previous sessions are not imported and data written to the disc will be treated as an independent multisession recording.

### **Independent Multisession**

As mentioned previously, to create a independent multisession disc, you do not need to import anything from the existing CD-R disc. Answer "No" at the prompt, then simply prepare your layout from the source hard disk, and then write to the CD-R disc. CD-Maker Deluxe will create an independent session on the current disc.

## **Disc Info & Tools**

You may wish to check information about a disc before you decide to import any session from the CD-ROM disc. To do this, choose the Disc Info & Tools command under the Tools menu. The "Disc Info & Tools" dialog box will appear.

This box contains informational fields about the disc, including its Medium Type, Capacity, Free Space, Status, and other details regarding all track on the disc in the selected CD Recorder.

### ***Disc Type***

The disc type can be one of the following: (1) CD-DA or CD-ROM disc; (2) CD-I disc; (3) CD-ROM XA disc.

### ***Re-Writable***

Indicates if the media in the selected drive is a rewritable (CD-RW) disc.

### ***Disc Status***

1. **Blank Disc:** a blank CD-R disc.
2. **Recordable Disc:** not a blank disc but you can still use this disc to record. That means the disc has not been finalized yet.
3. **Unrecordable Disc:** either a conventional CD or Disc-At-Once CD-R disc. You cannot use this disc to record.

### ***Used Space***

This field indicates the amount of disc space currently written to on this disc.

### ***Free Space***

This field shows the free and available space on the disc, as expressed in "minutes: seconds: frames". If you insert a finalized or silver disc, this field will be zero, indicating no free space.

### ***Buttons***

1. **Refresh:** When you insert another CD, click this button to display updated information about the new CD. Or, when you want to make sure that the contents of the currently inserted disc are correctly displayed, click on the Refresh button.
2. **Close Session:** If there are sessions that have remained open, when you highlight the unclosed session, the Close Session button will be enabled. You can use this to close that session. Usually, there are two possibilities that resulted in a session remaining open: (a) an error occurred during actual recording, in which case the session most likely would remain open; (b) you chose the "Leave session and disc open" option for the Track-At-Once writing method, which is in the Advanced section of the Write CD dialog box.
3. **Recover:** If the track is damaged, when you highlight the damaged track, the Recover button will be enabled. Highlight the damaged track and click on this button to recover it. The recover utility is available only when your CD-Recorder supports this function.
4. **Read Track:** You can read a track from CD. Highlight a track you want to read to your hard disk, then click on the Read Track button. The Extract file as dialog box will pop up. CD-Maker Deluxe will read the selected track to the drive you specified and save it.

5. **Compare Track:** You can compare a track from CD. Highlight a track you want to compare to your hard disk, then click on the Compare Track button.
6. **Erase:** The erase button will be enabled if the selected drive is a CD-RW device with CD-RW media. You can erase the CD-RW disc by clicking this button.
7. **CD Text...:** Displays CD Text information about the CD in the selected CD recorder when clicked..
8. **Close:** Closes the Disc Info & Tools dialog when clicked.

## Session Explorer

If you want to retrieve files in the previous session from an Incremental or Independent Multisession CD, you cannot do it by using Windows Explorer, as Explorer only reads and displays the contents of the last session.

The solution is Session Explorer, which provides the tool for retrieving files from any selected session on a CD to any selected drive.

### Ä To retrieve files from a previous session:

1. Insert the CD from which you want to retrieve files into the CD Recorder.
2. Choose the Session Explorer... item from the Tools Menu.
3. CD-Maker Deluxe will automatically detect and display the contents from the CD that is loaded in the default CD Recorder.
4. Select the files you wish to retrieve from this CD.
5. Click Copy To... to copy the selected files.
6. A dialog box will be displayed allowing you to specify the location for the selected files that you want to retrieve.
7. CD-Maker Deluxe will display a panel indicating the retrieval progress.

### Notes:

- ☞ When a complicated multisession CD is inserted, there may be a slight delay before CD-Maker Deluxe is able to display the contents of the inserted CD.
- ☞ Choose Refresh from the Edit menu to refresh the display when you insert another CD.

## **Program Cache Buffer (Temporary Files)**

The Program Cache Buffer contains temporary files that are used to make read and write operations that occur during a recording session smooth and reliable. The main usage of the program cache buffer in making a CD-ROM disc are listed below:

1. In the process of preparing the data to be written to the CD Recorder, CD-Maker Deluxe will group certain small files (by default, any file of size less than small size file threshold 200 KB) in bigger temporary files. This is done simply to reduce the risk of buffer under-run errors, since otherwise it would take too much overhead to open, read, and close small files, potentially causing errors.
2. If you are importing files from a network or removable disk, in the process of preparing data to be written to the CD Recorder, CD-Maker Deluxe will copy all the files required from the network disk and/or removable disk.

To configure the use of the program cache buffer, choose the Options... item from the File menu, and specify a path or tell CD-Maker Deluxe to use same folder that is used by the operating system.

You should specify a program cache buffer directory with enough space to hold future temporary files. If the program cache buffer has enough available space to hold all the temporary files created by CD-Maker Deluxe, the recorded data will be written on a single data track on the disc. Otherwise, CD-Maker will split the data into multiple tracks.

In the "Network and Removable Disks Support" field, you can turn on or off the "Copy files to the Program Cache Buffer Directory, then write them to CD Recorder" option. When this option is turned on, source files residing on a network or removable media will be copied into the program cache buffer directory before writing to a disc.

## Erasing a CD-RW Disc

You can erase your CD-RW media directly from the CD-Maker Tools Menu. You can choose either a Quick Erase or Full Erase. The quick erase function overwrites the existing table of contents, thus reducing the time it takes to erase a CD-RW disc to just a few minutes. The full erase function erases all data on the disc and takes a considerably longer amount of time to complete. A full erase however restores the CD-RW media to a more reliable state.

### Ä To erase a CD-RW disc:

1. Select the Erase CD-RW disc item from the Tools Menu.
2. Select the CD-RW drive that contains the CD-RW media that you would like to erase from the CD-RW Drive list.
3. Select either Quick or Full for the Type of erase option. For reliability reasons, it is recommended that you choose the Full erase option.
4. Click Start to begin erasing.

## CD Drive Properties

The Drive Properties dialog displays the read and write capabilities of the selected CD drive. You can also set the Audio Extraction Speed for a drive using this dialog. The Drive Properties can be displayed by clicking on the CD Drive Properties... item on the Tools Menu or clicking the property sheet button to the right of the drive selection control. The CD Drive list will contain all CD drives attached to your system.

### General Tab:

The general tab provides product and vendor information about the selected drive.

Vendor ID – Displays the vendor of the selected drive.

Product ID – Displays the Product ID String of the selected drive.

Firmware Version – Displays the firmware version of the selected drive.

Cache Memory – Displays the amount of cache memory installed on the selected drive.

Drive Letter – Displays the drive letter of the selected drive.

### Write Tab:

The write tab indicates the write speeds and supported features of the selected drive.

CD-R Speed – This drive writes to CD-R media at these speeds.

CD-RW Speed – This drive writes to CD-RW media at these speeds.

CD Text – This drive will write the CD-Text information to the media.

Buffer Underrun Error Protection – This drive supports one of the current buffer underrun error protection technologies (i.e. Burn Proof, JustLink, SeamlessLink, ExaLink or SuperLink).

Overburn – This drive supports Overburning™.

Disc-At-Once – This drive supports the Disc-At-Once writing method.

Session-At-Once – This drive supports the Session-At-Once writing method.

Packet Writing – This drive supports packet-writing.

Write UPC & ISRC – This drive supports the writing of UPC and ISRC code information to the media.

### Read Tab:

The read tab indicates the supported maximum read speed and supported features of the selected drive.

Max Speed – This drive will read at this speed.

Audio Extraction – This drive supports audio extraction.

Audio Accurate – This drive will accurately extract audio information.

Read CD-RW (Multi-read) – This drive supports multi-read for CD-RW media.

Method 2 (Multi-read) – This drive supports multi-read for the CD-ROM XA format.

Read UPC & ISRC – This drive supports the reading of UPC and ISRC code information from the media.

**Audio Extraction Tab:**

The Audio Extraction tab displays/sets the audio extraction speed for the selected drive.

Default – Use the factory default extraction speed for this drive.

Best Quality – Use the speed that extracts audio data the most accurately.

Fastest Speed – Use the fastest speed supported by this drive for audio extraction regardless of quality.

## Audio Extraction Speed

The audio extraction speed control allows you to select the extraction speed to use on a given drive. In general, you want to select the fastest speed that delivers accurate audio extraction. Use the Drive Properties dialog to set the extraction speed for the source drive. You can choose from the factory default, best quality or the fastest extraction speed supported by the selected drive. Selecting "Best Quality" performs a test of the extraction capabilities of the selected drive and displays the results. CD-Maker Deluxe will choose the fastest speed that provides accurate extraction.

### Ä To set the Audio Extraction Control for a CD drive:

1. Select the CD Drive Properties... item from the Tools Menu.
2. Select the desired CD drive from the list.
3. Select the desired setting for the Audio Extraction Speed Control.
4. Click OK to save the new extraction speed setting.

#### ⚡ Note:

If you choose the Best Quality option you will be prompted to insert an Audio CD in the selected drive so that CD-Maker can test the extraction capabilities of the selected drive. The results of the extraction testing will be displayed once the test has completed.

## **Getting started**

In this chapter, we will show you how to make Audio CD discs step-by-step. Before we start, let's go over some key terms and concepts used in this chapter.

## **Audio CD**

Audio CD is a basic compact disc format, also known as CD-DA (Compact Disc Digital Audio) which was the first CD standard. Audio CD uses PCM (Pulse Code Modulated audio), 44.1 kHz sampling, 16-bit and stereo format.

### **MPEG-1, Layer 3 (MP3) File**

MPEG-1 Layer 3, or MP3 as it is more commonly known, is the portion of the MPEG-1 specification dealing with the recording of audio information to a file. This standard has gained popularity on the Internet. Currently, most CD drives will not play this audio format directly. CD-Maker Deluxe will translate MP3 files, on-the-fly, to wave files before they are written to the destination disc.

**Wave File**

A type of sound file that can store digitized analog signals supplied by the program. When you import a Wave file to your Audio CD image, if the file's format is not in the format of PCM, 44.1 kHz, 16-bit and stereo, you will have to use a Wave Editor to convert it.

**Audio Track**

One song occupies one track, called an Audio Track on an Audio CD disc. You can record up to 99 songs within one session on the disc.

## **One Session Recommended**

If there is more than one session on an Audio CD disc, when you use an Audio-CD player to play this disc, you may hear very funny noises. Suppose there are two sessions on an Audio CD disc, the end section of Session One is called Lead-out while the beginning section of Session Two is called Lead-in. Since most of Audio CD players still try to play this Lead-in and Lead-out area, which is not an audio track, it will play as loud hissing noises.

Therefore, unless your Audio CD player can overcome this problem, we strongly recommend that you record only one session of audio data on an Audio CD disc.

## **CD-ROM Drive**

Before you import audio tracks from your CD-ROM drive, you should test the CD-ROM drive since some CD-ROM drives cannot extract digital audio data. See "Test CD-ROM Drive" in Chapter 2 for detailed instructions to complete this test. The test checks to see whether your CD-ROM drive supports digital audio extraction (DAE.)

## **The Audio CD Recording Process**

When you finish preparing your Audio CD layout, you can then record the disc. During the process of preparing the data to be recorded to the disc, CD-Maker Deluxe will copy the audio data tracks one at a time from CD-ROM drive to a the program cache buffer on the hard disk. From there, the data in the program cache buffer is written to the CD Recorder.

When you record Wave files to the disc, the files will be sent to the CD Recorder directly from the hard disk where the files are stored.

## **Step 1 - Creating a New Audio CD Layout**

The first step in making your Audio CD disc is to create or open an Audio CD layout and save it.

## Opening a new Audio CD layout

There are two ways to create a new Audio CD layout file:

### Ä To open a new Audio CD layout:

1. Click the first (New) button  on the tool bar.

#### ↪ **Note:**

Click on the selection arrow of the New button and choose Audio CD from the drop-down list. If you are currently working with an Audio CD layout and wish to open a new one, click the New button to create a new Audio CD layout.

2. Choose New from the File menu and select Audio CD from the menu list.

Once you choose the Audio CD layout, CD-Maker Deluxe will display the layout area with an Audio Track Layout in the destination pane. The source pane will contain the Explorer view as described in Chapter 3.

## **Saving the new layout file**

Always remember to save your Audio CD layout once you have created it even though it is blank. You should save your layout file often enough to reduce the risk of losing your work.

For details on how to perform the Save function, please refer to similar steps in Chapter 3. By default, CD-Maker Deluxe will use the .CDM extension name for Audio CD Virtual images.

## **Building an Audio CD layout**

To build your Audio CD layout, you can import audio tracks from either your CD-ROM drive, MPEG-1 Layer 3 (.mp3) files or Wave (.wav) files from your hard disk. Importing files is easy with CD-Maker Deluxe . There are two basic ways to import files into your Audio CD layout.

### **↳ Note:**

All .mp3 files must be converted to .wav files to be played from your standard CD player. CD-Maker Deluxe automatically converts .mp3 files before they are written to the resulting Audio CD disc.

**Using the Add File Method**

You can manually select files to be imported by clicking the Add button on the toolbar or choosing the Add... item from the Track Menu. When selected, CD-Maker Deluxe displays a standard Open dialog box allowing you to select the files to be imported.

### **Using the Explorer View (Drag-and-Drop)**

As discussed above, CD-Maker Deluxe will display an Explorer view when creating or editing an Audio CD layout. From this view, you can select the files or folders you wish to import and drop them to the desired position in the audio track layout.

#### **Ä To Add an audio track to the Audio CD layout:**

1. Navigate the resource tree to locate the desired audio track.
2. Click on the desired file or folder.
3. Hold the mouse button down while dragging the selection to the destination pane.
4. Release the mouse button to drop the selected track in the destination layout.

## Using Playlists (Drag-and-Drop)

It is also possible to create an Audio CD layout from your favorite Music Café playlists. All .m3u compatible playlist files may be dropped directly onto the CD Layout. CD-Maker Deluxe will import all necessary track information from the playlist.

**⚠ Note:**

The .m3u playlist format is supported by other popular media players like WinAMP and MusicMatch. Check your media player to see if it supports the .m3u playlist format.

## **Editing an Audio CD layout**

After you build your Audio CD layout, you can edit the layout to suit your preference.

## Deleting Audio Tracks

You can delete selected audio tracks from your Audio CD layout.

### Ä To delete an audio track from the Audio CD layout:

1. Select the audio track to delete from the track list.
2. Click Delete on the CD-Maker Deluxe toolbar.
3. Click Yes to confirm the deletion.

#### ⚡ Note:

The delete function is also available from the Edit and Quick Command Menus.

## **Moving Audio Tracks**

Audio tracks can be moved to any position in the track list of your Audio CD layout with a simple drag and drop. Select the audio track to be moved by clicking the left mouse button and then, while holding the left button, drag the file to a new position in the track list and drop it by releasing the left button. The selected file or folder will be moved and displayed in its new position.

### **Ä To move an audio track to a new position in the track list:**

1. Select the audio track to move.
2. While holding down the left mouse button, drag the selection to the desired position in the track list.
3. Drop it in the new location by releasing the left mouse button.

#### **☞ Note:**

NTI CD-Maker Deluxe displays a horizontal line across the track list to indicate where the track will be dropped in the track list.

Alternatively, you can also change the Track Number field in the Audio Track Properties box, as described below. Recall that a Track Number is used as an index to order the placement of tracks; changing this number will change the track's relative position.

## **Playing an Audio Track**

You can play selected audio track from your Audio CD layout.

### **Ä To play an audio track from the Audio CD layout:**

1. Select the audio track to play from the track list.
2. Choose the Play item from the Track Menu.

#### **↪ Note:**

The play function is also available from the Quick Command Menu.

## Viewing Audio Track Properties

You can view the properties for any audio track in your layout.

### General Tab

The General tab contains track title, number and description information for the selected audio track.

- **Track Title**

This is a text description of the track. Note that it will not be written to the disc - it is just for reference.

You can give a new title to the selected track. For example, you can type in the corresponding song name in place of the default title "Track 6".

- **Track Number**

You can update the Track Number in this field. This is an alternative method to move the track.

### CD Text Tab

The CD Text tab allows you to include additional information about the selected track including the Performer, Songwriter, Composer and Arranger.

- **Title**

Displays the track's title information.

- **Performer**

Displays the track's performer.

- **Songwriter**

Displays the track's writer.

- **Composer**

Displays the track's composer.

- **Arranger**

Displays the track's arranger.

### Notes:

-  These fields must be filled in to correctly record CD Text information on your Audio CD. Your CD recorder must support the writing of CD Text (See the Write Tab of the CD Drive Properties dialog to verify your drive's capabilities.) You must also check the CD Text box of the Write CD dialog to enable the writing of CD Text information during the creation of an Audio CD.

☞ You can click the corresponding Apply to All Tracks button to copy the information entered to all tracks of this CD or Layout.

### **Filter Tab (Professional Edition Only!)**

The Filter tab allows you to apply filtering to the selected wave file. This tab is not visible for other types of audio tracks.

- *Remove noise*

Check this box to filter out noise from the selected wave file.

- *Remove click and pop*

Check this box to filter out clicks and pops from the selected wave file.

- *Preview Button*

Click this button to play the selected wave file with the desired filtering.

☞ **Note:**

This dialog and the filtering feature are only available for wave files.

### **Ä To view the track properties of an audio track in the Audio CD layout:**

1. Select the desired audio track from the track list.
2. Click Properties on the CD-Maker Deluxe toolbar.
3. Click OK to close the Track Properties dialog and make any requested changes.

☞ **Notes:**

The properties function is also available from the Track and Quick Command Menus.

## Setting the Audio CD Layout Properties

The Audio CD Properties dialog allows you to set the following: Title, Performer, Songwriter, Composer and Arranger.

### Notes:

- ⌘ Audio CD Properties (CD Text) are available for audio tracks recorded in the first session written in either Session-At-Once (SAO) or Disc-At-Once (DAO) writing modes. It is not mandatory to create entries in any of the fields but it is highly recommend that you enter the Title and Artist information.
- ⌘ You can click the corresponding Apply to All Tracks button to copy the information entered to all tracks of this CD or Layout.

## **Step 2 - Writing a Disc**

After you finish editing your Audio CD layout, you can start recording. It is a good idea to perform a test simulation to reduce the risk of errors.

### **Test Writing a disc (Simulated Recording)**

A test simulation should be done regardless of the type of the image. Please refer to Chapter 3 for more details on how to perform this operation.

## **Writing an Audio CD disc**

There is a difference between recording an Audio CD disc and recording a CD-ROM disc. For CD-ROM disc recording, CD-Maker Deluxe will try to write a single track to reduce the overhead of gaps in between tracks. However, in Audio CD disc recording, one track from the Audio CD image is one track on the disc.

After a successful simulation, you can write to the disc. The steps to write your Audio CD are the same as those for a test simulation. You must select either the Test & Write or Write option from the Write CD dialog box. Review the other settings and click Start to record your new CD.

## **Audio File Conversions**

From time to time you may wish to convert a file in one audio format to another format altogether. CD-Maker Deluxe supports the following format conversions:

## CD-DA Track to WAVE File

You can convert a selected audio track from an Audio CD disc to a Wave file.

### Ä To convert a CD-DA track to a Wave file:

1. Select the CD-DA track to be converted from the track list.
2. Choose the Convert Audio Format... item from the Track Menu.
3. Enter the new name and path information. By default, CD-Maker Deluxe uses the same path as the source file. A .wav file extension will be automatically appended to the given file name.
4. Select the "Wave files (\*.wav)" option from the Save as type list.
5. Click Save

#### Notes:

- ☞ If there is not enough space on the selected hard disk drive, a warning message box will be displayed.
- ☞ The Convert Audio Format... function is also available by right-clicking on the desired track and selecting it from the Quick Command Menu.

## **WAVE File to MP3 File**

You can convert a selected Wave file to an MP3 file.

### **Ä To convert a Wave file to an MP3 file:**

1. Select the Wave to be converted file from the track list.
2. Choose the Convert Audio Format... item from the Track Menu.
3. Enter the new name and path information. By default, CD-Maker Deluxe uses the same path as the source file. A .mp3 file extension will be automatically appended to the given file name.
4. Select the "MP3 Files (\*.wav)" option from the Save as type list.
5. Click Save

#### **Notes:**

- ☞ MP3 encoding is available on NTI CD-Maker Deluxe. All other versions offer MP3 encoding on a trial basis only! The trial lasts for twenty (20) conversions or thirty (30) days from the installation date. You can click the "Upgrade To Professional Edition" button on the Startup screen to enable MP3 encoding once the trial has expired.
- ☞ If there is not enough space on the selected hard disk drive, a warning message box will be displayed.
- ☞ The Convert Audio Format... function is also available by right-clicking on the desired track and selecting it from the Quick Command Menu.

## **MP3 File to Wave File**

You can convert a selected MP3 file to a Wave file.

### **Ä To convert a MP3 file to a Wave file:**

1. Select the MP3 file to be converted from the track list.
2. Choose the Convert Audio Format... item from the Track Menu.
3. Enter the new name and path information. By default, CD-Maker Deluxe uses the same path as the source file. A .wav file extension will be automatically appended to the given file name.
4. Select the "Wave files (\*.wav)" option from the Save as type list.
5. Click Save.

#### **Notes:**

- ☞ If there is not enough space on the selected hard disk drive, a warning message box will be displayed.
- ☞ The Convert Audio Format... function is also available by right-clicking on the desired track and selecting it from the Quick Command Menu.

## **Summary**

An Audio CD disc is different from a CD-ROM disc. With a CD-ROM disc you are allowed to import multisession and re-edit the previous sessions at the file and directory structure level. However, with an Audio CD disc, you may have to discard the disc if you make any mistake on it. Therefore, as a precaution, before recording your Audio CD layout to a disc, you should always verify the image contents and layout to ensure the validity of the disc.

We strongly recommend that you put all your audio tracks in one session on a disc to avoid problems when playing your audio disc on an Audio CD player. Remember you cannot turn off the CD recorder or eject the disc while CD-Maker Deluxe is preparing to record the next track.

## **Getting Started**

Copying a CD has never been easier than using CD-Maker Deluxe. CD-Maker Deluxe's CD Copy feature enables you to make an identical copy from a CD disc to a CD-R disc (in a CD-Recorder) when both drives are connected to the PC. This functionality is similar to that of the DOS "diskcopy" command for floppy diskettes except for CD discs. When you have both a CD reader and a CD writer, no hard disk space is required to duplicate the source CD, copying the CD can be done on the fly!

## Selecting the CD Copy function

The CD Copy function is accessed just like you were going to create any other type of CD using CD-Maker Deluxe. The difference is that you are not creating an image layout so you cannot save or open functions are not necessary. All you do is select the CD Copy function, choose the source and target drives and copy the CD. It's that simple!

There are two ways to select the CD Copy function.

### Ä To select the CD Copy function:

1. Click the first (New) button  on the tool bar.

↳ **Note:**

Click on the selection arrow to the right of the New button and choose CD Copy from the drop-down list.

2. Choose New from the File menu and select CD Copy from the menu list.

## **Step 1 - Select Source and Target Drives**

## **Selecting the Source and Target Drives**

After opening the CD Copy window, CD-Maker Deluxe checks your system for the presence of CD-ROM devices. If you have both a CD Reader and a CD Recorder it will automatically select the reader as the source drive and the recorder as the target. It will list all CD drives in the CD-Drive combo box and all CD-Recorders in the CD Recorder combo box. You may select any CD device as the source and any CD Recorder as the target. Once these devices are selected, CD-Maker Deluxe verifies the media in each device. The amount of information on each disc is displayed.

## **Copying Source to Hard Disk Before Copy**

You can tell CD-Maker Deluxe to copy the information on the source CD to your PC's hard drive before attempting to create a copy on the target drive. This can be helpful in eliminating problems caused by a slower CD reader. The source device must be able to provide its data fast enough to keep up with the recording device's ability to write to the disc. Please remember that you must have enough space available on your hard drive to hold all of the information on the source device. It can be up to 780 MB in some cases!

### **Ä To copy the source data to the hard disk before a copy operation:**

1. Check the Copy to Hard Disk box on the Copy CD layout.

#### **↪ Note:**

This option is safer than on-the-fly recording but takes a longer time and requires that more hard disk space be available on your machine.

## **Step 2 - Copy the Disc**

Once you have selected the source and target drives from step one, the final step is to copy the disc. Simply click the Step 2 button to start the copy process.

## Compare CDs

You can use CD-Maker Deluxe's Compare CDs function to verify the new CD with the original. The Compare CDs item can be found on the Tools Menu.

### Ä To compare CDs:

1. Choose Compare CDs from the Tools menu.

#### ↪ **Note:**

CD-Maker will begin the compare operation. Should any difference be found the compare operation is halted and a message is displayed indicating the two CDs are not the same.

## **Creating an NTI CD Image File**

You can use CD Copy to create an NTI CD Image file (.ncd) of your favorite CDs and save it on your hard drive. Simply select the Source drive as usual and choose CD Image Writer from the Target drive list. All you have left to do is click Step 2 to create the image.

Alternatively, you will be asked if you want to save the temporary image file created when using the copy source to hard disk option.

### **Creating a CD from an Existing NTI CD Image File (.ncd)**

It is also possible to burn one or more CDs from an existing NTI CD Image file (.ncd) using CD Copy. Simply select the CD Image Reader from the Source drive list and choose the target drive as usual. All you have left to do is click Step 2 to create the CD.

## **File Compare Utility**

After completing CD recording, some users are anxious to delete the original files in the hard drive to increase its free space, without comparing the recorded data with original data, as they assume it should be all right.

However, it is much safer to compare the recorded data with original data before acting on the original files.

### **Ä To compare files:**

1. Choose Compare Files from the Tools menu.
2. Select the two folders to be compared and then click on OK.
3. CD-Maker Deluxe will perform the comparison and list the details in a report.

## **FileCD Packet Writing Utility**

FileCD™ takes the advantages of ISO 9660, UDF and Packet Writing technologies to deliver CDs readable in the computers with today's and tomorrow's operating systems.

Currently, the most popular widely supported CD file system format is ISO 9660. CDs written in ISO 9660 format can be read from ISO 9660 compatible operating systems without any additional drivers. Most, if not all, operating systems today are ISO 9660 compatible.

FileCD also adds full support of the UDF 1.5 standard, which is compatible with other popular packet writing programs. The flexibility of FileCD enables you to choose ISO or UDF depending on your needs.

## What can FileCD™ do?

Using FileCD, you can:

1. Add files incrementally to a CD-RW disc.
2. Delete files or folders from a disc randomly (random erase).
3. Rename files or folders already written on a disc.
4. Discs written by FileCD™ can be read back in a CD-RW drive with an ISO 9660 or UDF 1.5 compatible operating system. No special driver software is required for ISO 9660 discs!

➔ **Note:**

Discs written under the UDF 1.5 format will require driver or "reader" software to be accessed from most Windows operating systems. All current versions of Windows, except Windows Deluxe, will require this UDF reader. If you are already using a UDF packet writing program then you already have the necessary drivers or you can download them from the vendor's web site. We have included UDF compatibility for those users that were using a UDF packet writer and have switched to FileCD. For users that do not have other packet writing software, we highly recommend that you use the ISO 9660 format when using FileCD. It is universally supported and requires no additional drivers or reader program.

## **When to use CD-Maker Deluxe instead of FileCD™**

You should use CD-Maker Deluxe when you want to make or duplicate the following CD formats:

1. Standard CD-ROM or CD-ROM XA
2. Audio CD
3. Mixed-mode CD
4. CD-Extra CD
5. Video CD

## CD-RW Technology

A CD-ReWritable (CD-RW) drive is a CD-Recorder with the additional capability of being able to write CD-RW media. It is both a CD-R and CD-ReWritable drive. It can record both CD-Recordable (CD-R) disc and CD-ReWritable (CD-RW) disc.

The CD-RW drive gives the ability to erase the contents of a CD-RW disc and re-write new information to it. A CD-RW disc can be erased and re-written about 1,000 times, making it ideal for short-term back-up and prototype.

### ⚡ **Note:**

Many currently installed CD-ROM drives are unable to read CD-RW media. The CD-RW media can be read back in the newer generation CD-ROM drives with "MultiRead" function. FileCD™ uses Fixed-packet writing method for CD-RW media, to read back the CD-RW written by FileCD™, the CD-ROM must have "MultiRead" and "Fixed-packet read" (Addressing method 2) functions. Only CD-RW drives can read and write data to CD-RW discs.

## **FileCD Installation**

## **System Requirements**

Please verify that your system meets these minimum requirements before installing and running FileCD.

### **Hardware**

- IBM PC or compatibles 486/33 or higher
- Minimum 16MB RAM
- NTI certified CD-RW drives which are capable of writing incrementally (with Packet Writing support)
- SCSI Host Adapter is required for SCSI CD-RW drive

### **Software**

- Microsoft Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows Deluxe, or Windows XP.

## Installing FileCD

FileCD is installed during the CD-Maker Deluxe installation process. You can open FileCD at any time by right clicking on the FileCD icon  2:13 PM located in the Windows systray and selecting the Open FileCD item from the menu.

The FileCD popup menu is displayed below:



## Formatting a CD-RW CD

CD-RW discs must be formatted before being written using FileCD. All new (blank) CD-RW discs must be formatted with the Full Format option the first time you use them. Once formatted initially, you can then use the Quick Format option when you want to erase all the files on your FileCD disc.

### Ä To format a new (blank) CD-RW disc:

1. Insert a blank CD-RW disc into your CD-RW drive.
2. Select Format under Disc menu.
3. You must choose Full Format for a blank CD-RW disc.
4. Select from either ISO 9660 or UDF 1.5 compatible file system.
5. Format time depends on your CD-RW write speed. It is roughly equivalent to writing the whole disc at full speed, plus some overhead.
6. You have an option to give a volume label for your CD-RW disc.
7. Click OK when CD formatting is finished.

### Notes:

- ☞ Volume labels are limited to 11 characters.
- ☞ You may disable the Verify after format option to reduce the time it takes to complete the Full Format operation. Verify is roughly equivalent to reading the whole disc at full speed.
- ☞ The File System setting defaults to the file system selected in the Options dialog. Choose the Options... item from the Tools menu to change this default.

## Formatting an existing FileCD disc

Ä To format an existing FileCD disc (or disc created by other popular packet writing software):

1. Insert the FileCD (previously formatted with the Full Format option) disc into your CD-RW drive.
2. Select Format under Disc menu.
3. Choose the Quick Format to erase the contents of this CD or Full Format to recreate the FileCD file structures.
4. Select from either ISO9660 or UDF 1.5 compatible file system.
5. There is a progress bar during formatting.
6. You have an option to give a volume label for your CD-RW disc.
7. Click OK when CD formatting is finished.

**Note:**

- You may use Quick Format also on disc created by other popular packet writing software. FileCD will do any necessary conversion.

## **Adding files to your CD-RW disc**

It is easy to use FileCD. Reading or accessing files on a FileCD disc is done directly from Windows Explorer. All writing tasks are handled from the FileCD window itself. Once your CD-RW disc has been formatted, you can add files to your CD-RW disc by simply dragging and dropping files from Windows Explorer on to the FileCD window.

Alternatively, you can add any selected file by right clicking on the file and selecting SendTo -> FileCD from the popup menu. A confirmation message will be displayed before the file is copied to the disc. Once the file has been written to the disc, FileCD prompts you to open and close the tray which refreshes the Explorer system. After the refresh, the new file(s) will be visible in the FileCD window or can be viewed from Windows Explorer.

## **Delete and rename files & folders from your CD-RW disc**

You can delete or rename files or folders in the CD-RW disc. When you highlight a file that you want to delete or rename, just click on the right-button of your mouse, pop-up menu with those command options will be displayed. Just choose the command you want.

## **Transferring files and folders from your FileCD disc**

You can read the files written on an ISO 9660 formatted FileCD disc directly from the operating system. UDF 1.5 formatted may be read from some operating systems or require a reader program or driver to be accessed. UDF 1.5 compatibility (the ability to read or write to an UDF formatted disc) is provided for those users that have other UDF compatible packet writing programs installed. In such cases, the UDF reader/drivers are available from the supplier of those packet writing programs. Other UDF readers may be available for download on various Internet sites. NTI currently does not provide UDF reader/drivers.

It is easy to transfer files/folders from your FileCD discs. Once a FileCD disc is "visible" to the operating system, the FileCD disc is treated like any other disk. You can drag and drop your files to your machine using standard Windows Explorer operations.

## Setting the FileCD program options

When there is no CD or you have a new CD inserted in your CD-RW drive, the settings in the program options dialog allow you to select the type of file system to be used by default during the formatting of new discs. When you have a formatted disc inserted in your CD-RW drive you can use the Options dialog to display the current settings for that CD.

You may also choose to save all file names in upper case when using the ISO 9660 file system format. This option tells FileCD to convert all file names to upper case. It becomes effective from the time you change it. This option is not selected by default. You must select this option for true ISO 9660 cross-platform compatibility.

### Ä To change the FileCD program options:

1. Select the Option... item from the Disc menu.
2. Choose the desired programs options.
3. Click OK when CD formatting is finished.

#### Note:

- The Convert file names to upper-case option is only applicable if you choose the ISO 9660 file system format. Select it to ensure compatibility with other machines requiring true ISO 9660 file names.

## Using different languages with FileCD

Using a different language is easy with FileCD. Language support DLL's (Dynamically Linked Libraries) for all supported languages are copied to your system during installation. To change languages you simply run the FileCD Language Select utility from the start program folder and select the language you wish to use. The next time you run FileCD you will be using the selected language.

FileCD supports the following languages:

	<u>Language</u>	<u>File Name</u>
	Dutch	resFileCDDu.dll
	English	resFileCDEng.dll
	French	resFileCDFr.dll
	German	resFileCDGm.dll
	Italian	resFileCDIt.dll
	Japanese	resFileCDJp.dll
	Korean	resFileCDKr.dll
	Portuguese	resFileCDPr.dll
	Simplified Chinese	resFileCDCh.dll
	Spanish	resFileCDSp.dll
	Traditional Chinese	resFileCDTw.dll

### Ä To change the FileCD language selection:

1. Click Start à Programs à FileCD à Language Select Utility.
2. Choose the desired language from the drop-down list.
3. Click OK.

#### Note:

- FileCD must not be running when you run the Language Select Utility. Please verify that the FileCD icon is not visible in the systray area of your Windows desktop.

## **More About Compact Discs**

## **Physical Structure on a CD**

As defined by the Orange Book format standards, a CD's physical structure is: sectors are enclosed within tracks, tracks are enclosed within sessions, and sessions are enclosed within the disc.

## Measurement of Information Stored on a CD

Since CD-ROM originated from audio CD, the amount of information stored on disc can be measured in terms of minutes, seconds, and frames, where

1. 1 minute = 60 seconds
2. 1 second = 75 frames
3. 1 frame = 2048 bytes (2 Kilobytes) of Mode 1 user data

☞ **Note:**

Due to the overhead of sector boundaries, the actual space occupied by a file on the disc is usually larger than its original size.

## **CD Formats**

CD format standards include the following:

1. The Red Book: Defines CD-Audio format standards.
2. The Yellow Book: Defines CD-ROM, CD-ROM XA format standards.
3. The Green Book: Define CD-I format standards.
4. The Orange Book: Defines CD-Recordable parts I & II format standards.
5. The White Book: Defines Video CD format standards.

**Write-Protected Disc**

When your CD Recorder receives the Finalize Disc command, it will write the Lead-In (with TOC) and Lead-Out to the disc. This indicates to the CD Recorder that no more sessions may be added after this last one.

**Writing Methods**

There are four writing methods in the Advanced settings of the Write CD dialog box. They are Smart decision, Track-At-Once, Session-At-Once and Disc-At-Once.

**Smart decision**

CD-Maker Deluxe automatically selects the writing method based on the type of CD you are going to write. This is the default selection and the best choice in most cases.

## **Track-At-Once**

With Track-At-Once writing method, the CD Recorder will record one track at a time. In between tracks, the CD Recorder laser will stop while the hard disk prepares the contents of the next track.

There are two run-out blocks written when a CD Recorder finishes writing a track and there is one link block and four run-in blocks when a CD Recorder starts to write the next track.

When you read a CD-ROM, CD-Audio or Mixed-Mode disc in either a CD-ROM drive or CD Recorder, these blocks will not have any adverse effect since both drives are smart enough to skip all these blocks and will not play them.

However, since some audio players do not support Track-At-Once, when you play CD Audio disc created with this method in such audio players, you may hear some funny noises in between song tracks.

Therefore, to make a master CD in any format that is to be mastered and replicated in the factory, you must use the Disc-At-Once writing method. To make a professional CD-Audio disc, it is strongly recommended that you use Disc-At-Once.

## **Session-At-Once**

Session refers to data written to a CD during the span of a single recording. Sessions are identified by a lead-in area, and a lead-out area which indicates the close of a session. Multisession refers to a form of recording that allows data to be written over more than one session. The disc can be removed from the recorder in between sessions and then replaced.

Session-At-Once is related to the process of recording multisession discs. With Session-At-Once writing method, CD-Maker Deluxe writes all the data at the span of one recording operation. In between sessions, the CD Recorder laser will stop while the hard disk prepares the contents of the next session.

**Disc-At-Once**

With Disc-At-Once writing method, the CD Recorder laser will not stop until the whole disc recording is finished. In this writing method, the disc will be closed and there are no link blocks between any two tracks. As explained above, Disc-At-Once is recommended for making master CD's.

## **Considerations in Recording to the Disc**

In the process of recording to a disc, if any interruption occurs, you will fail to write the disc and your disc may be ruined. There are a few things to consider before writing to a disc to ensure the writing process will be as reliable and trouble-free as possible.

## The Data

If the source files linked with your CD image layout consist of many small files, CD-Maker Deluxe will store those files with a size less than 200 KB (by default) to the program cache buffer. You can adjust this default threshold file size to ensure smooth transfer of data to the CD Recorder. As long as your program cache buffer has been allocated enough free disk space, you should increase the threshold to allow as many small files as possible to be stored to the program cache buffer.

### Ä To adjust the cache small file threshold:

1. Choose the Options item from the File menu.
2. Click the Advanced tab.
3. Adjust the Cache small size files slider to the desired setting.

#### → Note:

Larger threshold sizes will allow more small files to be copied to the program cache buffer. Moving the slider to the right increases the small file threshold value.

## **Speed of Hard Disk**

You should store your source data on a sufficiently fast local hard disk, which can provide a fast data transfer rate.

## **SCSI Card**

The SCSI card data transfer rate should also be considered. The faster the SCSI card the better your performance.

## **CD Recorder Buffer Size**

The larger the CD Recorder's buffer size, the safer and more reliable your recording sessions will be. On some recorders, you can upgrade the buffer size. For information on upgrading buffer size on your CD Recorder, please refer to documents provided by the CD Recorder manufacturer.

## **Thermal Recalibration**

Thermal recalibration is a process by which some hard drives pause to recalibrate themselves in response to internal drive temperature changes. On some intelligent hard disks, during recording, thermal recalibration can be postponed. However, on other hard disks, thermal recalibration is performed at fixed intervals—even when your hard disk is in use, like when you are recording a disc. If an interruption in the data flow caused by hard disk thermal recalibration occurs during your recording, the recording may not be successful. A fast host system goes a long way towards solving this problem. Many modern drives perform intelligent thermal recalibration so this is becoming less of a problem in CD recording.

## **Fragmentation**

If your source files are stored on a fragmented hard disk, searching for these source files will slow down the recording operation, and may cause buffer underrun. To reduce such problems, run a disk defragmentation utility to defragment your hard disk before recording.

## **Recording Speed**

You should perform the simulation step each time after you have set a different recording speed. If the simulation test fails, you should choose a lower speed and test again.

## **CD Recorder & SCSI Hard Disk**

If your hard disk is a SCSI hard disk, we recommend that you connect your CD Recorder and SCSI hard disk to two different host adapters. This will separate the source and the destination of your recording, making it safer.

## **Buffer Underrun Error Protection Technologies**

Many current recorders now support some type of buffer underrun error protection technology . There are several new technologies available today. Sanyo's Burn Proof and Ricoh's JustLink were the first implementations available but others, like SeamlessLink, ExacLink and SuperLink are available on the market today. These protection technologies are built directly into the drive and they prevent buffer under-run errors from producing the infamous "coaster". This condition is caused when the writing buffer is empty when the recording process is still under way. When this condition occurs, the recording process is aborted as incomplete and the media is ejected. Once this happens, the CD-R media cannot be used again, relinquishing itself to the "coaster" bin. Avoiding this situation can be a very trying experience with no guarantees, and the conditions of cause will change from occurrence to occurrence. With the buffer under-run error protection facility activated, the normal abort sequence is circumvented by the drive. Later, when the write buffer accumulates enough data to be written, the drive synchronizes and "retraces" where the under-run occurred and continues to write from that point.

CD-Maker Deluxe fully supports these technologies, virtually eliminating the coaster effect on drives with one of these technologies built in. If your CD Recorder/ReWriter supports either technology, you can enable it from the Buffer Under-run Error Protection tab of the Options dialog box. You can check the Write tab of the CD Drive Properties dialog, available from the Tools menu, for your drive to see if it supports one of the many buffer under-run error protection technologies.

## Error Messages

## The Log File

CD-Maker Deluxe will create a log file that allows you to trace and diagnose problems that can occur during recording. CD-Maker Deluxe will report all errors that have occurred in recording to this log file. By default, this file, *logfile.txt*, is located in the installation directory for your CD-Maker Deluxe software.

CD-Maker Deluxe will overwrite the log file every time you perform a recording so it will always contain the results of your last write/test operation. You will be given the option to view the log file when an error occurs. You should have this information available should you contact our technical support team by phone or include it with any correspondence you may have regarding a problem you are having with CD-Maker Deluxe.

You can specify the location and name for the log file. Choose the Options... item from the Tools menu and select the General tab. You must check the "Report to log file" box and enter a file name and path for the log file to be created by CD-Maker Deluxe.

The log file contains the following information:

1. CD-Maker Product and version.
2. Time and date of the recording session.
3. Disc Format (Type of disc you were creating).
4. Number of Tracks to be recorded.
5. Total Blocks to be recorded.
6. CD-Recorder and firmware version.
7. Media Type
8. Test Mode
9. Writing Speed
10. Writing Method
11. Was the disc to be finalized (Closed)?
12. Was the session to be closed?
13. NTI Error Code.
14. Failing Command and Status information.

## **Error Messages**

Please consult our TroubleShooting Guide at [ntiussupport.broderbund.com/tsguide.htm](http://ntiussupport.broderbund.com/tsguide.htm) for a complete listing of all CD-Maker Deluxe error messages and other helpful troubleshooting hints and tips!

### **Note:**

- ↪ A copy of the Troubleshooting Guide may be also installed with CD-Maker Deluxe. Check the program folder for availability.

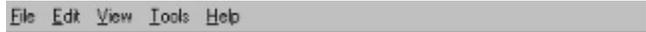
## **NTI CD-Maker Deluxe Commands**

All CD-Maker Deluxe menus can be invoked by a single left-button click of a mouse on the menu title. Menu items are aligned on the left, with keystroke shortcuts (if applicable) displayed on the corresponding right side. The underlined character of a menu item, if pressed (through the keyboard), will have the same effect as if the menu item were selected with the mouse.

## Menu Bars

CD-Maker Deluxe's menu bar changes depending on the type of track you are working on. It displays an Edit Menu when you are working with data track layouts and a Track Menu for Audio or Video tracks.

### Data Track Menu Bar

A horizontal menu bar with a light gray background. It contains five menu items: "File", "Edit", "View", "Tools", and "Help", each with a small downward-pointing arrow to its right.

File Edit View Tools Help

### Audio/Video Track Menu Bar

A horizontal menu bar with a light gray background. It contains five menu items: "File", "Track", "View", "Tools", and "Help", each with a small downward-pointing arrow to its right.

File Track View Tools Help

## **File Menu**

### **New**

Creates a new image layout of the selected type.

#### **CD Copy**

Selects the CD Copy function. This function does not use a virtual layout image file.

#### **Data CD**

Creates a new virtual Data CD layout image file.

#### **Audio CD**

Creates a new virtual Audio CD layout image file.

#### **Video CD**

Creates a new virtual Video CD layout image file.

#### **Mixed-Mode CD**

Creates a new virtual Mixed-Mode CD layout image file.

#### **CD Extra**

Creates a new virtual CD Extra layout image file.

#### **Custom CD**

Creates a new virtual Custom CD layout image file.

### **Open...**

Opens an existing virtual layout image file..

### **Close**

Closes the current virtual layout image file and displays the Welcome screen.

### **Save**

Saves the current virtual layout image file (.cdm) on your computer.

### **Save As...**

Saves the current virtual layout image file to a disk file on your computer.

### **CD Layout Properties...**

Displays the properties of the current virtual layout image.

**Write CD...**

Writes the current image to the target CD-Recorder.

**Create ISO CD Image File...**

Creates an ISO image file of the current Data CD Layout.

**Create CD from ISO CD Image File...**

Creates a CD from a saved ISO CD Image file.

**Recent File(s)**

Displays the most recently used CD layout files.

**Exit**

Exits the CD-Maker Deluxe program.

## **Edit Menu**

### **New Folder**

Creates a new folder in the current data track layout.

### **Cut**

Removes the selected object from the data track layout but leaves a copy of the object in the clipboard for later paste operations.

### **Copy**

Copies the selected object from the data track layout to the clipboard for later use.

### **Paste**

Pastes the contents of the clipboard into the data track layout.

### **Add**

Adds files/folders to the data track layout.

### **Delete**

Deletes the selected object from the data track layout. No copy is left on the clipboard.

### **Rename**

Renames the selected object in the data track layout.

### **Select All**

Selects all items in the destination pane.

### **Invert Selection**

Inverts the current selection.

### **Properties**

Displays the properties of the currently selected file or folder.

## **Track Menu**

### **Add...**

Add a new audio track to the current Audio CD image..

### **Delete**

Deletes the selected audio track from the Audio CD image. No copy is left on the clipboard.

### **Play**

Plays the currently selected audio track.

### **Filter**

Set up filtering for the currently selected audio track.

### **Convert Audio Format...**

Converts audio track formats.

### **Properties**

Displays the properties of the currently selected audio track.

## **View Menu**

### **Toolbar**

Hides or displays the main toolbar. When checked, the toolbar is displayed below the CD-Maker Deluxe menu bar.

### **Status Bar**

Hides or views the Status Bar. When checked the status bar is displayed on the bottom of the CD-Maker Deluxe program window.

### **CD Info Bar**

Hides or views the CD Info Bar. When checked the CD Info bar is displayed on the bottom of the CD-Maker Deluxe program window, just above the Status Bar.

### **Refresh**

Refresh the current view.

## **Help Menu**

### **Help Topics**

Displays the NTI CD-Maker Deluxe online help system.

### **Register my NTI software**

Run the electronic registration program.

### **NTI Home Page**

Links you to our home page @ [ntius.broderbund.com](http://ntius.broderbund.com).

### **CD-Maker Home Page**

Links you to the CD-Maker home page @ <http://nticdmaker.broderbund.com>.

### **Frequently Asked Questions on the web**

Links you to our FAQ page @ [ntiusfaq.broderbund.com](http://ntiusfaq.broderbund.com).

### **Software Update Download Page**

Links you to our software download page @ [ntiusdownload.broderbund.com](http://ntiusdownload.broderbund.com).

### **Technical Support Page**

Links you to our technical support page @ [ntiussupport.broderbund.com](http://ntiussupport.broderbund.com).

### **About CD-Maker Deluxe...**

Displays version and program information about NTI CD-Maker Deluxe.

## **Quick Command Menus**

Like the main menu bar, CD-Maker Deluxe's Quick Command menu changes depending on the type of track you are working on. It displays an edit-style menu while working with data track layouts and a track-style menu for audio or video tracks.

### **Edit-style quick command menu for data track layouts**

#### **New Folder**

Creates a new folder in the current data track layout.

#### **Cut**

Removes the selected object from the data track layout but leaves a copy of the object in the clipboard for later paste operations.

#### **Copy**

Copies the selected object from the data track layout to the clipboard for later use.

#### **Paste**

Pastes the contents of the clipboard into the data track layout.

#### **Add**

Adds files/folders to the data track layout.

#### **Delete**

Deletes the selected object from the data track layout. No copy is left on the clipboard.

#### **Rename**

Renames the selected object in the data track layout.

#### **Select All**

Selects all items in the destination pane.

#### **Invert Selection**

Inverts the current selection.

#### **Properties**

Displays the properties of the currently selected file or folder.

#### **CD Drive Properties...**

Displays various information about a CD drive.

### **Track-style quick command menu for audio and video track layouts**

**Add...**

Add a new audio track to the current Audio CD image..

**Delete**

Deletes the selected audio track from the Audio CD image. No copy is left on the clipboard.

**Play**

Plays the currently selected audio track.

**Filter**

Set up filtering for the currently selected audio track.

**Convert Audio Format...**

Converts audio track formats.

**Properties**

Displays the properties of the currently selected audio track.

**CD Drive Properties...**

Displays various information about a CD drive.

## Toolbar



Toolbar buttons are used as shorthand for menu commands. Each toolbar button represents a frequently used command. The display of these buttons is context-sensitive in that only buttons relevant to the current context are shown and enabled.

The following is a run-down of the Main Toolbar buttons and their respective menu commands.

Button Icon	Button Name	Menu Command
	New	File Menu: New
	Open	File Menu: Open...
	Save	File Menu: Save
	Record	File Menu: Write CD
	Up One Level	None.
	Find Files	Tools Menu: Find...
	Add	Edit/Track Menu: Add...
	Delete	Edit/Track Menu: Delete
	Properties	Edit/Track Menu: Properties
	Erase	Tools Menu: Erase CD-RW Disc...
	Disc Info & Tools	Tools Menu: Disc Info & Tools...
	CD Layout Properties	File Menu: CD Layout Properties...
	About	Help Menu: About CD-Maker Deluxe
	Help	None.

### Hiding the Main Toolbar

#### Ä To Hide the Toolbar:

1. Click the Toolbar item from the View Menu. You should no longer see a small check mark to the right of the S Toolbar item and the Toolbar should now be invisible.

### Viewing the Main Toolbar

#### Ä To Display the Main Toolbar:

1. Click the Toolbar item from the View Menu. You should see a small check mark to the right of the Toolbar item and the Toolbar should now be displayed at the top of the main program window.

## **CD Info Bar**

The CD Info Bar displays the amount of space used by the current CD layout. It displays usage in minutes for Audio and Video CD layouts and in MegaBytes (MB) for Data CD layouts. It provides a quick visual queue showing you the amount of space used as you add files to the current CD layout. For Incremental Multisession recording, the CD Info Bar is a two color display. It displays a pink bar indicating the amount of data included on this layout that is already recorded on the target disc followed by a green bar showing the amount of new data to be added to the CD.

### **Hiding the CD Info Bar**

#### **Ä To Hide the CD Info Bar:**

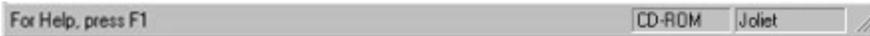
1. Click the CD Info Bar item from the View Menu. You should no longer see a small check mark to the right of the CD Info Bar item and the CD Info Bar should now be invisible.

### **Viewing the CD Info Bar**

#### **Ä To Display the CD Info Bar:**

1. Click the CD Info Bar item from the View Menu. You should see a small check mark to the right of the CD Info Bar item and the CD Info Bar should now be displayed at the bottom of the main program window.

## Status Bar



The status bar shows help information on the left side. The right side of the status bar also shows the type of CD to be created and the currently selected File System. You can change these selections from the CD Layout Properties settings available from the File Menu.

### Hiding the Status Bar

#### Ä To Hide the Status Bar:

1. Click the Status Bar item from the View Menu. You should no longer see a small check mark to the right of the Status Bar item and the Status Bar should now be invisible.

### Viewing the Status Bar

#### Ä To Display the Status Bar:

1. Click the Status Bar item from the View Menu. You should see a small check mark to the right of the Status Bar item and the Status Bar should now be displayed at the bottom of the main program window.

## **Tools Menu**

### **Options...**

Displays CD-Maker Deluxe program options dialog.

### **Find...**

Launches the Windows Find All Files function.

### **Compare Files...**

Compares any two files or folders and reports the results.

### **Compare CDs...**

Compares any two CDs. It is only available from the CD Copy view.

### **Erase CD-RW Disc...**

Allows you to perform a quick or full erase of your CD-RW disc.

### **Disc Info & Tools...**

Launches CD-Maker's Disc Info & Tools utility.

### **Session Explorer**

Launches Session Explorer for use with multisession discs.

### **CD Drive Properties...**

Displays various information about a CD drive.

### **View Log File**

Displays the CD-Maker Deluxe log file.

**a-character**

A characters are capital A to Z, digits 0 to 9, and also the following symbols: ! " % & ' ( ) \* + , - . / : ; < =  
> ? \_

**ASPI**

ASPI stands for Advanced SCSI Programming Interface. This defines a set of software commands for applications to use when communicating with SCSI host adapters.

**Block**

A group of 2352 bytes as defined by the Yellow Book standard.

**Compact disc**

CD stands for Compact Disc, which is a general term for all formats of CD media. CD formats available on the market now include Audio CD, CD-ROM, CD-ROM XA, Video CD, Enhanced CD or CD Extra and CD-I.

**Audio CD**

*Audio CD*, which is a standard CD format for storing audio sound tracks, for example, music and songs.

**CD-DA**

A CD-DA (Audio CD) disc contains tracks with Audio only. This type of disc is defined by the Red Book format standard.

**CD-ROM**

A CD-ROM disc contains only data. This type of disc is defined by the Yellow Book. Format standard.

**CD Extra**

CD Extra, also known as CD Plus or Enhanced CD, includes two sessions with the first session containing up to 98 audio tracks and the second session containing a data track written in the CD-ROM XA format.

**d-characters**

d characters include capital A to Z, digits 0 to 9, and underscore symbol ( \_ ) .

**Disc-At-Once**

With Disc-At-Once writing mode, the CD-Recorder laser will not stop until the whole disc recording is finished. In this writing mode, the disc will be closed and there are no link blocks between any two tracks.

**Hybrid disc**

Usually, the term "hybrid" refers to a disc containing both DOS/Windows and Macintosh software in separate volumes.

**Inside Insert**

An Inside insert is created by designing and printing an additional page that will be printed on the backside or the front cover. When folded, you have a jewel case insert with four pages.

**ISO 9660**

ISO 9660 is an internationally accepted logical level standard for CD media. The standard allows different computers with different operating systems to access the same data format.

**Lead-In Area**

This is a piece of information, laying before each session that contains the TOC (Table of Contents) and other miscellaneous information about the disc and about the recorded tracks.

**Lead-Out Area**

To indicate the end of a session, it is closed with an ending, called the Lead-Out.

**Joliet**

Microsoft implemented the Joliet file system. It is based on the ISO9660 level 3 standard.

A CD created under the Joliet file system can only be read back under Windows 95 and Windows NT 4.0 or later. The number of characters allowed in a long file name is up to 64 and the number of characters allowed in a long directory is up to 64 characters. However, the total number of characters of the long file name plus its full path cannot exceed 120.

**Mixed Mode CD**

A Mixed Mode CD contains a combination of CD-ROM tracks and CD-DA tracks. A Mixed Mode disc has a CD-ROM track as the first track and CD-DA on the following tracks.

**Incremental Multisession**

Incremental Multisession recording links existing sessions with a new session being written to the disc. Data from a previous session can be accessed since the each session has links to the data written in the previous session.

**Independent Multisession**

Independent Multisession recording organizes multiple sessions as completely separate volumes, each with its own directory of information. In most cases, you will need a utility such as Session Explorer to view data from a previously recorded session on the disc.

**MPEG-1, Layer 3 (.mp3)**

MPEG-1, Layer 3, or MP3 as it is more commonly known, is the portion of the MPEG-1 specification dealing with the recording of audio information to a file. This standard is gaining popularity on the Internet. Currently, most CD drives will not play this audio format directly. CD-Maker Deluxe will decode MP3 files on-the-fly to wave files before they are written to the disc.

**Multisession**

Multisession refers to a form of recording that allows data to be written over more than one session. The disc can be removed from the recorder in between sessions and then replaced.

**Packet-Recording**

Packet-Recording allows small packets of data to be written one packet at a time. Packet-Recording works only with data tracks. It is only supported by the FileCD utility.

**Path Table**

The Path Table contains the addresses of the Directory Files so that data files can be accessed directly.

**Primary Volume Descriptor (PVD)**

Relationship reference information about the CD file system to the medium. It refers to the Path Table, and to the Root Directory.

**Program Calibration Area (PCA)**

The PCA is disc space for the CD recorder to calibrate the laser power needed for recording on the disc via a trial recording.

**Program Memory Area (PMA)**

The PMA contains information about the recordings on the disc. Before you close the current session, to keep track of all data recorded, PMA (sort of a pre-TOC) is written to the disc in an area that is only accessible by the CD recorder.

**Real CD Image**

A Real CD Image can also be called a Physical ISO Image - it refers to a file that exactly duplicates how data will appear on the CD in ISO 9660 format. Since a Real CD Image contains the actual contents of the source, it requires the same amount of disk space as on the CD-ROM disc.

**Romeo**

Romeo is defined as Windows 95 long file names only, up to 128 characters.

**Root Directory**

The Root Directory is a special Directory File, in that no other Directory file refers to it.

**SCSI**

SCSI, which stands for "Small Computer System Interface", is a standard for a high-speed data transfer interface between computers and their peripheral devices. A SCSI interface usually allows up to eight different devices to be connected to a single controller.

**Session**

Session refers to data written to a CD during the span of a single recording. It is an area on the disc that consists of a Lead-In Area, a Program Area and a Lead-out Area.

**Session-At-Once**

With Session-At-Once writing mode, the CD-Recorder's laser does not stop until the all data from the current session is written to disc. Session-At-Once is related to the process of recording multisession discs. See Multisession.

**Table of Contents (TOC)**

The Table of Contents (TOC) contains information about the disc and tracks. When you close the current session, the Table of Contents will be written in the Lead-In Area. With an unfinished recording of the disc, however, the TOC cannot be written to the disc.

**Track-At-Once**

With Track-At-Once writing mode, the CD-Recorder will record one track at a time. In between every track, the CD-Recorder's laser stops while the hard disk prepares the contents of the next track.

**Video CD**

A Video CD disc may include video clips, converted from MPEG files. Video clips must conform to the MPEG for Video CD specification, as defined by the White book format standard.

**Virtual CD Layout**

A Virtual CD Layout is an ISO-formatted directory that indicates how files will be arranged on your CD. The layout contains only information as to where those to-be-recorded files actually reside on your drives, while the actual contents of the files or directories are still on the original storage media.

**Wave**

A Wave (.wav) file is a file that stores analog signals (sounds) in a digital format that can be interpreted by a computer.

**Super Video CD**

A Super Video CD disc may include video clips, converted from MPEG-2 files. Video clips must conform to the MPEG-2 (ISO 13818-1, 1994) specification.

**NTI CD-Maker's Program Title.**

Displays the current layout file followed by the program name.

**Horizontal Splitter Bar**

Drag this bar up or down to resize the Source and Destination Panes.

## Setting the CD-Maker Deluxe Options

You can view or modify any of the CD-Maker Deluxe program options from the File menu.

### Ä To view the CD-Maker Program Options:

1. Choose the Options... item from the File Menu..
2. Change the settings if desired.
3. Click OK to close the Options dialog and save any changes to the CD-Maker Deluxe program options.

## **Options: General Tab**

The General tab contains allows you to control the Program Cache Buffer, Log File and Network and Removable Disk Support features of CD-Maker Deluxe.

- *Directory for Program Cache Buffer*

The Program Cache Buffer contains temporary files that are used to make read and write operations that occur during a recording session smooth and reliable. You should specify a program cache buffer directory with enough space to hold future temporary files. If the program cache buffer has enough available space to hold all the temporary files created by CD-Maker Deluxe, the recorded data will be written on a single data track on the disc. Otherwise, CD-Maker Deluxe will split the data into multiple tracks.

- *Use System TEMP Directory*

Check this box if you want CD-Maker Deluxe to use the same directory that is used by your Windows operating system to hold temporary files.

- *Log File*

CD-Maker Deluxe will create a log file that allows you to trace and diagnose problems that can occur during recording. CD-Maker Deluxe will report all errors that have occurred in recording to this log file. You can specify the location and name for the log file.

- *Report to log file*

Check the "Report to log file" box and enter a file name and path for the log file to allow CD-Maker Deluxe to save error information in the specified log file.

- *Network and Removable Disk Support*

Check the "Copy files to the Program Cache Buffer Directory, then write them to CD Recorder" option to allow CD-Maker Deluxe to copy any source files residing on a network drive or removable media into the program cache buffer directory before writing to a disc.

**Options: Buffer Underrun Error Protection Tab**

The Buffer Underrun Error Protection tab allows you enable the CD Recorder's buffer underrun error protection feature for recorders that support one of these technologies (i.e. Burn Proof, JustLink, SeamlessLink, ExacLink or SuperLink).

- *Enable Buffer Underrun Error Protection*

Check this box to enable the buffer under-run error protection feature of your recorder (i.e. Burn Proof, JustLink, SeamlessLink, ExacLink or SuperLink). This option is ignored if your recorder does not support one of the buffer underrun error protection technologies.

## Options: Advanced Tab

The Advanced tab allows you to control the small file caching feature of CD-Maker Deluxe.

- *Cache small size files*

If the source files linked with your CD image layout consist of many small files, CD-Maker Deluxe will store those files with a size less than 512 KB (by default) to the program cache buffer. You can adjust this default threshold file size to ensure smooth transfer of data to the CD Recorder. As long as your program cache buffer has been allocated enough free disk space, you should increase the threshold to allow as many small files as possible to be stored to the program cache buffer.

 **Note:**

Larger threshold sizes will allow more small files to be copied to the program cache buffer. Moving the slider to the right increases the small file threshold value. Moving it all the way to the right will cause all files to be cached to disk before being written to the target media.

## **Track Properties: General Tab**

The General tab contains track title, number and description information for the selected audio track.

- *Title*

This is a text description of the track. Note that it will not be written to the disc - it is just for reference.

You can give a new title to the selected track. For example, you can type in the corresponding song name in place of the title "short1.mp3".

- *Track Number*

You can update the Track Number in this field. This is an alternative method to move the track.

## Track Properties: CD Text Tab

The CD Text tab allows you to include additional information about the selected track including the Performer, Songwriter, Composer and Arranger.

- **Title**  
Displays the track's title information.
- **Performer**  
Displays the track's performer.
- **Songwriter**  
Displays the track's writer.
- **Composer**  
Displays the track's composer.
- **Arranger**  
Displays the track's arranger.

### Notes:

- ☞ These fields must be filled in to correctly record CD Text information on your Audio CD. Your CD recorder must support the writing of CD Text (See the Write Tab of the CD Drive Properties dialog to verify your drive's capabilities.) You must also check the CD Text box of the Write CD dialog to enable the writing of CD Text information during the creation of an Audio CD.
- ☞ You can click the corresponding Apply to All Tracks button to copy the information entered to all tracks of this CD or Layout.

## Track Properties: Filter Tab

The Filter tab allows you to apply filtering to the selected wave file. This tab is not visible for other types of audio tracks.

- *Remove noise*

Check this box to filter out noise from the selected wave file.

- *Remove click and pop*

Check this box to filter out clicks and pops from the selected wave file.

- *Preview Button*

Click this button to play the selected wave file with the desired filtering.

**Note:**

This dialog and the filtering feature are only available for wave files.

## Convert Audio Format

Convert an audio track from one file format to another.

### Ä To convert an audio track to another file format:

1. Select the audio track to be converted from the track list.
2. Choose the Convert Audio Format... item from the Track Menu.
3. Enter the new name and path information. By default, CD-Maker Deluxe uses the same path as the source file.
4. Select the desired file type from the Save as type list.
5. If you are converting a file into the MP3 file format, you will need to set the MP3 Bit rate and Mode Options.
6. Click Save to begin the conversion process.

### Notes:

- ☞ MP3 encoding is available on CD-Maker Deluxe Professional Edition. All other versions offer MP3 encoding on a trial basis only! The trial lasts for twenty (20) conversions or thirty (30) days from the installation date. You can click the "Upgrade To Professional Edition" button on the StartUp screen to enable MP3 encoding once the trial has expired.
- ☞ Only supported audio file formats will be available in the Save as type list.
- ☞ If there is not enough space on the selected hard disk drive, a warning message box will be displayed.
- ☞ The Convert Audio Format... function is also available by right-clicking on the desired track and selecting it from the Quick Command Menu.

## **Video CD Properties: Album Tab**

- ***Album Identification***

This is a text identifier for this album.

- ***Number of Volumes in Album***

Specify the number of CD volumes that make up this album.

- ***Sequence Number of the Volume***

Specify the sequence number of this volume for this album.

- ***Viewing Restrictions***

Specify the viewing restriction for this volume.

## **Video CD Properties: Volume Tab**

The ISO 9660 Standard allows you to describe certain information about the CD. Such information is called the Volume Description, and will be recorded on the CD. The following briefly explain the fields in the Volume Description.

- ***Volume Name***

You can specify an identification of the volume in this field. It allows up to 32 alphanumeric characters, which include 0-9 and A-Z. This field is recommended.

- ***Volume Set Name***

If the disc you are preparing is part of a set of discs, every disc in the set may have the same name recorded in this field. It allows up to 32 d-characters. This field is optional.

- ***System Name***

It refers that the operating system under which the application will run. It allows up to 32 a-characters. This field is optional.

- ***Publisher Name***

You can identify the publisher of the disc. It allows up to 128 a-characters. This field is optional.

- ***Data Prepare Name***

You can specify an identification of the person or other entity, which controls the preparation of the data to be recorded on the volume. It allows up to 128 a-characters. This field is optional.

## **Video CD Properties: Date & Time Tab**

Specify the below Dates and Times of this CD volume.

- ***Creation***

You can specify the date and the time of the day at which the information in the volume was created.

- ***Modification***

You can specify the date and the time of the day at which the information in the volume was last modified.

- ***Expiration***

You can specify the date and the time of the day at which the information in the volume may be regarded as obsolete.

- ***Effective***

You can specify the date and the time of the day at which the information in the volume may be used.

**CD Copy Source**

Select the CD Drive that will contain the disc to be copied.

**CD Copy – Source Drive List**

The Source Drive list contains all CD drives attached to your system. Select the drive that will contain the disc to be copied from this drop-down list.

**CD Copy – Source Drive Eject**

Click this button to eject the disc from the source drive.

**CD Copy Target**

Select the CD-R/CD-RW drive that will be used to create the new disc.

**CD Copy – Target Drive List**

The Target Drive list contains all CD-R/CD-RW drives attached to your system. Select the drive that will be used to create the new disc from this drop-down list.

**CD Copy – Target Drive Eject**

Click this button to eject the disc from the target drive.

**Copy To Disk**

When checked, CD-Maker Deluxe will copy the contents of the source disc to the Program Cache Buffer before creating the copy on the target drive.

**Data CD Target**

Select the CD-R/CD-RW drive that will be used to create the new disc.

**Data CD – Target Drive List**

The Target Drive list contains all CD-R/CD-RW drives attached to your system. Select the drive that will be used to create the new disc from this drop-down list.

**Data CD – Target Drive Eject**

Click this button to eject the disc from the target drive.

**Data Track Layout – Explorer Pane**

Use the Explorer pane to select the files or folders you wish to add to the new Data CD Layout. Simply drag-and-drop them into the desired location of the Data Track Layout below.

### **Data Track Layout – Explorer Resource Tree**

The Explorer Resource Tree shows all resources currently available to your computer.

**Data Track Layout – Explorer Information Area**

The Explorer information area has four columns displaying the file/folder name, its size, the file type and the last modified date. The files may be sorted on any one of these columns by clicking on the column header. By default, files are sorted alphabetically (ascending) by name.

**Data Track Layout – Explorer Pane Splitter Bar**

The two panes may be resized vertically by dragging the splitter bar between them. Dragging the splitter bar to the left will display more of the file information in the right hand pane while reducing the visible portion of the resource tree in the left-hand pane.

**Data Track Layout Pane**

The Data Track Layout pane represents the layout of the disc you are creating. It operates in much the same manner as the Explorer pane above. You can Drag and drop files/folders to new positions within the Data CD layout, create new folders, rename or even delete files and folders.

**Data Track Layout Pane – Resource Tree**

The layout resource tree works just like the tree found in Windows Explorer. You can expand or collapse branches with the click of your mouse. Files and folders can be moved with a drag and drop operation. It represents the directory structure of the new disc.

**Data Track Layout Pane – Information Area**

The information area has six columns displaying the file/folder name, its size, the file type, last modified date, status and it's source. The files may be sorted on any one of these columns by clicking on the column header.

**Data Track Layout Pane – Splitter Bar**

The two panes may be resized vertically by dragging the splitter bar between them. Dragging the splitter bar to the left will display more of the file information in the right hand pane while reducing the visible portion of the resource tree in the left-hand pane.

**Audio CD Target**

Select the CD-R/CD-RW drive that will be used to create the new Audio CD disc.

**Audio CD – Target Drive List**

The Target Drive list contains all CD-R/CD-RW drives attached to your system. Select the drive that will be used to create the new disc from this drop-down list.

**Audio CD – Target Drive Eject**

Click this button to eject the disc from the target drive.

**Live Audio – Target Drive Eject**

Click this button to eject the disc from the target drive.

**Video CD – Target Drive Eject**

Click this button to eject the disc from the target drive.

**Mixed-Mode CD – Target Drive Eject**

Click this button to eject the disc from the target drive.

**CD-Extra – Target Drive Eject**

Click this button to eject the disc from the target drive.

**Session Explorer – Target Drive Eject**

Click this button to eject the disc from the CD drive.

**Live Audio CD – Target Drive List**

The Target Drive list contains all CD-R/CD-RW drives attached to your system. Select the drive that will be used to create the new disc from this drop-down list.

**Video CD – Target Drive List**

The Target Drive list contains all CD-R/CD-RW drives attached to your system. Select the drive that will be used to create the new disc from this drop-down list.

**Mixed-Mode CD – Target Drive List**

The Target Drive list contains all CD-R/CD-RW drives attached to your system. Select the drive that will be used to create the new disc from this drop-down list.

**CD-Extra – Target Drive List**

The Target Drive list contains all CD-R/CD-RW drives attached to your system. Select the drive that will be used to create the new disc from this drop-down list.

**Session Explorer – Source Drive List**

The Target Drive list contains all CD drives attached to your system. Select the drive that will contain the disc to be explored from this drop-down list.

**Session Explorer Source**

Select the CD drive that contains the disc to be explored.

**Live Audio Target**

Select the CD-R/CD-RW drive that will be used to create the new Live Audio disc. You must use CD-R media for live audio recording.

**Video CD Target**

Select the CD-R/CD-RW drive that will be used to create the new Video CD disc.

**Mixed-Mode CD Target**

Select the CD-R/CD-RW drive that will be used to create the new Mixed-Mode disc.

**CD-Extra Target**

Select the CD-R/CD-RW drive that will be used to create the new CD Extra disc.

**Live Audio Input Source**

Select the Live Audio input source from the Audio Source combo box.

**Live Audio – Input Source List**

Select the audio input device to be used for the Live Audio recording from the drop-down list.

**Live Audio – Layout Area (Track List)**

With Live Audio recording, tracks are appended to the end of the track list. Tracks are written directly to the CD-R media.

**Audio Track Layout Area (Track List)**

The Audio Track layout area does not contain a resource tree. Instead, it has a track list to drop files. By default, new files are appended to the Track List found in the layout pane. Once dropped onto the destination pane, they can be repositioned in the track list with the mouse. Simply select the track to move and drag it to the new position in the list.

**Video Item Layout Area (Play Sequence List)**

The Video Track layout area does not contain a resource tree. Instead, it has a track list to drop files. By default, new files are appended to the Track List found in the layout pane. Once dropped onto the destination pane, they can be repositioned in the track list with the mouse. Simply select the track to move and drag it to the new position in the list.

### **Audio Track Layout – Explorer Pane**

Use the Explorer pane to select the files or folders you wish to add to the new Audio CD Layout. Simply drag-and-drop them into the desired location of the Audio Track Layout below.

**Video Item Layout – Explorer Pane**

Use the Explorer pane to select the files or folders you wish to add to the new Video CD Layout. Simply drag-and-drop them into the desired location of the Video Track Layout below.

### **Audio Track Layout – Explorer Resource Tree**

The Explorer Resource Tree shows all resources currently available to your computer.

### **Video Item Layout – Explorer Resource Tree**

The Explorer Resource Tree shows all resources currently available to your computer.

**Audio Track Layout – Explorer Information Area**

The Explorer information area has four columns displaying the file/folder name, its size, the file type and the last modified date. The files may be sorted on any one of these columns by clicking on the column header. By default, files are sorted alphabetically (ascending) by name.

**Video Item Layout – Explorer Information Area**

The Explorer information area has four columns displaying the file/folder name, its size, the file type and the last modified date. The files may be sorted on any one of these columns by clicking on the column header. By default, files are sorted alphabetically (ascending) by name.

**Audio Track Layout – Explorer Splitter Bar**

The two panes may be resized vertically by dragging the splitter bar between them. Dragging the splitter bar to the left will display more of the file information in the right hand pane while reducing the visible portion of the resource tree in the left-hand pane.

**Video Item Layout – Explorer Splitter Bar**

The two panes may be resized vertically by dragging the splitter bar between them. Dragging the splitter bar to the left will display more of the file information in the right hand pane while reducing the visible portion of the resource tree in the left-hand pane.

**Session Explorer – Splitter Bar**

The two panes may be resized vertically by dragging the splitter bar between them. Dragging the splitter bar to the left will display more of the file information in the right hand pane while reducing the visible portion of the resource tree in the left-hand pane.

**Session Explorer – Resource Tree**

The Session Explorer resource tree lists all sessions found on the target disc. Each item found here represents one complete session from the target media.

**Session Explorer – Information Area**

The information area has five columns displaying the file/folder name, its size, the file type, last modified date and it's status.

**Session Explorer – Refresh Button**

Click this button to refresh the information displayed in the Session Explorer window.

**Session Explorer – Copy Button**

Click this button to copy the selected files from the CD to the desired destination.

**Drive Properties**

Displays the CD drive properties for the selected drive.

**Directory for Program Cache Buffer**

The Program Cache Buffer contains temporary files that are used to make read and write operations that occur during a recording session smooth and reliable. You should specify a program cache buffer directory with enough space to hold future temporary files.

**Use System TEMP Directory**

Check this box if you want CD-Maker Deluxe to use the same directory that is used by your Windows operating system to hold temporary files.

**Log File**

CD-Maker Deluxe will create a log file that allows you to trace and diagnose problems that can occur during recording. CD-Maker Deluxe will report all errors that have occurred in recording to this log file. You can specify the location and name for the log file.

**Report to log file**

Check the "Report to log file" box and enter a file name and path for the log file to allow CD-Maker Deluxe to save error information in the specified log file.

**Network and Removable Disk Support**

Check the "Copy files to the Program Cache Buffer Directory, then write them to CD Recorder" option to allow CD-Maker Deluxe to copy any source files residing on a network drive or removable media into the program cache buffer directory before writing to a disc.

**Browse for Folder**

Explore your system for the desired folder.

**Browse for File**

Explore your system for the desired file.

**Enable Buffer Underrun Error Protection**

Enable the buffer under-run error protection feature of your recorder (i.e. Burn Proof, JustLink, SeamlessLink, ExacLink or SuperLink). This option is ignored if your recorder does not support one of the buffer underrun error protection technologies.

**Cache small size files**

Select the Cache small size files threshold. Larger threshold sizes will allow more small files to be copied to the program cache buffer. Moving the slider to the right increases the small file threshold value. Moving it all the way to the right will cause all files to be cached to disk before being written to the target media.

**Title**

You can give a new title to the selected track. For example, you can type in the corresponding song name in place of the title "short1.mp3".

**Track Number**

You can update the Track Number in this field. This is an alternative method to change the position of the selected track in the play list.

**Title**

Display/modify the track's title information.

**Performer**

Display/modify the track's performer.

**Songwriter**

Display/modify the track's writer.

**Composer**

Display/modify the track's composer.

**Arranger**

Display/modify the track's arranger.

**Remove noise**

Check this box to filter out noise from the selected wave file.

**Remove click and pop**

Check this box to filter out clicks and pops from the selected wave file.

**Preview Button**

Click this button to play the selected wave file with the desired filtering.

**Title**

Display/modify the CD's title information.

**Performer**

Display/modify the CD's performer.

**Songwriter**

Display/modify the CD's writer.

**Composer**

Display/modify the CD's composer.

**Arranger**

Display/modify the CD's arranger.

**Save as type**

Select the desired file type from the list of supported file types for this operation.

**MP3 Options**

Select the Bit Rate and Recording Mode when converting to the MP3 file format.

**Bit Rate**

Select the Bit Rate from this list when converting to the MP3 file format.

**Mode**

Select the Recording Mode from this list when converting to the MP3 file format

**Album Identification**

This is a text identifier for this album.

**Number of Volumes in Album**

Specify the number of CD volumes that make up this album.

**Sequence Number of the Volume**

Specify the sequence number of this volume for this album.

**Viewing Restrictions**

Specify the viewing restriction for this volume.

**Volume Name**

You can specify an identification of the volume in this field. It allows up to 32 alphanumeric characters, which include 0-9 and A-Z. This field is recommended.

**Volume Set Name**

If the disc you are preparing is part of a set of discs, every disc in the set may have the same name recorded in this field. It allows up to 32 d-characters. This field is optional.

**System Name**

It refers that the operating system under which the application will run. It allows up to 32 a-characters. This field is optional.

**Publisher Name**

You can identify the publisher of the disc. It allows up to 128 a-characters. This field is optional.

**Data Prepare Name**

You can specify an identification of the person or other entity, which controls the preparation of the data to be recorded on the volume. It allows up to 128 a-characters. This field is optional.

**Creation Date & Time**

You can specify the date and the time of the day at which the information in the volume was created.

**Modification Date & Time**

You can specify the date and the time of the day at which the information in the volume was last modified.

**Expiration Date & Time**

You can specify the date and the time of the day at which the information in the volume may be regarded as obsolete.

**Effective Date & Time**

You can specify the date and the time of the day at which the information in the volume may be used.

**Item Title**

This is a text description of the item. Note that it will not be written to the disc - it is just for reference.

**Item Number**

You can update the Item Number in this field. This is an alternative method to reposition the selected video clip in the play list.

**Source Format**

Displays various information about the format of the video item, including frame size, rate, number of frames in the item and play time for the item.

**Source Format**

Displays various information about the format of the audio track type, format and play time for the item.

**Help Button**

Click this button to get additional information about this dialog box or property sheet.

**Start Button**

Click this button to begin the requested operation.

**OK Button**

Click this button to accept the changes made from this dialog box or property sheet.

**Cancel Button**

Click this button to close this dialog box or property sheet without making any changes to the settings.

**Source**

Displays the source location of the selected video item in this layout file.

**Source**

Displays the source location of the selected audio track in this layout file.

**Hidden**

Displays the hidden attribute for the selected file or folder. Check this box to hide it on the resulting CD.

**Creation Date & Time**

You can specify the date and the time of the day at which the information in the volume was created.

**Modification Date & Time**

You can specify the date and the time of the day at which the information in the volume was last modified.

**Expiration Date & Time**

You can specify the date and the time of the day at which the information in the volume may be regarded as obsolete.

**Effective Date & Time**

You can specify the date and the time of the day at which the information in the volume may be used.

**Volume Name**

You can specify an identification of the volume in this field. It allows up to 32 alphanumeric characters, which include 0-9 and A-Z. This field is recommended.

**Volume Set Name**

If the disc you are preparing is part of a set of discs, every disc in the set may have the same name recorded in this field. It allows up to 32 d-characters. This field is optional.

**System Name**

It refers that the operating system under which the application will run. It allows up to 32 a-characters. This field is optional.

**Publisher Name**

You can identify the publisher of the disc. It allows up to 128 a-characters. This field is optional.

**Data Preparer Name**

You can specify an identification of the person or other entity, which controls the preparation of the data to be recorded on the volume. It allows up to 128 a-characters. This field is optional.

**Joliet File Names**

This file system is designed for use with Windows 95. It allows long file names. However, it still conforms to MS-DOS restrictions for short file names. If a CD is created using this file system, the disc can be read back only under Windows 95 and/or Windows NT 4.0.

**MS-DOS File Names**

All MS-DOS file names are valid under this option. If the CD is for DOS or Windows 3.1x, then this option is recommended.

**Romeo File Names**

Romeo is defined as Windows 95 long file names only, up to 128 characters. It is supported by all CD-Maker software, Version 3.0 and above. If a CD is created using this file system, the disc can be read back only under Windows 95 and/or Windows NT 4.0.

**ISO 9660 File Names**

Since a CD-ROM disc was designed to be read across various platforms, such as PC, Mac and UNIX, the ISO 9660 standard is very restrictive on file and folder names. The allowable characters for file and folder names are A-Z, 0-9 and \_. ISO 9660 also restricts the subdirectory name and the depth of subdirectories to eight levels deep.

**Mode-1 (CD-ROM)**

Select the Mode-1, CD-ROM, Data Format for the target disc.

**Mode-2 (CD-ROM XA)**

Select the Mode-2, CD-ROM XA, Data Format for the target disc.

**Test**

Performs a test recording of the current CD layout to your CD Recorder. This option writes all data exactly as it would during the actual writing process except the recorder does not write the incoming data to the media. All settings, except for Copies are utilized in the simulation process.

**Test & Write**

Performs a test simulation and upon successful completion write the data to the CD media. All settings are utilized during this operation.

**Write**

Writes the current CD layout to the CD-R or CD-RW media. All settings are utilized during a write operation.

**Speed**

Select the recording to be used in the Test or Write operation. The combo box will list all writing speeds supported by the selected CD Recorder.

**Copies**

Specify the number of copies of the current CD layout will be written. This setting is not used during the Test operation.

**Write Method**

Selects one of four possible writing methods for this CD.

**Advanced Button**

Displays or hides the Advanced Writing Options

**Smart decision**

CD-Maker Deluxe automatically selects the writing method based on the type of CD you are going to write. This is the default selection and the best choice in most cases. CD-Maker Deluxe will indicate the recommended writing method by displaying a blue checkmark to the right of the option.

**Track-At-Once**

Track-At-Once writing mode will write one track at a time. CD-Maker Deluxe will copy from the original source to the program cache buffer first, and then send them from the program cache buffer to the CD Recorder, which in turn writes to the target disc all on one track. Select one of the following choices to tell CD-Maker Deluxe if you wish to leave the session and disc open or closed at the end of the writing process.

**Close session, leave disc open**

Closes the session but does not finalize the disc at the end of the write operation.

**Leave session and disc open**

Does not close the session or finalize the disc at the end of the write operation.

**Close session and disc**

Closes the session and finalizes the disc at the completion of the write operation.

**Session-At-Once**

Session-At-Once writing mode will write all data from a single session at one time. CD-Maker Deluxe will copy all source tracks from the original source to the program cache buffer on the hard disk first, and then send them from the cache buffer to the CD Recorder.

**Disc-At-Once**

For Disc-At-Once writing mode, it is required that all the source tracks must be on the hard disk. If you want to make a master CD, you must use Disc-At-Once writing mode.

**Erase CD-RW Disc – Target Drive List**

The Target Drive list contains all CD-R/CD-RW drives attached to your system. Select the drive that will be used to erase the CD-RW media from this drop-down list.

**Erase CD-RW Disc – Target Drive Eject**

Click this button to eject the disc from the CD drive.

**Erase CD-RW Disc – Target**

Select the CD-R/CD-RW drive that will be used to erase the CD-RW disc.

**Quick Erase**

Erases the TOC only and takes from 1 to 2 minutes to complete.

**Full Erase**

Erases all areas of the CD-RW media and takes several minutes to complete.

**Erase Progress Bar**

Indicates the progress of the current erase operation.

**Erase Type**

Select the type of erase operation you would like to perform.

**Close Button**

Click this button to close this dialog box or property sheet.

**Write Capabilities**

The write capabilities section displays the supported write speeds and various other features for the selected drive.

**Read Capabilities**

The read capabilities section displays the supported read speeds and various other features for the selected drive.

**CD-R Speed**

This drive writes to CD-R media at these speeds.

**CD-RW Speed**

This drive writes to CD-RW media at these speeds.

**Buffer Underrun Error Protection**

This drive supports one of the current buffer underrun error protection technologies (i.e. Burn Proof, JustLink, SeamlessLink, ExacLink or SuperLink).

**CD Text**

This drive will write the CD-Text information to the media.

**Disc-At-Once**

This drive supports the Disc-At-Once writing method.

**Session-At-Once**

This drive supports the Session-At-Once writing method.

**Packet Writing**

This drive supports packet-writing.

**Write UPC & ISRC**

This drive supports the writing of UPC and ISRC code information to the media.

**Max Speed**

This drive will read at this speed.

**Audio Extraction**

This drive supports audio extraction.

**Audio Accurate**

This drive will accurately extract audio information.

**Read CD-RW (Multi-read)**

This drive supports multi-read for CD-RW media.

**Method 2 (Multi-read)**

This drive supports multi-read for the CD-ROM XA format.

**Read UPC & ISRC**

This drive supports the reading of UPC and ISRC code information from the media.

**Audio Extraction Speed Control**

Displays/sets the audio extraction speed for the selected drive.

**Default**

Use the factory default extraction speed for this drive.

**Best Quality**

Use the speed that extracts audio data the most accurately.

**Fastest Speed**

Use the fastest speed supported by this drive for audio extraction regardless of quality.

**Drive Properties – Drive List**

The Drive list contains all CD drives attached to your system. Select the desired drive from this drop-down list.

**Drive Properties – Eject**

Click this button to eject the disc from the selected CD drive.

## **Drive Properties – CD Drive**

View the drive properties for the selected drive.

**Disc Type**

The disc type can be one of the following: (1) CD-DA or CD-ROM disc; (2) CD-I disc; (3) CD-ROM XA disc.

**Disc Status**

Shows the status of the media in the selected drive (Blank Disk, Recordable Disc or Unrecordable Disc) A recordable disc is one that is not blank but has not been finalized. Unrecordable media is either a conventional CD or finalized CD-R disc. You cannot use this disc to record.

**Used Space**

This field indicates the amount of disc space currently written to on this disc.

**Free Space**

This field shows the free and available space on the disc, as expressed in "minutes: seconds: frames". If you insert a finalized or silver disc, this field will be zero, indicating no free space.

**Re-Writable**

Indicates if the media in the selected drive is a rewritable (CD-RW) disc.

**Refresh Button**

Click this button to display updated information about a new CD or to update the displayed information for the currently inserted disc.

**Close Session Button**

Select an open session, if any, and click this button to close it. Usually, there are two possibilities that resulted in a session remaining open: (a) an error occurred during actual recording, in which case the session most likely would remain open; (b) you chose the "Leave session and disc open" option for the Track-At-Once writing method, which is in the Advanced section of the Write

**Recover Button**

If the track is damaged, when you highlight the damaged track, the Recover button will be enabled. Highlight the damaged track and click on this button to recover it. The recover utility is available only when your CD-Recorder supports this function.

**Read Track Button**

Highlight a track you want to read to your hard disk, then click on the Read Track button.

**Compare Track Button**

Highlight a track you want to compare to your hard disk, then click on the Compare Track button.

**Erase Button**

The erase button will be enabled if the selected drive is a CD-RW device with CD-RW media. Clicking the Erase button displays the Erase CD-RW dialog.

**New Button**

Click this button to start a new layout of the current type. Click the arrow to the right and select a layout type to start a new layout of that type.

**Open Button**

Click this button to open an existing layout for editing.

**Save Button**

Click this button to save the current layout for later use.

**Record Button**

Click this button to start the recording process.

**Up One Level Button**

Click this move to the next level up on the resource tree.

**Find Files Button**

Click this button to launch the Windows Find File utility.

**Add Button**

Click this button to add a new item to the current layout.

**Delete Button**

Click this button to delete the currently selected item from the layout.

**Properties Button**

Click this button to display the properties for the currently selected item.

**About Button**

Click this button to display program and product information about CD-Maker Deluxe.

**Context Help Button**

Click this button and then the item from the program window to see additional information about that button or control.

**Help Button (Things To Do)**

Click this button and for a brief listing of things to do to complete the current step.

**CD Copy - Step 1**

Step 1 identifies the source and target drives for the copy operation.

**CD Copy - Step 2**

Step 2 performs the copy operation.

**Data CD - Step 1**

Step 1 identifies the files to be written to the CD-ROM disc.

**Data CD - Step 2**

Step 2 writes the files specified in the current layout to the target drive.

**Audio CD - Step 1**

Step 1 identifies the audio tracks to be written to the Audio disc.

**Audio CD - Step 2**

Step 2 writes the files specified in the current layout to the target drive.

**Video CD - Step 1**

Step 1 identifies the items to be written to the Video disc.

**Video CD - Step 2**

Step 2 writes the files specified in the current layout to the target drive.

**Live Audio - Step 1**

Step 1 identifies the input source to be recorded on the Live Audio disc.

**Live Audio - Step 2**

Step 2 records the audio signal from the input source on the target media.

**Mixed-Mode CD - Step 1**

Step 1 identifies the data files to be written to the Mixed-Mode disc.

**Mixed-Mode CD - Step 3**

Step 3 writes the files specified in the current layout to the target drive.

**CD Extra - Step 1**

Step 1 identifies the audio tracks to be written to the CD Extra disc.

**CD Extra - Step 3**

Step 3 writes the files specified in the current layout to the target drive.

**Mixed-Mode CD - Step 2**

Step 2 identifies the audio tracks to be written to the Mixed-Mode disc.

**Close Button**

Click this button to end live audio recording and close this session.

**Stop Button**

Click this button to stop recording the current audio track.

**Start Button**

Click this button to start the recording of a new audio track.

**CD Extra- Step 2**

Step 2 identifies the data files to be written to the CD Extra disc.

**Custom CD Target**

Select the CD-R/CD-RW drive that will be used to create the new Custom CD disc.

**Custom CD – Target Drive List**

The Target Drive list contains all CD-R/CD-RW drives attached to your system. Select the drive that will be used to create the new disc from this drop-down list.

**Custom CD – Target Drive Eject**

Click this button to eject the disc from the target drive.

**Custom Track Layout – Explorer Pane**

Use the Explorer pane to select the image files you wish to add to the new Custom CD Layout. Simply drag-and-drop them into the desired location of the Custom Track Layout below.

### **Custom Track Layout – Explorer Resource Tree**

The Explorer Resource Tree shows all resources currently available to your computer.

### **Custom Track Layout – Explorer Information Area**

The Explorer information area has four columns displaying the file/folder name, its size, the file type and the last modified date. The files may be sorted on any one of these columns by clicking on the column header. By default, files are sorted alphabetically (ascending) by name.

### **Custom Track Layout – Explorer Splitter Bar**

The two panes may be resized vertically by dragging the splitter bar between them. Dragging the splitter bar to the left will display more of the file information in the right hand pane while reducing the visible portion of the resource tree in the left-hand pane.

**Custom Track Layout Area (Track List)**

The Custom Track layout area does not contain a resource tree. Instead, it has a track list to drop files. By default, new image files are appended to the Track List found in the layout pane. Once dropped onto the destination pane, they can be repositioned in the track list with the mouse. Simply select the track to move and drag it to the new position in the list.

**Custom CD - Step 1**

Step 1 identifies the image files to be written to the Custom disc.

**Custom CD - Step 2**

Step 2 writes the files specified in the current layout to the target drive.

## **Custom Track Properties: General Tab**

The General tab contains track name, number and description information for the selected image file.

- *Track Name*

This is a text description of the track. Note that it will not be written to the disc - it is just for reference.

You can give a new name to the selected track.

- *Track Number*

You can update the Track Number in this field. This is an alternative method to move the track.

- *Mode*

Displays/sets the mode for this image file.

- *Block Size*

Displays/sets the block size for this image file.

- *Length*

Displays the length for this image file.

**Track Name**

Displays/Sets the track name for the selected track.

**Track Number**

You can update the Track Number in this field. This is an alternative method to change the position of the selected track in the play list.

**Track Format**

Displays various information about the format of the image file including mode, block size and length.

**Mode**

Displays/Sets the mode for the selected track.

**Block Size**

Displays/Sets the block size for the selected track.

**Length**

Displays the length of the selected track.

**From**

Displays/Sets the track name for the selected track.

**Disc Type**

Displays/Sets the disc type for this Custom CD.

### **Options: Background Pictures Tab**

The Background Pictures tab allows you to change the bitmaps displayed as backgrounds from the CD-Maker Deluxe startup screen.

- *Preview Area*

Displays the bitmap assigned to the selected background type.

- *Background Type*

Select from four different background types. Each type is displayed at specific times of the day.

- *Bitmap Name*

Display/Set the name of the bitmap file to be displayed for the selected background type.

- *Browse Button*

Use the Explorer browse feature to locate a bitmap file.

**Cache Memory**

Displays the amount of cache memory for the selected drive.

**Vendor ID**

Displays the vendor id for the selected drive.

**Product ID**

Displays the product id string for the selected drive.

**Firmware Revision**

Displays the firmware version for the selected drive.

**Drive Letter**

Displays the drive letter for the selected drive.

**Preview Area**

Displays the bitmap assigned to the selected background type.

**Browse Button**

Use the Explorer browse feature to locate a bitmap file.

**Background Type**

Select from four different background types. Each type is displayed at specific times of the day.

**Bitmap Name**

Display/Set the name of the bitmap file to be displayed for the selected background type.

### **Options: Preference Tab**

The Preference tab allows you select various user preferences.

- *Measure source read speed.*

Check this box to allow CD-Maker Deluxe to automatically measure the read speed of the source data for this CD or layout. When checked, you can specify the amount of the source data to use for speed calculations. (Default – 25%)

- *Try lower speed in Test mode..*

Check this box to allow CD-Maker Deluxe to automatically reduce the writing speed when an error is encountered during the testing process. The test is re-run at the new writing speed.

- *Eject disc after writing.*

Check this box to allow CD-Maker Deluxe to automatically eject the new disc after the writing has completed.

- *Verify recorded data after write.*

Check this box to allow CD-Maker Deluxe to automatically verify data recorded on the CD with the source data files.

**Try lower speed in Test mode**

Automatically reduces the writing speed when an error is encountered during the testing process. The test is re-run at the new writing speed.

**Eject disc after writing**

Automatically ejects the disc after it has been written.

**Overburn**

This drive supports Overburning™ .

**CD Text Button**

Displays the CD Text information for the disc in the selected drive.

**Type**

Select the type of Video CD you want to create with this layout. Video CD accepts only MPEG-1 files. Super Video CD accepts MPEG-2 files.

**Ignore source CD medium read errors**

Checking this option causes CD-Maker Deluxe to ignore all read errors from the source drive during a copy operation.

**Disc-At-Once Overburn**

Enables the Overburning™ feature in CD-Maker Deluxe. You must write your disc using the Disk-At-Once (DAO) writing method and Overburning™ must be supported by your CD-R/CD-RW recorder.

**Minutes**

Displays the number of minutes of the maximum CD size allowed for Overburning™.

**Seconds**

Displays the number of seconds of the maximum CD size allowed for Overburning™.

**Frames**

Displays the number of frames of the maximum CD size allowed for Overburning™.

## **Options: CD Copy Tab**

The CD Copy tab allows you set the options associated with the CD Copy feature.

- *Ignore source CD medium read errors*

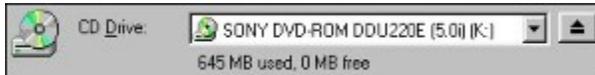
Check this box to ignore read error on the source drive during a CD Copy operation.

## Step 1 - Select Source and Target Drives



### Ä Selecting the source and target drives - Step 1

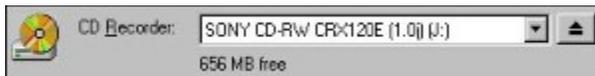
1. Choose the source drive from the Source Drive List.



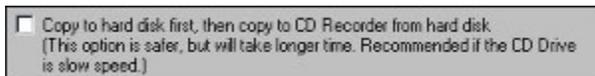
2. Insert the CD to be copied.
3. Choose the target drive from the Target Drive List.



4. Insert the blank CD-R/CD-RW media in the target drive.



5. Select the Copy to hard disk option if desired.



6. Click the Step 2 button.

## Step 2 - Copy the Disc



### Ä Copying the Disc - Step 2

1. Choose from Test, Test & Write or Write options.
2. Select the desired writing speed.
3. Enter the number of copies that you wish to create.
4. Click the Start Button to begin copy process.

## Step 2 - Write the CD-ROM Disc



### Ä Writing the Disc - Step 2

1. Choose from Test, Test & Write or Write options.
2. Select the desired writing speed.
3. Enter the number of copies that you wish to create.
4. Click the Start Button to begin writing process.

## Step 1 - Create an Audio Track Layout



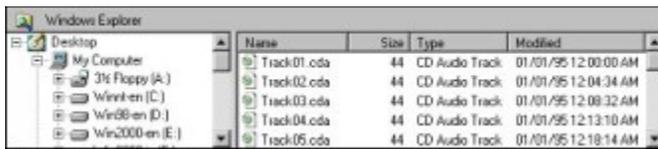
### Ä Creating an Audio CD Layout – Step 1

1. Create a new  or open

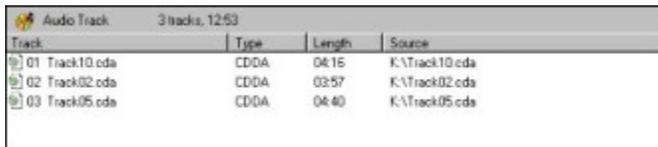


an existing Audio CD layout.

2. Select the audio track(s) that you wish to add to the CD in the Explorer Pane.



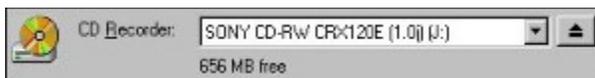
3. Drag and drop selected item(s) to the Audio Track Layout Pane.



4. Set the CD Text information (Title, Performer etc...) from the Audio CD Properties dialog. 
5. Save the Audio CD layout file. 
6. Choose the target drive from the Target Drive List.



7. Insert the CD-R/CD-RW media in the target drive.



8. Click the Step 2 Button.

## Step 2 - Write the Audio Disc



### Ä Writing the Disc - Step 2

1. Choose from Test, Test & Write or Write options.
2. Select the desired writing speed.
3. Enter the number of copies that you wish to create.
4. Click the Start Button to begin writing process.

## Step 1 - Create a Video CD/Super VCD Layout



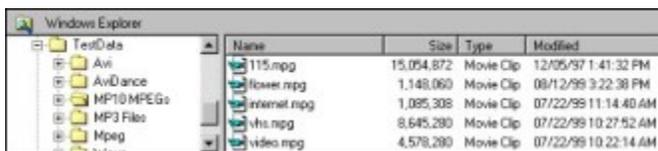
### Ä Creating a Video CD/Super VCD Layout – Step 1

1. Create a new  or open

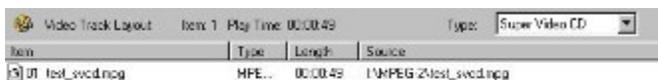
 an existing Video CD/Super VCD layout.

2. Select either Video CD or Super Video CD from the Type list.

3. Select the video clip(s) that you wish to add to the CD in the Explorer Pane.



4. Drag and drop selected item(s) to the Video Track Layout Pane.



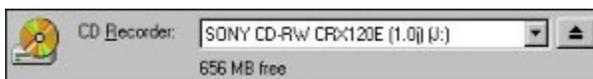
5. Set the Album, Volume and Date & Time information from the Video CD Properties dialog. 

6. Save the Video CD layout file. 

7. Choose the target drive from the Target Drive List.



8. Insert the CD-R/CD-RW media in the target drive.



9. Click the Step 2 Button.

## Step 2 - Write the Video Disc



### Ä Writing the Video Disc - Step 2

1. Choose from Test, Test & Write or Write options.
2. Select the desired writing speed.
3. Enter the number of copies that you wish to create.
4. Click the Start Button to begin copy process.

## Step 1 - Create the Data Track Layout



### Ä Creating the Data Track Layout – Step 1

1. Create a new  or open

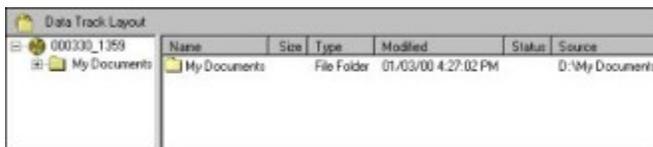


an existing Mixed-Mode CD layout.

2. Select the file(s) and folder(s) that you wish to add to the data track in the Explorer Pane.



3. Drag and drop selected item(s) to the Data Track Layout Pane.



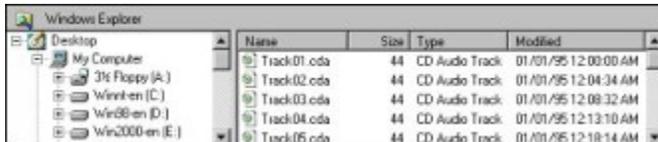
4. Click the Step 2 Button.

## Step 2 - Create the Audio Track Layout

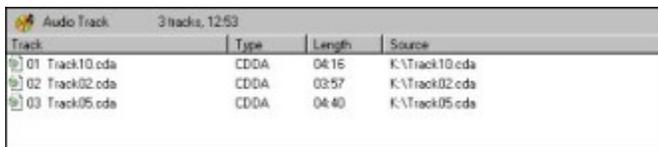


### Ä Creating the Audio CD Layout – Step 2

1. Select the audio track(s) that you wish to add to the layout in the Explorer Pane.



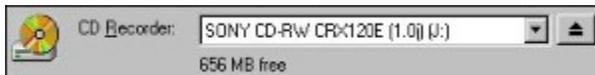
2. Drag and drop selected item(s) to the Audio Track Layout Pane.



3. Select the File System and Data Format options and set the Volume and Date & Time information from the Data CD Properties dialog.
4. Save the Mixed-Mode CD layout file.
5. Choose the target drive from the Target Drive List.



6. Insert the CD-R/CD-RW media in the target drive.



7. Click the Step 3 Button.

## Step 3 - Write the Mixed-Mode Disc



### Ä Writing the Mixed-Mode Disc - Step 3

1. Choose from Test, Test & Write or Write options.
2. Select the desired writing speed.
3. Enter the number of copies that you wish to create.
4. Click the Start Button to begin writing process.

## Step 1 - Create the Audio Track Layout



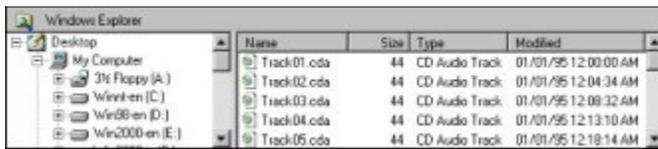
### Ä Creating the Audio Track Layout – Step 1

1. Create a new  or open

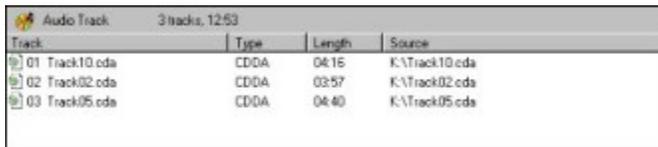


an existing CD Extra layout.

2. Select the audio track(s) that you wish to add to the layout in the Explorer Pane.



3. Drag and drop selected item(s) to the Audio Track Layout Pane.



4. Click the Step 2 Button.

## Step 2 - Create the Data Track Layout

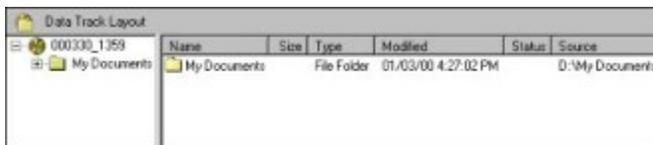


### Ä Creating a Data Track Layout – Step 2

1. Select the file(s) and folder(s) that you wish to add to the CD in the Explorer Pane.



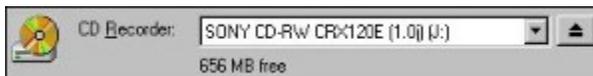
2. Drag and drop selected item(s) to the Data Track Layout Pane.



3. Select the File System and Data Format options and set the Volume and Date & Time information from the Data CD Properties dialog. 
4. Save the CD Extra layout file. 
5. Choose the target drive from the Target Drive List.



6. Insert the CD-R/CD-RW media in the target drive.



7. Click the Step 3 Button.

## Step 3 - Write the CD Extra Disc



### Ä Writing the CD Extra Disc - Step 3

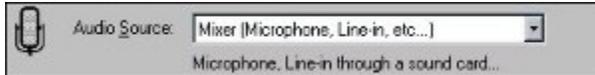
1. Choose from Test, Test & Write or Write options.
2. Select the desired writing speed.
3. Enter the number of copies that you wish to create.
4. Click the Start Button to begin copy process.

## Select the Audio Source and Target Drive



### Ä Selecting the audio source and target drive - Step 1

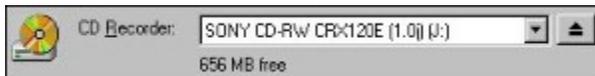
1. Choose the audio source from the Input Source List.



2. Connect the audio source device to the Microphone or Line-in jacks of your system's sound card.
3. Choose the target drive from the Target Drive List.



4. Insert a blank CD-R media in the target drive.



5. Click the Step 2 button.

## Step 2 - Record the Live Audio Tracks



### Ä Recording live audio tracks - Step 2

1. Click the Start button to begin recording the audio source.
2. Start the audio source. (i.e. press play on the device or speak in to the microphone)
3. Click the Stop button to end the recording process.
4. Repeat steps 1 through 3 to record additional tracks.
5. Click the Close button to end the Live Audio recording.
6. Close the session.

## Step 1 - Create the Data CD Layout



### Ä Creating a Data CD Layout – Step 1

1. Create a new  or open

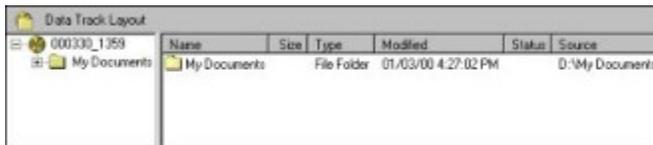


an existing Data CD layout.

2. Select the file(s) and folder(s) that you wish to add to the CD in the Explorer Pane.



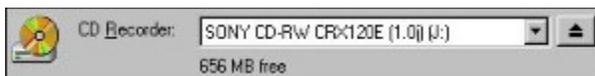
3. Drag and drop selected item(s) to the Data Track Layout Pane.



4. Select the File System and Data Format options and set the Volume and Date & Time information from the Data CD Properties dialog. 
5. Save the Data CD layout file. 
6. Choose the target drive from the Target Drive List.

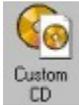


7. Insert the CD-R/CD-RW media in the target drive.



8. Click the Step 2 Button.

## Step 1 - Create the Custom CD Layout



### Ä Creating a Custom CD Layout – Step 1

1. Create a new  or open

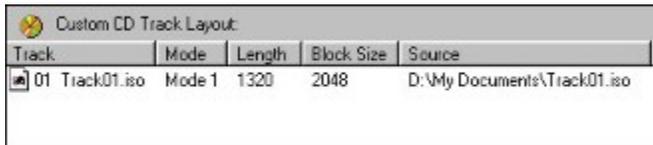


an existing Custom CD layout.

2. Select the image file(s) that you wish to add to the CD in the Explorer Pane.



3. Drag and drop selected file(s) to the Custom CD Track Layout Pane.



4. Select the Disc Type from the Custom CD Properties dialog. 

5. Save the Custom CD layout file. 

6. Choose the target drive from the Target Drive List.



7. Insert the CD-R/CD-RW media in the target drive.



8. Click the Step 2 Button.

## Getting Started

## **Introduction**

In this chapter, we will show you step by step how to make a Video CD/Super VCD disc. Before we start, let's go over some concepts related to creating a VCD/SVCD disc.

The contents on a VCD/SVCD disc may include video clips, converted from MPEG-1 or MPEG-2 files. These MPEG files exist in a number of different formats. The video clips that you add to the Video CD/Super VCD layout must conform to the MPEG-1 for Video CD specification, as defined in White Book. Super VCD requires that the video clips conform to the MPEG-2 (ISO 13818-1, 1994) specification. See the file specifications below for details. In either case, CD-Maker Deluxe verifies the source file and creates your VCD or SuperVCD disc at the click of a button. It is that easy!

A VCD/SuperVCD disc must be recorded in a single session. You can use a VCD/SuperVCD player to play the VCD disc

## File Specifications

### Video Files(MPEG-1 & MPEG-2)

MPEG-1 sources should conform to the Video CD specification as defined in "Video CD Specification Version 2.0" by Philips Consumer Electronics known as "White Book" and MPEG standard (ISO/IEC 111172) documents. MPEG-2 sources should conform to the MPEG standard (ISO 13818-1, 1994).

**Video CD** - The MPEG-1 video data stream has three supported formats: NTSC, Film and PAL. The picture size and picture rate for each standard are listed here:

Format	Picture Size	Picture Rate
NTSC	352 x 240	29.97 Hz
Film	352 x 240	23.976 Hz
PAL	352 x 288	25 Hz

A bit rate of 1.15 mbps is required for the VCD 2.0 format. They contain a fixed frame rate of 75 frames per second or a 1X recording speed.

**Super Video CD** - The MPEG-2 video data stream has two supported formats: NTSC and PAL. The picture size and picture rate for each standard are listed here:

Format	Picture Size	Picture Rate
NTSC	480 x 480	29.97 Hz
PAL	480 x 576	25 Hz

Super VCD supports a variable bit rate up to 2.6 mbps. They can contain variable frame rate up to 150 frames per second (2X recording speed).

### Audio Files(MPEG-1, Layer II)

Audio files in the MPEG-1, Layer II are used when creating a VCD/SVCD CD as follows:

Format	Bit Rate	Audio Channels	Surround Sound
Video CD 2.0	Fixed – up to 224 kbps	1 Stereo or 2 mono	Stereo with Dolby pro-logic
SuperVideo CD	Variable – 32 to 384 kbps	2 Stereo or 4 mono	MPEG-2 (5+1) extension.

### AVI Files

Usually, the best quality and encoding speed result when the resolution and frame rate of the source AVI file match the output resolution of the destination MPEG file. Currently, all AVI files must be converted to the MPEG format before they can be recorded with CD-Maker Deluxe. If the original file you have is in AVI format, you need encoding software such as the Xing MPEG Encoder to perform the necessary conversion.

## **Step 1 - Create a Video CD/Super VCD Layout**

## Opening a new Video CD/Super VCD layout

There are two ways to create a New Video CD/Super VCD layout file.

### Ä To open a new Video CD/Super VCD Layout:

1. Click the first (New) button  on the tool bar.

#### ↳ **Note:**

Click on the selection arrow of the New button and choose Video CD from the drop-down list. If you are currently working with a Video CD/Super VCD layout and wish to open a new one, click the New button to create a new Video CD/Super VCD layout.

2. Choose New from the File menu and select Video CD from the menu list.

Once you select Video CD from the New menu, the familiar Explorer view will be displayed in the source pane and a Video Track Layout will be displayed in the destination pane. The source pane will contain the Explorer view as described in Chapter 3. The Video Track Layout contains a play sequence list that displays Item, Type and Length for each video selection included in the current layout.

## **Saving the Video CD/Super VCD Image**

Always remember to save your virtual Video CD/Super VCD layout once you have created it. You should save your layout often enough to reduce the risk of losing your work.

For details on how to perform the Save function, please refer to similar steps in Chapter 3. By default, CD-Maker Deluxe will use the .CDM extension name for Video CD/Super VCD layout files.

## **Building a Video CD/Super VCD layout**

To build your Video CD/Super VCD layout, you can import MPEG (.mpg) files available from your system. Importing files is easy with CD-Maker Deluxe. There are two basic ways to import video clips into your layout.

You must select Video CD or Super Video CD from the Type list in the layout pane. Selecting Video CD causes CD-Maker Deluxe to test the source files listed in the layout to make sure they are MPEG-1 video files. Selecting Super Video CD tests for MPEG-2 source files.

### **🔑 Note:**

All .avi files must be converted to .mpg files before they can be imported into your Video CD/Super VCD layout. You must use another utility to perform this conversion.

**Using the Add File Method**

You can manually select video clips to be imported by clicking the Add button on the toolbar or choosing the Add... item from the Track Menu. When selected, CD-Maker Deluxe displays a standard Open dialog box allowing you to select the video clips to be imported.

### **Using the Explorer View (Drag-and-Drop)**

As discussed above, CD-Maker Deluxe will display an Explorer view when creating or editing a Video CD/Super VCD layout. From this view, you can select the video clips you wish to import and drop them in the video track layout.

#### **Ä To Add a video clip to the Video CD/Super VCD layout:**

1. Navigate the resource tree to locate the desired video clip.
2. Click on the desired video clip to select it.
3. Hold the mouse button down while dragging the selection to the destination pane.
4. Release the mouse button to drop the selected clip on the play sequence list.

## **Editing your Video CD/Super VCD Layout**

After you build your Video CD/Super VCD layout, you can edit the layout to suit your preference.

## **Deleting a Video Clip**

You can delete selected video clips from your Video CD/Super VCD layout.

### **Ä To delete a video clip from the Video CD/Super VCD layout:**

1. Select the video clip to delete from the play sequence list.
2. Click Delete on the CD-Maker Deluxe toolbar.
3. Click Yes to confirm the deletion.

#### **→ Note:**

The delete function is also available from the Edit and Quick Command Menus.

## Changing the Play Sequence Arrangement

After adding video clips to the Video Track layout, you can design the layout to create the play sequence. Video clips can be moved to any position in the play sequence list with a simple drag and drop. Select the clip to be moved by clicking the left mouse button and then, while holding the left button, drag the file to a new position in the play sequence list and drop it by releasing the left button. The selected clip will be moved and displayed in its new position.

### Ä To move a video clip to a new position in the play sequence list:

1. Select the video clip to move.
2. While holding down the left mouse button, drag the selection to the desired position in the play sequence list.
3. Drop it in the new location by releasing the left mouse button.

#### ☞ Note:

CD-Maker Deluxe displays a horizontal line across the play sequence list to indicate where the clip will be dropped.

#### ☞ Note:

If you don't specify the play order, then the item will be shown continuously when it is played back, until the user makes a selection using the remote control.

Alternatively, you can also change the Item Number field in the Item Properties dialog, as described below.

## Viewing Item Properties

You can view the item properties for any video track in your layout. In the Item Properties dialog box, you will see the item title, number and description. The Item Properties dialog is displayed below:

- **Item Title**

This is a text description of the item. Note that it will not be written to the disc - it is just for reference.

- **Item Number**

You can update the Item Number in this field. This is an alternative method to move the video clip.

- **Source Format**

Displays various information about the format of the video item, including frame size, rate, number of frames in the item and play time for the item.

### Ä To view the track properties of a video clip in the Video CD/Super VCD layout:

1. Select the desired video clip from the play sequence list.
2. Click Properties on the CD-Maker Deluxe toolbar. You can view the properties or make any desired changes from this dialog.
3. Click OK to close the Item Properties dialog and make any requested changes.

☞ **Note:**

The properties function is also available from the Track and Quick Command Menus.

## Previewing a Video Clip

You can preview selected video clips from your Video CD/Super VCD layout.

**Ä** To preview a video clips from the Video CD/Super VCD layout:

1. Select the video clip from the play sequence list.
2. Choose the Play item from the Track Menu.

**⚡ Note:**

The play function is also available from the Quick Command Menu.

## **Step 2 - Writing a Disc**

After you finish editing your Video CD/Super VCD layout, you can start recording. It is a good idea to perform a test simulation to reduce the risk of errors.

## Setting the Video CD/Super VCD Layout Properties

The Video CD/Super VCD Properties dialog allows you to set the following:

### Album Tab

- ***Album Identification***

This is a text identifier for this album.

- ***Number of Volumes in Album***

Specify the number of CD volumes that make up this album.

- ***Sequence Number of the Volume***

Specify the sequence number of this volume for this album.

- ***Viewing Restrictions***

Specify the viewing restriction for this volume.

### Volume Tab

The ISO 9660 Standard allows you to describe certain information about the CD. Such information is called the Volume Description, and will be recorded on the CD. The following briefly explain the fields in the Volume Description.

- ***Volume Name***

You can specify an identification of the volume in this field. It allows up to 32 alphanumeric characters, which include 0-9 and A-Z. This field is recommended.

- ***Volume Set Name***

If the disc you are preparing is part of a set of discs, every disc in the set may have the same name recorded in this field. It allows up to 32 d-characters. This field is optional.

- ***System Name***

It refers that the operating system under which the application will run. It allows up to 32 a-characters. This field is optional.

- ***Publisher Name***

You can identify the publisher of the disc. It allows up to 128 a-characters. This field is optional.

- ***Data Prepare Name***

You can specify an identification of the person or other entity, which controls the preparation of the data to be recorded on the volume. It allows up to 128 a-characters. This field is optional.

### Date & Time Tab

Specify the below Dates and Times of this CD volume.

- ***Creation***

You can specify the date and the time of the day at which the information in the volume was created.

- ***Modification***

You can specify the date and the time of the day at which the information in the volume was last modified.

- ***Expiration***

You can specify the date and the time of the day at which the information in the volume may be regarded as obsolete.

- ***Effective***

You can specify the date and the time of the day at which the information in the volume may be used.

### **Test Writing a disc (Simulated Recording)**

A test simulation should be done regardless of the type of the image. Please refer to Chapter 3 for more details on how to perform this operation.

## **Writing to the disc**

After a successful simulation, you can write to the disc. Before writing to the disc, define the Volume Info and Album, which is outlined in Step 1 above. The steps to write your Video CD are the same as those for a test simulation. You must select either the Test & Write or Write option from the Write dialog box. Review the other settings and click Start to record your new CD.

**Erase Button**

Click this button to Erase your CD-RW media.

**CD Layout Properties Button**

Click this button to view/modify the properties for the current CD Layout.

**Disc Info & Tools Button**

Click this button to display the Disc Info & Tools dialog.

**Measure source read speed**

Check this box to allow CD-Maker Deluxe to automatically measure the read speed of the source data for this CD or layout. When checked, you can specify the amount of the source data to use for speed calculations. (Default – 25%)

**Verify recorded data after write**

Check this box to allow CD-Maker Deluxe to automatically verify data recorded on the CD with the source data files.

**Measure Source Amount**

When the Measure source read speed box is checked, you can specify the amount of the source data to use for speed calculations. (Default – 25%)

**Write CD Text**

Enables the writing of CD Text information to your Audio CD when supported by your CD recorder.

**Disc Information – Target Drive List**

The Target Drive list contains all CD-R/CD-RW drives attached to your system. Select the drive containing the disc you wish to examine from this drop-down list.

**Disc Information – Target Drive Eject**

Click this button to eject the disc from the selected CD drive.

**Track/Session Information Area**

Displays information about all tracks and sessions recorded on the selected CD.

## **Getting Familiar with Music Café Lite**

Music Café Lite offers mono or stereo playback, play list shuffle and repeat, pause, mute, forward/backward and volume control from the front panel. The play list panel can be displayed from the front panel and provides for the complete creation and editing of your favorite play lists. Audio tracks can be added to a play list easily with Music Café Lite's full support for drag-n-drop from Windows Explorer. Simply drag a selected audio file from Windows Explorer or your desktop and drop it on Music Café.

## **Track Information Area**

The Track Information Area displays information about the audio track being played and other status indicators about Music Café Lite operation. The track's title is displayed on the first line of the display. The next line provides the track type and length. The third line is a status area that displays playback mode (mono/stereo), EQ on/off, Shuffle mode, Repeat mode, play state indicator and elapsed time for the current track.

## **Control Panel**

The Control Panel contains the following buttons and controls:

- w In-Track Slider – Allows you to move the playback position within the current track.
- w Play/Pause – Plays or pauses the current track.
- w Stop – Stops the playing of the current track.
- w Previous Track – Moves backwards to the previous track in the current play list.
- w Next Track – Moves forward to the next track in the current play list.
- w Shuffle – Plays all tracks in the current play list in a random order.
- w Repeat – Repeats the playing of the current play list.
- w Volume Fader – Adjusts the playback volume level.
- w PlayList – Opens or Closes the Play List Panel.

## **Play List Panel**

The Play List Panel contains the following buttons and controls:

- w Add – Adds a track to the current play list.
- w Remove – Removes the selected track(s) from the current play list.
- w Load – Load an existing play list.
- w Save – Save the current play list.

## Launching Music Café Lite

Music Café may be launched from the Start Menu, your desktop or directly from within the CD-Maker Deluxe program.

### Ä To launch Music Café from CD-Maker Deluxe:

1. Select any supported file type (MP3, Wave or CD-DA track) from the Source Pane or Audio Track Layout (i.e. Audio CD, Mixed-Mode or CD Extra mastering).
2. Open the Quick Track Menu by right-clicking the selected file and choose Play.

### Notes:

- ☞ Multiple selections will included on the Play List when Music Café is launched.
- ☞ Music Café may be launched from the CD-Maker Program Group on the Start Menu or desktop icon.

## **Using Music Café Lite**

Music Café can screen a single track from within CD-Maker Deluxe or play music from your favorite play lists.

## Playing an audio track with Music Café

### Ä To play an audio track:

1. Select the track that you wish to play from the current play list.
2. Click the Play/Pause button on the control panel.

### Notes:

- ☞ The Play button is available when no tracks are being played by Music Café .
- ☞ A blue play indicator is displayed to the left of the elapsed time in the Track Information Area when a track is being played.
- ☞ If no track is selected or only one track is in the play list window the first track in the play list will be played.
- ☞ You may double-click on the desired track to play that track.
- ☞ Music Café will automatically start playing the first track on the play list when track(s) are played from CD-Maker Deluxe.

## Pausing an audio track

Ä To pause an audio track:

1. Click the Play/Pause button on the control panel.

### Notes:

- The Pause button is available when a track is being played by Music Café .
- A green pause indicator is displayed to the left of the elapsed time in the Track Information Area when a track has been paused.

## Stopping the playback of an audio track

➤ To stop an audio track from playing:

1. Click the Stop button on the control panel.

**Note:**

- A red stop indicator is displayed to the left of the elapsed time in the Track Information Area when a track has been stopped or the playback of the last track in the play list has completed.

## Adjusting the playback point of an audio track

Ä To change the playback point of an audio track while playing:

1. Slide (drag) the In-Track Slider to the desired position.

**Note:**

→ Music Café will start playing the track from the new position.

## **Playing the previous track from the current play list**

**Ä To play the previous track from the current play list:**

1. Click the Previous Track button on the control panel.

## **Playing the next track from the current play list**

**Ä** To play the next track from the current play list:

1. Click the Next Track button on the control panel.

## Muting the playback of the current track

Ä To mute the playback of the current track:

1. Click the Mute button on the control panel.

**Note:**

→ A red "Mute" indicator is displayed in the Track Information Area when track playback is being muted.

## **Adjusting the playback volume of an audio track**

**Ä** To change the playback volume of an audio track:

1. Slide (drag) the volume fader to the desired level.

## Playing tracks from the current play list in a random order

Ä To play tracks in a random order:

1. Click the Shuffle button on the control panel.

**Note:**

→ A red "Shuffle" indicator is displayed in the Track Information Area when the shuffle mode is enabled.

## Repeating the playback of tracks in the current play list

Ä To repeat the playback of tracks in the current play list:

1. Click the Repeat button on the control panel.

**Note:**

→ A red "Repeat" indicator is displayed in the Track Information Area when the repeat mode is enabled.

## **Using Play Lists**

You may create your own custom play lists for use in Music Café. Play lists are created and edited from the Play List Panel. Simply click the PlayList button on the control panel to open the Play List panel. Follow the procedures below to create, edit, load or save a custom play list.

## **Adding tracks to the play list**

**Ä** To add tracks to the current play list:

1. With the play list panel open, click the Add button.
2. Locate and select the MP3, Wave or CD-DA track you wish to add to the current play list.
3. Click the Open button to add the selected file(s) to the play list.

**Note:**

- ☞ Tracks can be added by dragging and dropping them on the Music Café window or from CD-Maker Deluxe as described above (See "Launching Music Café Lite.")

## Removing tracks from the play list

Ä To remove tracks from the current play list:

1. With the play list panel open, select the track(s) you wish to remove from the current play list.
2. Click the Remove button to remove the selected file(s) from the play list.

## Saving a play list to your computer

Ä To save the current play list:

1. With the play list panel open, click the Save button.
2. Enter the name of the play list to be saved.
3. Click the Save button to save the current play list.

**Note:**

☞ Play list files are saved with a .m3u extension.

## Loading a play list

### Ä To load a play list:

1. With the play list panel open, click the Load button.
2. Locate and select the play list you wish to play.
3. Click the Open button to load the play list.

### Note:

- 8→ Play lists files are appended to the end of the current play list allowing you to mix and match from any combination of play lists saved on your computer.

## Repositioning tracks in the current play list

Ä To reposition a track in the current play list:

1. Select the track that you wish to move.
2. Drag and drop the selected track to the desired position in the play list.

**Note:**

→ A horizontal line will appear to indicate where the track will be dropped.

## **Using CDDB/FreeDB with Music Café Lite**

Music Café allows you to access the online CDDB or FreeDB databases via the Internet to identify your CD-DA tracks. You must be online and a registered CDDB user (registration is not required for FreeDB access). Additionally, the CD/CD-DA track being played must be registered on the CDDB/FreeDB database for the track information to be displayed correctly. When a CD-DA track is played and you are online and a registered with the CDDB or FreeDB service, Music Café will query the online database automatically. If you are a registered CDDB user then Music Café will search the CDDB database first and then FreeDB. Otherwise, the FreeDB database will be searched to locate the CD/track information. If the requested CD/Track is in one of the databases then Music Café will display the title, track number and time and the CD Title in the track information area and the associated play list. This information will also be included in a play list saved on your computer. The CDDB Registration Wizard will be run when Music Café is opened with an audio track from a CD and you have not registered with the CDDB online service.

## Running the CDDB Registration Wizard

The CDDB Registration Wizard will walk you through the registration process. It will be run when Music Café is launched and you have not registered with the CDDB online service. You must be connected to the Internet in order to complete your registration. You may register as a new CDDB user, provide your current CDDB user information or cancel the registration wizard should you not wish to use the CDDB service. There is no cost to you to join!

### Ä To register with the CDDB online service:

1. Choose registration type (New or Existing User).
2. Read and Accept the "Terms of Use" for the CDDB service.
3. Enter User account information as requested.
4. Click Finish to complete the online registration process.

#### Notes:

- ☞ If you already have an existing CDDB account, the registration wizard will be required to login to complete the registration process. The wizard will allow you to modify your existing account information if desired.
- ☞ Additional information and services are available @ [www.cddb.com](http://www.cddb.com).

## Music Café Lite

The Music Café Lite audio player allows you to play any MP3, Wave or CD-DA track on your system's sound card and speakers, look up CD track titles from the Internet using CDDb and compile play lists of your favorite audio tracks.



## **Speed Measurement**

Beginning with Version 4.2, CD-Maker Deluxe can automatically test the speed of the data source and then limit the writing speed to prevent the burning of a bad CD "coaster" due to the lack of input data. The speed measurement feature will prevent using the fastest write speed of your CD Recorder in some circumstances but you will achieve much better burning results.

The speed measurement functions samples the availability of all source data required to produce the CD being created. Once the testing has completed, the write speed is set to an appropriate level for the data source. You may adjust the size of the sample data or disable the speed management should you so desire. These settings are available on the Preference Tab of the Options dialog from the Tools Menu.

## **Creating a CD from an ISO/RAW Image File**

You can burn a CD from a previously saved ISO or RAW image file directly from CD-Maker Deluxe.

### **Ä To create a CD from an image file:**

1. Open a new Data CD layout (See Chapter 3).
2. Choose the Create CD from ISO CD Image File... item from the File Menu.
3. Select the type of image file from the Save as type list.
4. Click Open.
5. Choose the write options and click Start.

## **Creating an NTI CD Image File (.ncd) from an Existing CD**

As mentioned above, ISO and RAW file images can only be created while using the Data CD function. However, you can create an NTI CD Image file (.ncd) from **any** CD layout or previously saved CD layout file. Simply build the CD layout as usual and choose CD Image Writer from the Target drive list. All you have left to do is click Step 2 to create the image.

## **Making a MixedMode CD Disc**

Mixed-Mode refers to the combination of CD-ROM and Audio CD formats on the same disc. A Mixed-Mode disc contains one track of CD-ROM data followed by one or more Audio CD tracks.

## Opening a new MixedMode CD layout

There are two ways to a Mixed-Mode CD layout file. You can create a new layout file or open an existing one.

### Ä To open a new Mixed-Mode CD layout:

1. Click the first (New) button  on the tool bar.

#### ⚡ **Note:**

Click on the selection arrow to the right of the New button and choose Mixed-Mode CD from the drop-down list. If you are currently working with a Mixed-Mode CD layout and wish to open a new one, just click the New button and CD-Maker Deluxe will open a new Mixed-Mode CD layout.

2. Choose New from the File menu and select Mixed-Mode CD from the menu list.

Once you open a virtual Mixed-Mode CD image, CD-Maker Deluxe will display a data track layout in the destination pane. The source pane will contain the Explorer view as described in Chapter 3.

When creating Mixed-Mode CD, CD-Maker Deluxe will record a single session CD with first track of ISO 9660 in CD-ROM or CD-ROM XA format from a virtual Data CD layout followed by audio tracks. CD-Maker Deluxe will record the data track from an existing Data CD layout or one that you will create.

## **Saving the MixedMode CD layout**

Always remember to save your virtual Mixed-Mode CD layout once you have created it. It is a good idea to save a new layout even though it is blank. You should save the layout file often enough to reduce the risk of losing your work.

For details on how to perform the Save function, please refer to similar steps in Chapter 3. By default, CD-Maker Deluxe will use the .CDM extension name for all layout files.

## **Step 1 - Prepare the Data Track**

Step 1 prepares the data portion (Data CD part) of the Mixed-Mode CD layout. CD-Maker Deluxe selects it automatically when you open the new Mixed-Mode CD layout as described above. Please follow the steps described in Chapters 3 and 4, "Making a CD-ROM Disc". Once you have created and saved your data track layout then click the Step 2 button to move to the audio portion of the Mixed-Mode CD layout.

## **Step2 - Prepare the Audio Track**

To prepare the audio portion (Audio CD part), you need to switch to the Audio Track Layout view of the CD Image. Please refer to Chapter 5 for specific instructions on working with audio track layouts.

### **Step 3 - Write the MixedMode disc**

Once you have created and saved your audio track layout then the final step is to write your virtual image to disc. Simply click the Step 3 button to write your Mixed-Mode disc.

## **Making a CD Extra Disc**

A Mixed-Mode CD contains data in the first track followed by one or more audio tracks, in a single session. A normal audio CD player attempts to play all tracks in succession. This results in a very loud noise and possible damage when playing a Mixed-Mode CD in a normal CD player. *CD Extra*, also known as CD Plus or Enhanced CD, is the solution to the above problem. It contains two sessions. The first session contains up to 98 audio tracks and the second session contains a data track written in the CD-ROM XA format.

Playing a CD Extra disc in a normal Audio CD player plays the audio tracks in the first session, and never reads beyond the first session, so the data track is never played and the loud noise and possible damage are avoided.

A CD-ROM drive that is able to read a multisession CD, however, reads the last session on the CD, so it finds the data track. The application can then be used to play back the sound.

## Opening a new CD Extra layout

There are two ways to a CD Extra layout file. You can create a new image or open an existing one.

### Ä To open a new CD Extra layout:

1. Click the first (New) button  on the tool bar.

#### ↳ **Note:**

Click on the selection arrow to the right of the New button and choose CD Extra from the drop-down list. If you are currently working with a CD Extra layout and wish to open a new one, just click the New button and CD-Maker Deluxe will open a new CD Extra layout.

2. Choose New from the File menu and select CD Extra from the menu list.

Once you open a CD Extra layout, CD-Maker Deluxe will display an audio track layout in the destination pane. The source pane will contain the Explorer view as described in Chapter 3.

When creating a CD Extra disc, CD-Maker Deluxe will record two sessions on the resulting CD. The first session will contain the audio tracks from your layout. The second session contains a data track using the ISO 9660 naming restrictions written in the CD-ROM XA format. CD-Maker Deluxe will record the data track from an existing virtual Data CD image or one that you will create.

## **Saving the CD Extra layout**

Always remember to save your virtual CD Extra layout once you have created it. It is a good idea to save a new layout even though it is blank. You should save the layout file often enough to reduce the risk of losing your work.

For details on how to perform the Save function, please refer to similar steps in Chapter 3. By default, CD-Maker Deluxe will use the .CDM extension name for all layout files.

## **Step 1 - Prepare the Audio Track**

Step 1 prepares the audio portion (Audio CD part) of the CD Extra layout. CD-Maker Deluxe selects it automatically when you open the new CD Extra layout as described above. Please refer to Chapter 5 for specific instructions on working with audio track layouts. Once you have created and saved your audio track layout then click the Step 2 button to move to the data portion of the CD Extra layout.

## **Step2 - Prepare the Data Track**

To prepare the data portion (Data CD part) of your CD Extra disc, please follow the steps described in Chapters 3 and 4, "Making a CD-ROM Disc".

### **Step 3 - Write the CD Extra disc**

Once you have created and saved your data track layout then the final step is to write your virtual image to disc. Simply click the Step 3 button to write your CD Extra disc.

## Summary

**One Session Recommended**

It is recommended recording only one session on a Mixed-Mode disc.

## **Program Cache Buffer(Temporary Files)**

CD-Maker Deluxe uses the program cache buffer when creating both CD-ROM discs and Audio CD discs. The cache buffer is required for creating a Mixed-Mode disc. The free disk space requirement for the program cache buffer used in creating a Mixed-Mode CD is the larger size of the program cache buffer used in creating a CD-ROM disc and a Audio CD disc, respectively.

During simulated recording or real recording, CD-Maker Deluxe will check to see if there is enough free disk space in the program cache buffer directory to meet the size requirement. If there is not enough free disk space, you must allocate more disk space before writing to CD.

## **Playing MixedMode Discs**

A CD-ROM drive is smarter than a regular CD player. When you play a Mixed-Mode disc on the CD-ROM drive, the data tracks will be ignored. When you play the Mixed-Mode disc in your audio CD player, however, you may damage your CD player since it will play the data tracks as if they were audio tracks. Please do not try this.

## Getting Started

Live Audio refers to recording live audio input from a microphone or other audio source to an audio track on a CD-R disc. It might be that you wish to record some piece of music from your personal collection. You can do this with CD-Maker Deluxe and live audio recording. CD-Maker Deluxe will record live input from either a microphone or other devices connected to your sound card. You can connect a microphone to the microphone port of the sound card or any other device that can connect to the Line In port of your sound card. CD-Maker Deluxe will collect the live audio information passed to it by the sound card and write it to an audio track on the disc.

**↳ Note:**

Live audio recording requires that your drive support 1x writing to CD-R media.

## **Step 1 - Creating a Live Audio Layout**

## Opening a new Live Audio layout

There are two ways to open a Live Audio layout file. You can create a new layout file or open an existing one.

### Ä To open a new Live Audio layout :

1. Click the first (New) button  on the tool bar.

#### ↳ **Note:**

Click on the selection arrow to the right of the New button and choose Live Audio from the drop-down list. If you are currently working with a Live Audio CD layout and wish to open a new one, just click the New button and CD-Maker Deluxe will open a new Live Audio layout.

2. Choose New from the File menu and select Live Audio from the menu list.

Once you open a Live Audio layout, CD-Maker Deluxe will display an audio track layout in the destination pane. The source pane is not required since all audio input is coming from either the microphone or line-in jacks of your PC's sound card. You simply select the input source from the Audio Source combo box.

Live Audio works different from the other CD types mentioned previously. There is no actual layout file required as the audio information is retrieved from your sound card and written directly to the CD-R media. All the recording is done during Step Two as discussed below.

## Step 2 - Write a Live Audio disc

Simply click the Step 2 button from the layout area to write your Live Audio disc. CD-Maker Deluxe displays a Record Live Audio dialog when you click the Step 2 button.



Clicking the Start button causes CD-Maker Deluxe to record the live audio data coming from your system's sound card and start recording it to disc. Simply click Stop to end the recording process.



Once all the audio data is written to the CD-R disc a "Recording Finished" message appears in the Record Live Audio dialog and the Close and Start buttons are again enabled. You can record additional Live Audio samples or click Close to end your live audio recording. You will be asked if you wish to close the session once you exited the Record Live Audio dialog. You should leave the session open if you have more data to record on this disc. It is a good idea to leave your session open until you have recorded all the desired audio selections.

## **Getting Started**

Custom CD refers to the ability to create a CD from one or more ISO or RAW format image files. Each file is written as a complete track on the final CD. You can place these files in any order in your Custom CD layout. You can use your favorite software package or CD-Maker Deluxe's Data CD function or the Read Track operation on the Disc & Info Tools dialog to create a disc image file (.iso or .raw only).

## Opening a new Custom CD layout

There are two ways to create a new Custom CD layout file:

### Ä To open a new Custom CD layout:

1. Click the first (New) button  on the tool bar.

#### ⚡ **Note:**

Click on the selection arrow of the New button and choose Custom CD from the drop-down list. If you are currently working with a Custom CD layout and wish to open a new one, click the New button to create a new Custom CD layout.

2. Choose New from the File menu and select Custom CD from the menu list.

Once you choose the Custom CD layout, CD-Maker Deluxe will display the layout area with a Custom Track Layout in the destination pane. The source pane will contain the Explorer view as described in Chapter 3.

## **Saving a Custom CD Layout**

Always remember to save your Custom CD layout once you have created it even though it is blank. You should save your layout file often enough to reduce the risk of losing your work.

For details on how to perform the Save function, please refer to similar steps in Chapter 3. By default, CD-Maker Deluxe will use the .CDM extension name for Custom CD Virtual images.

## **Building a Custom CD layout**

To build your Custom CD layout, you can import tracks from CD-Maker Deluxe or any application capable of generating disc image files. Importing files is easy with CD-Maker Deluxe. There are two basic ways to import files into your Custom CD layout.

**Using the Add File Method**

You can manually select files to be imported by clicking the Add button on the toolbar or choosing the Add... item from the Track Menu. When selected, CD-Maker Deluxe displays a standard Open dialog box allowing you to select the files to be imported.

### **Using the Explorer View (Drag-and-Drop)**

As discussed above, CD-Maker Deluxe will display an Explorer view when creating or editing a Custom CD layout. From this view, you can select the files or folders you wish to import and drop them to the desired position in the audio track layout.

#### **Ä To Add an image file to the Custom CD layout:**

1. Navigate the resource tree to locate the desired image file.
2. Click on the desired file.
3. Hold the mouse button down while dragging the selection to the destination pane.
4. Release the mouse button to drop the selected track in the destination layout.

## **Editing a Custom CD layout**

After you build your Custom CD layout, you can edit the layout to suit your needs.

## Deleting Image Files

You can delete selected audio tracks from your Audio CD layout.

### Ä To delete an image file from the Custom CD layout:

1. Select the image file to delete from the track list.
2. Click Delete on the CD-Maker Deluxe toolbar.
3. Click Yes to confirm the deletion.

#### → **Note:**

The delete function is also available from the Edit and Quick Command Menus.

## **Moving Image Files**

Image files can be moved to any position in the track list of your Custom CD layout with a simple drag and drop. Select the image file to be moved by clicking the left mouse button and then, while holding the left button, drag the file to a new position in the track list and drop it by releasing the left button. The selected file will be moved and displayed in its new position.

### **Ä To move an image file to a new position in the track list:**

1. Select the image file to move.
2. While holding down the left mouse button, drag the selection to the desired position in the track list.
3. Drop it in the new location by releasing the left mouse button.

#### **→ Note:**

CD-Maker Deluxe displays a horizontal line across the track list to indicate where the image file will be dropped in the track list.

Alternatively, you can also change the Track Number field in the Track Properties dialog, as described below.

## Viewing the Image File Properties

You can view the properties for any image file in your layout.

### General Tab

The General tab contains track name, number and source information for the selected image file. It also contains the track mode, block size and length information in the Track Format section of the dialog box.

- *Track Name*

This is a text description of the item. Note that it will not be written to the disc - it is just for reference.

- *Track Number*

You can update the Track Number in this field. This is an alternative method to move the image file.

- *From*

Displays the source location of the image file.

- *Track Format*

Displays various information about the format of the image file, including mode, block size, and length of the image file.

### Ä To view the track properties of an image file in the Custom CD layout:

1. Select the desired image file from the track list.
2. Click Properties on the CD-Maker Deluxe toolbar.
3. Click OK to close the Track Properties dialog and make any requested changes.

🔑 **Note:**

The properties function is also available from the Track and Quick Command Menus.

## **Setting the Custom CD Layout Properties**

The Custom CD Properties dialog allows you to choose the disc type for the Custom CD you are creating. Select from CD-DA, CD-ROM, CD-ROM XA and CD-I formats.

## **Step 2 - Writing a Disc**

After you finish editing your Custom CD layout, you can start recording. It is a good idea to perform a test simulation to reduce the risk of errors.

### **Test Writing a disc (Simulated Recording)**

A test simulation should be done regardless of the type of the image. Please refer to Chapter 3 for more details on how to perform this operation.

## **Writing a Custom CD disc**

After a successful simulation, you can write to the disc. The steps to write your Custom CD are the same as those for a test simulation. You must select either the Test & Write or Write option from the Write CD dialog box. Review the other settings and click Start to record your new CD.

## Image Files

CD-Maker Deluxe can create the following types of image files:

1. ISO Image File (.iso) – ISO image files contain the data portion of a CD track. The block size is 2048 bytes.
2. RAW Image File (.raw) – RAW image files contain all data associated to a CD track. This includes the data, header, and error correction information for that track. The block size is 2352 bytes.
3. NTI CD Image File (.ncd) – NTI format image file that contains an image of CD. They can be created using CD Copy or any of the mastering modes. See CD Copy for instructions on burning a CD from an NTI CD Image file.

**⚡ Note:**

Other image file types can be used when creating a Custom CD but are not created by CD-Maker Deluxe. Consult the application that you used to create the image file for Mode and Block Size information for that file type. You can use the Track Properties dialog to set the Mode and Block size for any image file in your Custom CD layout.

## **Creating an ISO/RAW Image File from a Data CD Layout**

You can output a Data CD layout to an ISO or RAW image file directly from CD-Maker Deluxe.

**Ä** To create an ISO/RAW image file from a Data CD layout:

1. Open or create the Data CD layout (See Chapter 3).
2. Choose the Create ISO CD Image File... item from the File Menu.
3. Enter the new name and path information. By default, CD-Maker Deluxe uses the same path as the source file.
4. Select the type of image file from the Save as type list.
5. Click Save

## **Creating an ISO/RAW Image File from an existing CD**

You can create an image file from an existing CD disc.

**Ä To create an ISO/RAW image file from an existing CD:**

1. Select the Disc & Info Tools... from the Tools menu.
2. Select the track you wish to import to an image file and Click the Read Track... button.
3. Enter the new name and path information. By default, CD-Maker Deluxe uses the same path as the source file.
4. Select the type of image file from the Save as type list.
5. Click Save.

## **Summary**

CD-Maker Deluxe's Custom CD feature relaxes many of the rules used when creating any of the other CD types. You can use the .iso and .raw image files created directly from CD-Maker Deluxe or the image file output from other programs capable of creating CD image files. Remember, each image file in the Custom Track Layout is written as a new track of the Custom CD. The full power of CD-Maker Deluxe is now in your hands

{ewl RoboEx32.dll, WinHelp2000, }

