User's Guide

Nero Express



www.nero.com

Copyright and Trademark Information

The **Nero Express** User's Guide and all contents are copyrighted and the property of Ahead Software. All rights reserved. This User's Guide contains materials protected under International Copyright Laws. No part of this Guide may be reproduced, transmitted or transcribed without the expressed written permission of Ahead Software AG.

All brand names and trademarks are properties of their respective owners.

The product and material in this manual is subject to change without prior notice and does not represent a commitment on the part of the manufacturer, who assumes no liability or responsibility for any errors that may appear in this manual.

Ahead Software accepts no claims beyond those in the warranty. Ahead Software accepts no liability for the correctness of the contents of the **Nero Express** User's Guide. The contents of the enclosed software and the **Nero Express** User's Guide is subject to change.

All trademarks are for information purposes only.

Unless you own the copyright or have the permission of the copyright holder, the unauthorized copying of discs can represent a violation of national or international laws and may result in serious penalties. Copyright © 1995 -2003 by Ahead Software

Copyright © 2002 – 2003 Ahead Software AG REV 1.0

Table of Contents

1	Intro	duction	5
	1.1	Welcome to Nero Express	5
	1.2	OEM vs. Retail Versions of Nero Express	6
2	Insta	Iling Nero Express	7
	2.1	System Requirements	7
	2.2	Installing Nero Express	8
	2.3	Uninstalling Nero Express	8
3	Getti	ng Started	9
	3.1	Opening Nero Express for the first time!	9
	3.2	Go Nero! Button	
	3.3	More Button	13
	3.3.1	Configure	13
	3.3.2	Save Tracks To Hard Drive	
	3.3.3	Erase Disc	
	3.3.4 3.3.5	Disc Info Cover Designer	
	3.4	Nero Toolkit	
	3 .4.1	Nero CD-DVD Speed	
	3.4.2	Nero DriveSpeed	
	3.5	Nero Wave Editor (Retail Only)	23
4	Data		
	4.1	Creating your first data disc	24
	4.2	Bootable Data Discs	31
	4.3	For Advanced Users	34
	4.3.1	Hide Files	34
5	Musi	С	35
	5.1	Music	35
	5.2	Creating your first audio disc	36
	5.3	Creating a disc with audio and data	41
	5.4	MP3	
	5.4.1	Information mp3PRO encoder plug-in	48
	5.5	WMA	50
	5.6	For Advanced Users	
	5.6.1	Image Recorder	54

	5.6.2	Audio Properties	55
6	Video	o/Pictures	61
	6.1	Video/Pictures	61
	6.2	Creating your first video disc	61
	6.3	Creating your first super video disc	67
	6.4	Advanced Users	
	6.4.1	Video and Super Video Properties	72
7	DVD		74
	7.1	DVD	74
	7.2	Selecting your recorder	75
	7.3	Creating your first DVD disc	76
	7.4	Creating a DVD-Video disc from DVD-Video files	77
8	Сору	v Entire Disc	79
	8.1	Copy Entire Disc	79
9	Diec	Image or Saved Project	84
9	9.1	Disc Image or Saved Project	
	9.1 9.2	Creating a disc from a disc image	
	9.3	Creating a disc from a saved project	
	5.5	Greating a disc nom a saved project	
10	Prefe	erences	
	10.1	Preferences	92
	10.2	General Tab	92
	10.3	Cache Tab	94
	10.4	Language Tab	95
	10.5	Sounds Tab	96
	10.6	Expert Features Tab	97
	10.7	Database Tab	98
	10.8	Ultrabuffer Tab	100
	10.9	Dialogs Tab	101
11	Tech	nical Support	102
	11.1	F.A.Q.'s	102
	11.2	Contact	104
12	Glos	sary	105
13	Index	٢	117

1 Introduction

1.1 Welcome to Nero Express

Welcome to the world of CD burning! Thank you for your purchase of **Nero Express** – one of the easiest and most reliable CD recording packages to help store your data, music, and video on CD or DVD.

With our state-of-the-art technology and nonstop drive for improving our software, we are continuously implementing the latest know-how, to do our part in making sure that your burning experience is easy and trouble-free.

As you read this step-by-step instruction guide, it will assist you in creating your first disc – whether it is Data, Audio, Video, or SVCD. You will soon see how easy the process can be and you will shortly be on your way to making your first disc!

Ahead Software realized that not everyone is a long time user or an expert their first time burning a CD and many users needed a little help with their first recording. So with this understanding, the User's Guide was created with the very new users in mind.

Nero Express is a new and innovative wizard based recording application based on the main application **Nero**. With the main essentials included such as data, audio, copy, and video, it will also work with the DVD-RW, and DVD+RW drives.

You are able to record MP3's, archive your favourite photo's, among the many features of this software.

If you are a user of **Nero**, **Nero Express** is automatically integrated. For details about **Nero**, please see the **Nero** manual.

1.2 OEM vs. Retail Versions of Nero Express

OEM stands for Original Equipment Manufacturer. It basically means that the Ahead software that was bundled with your burner is a smaller version of the Retail package. It will not have as many features and you would need to upgrade in order to have full functionality and take advantage of the great new features!

If you are an owner of the Nero Retail version, the following options are included:

Virus checking before burning Crossfading option Use of two burners simultaneously

2 Installing Nero Express

2.1 System Requirements

Your system should come with a pre-installed operating system or you may choose to upgrade your operating system to the latest. Below you will find a list of those that **Nero Express** support. Please check to make sure that you have one of the following operating systems:

Operating System

- Windows 95
- Windows 98/SE
- Windows ME
- Windows NT 4.0 (service pack 6)
- Windows 2000 (service pack 2 or higher)
- Windows XP

Hardware

- Your PC must have a 500 MHz system or higher recommended. Please refer to the PC manuals that came with your system for system configuration information.
- You must have at least 64 MB RAM memory. Generally, more would be better.
- The hard disk access time should be less than 19 milliseconds
- Graphics card with 8 MB or higher (for video).
- We recommend that Nero Express will be most comfortable to work with in a screen resolution of 1024x768 or greater.
- 700 MB of free hard drive space for drive images recommended. Generally, more would be better.

2.2 Installing Nero Express

Step 1: Insert the **Nero Express** CD-ROM into your CD/DVD drive on your PC. If you have a feature called "Autorun" activated, this will start your installation process automatically.

If you do not have "Autorun" activated, you can go to My Computer > Click on the drive letter of the CD/DVD drive > click setup.exe

Step 2: Follow prompts until you are finished installing the software.

Step 3: Restart your PC

2.3 Uninstalling Nero Express

Step 1: Go to Start > Control Panel > Add or Remove Programs.

In some operating systems, you will find - Start > Settings > Control Panel.

Step 2: Select **Nero Express** in the Add or Remove Programs window and click "remove".

Step 3: In some cases, you will find that when removing software, there will be one or two files that the operating system will ask if you want them removed since they may be shared by other programs. If you are unsure, always opt to keep these files.

3 Getting Started

3.1 Opening Nero Express for the first time!

Now that we are ready to start recording your first disc, let us begin by opening the program **Nero Express.**

Depending on the version, you can open up the software program as follows:

- a. Start >(All) Programs > Nero > Nero 6 > Nero Express.
- b. Start >(All) Programs > Nero > Nero 6 Ultra Edition > Nero Express.
- c. Start > (All) Programs > Nero > Nero OEM > Nero Express.

<u>F.Y.I.!</u> The path how to open **Nero Express** described above can differ in some versions.

Step 1: As the window opens up, the software will scan for your CD-R/RW/DVD to make sure that you have a supported device on your PC. If you do not, please contact <u>www.nero.com</u> to find out if your burner is supported or to locate the latest driver.



<u>F.Y.I.!</u> You can disable this window in the future by checking the box in the lower hand corner of the window

Step 2: A request for a serial number will only appear if a retail registered version of **Nero** 5.5 or **Nero Express** 5.5 was not found on the system and the following window will appear:

Nero Burning ROM						
Ĩ		your copy of Nero. Enter your name, company, er that came with your Nero CD.				
	Name:					
	Company:					
	Serial no.:					
	OK	Demo Exit				

Please personalize your software by entering your name, company, and serial number. When you are finished, please click "OK".

If you have a demo version of **Nero Express**, please click the "Demo" button for your trial period.

You will have an option to purchase your serial number online so that you are able to register your software copy.

Step 3: From this window, you will be able to select the project you want to burn. As you further explore this User's Guide, you will be able to make the CD of your choice! Please see the following chapters on how to make various types of projects.

💐 Nero Express	
nero EXPRESS 6	What would you like to burn?
	Image: Music Image: Music Image: Music Image: Music
Image: Nero Image: Nero	Exit

<u>F.Y.I.!</u> You can switch over to the main application **Nero Burning ROM** by selecting the "**Nero**" button at the bottom.

3.2 Go Nero! Button

When this option is selected, you will change over to the more powerful burning program **Nero Burning ROM** with additional features and options.

You can toggle back and forth between the user-friendly interface **Nero Express** and the full version **Nero Burning ROM**.

If you are a first time user of software burning products, may we suggest you start first with **Nero Express**. As you gradually become familiar with the burning technology, you can switch over to **Nero Burning ROM** for a more powerful user interface and additional features.



3.3 More Button

When you click the "More" button on the bottom of the **Nero Express** screen, an extra window will appear for additional options



3.3.1 Configure



Change the settings on your **Nero Express** software for optimal use. When you click on "More" then the "Configure" button, the "Preferences" window will appear. You are able to modify the settings for the database, language, cache, and many other features in this software.

For further information, please have a look on chapter 'Preferences'.

3.3.2 Save Tracks To Hard Drive



You can save individual tracks or an entire disc to your hard drive with this function. In addition, you are able to play the audio tracks, remove the silences between the audio tracks and use jitter control. These are some of the many features in "Save Tracks To Hard Drive".

When you select "Save tracks to hard drive", a window will appear asking you to select your drive:

Choose Drive				? 🗙
Device	SCSI-ID	Adapter	Adapter-No.	
ATAPI CD-RW 32X10X40	1 0	atapi atapi	0 1	~
ATAPI CD-RW 32×10×40	1	atapi	1	
				\sim
Max. read speed: 40x			OK Ca	ancel

When your drive has been selected, you are now able to view all the files on your disc.

You will also have various other options in this window.

Track list:							
N Start Length	Mode	Title	Artist	Ext			
1 0:02.00 0:03.25.933 2 3:27.70 0:00.09.546 3 3:37.36 0:00.08.866 4 3:46.26 0:00.06.306 5 3:52.49 0:00.04.000	(2 MB) Audio (2 MB) Audio (2 MB) Audio	Hessi James - mp Demons to some Taste our pleasures You opened the b Your suffering will	Badesalz Demons to some Taste our pleasures You opened the b Your suffering will	mp3			
Total: 5 Tracks, 3:56.49 (40 MB) Select All Audio player controls O O							
Audio player controls Position: 0		3:56.49 (40 MB)		0			
Audio player controls Position: 0	ack 01 Time 00:00	3:56.49 (40 MB) ▲	Volume: Output way: Digita	0			
Audio player controls Position: 0 Tr.	ack 01 Time 00:00	3:56.49 (40 MB)		0			
Audio player controls Position: 0 Tr	ack 01 Time 00:00	<u> </u>		0			
Audio player controls Position: Tr I Position: Properties for multiple selection	ack 01 Time 00:00	<u> </u>	Output way: Digita				

Select All – To select all the files in your Track List window

Output way – You have the option of Digital or Analog.

Output file format – Select the type of format you would like to save your audio file as.

MPEG-4 Advanced Audio Coding (AAC) (*.mp4)	~
MPEG-4 Advanced Audio Coding (AAC) (*.mp4)	
Aiff file (*.aif; *.aiff)	
mp3PRO (*.mp3)	
Windows Media Audio (*.wma)	
TwinVQ (*.vqf)	
PCM Way file (*.way; *.waye)	

Settings – Select the stereo or mono settings for your audio file.

Wav	×
Frequency	
44100	~
Bits	
16	~
Channels	
Stereo	*
OK Cancel	

Path – Select the place on your hard drive in which you will save your audio file.

File name creation method – Type in the name of your audio file by checking "User Defined" or select "Manual" for the default name.

ł	fanual	*
	● Manual	ОК
	O User defined	Cancel
	File name template:	
	Sample: %A - %T (%N).%E %A - artist %T - title %E - current extension %N - track number	

Options – A drop-down box will appear when the "Options" button is clicked.

	Track I	ist:					
N	Start	Length	Mode	Title	Artist		Ext
1 2 3 4 5	0:02.00 3:27.70 3:37.36 3:46.26 3:52.49	0:03.25.933 (35 MB) 0:00.09.546 (2 MB) 0:00.08.866 (2 MB) 0:00.06.306 (2 MB) 0:00.04.000 (1 MB)	Audio Audio Audio Audio Audio	HessiJames - mp Demons to some Taste our pleasures You opened the b Your suffering will	Badesalz Demons to s Taste our pl You opened Your sufferin	easures the b	mp4 mp4 mp4 mp4 mp4
Total: 5 Tracks, 3:56.49 (40 MB) Select All Audio player controls Volume: 0							
	H	Track 01 Tir		▶ ≜	Output way:	Digital	~
Prop	erties for mul	tiple selection					
Dutp	ut file format:			/IPEG-4 Advanced Audio Coding (AAI	C) (*.mp4)	× [Settings
Path:	:			:\Program Files\Ahead\MyMusic		~	Browse
File name creation method: <artist -="" title=""> + ',' + [wav,,mp3]</artist>							
Drive Close GD Dptions <<							
Jitter correction Automatically generate an M3U playlist of stored audio tracks 40x (6.000 KB/s)							

Jitter correction - Jitter correction synchronizes the data information by overlapping the sectors and therefore no gaps are created.

Remove silence – Removes the silences at the end of each audio track.

Automatically generate an M3U playlist of stored audio tracks – This option will automatically generate a playlist of all the audio tracks that are stored on your hard disk or CD reading device.

Read speed – Select the speed in which your CD device will read the files.

3.3.3 Erase Disc



When a CD-RW disc is in your drive, you have the option to erase your disc so that additional data may be added to it.

Erase Rewritable Disc						
Select the erase method to be used:						
Quick-erase rewritable disc						
Quick-erase rewritable disc						
physically erased. Use this option with caution if the disc contains confidential data.						
Use Multiple Recorders						
Erase speed:						
Maximum 🔽						
Erase Cancel						

Quick-erase rewritable media – The media will appear to be empty but the data is not physically erased. The table of contents is left on the disc.

Full-erase rewritable media – This option will fully erase all data on the media. This procedure will take some time.

Use Multiple Recorders (option only available in the retail package) – Erase discs in multiple recorders attached to your PC.

Choose erase speed – Select the erase speed.

3.3.4 Disc Info



This option will allow you to view all the contents on your disc.

The total capacity and available capacity will be shown in addition to the sessions and tracks.

Disc info						
3	Audio CD CD-ReWrit	able		I Capacity: lable Capacity:	03:54.49	40MB
Sessions: Tracks:	1 5			:/EAN code: nt Rainier:	Disc has no l format	MRW
	Track	Start	Length Mo	de	Tormat	
	Track 02 Track 03 Track 04	1: 00:02.00 2: 03:27.70 3: 03:37.36 4: 03:46.26 5: 03:52.49	00:09.41, 00:08.65, 00:06.23,	Audio		
	🥝 ເ	.: ATAPI	[CD-R/RW]	(ID:1 H/	A:1)	~
			Ej	ect R	efresh	ОК

3.3.5 Cover Designer



Included with your version of **Nero Express** is the **Nero Cover Designer** with which you are able to create covers and labels for your CD's and DVD's using predesigned templates or your own designs.

When launched from or after a Data, Audio or Audio and Data project in **Nero Express**, the contents will be automatically imported, saving you the annoyance of having to manually type them in.

You can also start the **Nero Cover Designer** independently of **Nero Express** by going to the **Start > All Programs > Ahead Nero >** then **> Nero Cover Designer**. (For some operating systems, you will find - **Start > Programs > Ahead Nero > Nero Cover Designer**

Please see the separate **Nero Cover Designer** User's Guide for full instructions on how to make professional looking covers and labels.

Included with your version of **Nero Express** is **Nero**'s **Cover Designer**. You are now able to create labels for your jewel cases and discs with the pre-designed templates or create them on your own with the user-friendly interface.

You will have the ability to automatically create playlists and/or filename lists, thus saving you the annoyance of having to manually type them in. In addition, playlists from external sources (such as FreeDB) can be accessed and used.

Please see enclosed manual for instructions on how to use this feature.

3.4 Nero Toolkit

The Nero Toolkit is a collection of tools and utilities designed to give you detailed information about your drive(s) as well as advanced control. To start the Nero Toolkit utilities, go to Start > All Programs > Ahead Nero> then > Nero Toolkit> then select the desired utility. (For some operating systems, you will find - Start > Programs > Ahead Nero > Nero Toolkit

3.4.1 Nero CD-DVD Speed



CD-DVD Speed is a CD-ROM/DVD benchmark which can test the some of the important features of a CD-ROM/DVD drive. These tests include:

- Transfer rate
- Seek times
- CPU usage
- Burst rate
- DAE quality
- Transfer rate
- Spinup/spindown time



Insert a relatively full disc into your CD-ROM or CD-R/RW/DVD drive and click "Start". It will then start to run all the benchmark tests on your drive.

There are regular updates for this utility so please make sure you go to <u>www.cdspeed2000.com</u> to check for the latest version from time to time.

The latest important change is the addition of a new test: **ScanDisc.** Basically, ScanDisc will show you the quality of a disc.

The test consists of two parts:

File Test which simply reads all files on the disc and reports all errors. This test can also be used for benchmarking to give you an idea on how well the drive performs with for example software installing.

Surface Scan checks the quality of each sector and shows the results in a graph.

3.4.2 Nero DriveSpeed

😵 Nero DriveSpeed

Nero DriveSpeed is an Ahead utility, which will set the reading speed of a CD-ROM/DVD drive.

When you are running this utility for the first time, this window will appear. You can detect all the support speeds of your burner by clicking on the "Detect" button and the information will appear to the left.

Nero DriveSpeed Opt	ions 💶 🗖 🔀
Speed Settings	
maximum 40× (7056 KB/s) 32× (5645 KB/s) 24× (4233 KB/s) 10× (1764 KB/s)	1 Add Remove Detect
Language	
Danish Dutch English Finnish	
ОК	Cancel

You can remove certain supported speeds if you feel they are not needed by clicking on the "Remove" button.

In addition, you can select the language of your choice by going to the Language box and choosing your preferred language.

After your speed selection and language has been made, you can view the read speed and spin down time of your burner.



Run at startup – You can select to run **Nero** Drive Speed when you turn on your computer.

Start minimized – You can have **Nero** Drive Speed start when you turn on your computer but minimized in the background so it will not disturb your work.

Restore speed settings at startup – You can return to default speed settings once you restart your computer.

The ability for limiting the reading speed of a CD-ROM drive is a must have feature for high speed drives. Although a high speed drive allows you to transfer data in less time, there are some disadvantages of using such a drive

A drive faster than 24x can be very noisy which is not surprising as the spindle speed can be as high as 12000 RPM which is much faster than for example a hard disk. If the drive only needs to access the CD for a short period of time, for example software installation, then this is not such a big problem. But it can get irritating when you're using the drive to play MP3 files. In many cases the noise from the drive is louder than the sound from the audio file. The data rate of a MP3 file is usually about 16 KB/sec (@128 kbps) which equals to approximately 0.1X! So a reading speed of 4X is more then adequate for playing MP3's.

You can also use **Nero** DriveSpeed to increase the DAE speed with some drives. Asus drives for example set the default DAE speed to 8X while these drives are actually capable of DAE at up to 20X or even higher!

- Speed set after a disc is inserted (Auto Insert Notification must be enabled) This has been implemented because many drives lose their speed setting when a new disc is inserted.
- Bug fix: speed settings not saved on some configurations
- Other small bug fixes/improvements

3.5 Nero Wave Editor (Retail Only)

When you right-mouse click on an audio title in an Audio CD compilation, a window will appear in which you can select the "Audio Editor".

ኛ Nero Express				
My Audio CD Add the audio files you want to CDs	burn. You can add	audio files from yo	ur hard drive or from Audio	Xo
Track Title	Artist	VDF800	Track Length 04:00	
T TVe got the Towe	Cut Copy Paste	Ctrl+X Ctrl+C Ctrl+V	04.00	Celete
	Delete	Del		Play
	Select All Invert Selection			
	Add Files Properties Audio Editor	Ctrl+D Alt+Enter		Normalize all audio files
				No Pause between tracks
0min 20min	40min	60mir	n 80min	Total time: 04:02
Nero		fore >>	Save Save	k Next 🥥

This will launch the **Nero Wave Editor** with the audio file you selected where you can edit your song in the minutest of detail, create enhancements for your audio track, add fades, effect filters and numerous other features.



4 Data

4.1 Creating your first data disc

Step 1: From the project selection page, select Data > Data Disc.



Step 2: From this next window, you are now ready to start adding data to your layout for recording to disc.

47 Nero Express	
Disc Content	5/20
Add data to your disc.	
🖉 My Disc 🔽 💼 🖻	
Name 🖜 Size T Mo	Add
	Delete
	O Play
	Total space used:
	1
омв 200мв 400мв 600мв 800мв	0.0 MB
Vero More >> 🕞 Save 🕥 Back	Next 📀

Step 3: There are three very simple ways to add data to the layout window to make this process quick and easy.

Option One: Click the Add button to select the files you would like to burn. A window will appear that looks very similar to Windows Explorer and from here, you are able to choose the files you would like to record and save on disc. Once you have selected your file(s), please click **Add**.

<u>Option Two</u>: Add data using Windows Explorer - please go to the **Start** button in the corner of your screen All **Programs > Accessories > Windows Explorer.**

<u>F.Y.I.!</u> Some operating systems will have **Start** > **Programs** > **Windows Explorer**

When the Windows Explorer appears, you can drag the data you would like to record into the **Nero Express** layout.

Option Three: Add data using My Computer - please click the **My Computer** icon. From this window, you can drag and drop your files into the **Nero Express** layout.

The options for the following feature will vary depending on the project you select. When selecting Data, MP3, WMA, or CD-Extra (Music and Data) projects, your window will look like this:

🕂 Nero Express	
Disc Content	5/20
Add data to your disc.	
🖉 My Disc 💌 💼 🗃	-
Name 🍡 Size T Mo	Add
	Delete
	🔘 <u>P</u> lay
	Total space used:
	i olar space useu.
рмв 200Мв 400Мв 600Мв 800Мв	0.0 MB
Image: Nero Image: Save Image: Save	Next 🕥
◯ Use the date and time from the original file	
O Use current date and time	
O Use this date Monday , May 26, 2003	
Configure Save Tracks Erase Disc Disc Info	Cover Designer

You will have additional options for the date and time for your file name.

See chapter 'For Advanced Users' how to hide files

Step 4: Once all your files have been added, click "Next" to prepare your disc for burning.

🕂 Nero Express			
Final Burn Settings			2
Click 'Burn' to start the recording pr	ocess		
		//	
Current recorder:	ዿ L: CD-R/RW	✓ Op	tions
Disc name:	My Disc		
Title (CD TEXT):			
Artist (CD TEXT):			
Language;		*	
Writing speed:	24x (3.600 KB/s)		
Number of copies:	1		
	Allow files to be added later (multisession disc)		
	Verify data on disc after burning		
🕜 🗳 Nero	More >>	🔇 Back	🕨 Burn

Please make your final settings before burning your disc.

Current Recorder – The supported burners you have connected to your PC will be displayed and the Image Recorder if you chose to save to your hard drive.

Disc Name – Select a title for your disc.

Writing Speed – Select the speed in which you would like to burn.

Number Of Copies – Select the number of copies you would like to burn.

If you are having trouble burning your disc, please refer to Chapter 'Technical Support' for F.A.Q. information and technical support.

When you are ready to burn and click the **"More"** button at the "Final Burn Settings" window, another window will appear:

ኛ Nero Express				
Final Burn Settings Click 'Burn' to start the recording pr	ocess			Xo
Current recorder: Disc name: Title (CD TEXT): Artist (CD TEXT): Language: Writing speed: Number of copies:	↓: CD-R/RW My Disc ↓	ed later (multisession disc)		Options
	Verify data on disc o	after burning		
Write Method Track-at-once	More <<	Determine max Simulation Write	ximum speed	Burn
Configure Sa	/e Tracks	Erase Disc) Disc Info	Cover Designer

Track-At-Once - With this method, each track is individually written onto the disc. The write operation is briefly interrupted after each track. This means that a CD-R or CD-RW can be written on just like any standard disk.

Disc-At-Once - In this mode, all of the tracks are written in a single process onto the disc without the laser being switched off. This format is best for audio CD's that will be played in home and car stereo equipment.

Finalize Disc – The disc will be closed and no additional data or audio can be written to the disc after finalizing it.

Remove silence at end of *.cda tracks – Each audio track when written will have a 2-second gap at the end. When checked, this silence is removed.

Step 5: Ready to record? Click the "Burn" button and you are on your way to recording your first data disc! As you are burning, you will receive a status window of the recording process.

🐔 34% Writing to disc					
Burning Process					22
Please wait					
Time Event					
	ess started at 24x	(3.600 KB/s)			
Current Phase Information Used read buffer:	1				
Used read buffer:					100%
				<u></u>	
Process Status:				Copy: Total Time:	1 / 1 00:00:13
r locess status.				rotarrine.	
					34%
Writing at 24x (3.600 KB/s	3]				
Recorder	Action	Bui	fer Level	Recorder State	
CD-RW	Lead-in			Ready	
Nero		More >>	Save	Back	Stop

Step 6: When it is completed, you will be notified that the burn process has completed successfully.

ease wait				200
Time E	vent			
	um process started at 24x (um process completed succ	3.600 KB/s) cessfully at 24x (3.600 KB/s)		
	Nero Express			
Current Phase Inf		ocess completed successfully at	24x (3.600 KB/s)	
				0
-		ОК	Copy:	17
Process Status:			Total Time:	00:03:3
				100-
Writing at 24x (3.6	00 KB/s)			
Writing at 24x (3.6 Recorder	00 KB/s) Action	Buffer Level	Recorder State	

<u>F.Y.I.!</u> As one of the many great features in **Nero Express**, it has the ability to make labels for the jewel case and disc you just burned.

Step 7: When you click OK after the successful recording, you will be returned back to the recording window. Please click "Next" to move forward to the following window.

If you would like to burn the same project again, start another project, make labels, or add more data to your current disc it can be done from this window.

🗖 Nero Express	
nero EXPRESS 6	What do you want to do now?
	 New project Cover Designer Exit
Image: Second	

4.2 Bootable Data Discs

Creating bootable CD's as an emergency startup and backup disc is highly recommended. Bootable CDs are compatible only under Windows 95/98, Windows ME, Windows 2000, NT or XP.

Step 1: Select your recorder then, under Data, select "Bootable Data Disc".



Step 2: You will be brought to the "Disc Content" window where you will be able to add files. The files and folders will all be visible when you boot from the bootable disc later on.

Disc Content Add data to your disc. Then click on "Next" to add the boot image from a bootable floppy disk. My Disc Mame Size Mo Add Delete Bay 	🐔 Nero Express	
	Disc Content	-5/20
Name Size T Mo	Add data to your disc. Then click on 'Next' to add the boot image from a bootable floppy disk.	
Name Size T Mo		
© <u>A</u> dd	My Disc 💌 🖷 🖻	
	Name 💫 Size T Mo	Add
© Elay		Delete
C Elay		
		🔘 Elay
Table and a second		T
Total space used:		l otai space used:
		0.0 MR
рмв 200мв 400мв 600мв 800мв 0.0 мв	рмв 200мв 400мв 600мв 800мв	0.0 MD
🕜 🚅 Nero 🔜 More >> 🦷 Save 🔇 Back Next 🕥	Nero More \\ Save Back	Nevt 🔊

ኛ Select Files and Folders		
Location: My Documents		• 🖩
Desktop My Computer My Documents File details: Ahead - Nero Express.doc Microsoft Word-Dokument Modified: 5/8/2003 2:00:24 PM Size: 20 KB	Name Name SIPPS Adobe Adobe My Albums My eBooks My Music My Pictures My Received Files My Received Files My Videos NeroVision Incd Ahead - Nero Express.doc Addio.ncd Addio.ncd	Size
File types: All files (*.*)	Add	Finished

Step 3: Click the "Add" button to select the files for your bootable disc.

When you have completed adding all your files, click "Finished".

Step 4: When you click on "Next", a dialog will pop up prompting you to insert a boot floppy disk. The information required to make a bootable data disc will be read from the boot floppy disk. These are system files which actually allow a system to boot from a CD and/or DVD. If you do not have a boot floppy disk or do not know how to create one, please check the help files of your Windows operating system.

🕂 Nero Express	
Select Boot Image Select a floppy drive which contains a bootable floppy disk.	Zo
Please insert a bootable disc into the selected drive and click 'Next' to make bootable the same way your floppy is. To create a bootable disc for your operating system, right click your floppy d	
the popup menu. Make sure the option 'Copy system files' is checked.	
Read boot disc in drive:	
A:\ Unknown size	•
Nero More >>	🔇 Back Next 🕥

Step 5: When the files have been read from the boot floppy disk, you will be at the "Final Burn Settings" window.

ኛ Nero Express			
Final Burn Settings			5/20
Click 'Burn' to start the recording p	rocess		
Current recorder:	실 L: CD-R/RW	~	Options
Disc name:	My Disc		
Title (CD TEXT):			
Artist (CD TEXT):			
Language:		~	
Writing speed:	24x (3.600 KB/s)		
Number of copies:	1		
	Allow files to be added later (multisession disc)		
	Verify data on disc after burning		
🕜 🍯 Nero	More >>	🔇 Back	Burn

Step 5: When you click the "More" button, you will have additional write options for your disc. You can determine the maximum write speed, simulate burning, or just write straight to the disc.

Write Method	Track-at-once ✓	Determi	ine maximum speed ion	
Configure	Save Tracks	Erase Disc	j Disc Info	Zover Designer

When you have made your selection and are ready to record, please click the "Burn" button!

<u>F.Y.I.!</u> You cannot make bootable Multisession discs!

4.3 For Advanced Users

4.3.1 Hide Files

If you would like to "Hide" files on your CD for extra added security or protection, this can easily be done from the project window.

Right-mouse click on the file in your project window and select "Properties".

ኛ Nero Express				
Disc Content				5/20
Add data to your disc.				
🖉 My Disc			<u> </u>	
Name 🥆	Size	T	Mo	Add
👜 Ahead - Nero Ex	Cut	Ctrl+X	5/8/2003	
	Сору	Ctrl+C		Delete
	Paste	Ctrl+V		
	Delete	Del		🔘 <u>P</u> lay
	Rename	F2		
	Select All Invert Selection			
	Add Files Create Folder	Ctrl+D		
	Properties	Alt+Enter		Total space used:
рмв 2	00MB	400MB	600MB 800MB	0.6 MB
@	Nero	More >>	Save 🔕 Back	Next 🧿

An additional window will appear with information on your file and the option to check "Hide" to conceal your file.

File - Info	? 🛛		
	Ahead - Nero Express.doc		
Path:	Υ		
Size:	20 KB (20,480 bytes)		
Contents:	1 File		
Created:	5/8/2003 2:00:23 PM		
Changed:	5/8/2003 2:00:24 PM		
Source:	C:\\Ahead - Nero Express.doc		
Added:	5/26/2003 11:44:24 AM		
(Hide:			
File priority:	Low		
	OK Cancel		

5 Music

5.1 Music



Now you can record your favourite audio CD's, make a compilation of only the songs you like, record MP3 discs and also WMA. Learn how to make WAV files and discs to play in your favorite MP3 player too!

Create a CD-Extra disc in which both data and audio are recorded to one disc. You can play it in either your PC or your home/car stereo.

Editing title in Audio Contents window

When clicking on the title of your audio track, an edit window will appear in which you can edit the song title.

🐔 Nero Express					
My Audio CD Add the audio files you want to burn. You can add audio files from your hard drive or from Audio CDs					
Track 1	Title I've got the power	Artist Nero Express	Track Length 04:00	Add	
				Play Properties	
				Normalize all	
				✓ audio files No Pause between tracks	
Omin	20min	40min 60	min 80min	Total time: 04:02	
	Mero Nero	More >>	📊 Save	Back Next 🕥	

5.2 Creating your first audio disc



Step 1: From the project selection page, select Music > Audio CD.

Step 2: From this next window, you are now ready to start adding audio to your layout for recording to disc.

Ħ	Nero Ex	press				
M,	My Audio CD					
	(Add the audio files you want to burn. You can add audio files from your hard drive or from Audio LDs					
\sim						
	Track	Title	Artist	Track Length		
					O Delete	
					Play	
					Properties	
					Normalize all audio files	
					- No Pause	
					between tracks	
					Total time:	
	Omin	20min	40min	60min 80min	00:00	
	<u></u>					
		Mero Nero	More >>	Save 🔇 E	Back Next 🥥	
Step 3: There are three very simple ways to add audio to the layout window to make this process quick and easy.

F.Y.I.! If you want to make audio CDs from existing MP3/mp3PRO music files you don't need to convert these files into WAV files first. **Nero** includes a free MP3/mp3PRO decoder, than automatically converts your MP3/mp3PRO files into the appropriate format while you burn your audio CD. The audio CD can then be played on all commercially available CD players (and most DVD players), provided that the player can read CD-R (or CD-RW if you recorded on a CD-RW) discs. To make your own MP3/mp3PRO files (using music from your audio CDs or audio files in supported formats such as WAV) you need the **Nero** MP3/mp3PRO encoder in chapter 5.3 or simply visit the Ahead website at <u>www.nero.com</u>.

Option One - Click the Add button to select the files you would like to burn. A window will appear that looks very similar to Windows Explorer and from here, you are able to choose the files you would like to record and save on disc. Once you have selected your file(s), please click **Add**.

<u>Option Two</u> - Add audio using Windows Explorer - please go to the **Start** button in the corner of your screen All **Programs > Accessories > Windows Explorer.**

<u>F.Y.I.!</u> Some operating systems will have **Start > Programs > Windows** Explorer

When the Windows Explorer appears, you can drag the audio you would like to record into the **Nero Express** layout.

Option Three - Add audio using My Computer - please click the **Normalize** icon. From this window, you can drag and drop your files into the **Nero Express** layout.

Editing title in Audio Contents window

When clicking on the title of your audio track, an edit window will appear in which you can edit the song title.

ኛ Nero Exp	ress				
My Audio CE)				000
Add the audio CDs	files you want to burn. You	ı can add audio files from you	r hard drive or from Au	idio	
				1	
	Title	Artist	Track Length		💽 Add
1 1	ve got the power	Nero Express	04:00		
					Delete
					💽 <u>P</u> lay
					Roperties
					✓ Normalize all audio files
					No Pause between tracks
			· · · ·		Total time:
Omin	20min	40min 60min	80min		04:02
	Mero	More >>	Save	📀 Back	Next 🧿

Step 4: Once all your files have been added, click "Next" to prepare your disc for burning.

Please make your final settings before burning your disc.

ኛ Nero Express			
Final Burn Settings			5/20
Click 'Burn' to start the recording p	process		
Current recorder:	실 L: CD-R/RW	*	Options
Disc name:	My Disc		
Title (CD TEXT):			
Artist (CD TEXT):			
	24x (3.600 KB/s)		
Writing speed:			
Number of copies:	1		
	Allow files to be added later (multisession disc)		
	Verify data on disc after burning		
Nero	More >>	🙆 Back	Burn

For additional Burn Settings information, please refer to Chapter 'Preferences'.

If you are having trouble burning your disc, please refer to Chapter 'Technical Support' for F.A.Q. information and technical support.

Step 5: Ready to record? Click the "Burn" button and you are on your way to recording your first audio disc! As you are burning, you will receive a status window of the recording process.

🕂 34% Writing	to disc -			
Burning Process				2
Please wait				
			/	
	Event	(2,000,1/0,1,2)		
🥠 11:10:28 E	Burn process started at 24	((3.600 KB/s)		
Current Phase Ir	formation			
Used read buffer	:			
				100%
			Carry	1/1
			Copy:	
Process Status:			Total Time:	00:00:13
				34%
Writing at 24x (3.	600 KB/s)			
Recorder	Action	Buffer Level	Recorder State	
CD-RW	Lead-in		Ready	
	🖌 Nero	More >> 📮 Save	🕞 Back 🦲	Stop

Step 6: When it is completed, you will be notified that the burn process has completed successfully.

Done				
urning Process				SVA
ease wait				200
-	vent	Sec. Monte Monacolaria		
	rn process started at 24x (3			
🥥 11:14:05 Bu	rn process completed succ	cessfully at 24x (3.600 KB/s)		
	(mana			
	Nero Express			
Current Phase Info				
Used read buffer:	Burn pr	ocess completed successfully a	t 24x (3.600 KB/s)	
				02
L		OK	Crew	1/1
D			Copy:	
Process Status:			l otal Time:	00,03;37
				100%
<u>.</u>				
Writing at 24x (3.60	IU KB/sj			
Recorder	Action	Buffer Level	Recorder State	
CD-RW	idle		Ready	
1996-02-02-02		50		
	(manual)	More >>		O Stop

Step 7: If you click OK after the successful recording, you will be returned back to the recording window. Please click "Next" to move forward to the following window. If you would like to burn the same project again, start another project, make labels, or add more data to your current disc it can be done from this window.



5.3 Creating a disc with audio and data

Step 1: When creating a disc with both Audio and Data, you can play the audio in your home or car stereo and view the data files on your PC. From the project selection page, select **Music > Audio and Date CD.**



Step 2: From this next window, you are now ready to start adding audio to your layout. You will add data first and music later.

Ħ	Nero Ex	press				
A	d the audi	ra Audio Contents o files you want to burn or the data contents pa	je.			20
	Track	Title	Artist	Track Length		Add Add Calculate
	омв	200MB	400MB	600MB	800MB	02:34
	0	🥁 Nero	More >>	Save	🔇 Back	Next 🥥

There are three very simple ways to add data to the layout window to make this process quick and easy.

Option One - Click the Add button to select the files you would like to burn. A window will appear that looks very similar to Windows Explorer and from here, you are able to choose the files you would like to record and save on disc. Once you have selected your file(s), please click **Add**.

<u>Option Two</u> - Add data using Windows Explorer - please go to the **Start** button in the corner of your screen All **Programs > Accessories > Windows Explorer**.

<u>F.Y.I.!</u> Some operating systems will have **Start > Programs > Windows** Explorer

When the Windows Explorer appears, you can drag the data you would like to record into the **Nero Express** layout.

Option Three - Add data using My Computer - please click the **Normalize** icon. From this window, you can drag and drop your files into the **Nero Express** layout.

Please click Next

Step 3: From here, you will add your data tracks. Please use the same method for adding music files as you did for the data above.

ኛ Nero Express				
My CD Extra Data Co	ontents			5/20
Add data to your disc. You can click 'Back' to r	eturn to the audio contents page.			
🖉 My Disc			• 💼 💌	
Name 🥆	Size T	Mo		Add 📐
		5/26/200		
E PICTURES	0 bytes File Folder	5/26/200		Delete
				O Elay
				Total space used:
омв 200	MB 400MB	600MB	800MB	43.5 MB
@	Nero More >>	Save	🔇 Back	Next 🧿

Once all your files have been added, click "Next" to prepare your disc for burning.

ኛ Nero Express			
Final Burn Settings			520
Click 'Burn' to start the recording pr	ocess		
Current recorder:	L:CD-R/RW	~	Options
	-		
Disc name:	My Disc		
Title (CD TEXT):			
Artist (CD TEXT):			
Writing speed:	24x (3.600 KB/s)		
Number of copies:	1		
	Allow files to be added later (multisession disc)		
	Verify data on disc after burning		
Nero	More >>	🙆 Back	k 😥 Burn
	More >>	Baci	K Burn

Step 4: Please make your final settings before burning your disc.

For additional Burn Settings information, please refer to Chapter 'Preferences'.

If you are having trouble burning your disc, please refer to Chapter 'Technical Support' for F.A.Q. information and technical support.

Step 5: Ready to record? Click the "Burn" button and you are on your way to recording your first data disc! As you are burning, you will receive a status window of the recording process.

ኛ 34% Writing 🕯	to disc -			
Burning Process Please wait				26
			/	
Time	Event			
	zivenii Ium process started at 24x (3.	600 KB /s)		
Current Phase In Used read buffer				
Used read burrer:				100%
(********			Copy:	1/1
Process Status:			Total Time:	00:00:13
				34%
Writing at 24x (3.6				
Recorder	Action	Buffer Level	Recorder State	
CD-RW	Lead-in		Ready	
0	Nero M	ore >> Save	🕑 Back	Stop

Step 6: When it is completed, you will be notified that the burn process has completed successfully.

Done				
urning Process				512
ease wait				200
Time Eve	ent			
	n process started at 24x (3	NURSER WITH TRANSPORTATION AND A MADE AND A M		
🦞 11:14:05 BUM	n process completed succ	cessfully at 24x (3.600 KB/s)		
	Nero Express			
Current Phase Infor				
Used read buffer:	Burn pro	ocess completed successfully at .	24x (3.600 KB7s)	
		ОК		0%
<u></u>			Copy:	1/1
Process Status:			Fotal Time:	00:03:37
Process Status:				00:03:37
[KB/s)			00:03:37
Process Status:	KB/s) Action idle	Buffer Level		

Step 7: When you click OK after the successful recording, you will be returned back to the recording window. Please click "Next" to move forward to the following window.

If you would like to burn the same project again, start another project, make labels, or add more data to your current disc, it can be done from this window.

a Nero Express	
PRESS 6	What do you want to do now? Burn same project again New project
	Cover Designer
Image: Constraint of the second sec	

5.4 MP3



Step 1: From the project selection page, select **Music > MP3 Disc**.

Step 2: From this next window, you are now ready to start adding MP3 files to your layout.

🕂 Nero Expi	ress				
My MP3 disc	: les you want to bu	m			SV2
🖉 My Disc				🔽 💼 🔁	
File name	Til 🥪	le Artist	Album	Genre Bitra	Add Delete
					O Elay
<				>	Total space used:
рив	200MB	400MB	600MB	800MB	0.0 MB
0	🥳 Nero	More >>	Save	Back	Next 🧿

There are three very simple ways to add data to the layout window to make this process quick and easy.

ntion One - Click the	🔂 🔂
-----------------------	-----

button to select the files you would like to Option One burn. A window will appear that looks very similar to Windows Explorer and from here, you are able to choose the files you would like to record and save on disc. Once you have selected your file(s), please click Add.

Option Two - Add data using Windows Explorer - please go to the Start button in the corner of your screen All Programs > Accessories > Windows Explorer.

F.Y.I.! Some operating systems will have Start > Programs > Windows Explorer

When the Windows Explorer appears, you can drag the data you would like to record into the Nero Express layout.

Option Three - Add data using My Computer - please click the My Computer icon. From this window, you can drag and drop your files into the Nero Express layout.

Once all your files have been added, click "Next" to prepare your disc for burning.

Step 3: Please make your final settings before burning your disc.

ኛ Nero Express			
Final Burn Settings			5/20
Click 'Burn' to start the recording p	rocess		
	실 L: CD-R/RW		(O-Verse
Current recorder:	Secto-H/Hw	×	Options
Disc name:	My Disc		
Title (CD TEXT):			
Artist (CD TEXT):			
Writing speed:	24x (3.600 KB/s)		
Number of copies:	1		
	Allow files to be added later (multisession disc)		
	Verify data on disc after burning		
		Devi	
Nero	More >>	G Back	< 🌮 Burn

If you are having trouble burning your disc, please refer to Chapter 'Technical Support' for F.A.Q. information and technical support.

Step 4: Ready to record? Click the "Burn" button and you are on your way to recording your first data (MP3) disc! As you are burning, you will receive a status window of the recording process.

🕂 34% Writing to disc				
Burning Process				52
Please wait				
Time Event				
	ess started at 2	4x (3.600 KB/s)		
Current Phase Information Used read buffer:	1			
				100%
(Copy:	1/1
Process Status:			Total Time:	00:00:13
				34%
Writing at 24x (3.600 KB/s	·			
Recorder	Action Lead-in	Buffer Level	Recorder State	
CD-RW	Leau-IN		Ready	
🕜 🏼 🏹 Nero		More>> Save	🕑 Back	🕑 Stop

Step 5: When it is completed, you will be notified that the burn process has completed successfully.

Done rning Process		
ase wait		26
Time E	vent	
	im process started at 24x (im process completed suc	(3.600 KB/s) ccessfully at 24x (3.600 KB/s)
	Nero Express	s 🗙
Used read buffer:	Burn pi	OK Copy: 1.
Writing at 24x (3.60 Recorder	00 KB/s) Action	100 Buffer Level Recorder State
CD-RW	idle	Ready
LD-HW		3a

Step 6: If you click "OK" after the successful recording, you will be returned back to the recording window. Please click "Next" move forward to the following window. If you would like to burn the same project again, start another project, make labels, or add more data to your current disc it can be done from this window.



5.4.1 Information mp3PRO encoder plug-in



Using advanced technology and music structure analysis, mp3PRO creates files that are more compact than original mp3 files with equal or better sound quality and complete backwards and forwards compatibility. Your old mp3 files will play without a problem on a new mp3PRO player. New mp3PRO files will play correctly on old mp3 players, however, without the dramatic mp3PRO improvements. Of course, new mp3PRO files played on a new mp3PRO decoder will provide the optimal listening experience!

How the mp3PRO technology works:

When making an mp3PRO file, the new mp3PRO encoder splits audio recordings into two parts. One part analyzes the low frequency band information and encodes it into a normal mp3 stream. This allows the encoder to concentrate on less information and allows it to do a better job of encoding. This also maintains complete compatibility on old mp3 players. The second part analyzes the high frequency band information and encodes it into a part of the mp3 stream that is normally ignored by old mp3 decoders. New or upgraded mp3PRO decoders will tap into this part of the stream and put the two bands back together, resulting in the full audio bandwidth.

More Music on your media:

Offering 128 kbps (kilo bits per second) performance at a 64 kbps encoding rate, mp3PRO doubles the digital music capacity of flash memory and of compact discs. For example, traditional audio CDs hold about 15 songs, and an mp3 CD can hold 150 or more songs encoded at 128 kbps. In the near future, when mp3 CD players incorporate the mp3PRO decoder, consumers will be able to store over 300 songs on an mp3PRO encoded Compact Disc.

Sound Quality:

The fact is, mp3PRO provides superior sound quality at lower bit rates than traditional mp3. You simply have to experience the difference yourself.

<u>Download</u> the new demo version of **Nero** which includes a 30 times demo version for the mp3PRO encoder.

If you already own the version 5.5.4.0 or higher of **Nero** (not the demo version), then add <u>UNLIMITED</u> mp3PRO <u>AND</u> MP3 Encoding support with the "<u>Nero</u> <u>mp3PRO encoder Plug-in</u>".

If you own an older version of **Nero** (below 5.5.4.0) you are still able to order the MP3-Encoder (without "PRO").

The demo and update version of **Nero** 5.5.4.0 (and future updates) includes a 30 times trial version of the mp3PRO encoder for you to enjoy. After you've tested the encoder 30 times you can decide if you want to <u>buy the unlimited mp3PRO</u> <u>encoder plug-in</u>. The encoder will let you make both standard mp3s as well as enhanced mp3PRO files!

If you already own the version 5.0.0.0 or higher (including **Nero** 5.5) of **Nero** (not the demo version), then add UNLIMITED MP3 Encoding support with the "<u>Nero</u> <u>MP3 encoder Plug-in</u>".

This encoder (without "PRO") cannot be upgraded later to mp3PRO.

5.5 WMA



Step 1: From the project selection page, select **Music > WMA Disc**.

Step 2: In the next window, you are now ready to start adding WMA files to your layout.



There are three very simple ways to add data to the layout window to make this process quick and easy.

Option One - Click the Add button to select the files you would like to burn. A window will appear that looks very similar to Windows Explorer and from here, you are able to choose the files you would like to record and save on disc. Once you have selected your file(s), please click **Add**.

<u>Option Two</u> - Add data using Windows Explorer - please go to the **Start** button in the corner of your screen All **Programs > Accessories > Windows Explorer.**

<u>F.Y.I.!</u> Some operating systems will have **Start > Programs > Windows** Explorer

When the Windows Explorer appears, you can drag the data you would like to record into the **Nero Express** layout.

Option Three - Add data using My Computer - please click the **Notice** icon. From this window, you can drag and drop your files into the **Nero Express** layout.

Once all your files have been added, click "Next" to prepare your disc for burning.

🕫 Nero Express		
Final Burn Settings		S/20
Click 'Burn' to start the recording p	process	
Current recorder:	ዿ L: CD-R/RW	V Options
Disc name:	My Disc	
Title (CD TEXT):		
Artist (CD TEXT):		
Writing speed:	24x (3.600 KB/s)	
Number of copies:	1	
Humber of copies.	Allow files to be added later (multisession disc)	
	Verify data on disc after burning	
	veniy data on dise alter burning	
Nero	More >>	🔇 Back 😥 Burn

Step 3: Please make your final settings before burning your disc.

Current Recorder – The supported burners you have connected to your PC will be displayed and the Image Recorder if you chose to save to your hard drive.

Disc Name – Select a title for your disc.

Writing Speed – Select the speed in which you would like to burn.

Number Of Copies – Select the number of copies you would like to burn.

If you are having trouble burning your disc, please refer to Chapter 'Technical Support' for F.A.Q. information and technical support.

<u>F.Y.I.</u> The WMA plugin will install WMA support within **Nero** 5.5. To install, just download and execute the file.

Step 4: Ready to record? Click the "Burn" button and you are on your way to recording your first data (WMA) disc! As you are burning, you will receive a status window of the recording process.

🏌 34% Writing to a	lisc -			
Burning Process				2
Please wait				
			/	
Time Ever		0.000 KB L)		
🥠 11:10:28 Burn	process started at 24x (3.600 KB/sj		
Current Phase Inform	ation			
Used read buffer:				
				100%
(Copy:	1/1
Process Status:			Total Time:	00:00:13
				34%
				34%
Writing at 24x (3.600	KB/s)			
Recorder	Action	Buffer Level	Recorder State	
CD-RW	Lead-in		Ready	
ि जिल्ल				
	Nero 🛃	More>> 📄 Save	🕒 🔘 Back 🜔	Stop

Step 5: When it is completed, you will be notified that the burn process has completed successfully.

Step 6: When you click "OK" after the successful recording, you will be returned back to the recording window. Please click "Next" move forward to the following window.

If you would like to burn the same project again, start another project, make labels, or add more data to your current disc it can be done from this window.

🌌 Nero Express	
nero EXPRESS 6	What do you want to do now?
	 New project Cover Designer Exit
Nero More >>	

5.6 For Advanced Users

5.6.1 Image Recorder

For details about how to create an image file, please see the Nero manual. Enable Image Recorder for all supported recorder formats – When checked, this will enable the Image recorder to be seen for all supported formats in the main window.

OVA		recorder would you like to use?
EXP	RESS 6	L: CD-R/RW Image Recorder [HD-8URN] Image Recorder [DDCD-R/RW] Image Recorder [DVD] Image Recorder [CD-R/RW]
		L: CD-R/RW
		Disc image or saved project
3		
4		
Nero Xpress	More >>	
xpress n Settings		
xpress n Settings ' to start the recording	process	2
xpress n Settings ' to start the recording Current recorder:	process Mage Recorder [DVD]	2
xpress n Settings ' to start the recording Current recorder: Disc name:	process Mage Recorder [DVD]	2
xpress n Settings ' to start the recording Current recorder: Disc name: Title (CD TEXT):	process Mage Recorder [DVD]	2
ixpress n Settings ' to start the recording Current recorder: Disc name: Title (CD TEXT): Artist (CD TEXT):	process Mage Recorder [DVD]	2
xpress n Settings ' to start the recording Current recorder: Disc name: Title (CD TEXT): Artist (CD TEXT): Language:	process My Disc	2
xpress n Settings ' to start the recording Current recorder: Disc name: Title (CD TEXT): Artist (CD TEXT): Language: Writing speed:	process My Disc	
xpress n Settings ' to start the recording Current recorder: Disc name: Title (CD TEXT): Artist (CD TEXT): Language: Writing speed:	process Image Recorder [DVD] My Disc Image Recorder	
xpress n Settings ' to start the recording Current recorder: Disc name: Title (CD TEXT): Artist (CD TEXT): Language: Writing speed:	process My Disc My	

Current Recorder – When the "Image Recorder" has been selected for your audio project, you will have two new additional options.

Title (CD-Text) – Select a title for your disc. It will appear on your LCD screen of your home or car stereo provided that it supports the CD-Text function. Not all players do!

Artist (CD-Text) – Select an artist name for your disc. It will appear on your LCD screen of your home or car stereo provided that it supports the CD-Text function.

Number of copies – Select the number of disc copies you would like to make

5.6.2 Audio Properties



Normalize Audio files – Equalize levels of all the all audio tracks (Volume etc.).

No pause between tracks - When applied, all the audio tracks that will be burned to disc will no longer have the two second gap between each song.



"Properties" Select your music track in the audio layout then click the "Properties" button. You will be able to see the resources of each audio file and have the capabilities to change and edit the track.

5.6.2.1 Track Properties Tab

You will be able to see the basic track information and also edit the properties of your audio files.

Audio Track Info	?	×
Track Properties CD EXTRA Indexes, Limits, S	plit Filters	
Basic Track Information File: Frequency: Channels: Resolution:	Nero-One step ahead.mp3 44.100 Hz 2 16 bits	
Edit Properties Title (CD TEXT): Artist (CD TEXT):	One step ahead Nero	
Pause: International Standard Recording Code (ISRC): Protection:	2 Seconds V	
Cross fade with previous track:	0 Seconds V	
	OK Cancel Apply	5

File: Name of the MP3 file

Frequency: Stereo requirements for audio

Channels: Stereo requirements for audio

Resolution: Stereo requirements for audio

Title (CD-Text): The name of your song and the artist will be displayed on the LCD panel of your stereo. Please make sure your equipment supports CD-Text.

Artist: Here you can enter the name of the artist for the song.

Pause: You can set the pause in-between each song by seconds or frames.

International Standard Recording Code (ISRC): An international identification code for music, which was developed for identifying sound and music video recordings.

Protection: When applied, you will add protection to your disc, so that it may not be copied in the future.

Crossfade with previous track: When applied, this feature will blend the audio tracks together. You can specify the amount of seconds you would like to blend inbetween each track

5.6.2.2 CD EXTRA tab

Audio Track Info	? 🛛
Track Properties CD EXTRA Indexes, Limits, Split Filters	
Language US United States	
Info	Music
Track Title	Principal Artist
Copyright	Secondary Artist
Notes	Composer
Creation Date	Original Composer
Publishing Date	Genre
Publisher	Тетро
Picture Browse	Key
	OK Cancel Apply

All information pertaining to the music track is defined in this window including the language preferences.

5.6.2.3 Indexes, Limits, Split Tab

Audio Track Info
Track Properties CD EXTRA Indexes, Limits, Split Filters Oscilloscope (+) (+) (+) (+) (+) (+) (+) (+) (+) (+)
Positions New index Split Play Zoom In 04:00.24 (End) Edit Split at index positions Zoom Out Delete Full View
OK Cancel Apply

Positions: Defines the start and end of your music track.

New Index: You are able to create a new index within your song. With this you can then skip through the indexes with your audio player to find the particular audio area you are looking for. Select an area in your song then click "New Index".

Audio Track Info
Track Properties CD EXTRA Indexes, Limits, Split Filters
<-00:00.00 00:33.40 04:00.24>
Positions
00:00 (Start) New index Split Play Zoom In
04:00.24 (End) Edit Split at index positions Zoom Out
Delete Full View
OK Cancel Apply

Define a place in the audio track and click your mouse there. Click the "New index" button and a marker will be place there to mark the spot. If you want to be extremely accurate, you can use the "Zoom In" button to view the tracks more closely.

Split: This function will divide the song into the areas which you specified. Select an area in the song and click "Split". As an example, if you have one large audio file of a live concert in which they play 12 songs and you would like to split the audio into 12 tracks, you would use this function. You can then play the audio in a

CD player and each track would be identified as a separate song so that you can use the seek function to play each track without having to listen to the whole music piece.

Audio Track Info	? 🛽
Track Properties CD E	TRA Indexes, Limits, Split Filters
Oscilloscope	
	11811-118- ditte
	a h de fer en state en state de la
<-00:00.00	01:2 <mark>1.62 04:00.24></mark>
	er mer seiter ebne ander en eine regine fente de fitte eineften ber fit eine feit beiten ber
<	Σ
Positions	
00:00.00 (Start) 01:21.62 (Split)	New index Split Play Zoom In
04:00.24 (End)	Edit Split at index positions Zoom Out
	Delete Full View
	OK Cancel Apply

Define a place in the audio track and click your mouse there. Click the "Split" button and a marker will be place there to mark the spot. If you would like to be extremely accurate, you can use the "Zoom In" button to view the tracks more closely.

Audio Track Info
Track Properties CD EXTRA Indexes, Limits, Split Filters
Oscilloscope
<-00:00.00 01:21.62
Positions New index Split Play Zoom In 01:00.24 [End] Edit Split at index positions Zoom Out Delete Full View
OK Cancel Apply

Play: To play the song in its entirety or a selected portion by highlighting the area, click "Play".

Edit: You are able to edit the index or split markers by minutes, seconds, or frames.

Select the marker and click "Edit".

Edit tr	ack limit	? 🔀
٥	Minutes	ОК
0	Seconds	Cancel
0	Frames	

You can edit the actual minutes, seconds, and frames of the audio file.

Delete: Delete the index or split markers that you have made by selecting the index or split marker and clicking "Delete".

Zoom In: View your song at close range.

Zoom Out: Have an overall large picture of your song.

Full View: View your song in full.

5.6.2.4 Filters Tab

You can change the audio effects by selecting one or more of the checkboxes below. After selecting your filters, you can test the effects by choosing "Test selected filters".

Audio Track Info	?(×
Normalize Declick Hiss Reduction Fade In Fade Out Stereo Widening Karaoke Echo Equalizer	Indexes, Limits, Split Filters Normalization method: RMS Percent: 20 This filter may be used to set the volume of a track to a standard volume. It may be useful to adjust the volume of several tracks that were read from different sound input devices. The RMS method (root-mean-square) sets the mean volume of the track to the given value. The maximum method sets the volume to a value which avoids clipping.	
Test selected filters		
	OK Cancel Apply	5

Normalize: This filter may be used to set the volume of a track to a standard volume. It may be useful to adjust the volumes of several tracks that were read from different sound input devices.

DeClick: This filter can be used to remove click/pop/crackle sounds like those that are caused by old scratched LP's.

Hiss Reduction: This filter reduces the hiss level of a given sound. It will remove all audio in all frequencies that are below a certain threshold (hiss level). If audio has a constant background hiss then it can be "noise gated" or removed completely.

Fade In: this filter will gradually fade and blend tracks from silence to full volume. It's especially useful to shorten tracks. You will also need to edit the track limits property page to shorten the track.

Fade Out: This filter will gradually fade out tracks from full volume to silence. It's especially useful to shorten tracks. You will also need to edit the track limits property page to shorten the track.

Stereo Widening: This filter allows you to enhance or reduce the stereo effect of an audio track. The filter will only have an effect if the original track is already recorded in stereo. It will leave mono tracks unchanged.

Karaoke: This filter can be used to eliminate the vocals of a song. It works by removing those parts of the song that are equal on both stereo channels.

Echo: This filter allows you to add an echo effect to the audio track.

Equalizer: This filter allows you to change the frequency, gain, bass, and treble in your audio track.

6 Video/Pictures

6.1 Video/Pictures



Get those home movies ready! You can now take your movies or video clips and store them to CD in Video or Super Video CD format. Super Video CD or (SVCD) is very similar to a video CD, however, this format uses a compression standard called MPEG to store the audio and data. VCD's can be played on most home video players that support this format and CD-ROM and DVD-ROM players with appropriate software. SVCD discs can be played on DVD players, PC's with DVD-ROMS or a CD-ROM drive with software which allows this type of video format to be seen.

6.2 Creating your first video disc



Step 1: From the project selection page, select Video > Video CD.

Step 2: From this next window, you are now ready to start adding data to your layout for recording to disc.

Ħ	Nero Exp	ress					
	l y Video CE dd the video	D files you want to burr	ı.				20
	Track	Title		Track Len	gth	Size	💽 Add 💽
							<u>Remove</u>
							O <u>P</u> lay
							Properties
							Enable VCD Menu
	рмв	200MB	400MB		600MB	800MB	Total time: 00:00
[0	Mero	More >	» [Save	Back	Next 🕥

Step 3: There are three very simple ways to add data to the layout window to make this process quick and easy.

<u>Option One</u> - Click the Add button to select the files you would like to burn. A window will appear that looks very similar to Windows Explorer and from here, you are able to choose the files you would like to record and save on disc. Once you have selected your file(s), please click **Add**.

<u>Option Two</u> - Add data using Windows Explorer - please go to the **Start** button in the corner of your screen All **Programs > Accessories > Windows Explorer**.

<u>F.Y.I.!</u> Some operating systems will have **Start > Programs > Windows** Explorer

When the Windows Explorer appears, you can drag the data you would like to record into the **Nero Express** layout.



Step 4: Once all your files have been added, click "Next" to prepare your disc for the layout.

In the My Video CD (VCD) menu, you can change the look of the menu by clicking on the layout, background, and text buttons.

🛠 Nero Express	
My Video CD Menu	5/20
You can change the look of the menu by clicking on the layout, background, and text buttons.	
	Layout
	뉨 Background
a California a	対 Text
1. NVECapture.1	
	Show full screen menu
Created with Nero	📎 Set as default
🕜 🍯 Nero 🔜 More >> 🦙 Save	🗿 Back 🛛 Next 🥥

Layout – You are able to change the thumbnails and add or remove the header and footer.

Layout Settings
Layout S thumbnails V Header line V Footer line
Ok Cancel

Background – Add an image to your background or color. You can also change the background mode so that you can scale to fit, center, etc...

Ba	ckground Settings	
	Background	
	Background Picture :	· · · · · · · · · · · · · · · · · · ·
	Background mode :	Scale and fit
l	(Ok Cancel

Text – Change the font style, size, and enter footer and header text.

Text Settings	
Text	Shadow
Header text :	Font
Footer text :	Created with Nero
Items text :	Font
Links text :	Font
	Ok Cancel

Show full screen menu – When applied, you will enlarge the screen to full size.

Set as default – Keep the settings you have just made as default if you like the layout you have created.

🕂 Nero Express		
Final Burn Settings		5/20
Click 'Burn' to start the recording p	process	
Current recorder:	실 L: CD-R/RW	Options
Disc name:	My Disc	
Title (CD TEXT):		
Artist (CD TEXT):		
Writing speed:	24x (3.600 KB/s)	
Number of copies:	1	
	Allow files to be added later (multisession disc)	
	Verify data on disc after burning	
Nero	More >>	🔇 Back 😥 Burn
Nero Nero		

Step 5: Please make your final settings before burning your disc.

If you are having trouble burning your disc, please refer to Chapter 'Technical Support' for F.A.Q. information and technical support.

Step 6: Ready to record? Click the "Burn" button and you are on your way to recording your first data (VCD) disc! As you are burning, you will receive a status window of the recording process.

ኛ 34% Writing t	o disc -			
Burning Process				02
Please wait				
			/	
	vent			[
11:10:28 B	urn process started at 24x	(3.600 KB/s)		
Current Phase Inf	ormation			
Used read buffer:				
				100%
			Copy:	171
Process Status:			Total Time:	00:00:13
				34%
Writing at 24x (3.6	00 KB/s)			
Recorder	Action	Buffer Level	Recorder State	
CD-RW	Lead-in		Ready	
	Nero 🗔	More >> 📮 Save	🕒 🙆 Back [Stop

Step 7: When it is completed, you will be notified that the burn process has completed successfully.

urning Process ease wait				X
Time E	vent			
📿 11:10:28 Bu	um process started at 24x (3	3.600 KB/s) :essfully at 24x (3.600 KB/s)		
	Nero Express			
- Current Phase Info Used read buffer: Process Status:		ocess completed successfully at	24x (3.600 KB/s)	1/1
Used read buffer: Process Status:	Burn pro		Сору	1/1
Used read buffer:	Burn pro		Сору	

Step 8: If you click OK after the successful recording, you will be returned back to the recording window. Please click "Next" to move forward to the following window. If you would like to burn the same project again, start another project, make labels, or add more data to your current disc it can be done from this window.

🌌 Nero Express	
nero EXPRESS 6	What do you want to do now? Burn same project again New project
	Cover Designer
Nero	

6.3 Creating your first super video disc

Step 1: From the project selection page, select Video Pictures > Super Video CD (SVCD)



Step 2: From this next window, you are now ready to start adding data to your layout for recording to disc.

ኛ Nero Expre	255				
My Super Vide Add the video fil	eo CD es you want to burn.				Xo
Track	Title	Track Le	ngth Siz	e	Add Eemove
					 Play Properties
					Enable SVCD Menu
рмв	1 1 1 1 1 1 1 1 1 200MB	400MB			T otal time 00:00
	Nero	More >>	Save	🔇 Back	Next 🥥

Step 3: There are three very simple ways to add data to the layout window to make this process quick and easy.

Option One - Click the Add button to select the files you would like to burn. A window will appear that looks very similar to Windows Explorer and from here, you are able to choose the files you would like to record and save on disc. Once you have selected your file(s), please click **Add**.

<u>Option Two</u> - Add data using Windows Explorer - please go to the **Start** button in the corner of your screen All **Programs > Accessories > Windows Explorer**.

<u>F.Y.I.!</u> Some operating systems will have **Start > Programs > Windows** Explorer

When the Windows Explorer appears, you can drag the data you would like to record into the **Nero Express** layout.

Option Three - Add data using My Computer - please click the **MyComputer** icon. From this window, you can drag and drop your files into the **Nero Express** layout.

Step 4: Once all your files have been added, click "Next" to prepare your disc for the layout.

In the My Super Video CD (SVCD) menu, you can change the look of the menu by clicking on the layout, background, and text buttons.



Layout – You are able to change the thumbnails and add or remove the header and footer.

Layout Settings		
Layout		

Background – Add an image to your background or color. You can also change the background mode so that you can scale to fit, center, etc...

Bac	ckground Settings
ſ	Background
	Background Picture :
	Background mode : Scale and fit
	Ok Cancel

Text Settings		
Text	Shadow	
Header text :	Font	
Footer text :	Created with Nero Font	
Items text :	Font	
Links text :	Font	
	Ok Cancel	

Text – Change the font style, size, and enter footer and header text.

Show full screen menu – When checked, you will enlarge the screen to full size.

Set as default – Keep the settings you have just made as default if you like the layout you have created.

ኛ Nero Express			
Final Burn Settings			020
Click 'Burn' to start the recording process			
Current recorder:	실 L: CD-R/RW	~	Options
Disc name:	My Disc		
Title (CD TEXT):			
Artist (CD TEXT):			
MARINE SECOND	24x (3.600 KB/s)		
Writing speed:			
Number of copies:	1		
	Allow files to be added later (multisession disc)		
	Verify data on disc after burning		
Nero	More >>	🔇 Back	💕 Burn

Step 5: Please make your final settings before burning your disc.

If you are having trouble burning your disc, please refer to Chapter 'Technical Support' for F.A.Q. information and technical support.

Step 6: Ready to record? Click the "Burn" button and you are on your way to recording your first data (SVCD) disc! As you are burning, you will receive a status window of the recording process.

ኛ 34% Writing to disc				
Burning Process				2
Please wait			/	
			//	
Time Event				
	ess started at 24x (3.6	00 KB/s)		
Current Phase Information				
Used read buffer:	1			
esca icaa bailei.				100%
(Copy:	1/1
Process Status:			Total Time:	00:00:13
				34%
Writing at 24x (3.600 KB/s)			
Recorder CD-RW	Action Lead-in	Buffer Level	Recorder State Ready	
LD-filw	2000 #1		noog	
Nero	Mo	re>> Save	🕒 Back [Stop

Step 7: When it is completed, you will be notified that the burn process has completed successfully.

Done			
urning Process ease wait			X
Time	Event		
	Durp pro	1. [1] 2. 5. [1] 전 [1] 2. [2] 5. [2]	×(3.600 KB/s)
Process Status:		ОК	Copy: 1
Process Status: Writing at 24x (3.	500 KB/s)	OK	

Step 8: If you click OK after the successful recording, you will be returned back to the recording window. Please click "Next" to move forward to the following window. If you would like to burn the same project again, start another project, make labels, or add more data to your current disc it can be done from this window.



6.4 Advanced Users

6.4.1 Video and Super Video Properties

You are able to change the video parameters within the Video and Super Video layout. When in the layout window, select the file and click "Properties".

MPEG Track Info	? 🛛
Attributes Menu	
Basic Information	
File:	C:\Documents and Settings
Resolution:	480x576
Frame rate:	25 Hz
Duration:	00:00.00
Standard compliant:	Yes
Scaling method:	Maximize
Pa	use after Track: E Seconds 💌
	OK Cancel Apply
Scaling method – When scaling the size of your video, you will have the choice of Maximize, Scale and clip, or Scale and fit.

Pause after Track – After each picture clip or video, you have the option to replay infinitely until the user stops the program or sets the pause after the track by seconds.



Select picture to use as thumbnail – The slider can move your video frame by frame. Select the frame in which you would like to represent your thumbnail.

Title – Select the title for your video

7 DVD

7.1 DVD



DVD Disc

If you have a supported DVD recorder (Please visit <u>www.nero.com</u> the list of currently supported DVD+R/+RW/-R/-RW recorders) you can burn DVD discs in the same way you would burn CDs. Not all the various formats that exist for CD have their counterpart on DVD. Therefore, once you have chosen to record a DVD, the "Project Selection" page will look slightly different. You have the choice of burning a data disc, an MP3 audio disc, an WMA audio disc, burning existing DVD-Video files to DVD-Video, copying an entire DVD, opening a previously saved project or burning a previously created DVD disc image.

Please note that to make a DVD-Video title from video files (such as AVI, etc), you must use a DVD authoring tool such as **NeroVision Express**. In **Nero Express** you can only files which already exist in the format and file structure required by the Video-DVD standard.

F.Y.I.! It is not possible to read or copy copy-protected DVD's or CD's with **Nero Express**.

7.2 Selecting your recorder

If your DVD recorder is supported and has been detected, simply seclect it from the "Which recorder would you like to use?" drop-down box. Some DVD recorders can also record CDs. These so-called "combo recorders" will be listed twice in the drop-down menu, followed by the extension "CD-R/RW" and "DVD". To use the recorder to burn DVD discs, select the entry with the "DVD" extension.

If you do not have a DVD recorder available, you have the possibility to burn DVD disc images using the DVD Image Recorder. These images can later be opened in **Nero Express** and burnt to DVD when a DVD-recorder is available.



If the Image Recorder (DVD) is not available to you as an option, most likely the feature has not been activated.

Please click on the "More" button then "Configure".



In the Expert Features tab, near the bottom, you will see an option called "Enable Image Recorder for all supported recorder formats". Please check this box and the Image Recorder (DVD) option will appear at your "Start" screen.

Preferences
General Cache Language Sounds Expert Features Database Ultrabuffer Dialogs
Do not eject the disc after the burn is complete
Enable overburn Disc-at-once burning (read the notes below)
Maximum CD length: 82 min 0 sec 0 frm
The overburn option may be used to burn CDs with a larger capacity than the CD-R/CD-RW would normally permit you to write.
The maximum overburn CD capacity cannot be determined automatically! You can try adding a few minutes to the capacity that is mentioned on your blank disc. Warning: Since normal CD-Rs are not designed for this amount of data, there may be errors at the end of the CD. You might also damage your CD recorder. Use this option at your own risk!
Clear archive bits of written files during ISO refresh
Enable Image Recorder for all supported recorder formats
OK Cancel Apply

7.3 Creating your first DVD disc

To make data or music discs, or to copy an entire DVD disc, the steps are the the same as with CD's. Please refer to the relevant sections in the user's guide. Only the "DVD-Video files" project is a little different and will be explained in detail below.

7.4 Creating a DVD-Video disc from DVD-Video files

Once the DVD recorder or DVD Image Recorder has been selected, the option to burn DVD files will appear in your "Start" menu.



Step 1: From the project selection page, select DVD-Video files

Step 2: From this next window, you are now ready to start adding existing DVD-Video files with extensions such as .VOB, .IFO, .BUP. To ensure a proper functioning of the DVD-Video disc, it is best to add all the files of the VIDEO_TS folder.

🛠 Nero Express	
DVD-Video files	SV2
Add your DVD-Video files (.IFO,,VOB,,BUP,VIDEO_TS) here	
MY_DISC	
Name 👒 Size T Mo	
□ AUDI0_TS 0 bytes File Folder 5/26/200 □ VIDE0_TS 0 bytes File Folder 5/26/200	Delete
	Play
	Total space used:
омв 750мв 1500мв 2250мв 3000мв 3750мв 4500мв	0.6 MB
Nero More >> Frave Save	Next 🕥

Step 3: When you are ready, click "Next" to proceed to the next window to start the burn process.

In the "Final Burn Settings" window, you will only have the option to change back and forth between your DVD burner (if you have one available to you) and the DVD Image Recorder and to label your disc under "Disc Name". All other options will be grayed out and not available to you.

ኛ Nero Express			
Final Burn Settings			5/20
Click 'Burn' to start the recording pr	ocess		
Current recorder:	Mage Recorder [DVD]	*	Options
Disc name:	My Disc		
Title (CD TEXT):			
Artist (CD TEXT):			
Language;		~	
Writing speed:	V		
Number of copies:	1		
	Allow files to be added later (multisession disc)		
	Verify data on disc after burning		
L			
Nero Vero	More >>	Sack	Burn

Step 4: When ready, click "Burn"!

8 Copy Entire Disc

8.1 Copy Entire Disc



Copy Entire Disc

Copy the complete contents of an entire disc to a blank CD bit by bit. If you are backing up a disc or making a copy for your personal use, this feature allows you to make an efficient exact copy.



Step 1: From the project selection page, select Copy entire disc

Step 2: From this next window, you are now ready to start the process of copying from disc to disc.

If you have more than one CD-ROM or CD-R/RW drive in your PC, please use the drop down box to select the drive(s) you would prefer to use.

ኛ Nero Express		
Select source and destination		5/20
Please select source and destination d	ives and insert source disc.	
Source drive:	실 L: CD-R/R	▼
Destination drive:	M: CD-R/RW	Options
	ome discs cannot be copied. They may be copy p	
If you are (Click on	unsure your disc can be copied, please run a trial i More >>' and select Simulation).	in the simulation mode.
Quick copy	Select this option to copy directly from the source	te the destination drive. Me
Guick copy	space will be used on your hard drive.	to the destination drive. No
Writing speed:	Maximum	
Number of copies:	1 🗘	
Number of copies.		
Nero	More >>	Sack 🌮 Burn

Source Drive – This is the drive in which it contains the disc you would like copied.

Destination drive – This drive will contain the blank disc which you will be burning to.

Quick Copy – Select this option if you would like to copy directly from the source to the destination drive. No space will be used on your hard disk.

If you are having trouble burning your disc, please refer to Chapter 'Technical Support' for F.A.Q. information and technical support.

If you have selected "Copy entire disc" as your project, you will have this option when selecting the "More" button.

Select source and destination Please select source and destination drives and insert source disc. Source drive: Destination drive: Image: Mt CD-R/RW
Source drive: Source drive: Destination drive: M: CD-R/RW Coution: Some discs cannot be copied. They may be copy protected or contain errors. If you are unsure your disc can be copied, please run a trial in the simulation mode.
Destination drive: Image: Control I
Destination drive: Image: Control I
Destination drive: Image: Control I
Caution: Some discs cannot be copied. They may be copy protected or contain errors. If you are unsure your disc can be copied, please run a trial in the simulation mode.
If you are unsure your disc can be copied, please run a trial in the simulation mode.
If you are unsure your disc can be copied, please run a trial in the simulation mode.
Quick copy Select this option to copy directly from the source to the destination drive. No
space will be used on your hard drive.
Writing speed:
Number of copies: 1
Nero Sack Back Burn
Image File
Configure Save Tracks Erase Disc Disc Info Cover Designer

You will have the burn options for your disc.

Determine maximum speed – When checked, the software will determine the safest maximum speed for burning your disc.

Simulation – When checked, the software will simulate an actual burn to disc without actually writing to it.

Write – When checked, the software will immediately burn to disc.

When you are ready to burn and click the "More" button at the "Final Burn Settings" window, another window will appear:

Step 3: Ready to record? Click the "Burn" button and you are on your way to recording your disc! The source disc will first be analyzed to check for copyrights and errors on the disc. As you are burning, you will receive a status window of the recording process.

🕂 34% Writing to disc	-			
Burning Process				52
Please wait				
Time Event				
11:10:28 Burn proc	ess started at 24	4x (3.600 KB/s)		
Current Phase Information	1			
Used read buffer:				
				100%
			Сору:	1/1
Process Status:			Total Time:	00:00:13
				34%
Writing at 24x (3.600 KB/s)			
Recorder	Action	Buffer Level	Recorder State	
CD-RW	Lead-in		Ready	
Nero		More>> Save	💽 Back	Stop

Step 4: When it is completed, you will be notified that the burn process has completed successfully.

ease wait				N/
sase wait				
Time E	vent			
	im process started at 24x (3.600 KB/s) cessfully at 24x (3.600 KB/s)		
V 11.14.03 BC	in process completed such	cessiully at 24x (3.000 NB7s)		
	Nero Express			
Current Phase Info				
Used read buffer:	Burn pr	ocess completed successfully at	24x (3.600 KB/s)	
		ОК		01
			Сору:	171
Process Status:			Fotal Time:	00:03:37
				100%
L	00 KB/s)			
Writing at 24x (3.60				2,021
Writing at 24x (3.60 Recorder	Action	Buffer Level	Recorder State	
Writing at 24x (3.60 Recorder CD-RW		Buffer Level	Ready	R.H.

Step 5: When you click OK after the successful recording, you will be returned back to the recording window. Please click "Next" to move forward to the following window.

If you would like to burn the same project again, start another project, make labels, or add more data to your current disc it can be done from this window.

🗖 Nero Express	
nero EXPRESS 6	What do you want to do now?
	 New project Cover Designer Exit
Image: Nero Image: Nero	

9 Disc Image or Saved Project

9.1 Disc Image or Saved Project



Disc Image or Saved Project

If you are unable to finish your project or would like to save it to record multiple copies, you can save your work and open at a later time.

You can also save to Disc Image if you are having problems with corrupted source discs/disks or performance problems with your PC. Disc Image is the safest way to record your data to disc.

9.2 Creating a disc from a disc image

Step 1: From the project selection page, select Disc image of saved project



Step 2: From this next window, you are now ready to retrieve your disc image or saved project.

Open						? 🔀
Look in:	📋 My Document:	s 💌	3 🦻	Þ	•	
My Recent Documents Desktop My Documents	SIPPS SIPPS Ilelib My Albums My Abums My eBooks My Music My Pictures My Received Fil My Videos NeroVision NeroVision Nero Express.ne	_				
My Computer	File name: Files of type:	Nero Express.nrg All Nero compilations and Images		~		Open Cancel
My Network		Dpen as read-only				

Step 3: Please make your final settings before burning your disc.

ኛ Nero Express		
Image recording Write a premastered image		N/A
write a premastered image		
Image file:	C:\Documents and Settings\Nero Express.nrg	
Destination drive:	실 L:CD-R/RW	~
Writing speed:	24x (3.600 KB/s)	
Number of copies:	1	
Nero	More >>	🔇 Back Next 🕥

For additional Burn Settings information, please refer to Chapter 'Preferences'.

If you are having trouble burning your disc, please refer to Chapter 'Technical Support' for F.A.Q. information and technical support.

Step 4: Ready to record? Click the "Burn" button and you are on your way to recording your first data disc! (Disc image or saved project) As you are burning, you will receive a status window of the recording process.

🕂 34% Writing to disc				
Burning Process				2
Please wait				
			//	
Time Event				
	ess started at 24x	(3.600 KB/s)		
		(0.000 (10) 0)		
Current Phase Information	1			
Used read buffer:				
				100%
			Copy:	171
Process Status:			Total Time:	00:00:13
				34%
Writing at 24x (3.600 KB/s	:]			
Recorder	Action	Buffer Level	Recorder State	
CD-RW	Lead-in		Ready	
Nero		More >> Save	🕑 Back	Stop

Step 5: When it is completed, you will be notified that the burn process has completed successfully.

Done				
urning Process				5/
ase wait				
Time E	vent			
	ırn process started at 24x (
🥠 11:14:05 Bu	in process completed suc	cessfully at 24x (3.600 KB/s)		
	6			
	Nero Express			
Current Phase Info	armation			
Used read buffer:		rocess completed successfully at	: 24x (3.600 KB/s)	
Cisca read burrer.	V			o
L		ОК		
			Copy:	17
Process Status:			Total Time:	
				100%
L				
Writing at 24x (3.60	00 KB/s)			
Recorder	Action	Buffer Level	Recorder State	
CD-RW	idle		Ready	
277722222		55		

Step 6: If you click OK after the successful recording, you will be returned back to the recording window. Please click "Next" to move forward to the following window.

If you would like to burn the same project again, start another project, make labels, or add more data to your current disc it can be done from this window.

🗖 Nero Express	
nero EXPRESS 6	What do you want to do now?
	 New project Cover Designer Exit
Image: Nero Image: Nero	

9.3 Creating a disc from a saved project



Step 1: From the project selection page, select Disc image of saved project

Step 2: From this next window, you are now ready to retrieve your disc image or saved project.

Select the file that you would like to burn and click "Open".



Step 3: The files from the saved disc image or save project will be displayed and ready for burning.

🕂 Nero Express	
Disc Content	- 120
Add data to your disc.	
🖉 MY_DISC 💽 💼 📬	
Name 🖜 Size T Mo	Add
圈) Ahead - Nero Exp 20 KB Microso 5/8/2003	
	O Play
	Total space used:
рмв 200Мв 400Мв 600Мв 800Мв	0.6 MB
👔 Nero 🔜 More >> 🕞 Save 🔕 Back	Next 🧿

Step 4: Once you are ready, click "Next" to prepare your disc for burning.

Please make your final settings before burning your disc.

ኛ Nero Express		
Final Burn Settings		220
Click 'Burn' to start the recording p	rocess	
Current recorder:	실 L: CD-R/RW	V Options
Disc name:	My Disc	
Title (CD TEXT):		
Artist (CD TEXT):		
Writing speed:	24x (3.600 KB/s)	
Number of copies:	1	
	Allow files to be added later (multisession disc)	
	Verify data on disc after burning	
Nero	More >>	🔇 Back 😰 Burn

For additional Burn Settings information, please refer to Chapter 'Preferences'.

If you are having trouble burning your disc, please refer to Chapter 'Technical Support' for F.A.Q. information and technical support.

Step 5: Ready to record? Click the "Burn" button and you are on your way to recording your first data disc! (Disc image or saved project) As you are burning, you will receive a status window of the recording process.

🕂 34% Writing t	o disc -			
Burning Process Please wait				20
	vent um process started at 24x	(3.600 KB/s)		
Current Phase Ini Used read buffer:			Copy: Total Time:	100% 1/1
			rotarnine.	00:00:13
Writing at 24x (3.6	600 KB/s)			
Recorder CD-RW	Action Lead-in	Buffer Level	Recorder State Ready	
0	Nero	More>> Save	🕥 Back	Stop

Step 6: When it is completed, you will be notified that the burn process has completed successfully.

urning Process ease wait				X
Time Ev	vent			
	m process started at 24x (2	NEW MERINE STUDIES AND		
💜 11:14:05 Bu	in process completed succ	cessfully at 24x (3.600 KB/s)		
	Nero Express			
Current Phase Info				
Current Phase Info		rocess completed successfully at	: 24x (3.600 KB/s)	
			: 24x (3.600 KB/s)	02
Used read buffer:		ocess completed successfully at	Сору:	1/1
				1/1
Used read buffer:			Сору:	1/1
Used read buffer:	Burn pr		Сору:	1/1
Used read buffer:	0 KB/s)		Copy: Lotal Time: Recorder State	1/1
Used read buffer: Process Status: Writing at 24x (3.60	0 KB/s)	ОК	Copy: Lotal Time:	1/1

Step 7: If you click OK after the successful recording, you will be returned back to the recording window. Please click "Next" to move forward to the following window.

If you would like to burn the same project again, start another project, make labels, or add more data to your current disc it can be done from this window.

🐖 Nero Express	
nero EXPRESS 6	What do you want to do now?
	 New project Cover Designer Exit
Nero More >>	

10 Preferences

10.1 Preferences

In **Nero Express** you have the possibility to change many settings in order to configure your software for optimal use. When you click on "More" then the "Configure" button, the "Preferences" window will appear. The settings are grouped in various tabs to make it easier for you to make the required changes.

10.2 General Tab

Preferences			? 🗙
Expert Features General	Database Cache	Ultrabuffe Language	er Dialogs Sounds
Check Jolie	orrect disc format befo t file names before bu ilation size in the Nerc	rning	
Status bar		min se	ec frm
	er (min, sec, frm): (min, sec, frm): caling:	740800Automatic	0
Plug-in directo	огу		
C:\Program F	iles\Common Files\Ah	ead\AudioF	Browse
Plug-	n lookup	Unsupporte	ed plug-ins
	OK	Cance	el Apply

Check for correct disc format before burning – When checked, the software will check to make sure that the disc you are using is in the correct format and suitable for burning.

Check for Joliet filenames before burning – Joliet filename standard supports up to 64 characters in a filename not including the extension (the characters after the "." in a filename). When checked, the software will check for this standard before burning.

Show compilation size in the **Nero** status bar – When creating your compilation, you will have a status bar at the bottom of your window to show you just how much space you will be using on the blank disc.

Omin	10min	20min	30min	40min	50min	60min	70min	80min	90min
Use drag 8	x drop to add file	es to your compila	tion.						- 💒 🔡

Status Bar – This feature is very useful especially if you are creating a full disc of an audio compilation. It works like a meter as you add your tracks or data. Depending on the disc size you are using as the source, it could be 74 or 80 minutes. When your compilation reaches over 74 minutes, you can set the yellow marker to show exactly when your compilation reaches over this target. When you reach over 80 minutes, you can set the red marker to alert you that your compilation is over the disc limit.

Yellow marker (min, sec, frm) – This can be set for a 74 minute disc by minute, seconds, and frame.

Red marker (min, sec, frm) - This can be set for a 74 minute disc by minute, seconds, and frame.

Omin	10min	20min	30min	40min	50min	60min	70min	80 m in	90min
Use drag 8	& drop to add file	es to your compila	tion.						- 👹 🔡

Horizontal scaling - You can select the drop down box to specify the type of media that you are using. It will then scale the meter to the size of the media. If you select "automatic", the software will select for you.

Plugin Directory – If you have any plugins (software file that would enhance or fix your program) for your **Nero** software, it would be located in this directory.

Plugin lookup – When you click this button, it will look up all the plugins associated with your software.

Unsupported plugins – When you click this button, it will locate all the plugins that are not supported by your software. Please go to <u>www.nero.com</u> for additional upgrade options if necessary.

10.3 Cache Tab

Preferences			? 🛛
Expert Feature: General	s Database Cache	e Ultrabuffer Language	Dialogs Sounds
Path for cache C:\WINDOWS	\Temp\		
)OWS		
Drive	Drive C:V	Speed ?	Free 4.977 MB 🗸
	Test all driv	e speeds	
Describe	Minimum disk spac		мв
	from CD-ROM driv that have been dr	e agged over from a CD-f	ROM drive
UDF and I	ndows while cachir 60/UDF compilatic	ng dragged and droppe ns to accelerate cachir	d files in ISO, ng.
		Cancel	Apply

Path for cache – You can select the directory and path for the cache. This is important since you will be using this space as a temporary cache when burning large files or full discs. It can help prevent buffer underruns.

Test all drive speeds – You can test all hard drive speeds on your system for performance.

Minimum disc space reserved – Reserve the minimum disc space for your cache.

10.4 Language Tab

Preferences	[? 🗙
Expert Features	Database Ultrabuffer Dialo	
General	Cache Language Sound	s
中文(繁體)	Chinese (Traditional)	
Čeština	Czech 🦲	
Danske	Danish	
Nederlands	Dutch	
English	English Finnish	
Suomi	Finnish	
Font		
Tahoma, 8pt, norma	al Browse	
	gestions on how to improve the translations, e to translations@nero.com	
	OK Cancel App	ly

Selecting your language - Select the language of choice in the box above. If your system only supports one language, it will be selected as default.

For CD-Extra discs, you can add pictures and additional information that are language specific.

Choose Font – Select the font that you would like to appear on your layout screen.

If you should have any suggestions on how to improve the translations in this software, please contact us at <u>translations@nero.com</u>. We would be happy to take all suggestions and comments.

10.5 Sounds Tab

Preferences
Expert Features Database Ultrabuffer Dialogs General Cache Language Sounds
Select the sound files that you would like Nero and Nero Express to play for the following events:
Burn process successful C:\Program Files\ahead\Nero\Trumpet1.wa Browse
Burn process unsuccessful
C:\Program Files\ahead\Nero\Boo.wav Browse
✓ Nero/Nero Express is waiting for a disc
C:\Program Files\ahead\Nero\DingDong.w Browse
OK Cancel Apply

If you would like to change the sounds in your **Nero** software when a certain function has been performed such as Burn Process Successful/Unsuccessful or Waiting For A Disc, you can select one of the many sounds in the **Nero** directory or choose your own. Select the "Browse" button for the appropriate category you would like to change and find the sound you prefer.

10.6 Expert Features Tab



Don't eject the disc after the burn is complete – When checked, the disc that was written will not be ejected after the burn is complete.

Enable overburn 'disc at once' burning – All blank discs have a little bit more space that is usually not used. When written to this space, it is called "overburning". This feature is popular among those who are trying to get as much as possible on the disc. Disc At Once will be enabled since the entire disc needs to be written in one session.

Since maximum overburn CD capacity cannot be determined automatically, the user must estimate the amount as best as possible. You can try adding a few minutes to the capacity that is mentioned on your blank disc.

<u>F.Y.I.</u> Warning! Since normal CD-R's are not designed for this amount of data nor made for this purpose, there may be errors at the end of the disc. You could also possibly damage your burner. Please use this option at your own risk!

Clear archive bits of written files during ISO refresh – When checked, this option will clear the archive bits that were written during the ISO refresh.

Enable Image Recorder for all supported recorder formats – When checked, this will enable the Image recorder to be seen for all supported formats in the main window.



10.7 Database Tab

Preferences	;				? 🛛		
General		Cache	La	anguage	Sounds		
Expert Fe	Expert Features Databas		se	Ultrabuffer	Dialogs		
Use local Nero CD database							
Program database path:			C:\Program Files\ahead\Nero\Nero				
🕑 User database path:			C:\Program Files\ahead\Nero\UsrD				
Use Internet CD database							
Read Server (http):			freedb.freedb.org				
Address:			/~cddb/cddb.cgi				
Port:		80 Proxy		Proxy			
Submit E-Mail address:			freedb-submit@freedb.org				
Your E-Mail address:			name@domain				
SMTP Server:		<your address="" server="" smtp=""></your>					
Applica	Application Name:		Nero	Version:	5, 9, 10, 25		
✓ Open the database during 'Save Tracks'							
✓ Open the database during 'CD copy'							
✓ Open the database during [™] .cda drag and drop'							
OK Cancel Apply							

Program database path – The program has set a database path in which your CD titles and songs will be located.

User database path – This is a user defined database path in which the user's CD titles and songs will be located.

Read Server (http) – If you would like to use the free internet CD database, this option can be checked. When you insert your music CD into the drive, you can search the internet through FreeDB for the song names and CD titles. This will save you countless hours entering in your own name.

Address – The web address in which FreeDB is located. This has been set for you by default.

Port – The port address in which FreeDB is located. This has been set for you by default.

Proxy – If you are behind a firewall and unable to access the FreeDB database, you can key in the proxy information manually.

Submit E-Mail address – If you would like to submit your CD Titles or song names to FreeDB that are not in their database, this address has been provided to send the information.

Your E-Mail address - If you would like to submit your E-Mail address to the FreeDB database, you can enter this information here.

SMPT Server – Your server address, in which the CD title and song names are located.

Application Name – The application you are using to submit information to FreeDB and the version number.

Open the database during 'Save track' – The database will open when the 'Save track' option is open.

Open the database during 'CD copy' - The database will open when the 'CD Copy' option is open.

Open the database during '*.cda drag&drop' – When you drag and drop audio files into the **Nero** window, the database window will open.

10.8 Ultrabuffer Tab

Preferences ?									
General Cache Language Sounds Expert Features Database Ultrabuffer Dialogs									
This page allows you to set the amount of memory that Nero/Nero Express will use as RAM buffer. This secondary buffer in addition to your recorder's physical buffer will make the burn process more reliable.									
Method: Automatic configuration									
The buffer size can be set between 1MB and 80MB. We recommend that you do not set it more than 40% of your total installed memory.									
OK Cancel Apply									

Automatic configuration – The amount of memory that **Nero Express** will use as RAM buffer will be set automatically for you. This secondary buffer in addition to your recorder's physical buffer will make burn process more reliable

Manual configuration - This allows you to set the amount of memory that **Nero Express** will use as RAM buffer. This secondary buffer in addition to your recorder's physical buffer will make burn process more reliable

Data buffer size – When you select the "Manual configuration" option, this option will become available for you to set the amount of memory.

10.9 Dialogs Tab

Preferences			? 🗙					
General Expert Features	Cache Database	Language Ultrabuffer	Sounds Dialogs					
Show buffer underrun protection counter at the end of the burn process								
✓ Offer to print/save recording error report								
L	ОК	Cancel	Apply					

Show buffer underrun protection counter at the end of the burn process – When checked, a counter will appear at the end of the burn process to show progress. This way you can actually see how many times the recorder paused and prevented a buffer underrun! It will also explain why it took longer to actually burn the CD than it should.

11 Technical Support

11.1 F.A.Q.'s

Q: I burn a disc, I get buffer underruns every time.

A: There could be several reasons for this. Please try the following:

- Try reducing the burn speed of the burner
- Try different media brands. The one that you are using could not be compatible with your burner.
- Update the firmware version on your burner. Firmware is a chip inside your burner which acts as the brain of the device. Please check the manufacturer's website for the latest version.
- Burner or cable that is attached to it is defective.
- Try using a different source to see if it is corrupted or too slow as a source.
- Defragment your hard disk from time to time
- During burning no other tasks should be performed by the computer
- Before burning, you should always run the speed test and the simulation in order to get the optimal speed. If not, the maximum possible write speed of the burner is kept as default.
- Proceed to the Nero homepage to check for software updates at <u>www.nero.com</u>.

Q: I am unable to make SVCD discs. I drop my video files into the window but nothing happens.

A: In order to have your video files automatically convert to MPEG-2 SVCD compatible files, you will need to purchase the plugin from Ahead Technologies. Please go to <u>www.nero.com</u> and contact the sales department to order this feature.

Q: I have many MP3 songs that I would like to play in my home stereo player. How do I convert the files so that I can play them?

A: When you drag and drop the MP3 songs into the **Nero Express** Window, they will automatically convert them for you to get them "audio player" ready.

Q: Although I created a multi-session-disc I can only see the last session. Why?

A: If your CD-burner supports multi-session, you can only read the last session of your CD on Windows 95 and NT 4.0, and the first session on Windows 3.1x. **Nero**

gives you another solution: in Windows 95 and NT 4.0 you can use the **Nero** MultiMounter to switch to any other session of your multi-session-CD.

Q: I have installed Nero Express correctly but it still does not see my burner? A: It could be several reasons:

- The burner is either too old and support for this drive has been discontinued
- The burner is very new to the market and support has not yet been implemented or is the process.
- Please check to make sure that your PC recognized the burner and that it has been installed properly. You can go to Start > Control Panel the appropriate menu to see if your hardware was installed correctly or not.
- Please check the Nero website at <u>www.nero.com</u> for the latest drivers and a list of supported burners.

Q: I have recorded my audio CD with no problems but I am getting clicking and hissing noises.

A: In the audio window click on your audio file and the Properties button will be activated. Click on Properties > Filters Tab. There you can control the distortion on your audio CD.

11.2 Contact

Nero Espress is an Ahead Software product.



Ahead Software AG Im Stoeckmaedle 18 76307 Karlsbad Germany

- Web: <u>http://www.nero.com</u>
- Help: <u>http://englishsupport.nero.com</u>
- Mail: techsupport@nero.com
- Fax: +49 7248 911 888

12 Glossary

A/D

Analogue/Digital. The conversion of analog signals to digital characters.

AIFF

An acronym for Apple Interchange File Format. This is the music file format for tracks that are extracted from a disc and saved to the hard drive on a Macintosh system.

ASPI

Acronym for Advanced SCSI Programming Interface. This is the interpreter between the software, SCSI card, and your operating system. This allows the device to communicate with the SCSI card.

ATAPI

Part of the EIDE (Enhanced Integrated Drive Electronics) interface that provides additional commands to control a CD-ROM drive, CD-ROM burner, hard drive, etc.....

Audio CD

An audio CD is generally comprised of several tracks (titles). Discs in this format only contain pure audio data. They can be played on commercially available audio CD players and with the appropriate plug-in, also on a computer.

Note: Please note that when creating audio discs, there are some audio players on the market which are not able to play re-writable discs. For this reason, you should use CD-R discs.

Block

A block is the smallest addressable information unit on a CD-ROM. A block corresponds to a sector.

Blue Book

This is the standard for CD's that are created in the CD-Extra and CD Enhanced format.

Bootable CD

Booting means that the operating system is loaded on your computer. Under normal circumstances, your PC boots from the hard drive. If you need to boot from something else besides your hard disk for any reason, you can boot from a floppy disk or CD. Special "bootable CD's" must be produced to be able to boot from your CD-ROM/CD-R/RW drive.

Bridge Disc

A CD-ROM which can be read by a normal CD drive as well as by CD-I devices. It is specified in the White Book. An example of a Bridge Disc is the Photo-CD.

Buffer

Memory built into your CD-Rom or Burner that temporarily stores information.

Buffer Underrun

Buffer underruns are caused when there is an interruption to the flow of data to the internal buffer of the burner. This is can be the fault of the software or the hardware itself. When recording, data is fed continuously to the burner's buffer in order to keep a steady flow of data which is required when recording. When something interrupts that steady flow, it can cause a buffer underrun and your disc is no longer useable.

Cache

A fast intermediate or buffer memory which is applied at many different areas in a computer system. With **Nero**, cache memory is used to store files in buffer from drives which cannot be accessed quickly enough in order to ensure that the writing process continues without interruption.

Caddy

A special plastic housing used to protect the CD. The CD is inserted into the drive in the caddy.

CD-DA (with the extension .CDA)

The acronym for Compact Disc - Digital Audio, this is the first standard for an audio CD. An audio CD is comprised of several audio tracks whereby generally, one track corresponds to one song. Each track is additionally sub-divided into sectors. Music CD's generally make up this category.

CD-Extra/Enhanced Music CD:

CD Extra is the latest standard for audio CD's and with a multi-media component. A disc in this format always has two sessions. The first session only contains pure audio data which can be played on an audio CD player while the second session contains computer data in any format. This format puts audio AND data on the same CD. The audio is recorded first with the data recorded in a second session.

CD-I

This means **C**ompact **D**isc Interactive. This format is considered a multi-media CD that blends video, data, and audio. This type of CD can only be played in a CD-I player or a CD Rom drive that is "CD-I ready".

CD-R

An acronym for **C**ompact **D**isc - **R**ecordable. A technology for CD-R (recordable) media.

CD-ROM

An acronym for Compact Disc - Read Only Memory. This is described in the Yellow Book. Differing types of data which can be read by a computer such as programs, text, image data or sound may be stored with this CD format.

CD-ROM - Mode 1 and 2

A supplement to the CD-ROM format which provides an additional error recognition and correction function. Mode 1 is especially used for computer data and employs a code for error correction. Mode 2 is used with CD-ROM/ XA and CD-I with audio data and contains an error recognition code only.

CD-WO

CD - Write Once. A CD which, as the name implies, may only be written on one time. Refer also to CD-R.

CD-XA:

This format means Compact Disc Extended Architecture. It was based on the Yellow Book standard but adds audio and video to the CD in addition to the data. CD-ROM/ Extended Architecture. This CD format makes it possible to store computer data and audio or video data on one track. The different types of data are linked to each other (Interleaving) so that synchronization problems can be reduced.

Chapter Marks

These are marks set in the video which identify a scene change or place.

CIRC

Cross-Interleaved Reed-Solomon Code. An error-recognition and correction process which is integrated permanently in the hardware of a CD player or the CD-burner.

CLV

Constant Linear Velocity. CLV describes a method by which the data of a CD may be read with a constant scanning rate.

Digitalization

Conversion of analog signals to digital signals.

Disc-At-Once (DAO)

In this mode, all of the tracks are written in a single process onto the disc without the laser being switched off. This format is best for audio CD's that will be played in home and car stereo equipment.

Disc Image

This process can be used when having system performance problems or do not have a burner available. When choosing the disc image option, it takes the file you want to copy and places it temporarily on your hard drive. From that image it builds the file.

When creating a disc image, you will need a certain amount of drive space to perform this function.

Drivers

A software file that will allow your hardware to be seen by the operating system or software program and/or enhance its performance.

DVD

An acronym for Digital Versatile or Video Disc.

DVD-R

DVD was originally only known for being specific to the movie and the games market; you can now burn data and your own home videos to a DVD disc that can be played by all DVD-ROMs. You have the advantage of storing much more data on this disc than on a regular CD-R/RW. The DVD-R is a non rewritable format that is compatible with most DVD-ROM drives and DVD players.

DVD-RAM

Is another form of rewritable media however, it is not compatible with most DVD-ROM drives and DVD players.

It was originally designed to be used like a floppy disc so that users could copy and delete files from it just like a floppy.

DVD-RW

An acronym for DVD ReWriteable. The DVD-RW disc is rewritable and performs the same function as that of a DVD-R. However, the compatibility with DVD-ROMs and DVD players are less. Please check with the manufacturer for compatibility issues.

DVD+R/RW

A rewritable and non-rewritable format developed in cooperation by Hewlett-Packard, Mitsubishi Chemical, Philips, Ricoh, Sony and Yamaha. It is a rewritable

format that provides full, non-cartridge, compatibility with existing DVD-Video players and DVD-ROM drives for both real-time video recording and random data recording for many PC and entertainment software applications.

EDC/ ECC

Error Detection Code/ Error Correction Code. This process serves for the recognition and correction of scan errors which might be caused on the CD surface by scratches or dirt.

Enhanced MusicCD/CD-Extra

CD Extra is the latest standard for audio CD's and with a multi-media component. A disc in this format always has two sessions. The first session only contains pure audio data which can be played on an audio CD player while the second session contains computer data in any format. This format puts audio AND data on the same CD. The audio is recorded first with the data recorded in a second session.

Fast Copy

With the fast copy method, **Nero** reads the data directly from your CD-ROM/DVD drive and writes it directly onto the target disc in your CD burner. This method is faster than copying an image file and it does not require an approx. 100MB of space on your hard disk. The disadvantage of this method is that a "buffer underrun" can occur. A buffer underrun always occurs if the CD burner writes faster than the data can be sent. The reasons for this can be a source which is too slow (either hard disk or CD-ROM/DVD drive) or the hard disk is too fragmented and the data flow is slowed down due to the excessive number of accessed operations. This means that the data on your hard drive is scattered into many parts of the drive and the CD-ROM/DVD drive needs time to look for all the pieces and put them together.

Finalization

Finalization is the permanent closing of the writing procedure on a CD. After that, it cannot be written to, regardless of whether it was produced as a single-session or a multi-session CD.

Frame

A sector is made up of 98 frames. A frame contains 24 data bytes and 9 control bytes. With an Audio-CD, 75 sectors provide one second of played music.

Green Book

This is the standard for CD's that are created in the CD-I format.

HFS CD

HFS is a file system used by Apple[©] Macintosh systems. This format is only suitable for Macintosh discs.

High Sierra

The forerunner of today's ISO Standard 9660. It was published in 1986. During the course of time it has lost its significance.

Host Adapter

An adapter which connects a CD-burner with the SCSI bus of the computer.

Hybrid-CD

A hybrid CD contains data in the HFS (Mac) section and in the ISO 9660 (PC) section. If the disc is inserted in a Macintosh, only the data relevant for the Macintosh is displayed and on a PC, only the ISO data can be seen.

Image

The term "image" describes all edited data which will later be located on a CD. The creation of an image file is known as premastering.

Image Copy

One of two different copying methods can be selected: Image Copy or Copy On-The-Fly.

Nero reads-in the files to be written on the disc and saves these as an image file on the hard disk. The image file means that copying errors can be eliminated. These errors could occur if you use a slow hard disk or a slow CD-ROM/DVD drive as the CD burner would not be supplied with a continuous data flow.

However, please note that up to 800MB will be required on the hard disk and the copying times are somewhat longer.

Interlaced Video

This format displays video in two parts: Each part displays and contains a line in every other row and the second part fills in the alternating rows until the screen is complete. This method is faster than the Progressive Scan in which all rows are displayed one at a time until the screen is complete.

Interleaving

This is the designation for the storage of computer data on the CD-ROM/ XA in linked form. Another term here is nesting. This makes possible the synchronization of audio and computer data during playback.

ISO 9660

A universal standard for CD's as defined by the High Sierra standard that defines a disc's capabilities. Data can be written onto a disc with this format. This format can easily be used in many computer environments. If a disc must be able to be read on various computer systems, then the file name length must be strictly limited – for instance, names which are used in DOS environments use a maximum of 8 characters – a period – then a 3 character extension such as **12345678.ext** as an example.

Jitter Control

Many CD-ROM devices are not able to read a single sector of an audio disc. The results are little gaps due to the difference in the data stream. Jitter correction synchronizes the data stream by overlapping the sectors and therefore no gaps are created.

Joliet

Microsoft created standard for filenames that was made for Windows 95 and NT. It supports up to 64 characters in the filename, unicode character set, and DOS 8.3 (eight characters in the main filename with a 3 character extension) names.

Label

Most CDs are provided with an imprint. This is known as the label. It is possible to place it on the CD with different technologies, for example, with screen printing.

Lead-In Area

The initial area of every session is known as the Lead-In Area at the beginning of the disc. This is where the "table of contents" for your disc and additional information concerning the CD is stored.

Lead-Out Area

This defines the closing stages of a session and is place at the end of the disc. If the CD has not yet been finalized, the reference to the next session is stored here.

Mixed Mode

This format combines both data and audio onto the CD. With this format, the data is recorded first and the audio tracks second. However, both are recorded in one session.

Mode 1/ Mode :

Nero normally writes ISO data in the CD sector format **Mode 1**. However **Nero** also supports the so-called **XA-Format** for ISO data. The XA format is an extension of ISO structures and can only be burned onto the CD in **Mode 2** (another CD sector format).

Multisession

When data is written to the CD more than once. After you have written your first session to the CD, you can then add/write additional information with a different data set.

MP3 Files (with the extension of .MP3)

The MP3 audio format has established itself as the most frequently used format to transfer audio data via the internet. MP3 stands for MPEG-1 Audio Layer 3. Using MP3, audio files can be reduced (or compressed) to a fraction of their orginal size (factor 1:10), without diminishing the quality.

MPEG

An Acronym for Motion Picture Experts Group, it is a standard that was created for highly compressed video such as SVCD and Video CD.

MPEG-1

Which is a part of the MPEG compression family has the highest compression rate.

MPEG-2

There are very little differences between MPEG-1 and MPEG-2 with the exception that MPEG-2 works better with televisions that are interlaced and is the broadcast standard.

MPEG-3

This standard was created to define High Definition T.V.

MPEG-4

This standard is the next generation of MPEG-2 and is currently still in development.

Master

After the creation of an image file, the actual process of CD production occurs. If the CD is to be used for reproduction purposes, it is known as a master.

Mixed Mode-CD

Music and computer data are stored on one CD with this type of CD. The computer data is generally located on track 1 and audio data is located in the ensuing tracks.

Multi-Session-CD

A CD which is written in several sequential sessions is known as a multi-session CD.

NTSC

NTSC is the standard for video and television in the United States and Japan. Other parts of the world have another standard. NTSC has more frames per second than PAL however. NTSC has less horizontal lines than PAL.

OEM

OEM stands for Original Equipment Manufacturer. A product that states it is OEM means that it was made by one company, for another company, to sell as its own.

On-The-Fly

A process for burning data onto a CD-R. There are two different methods of doing this. With the classical and older method, all of the data which is to be recorded onto the CD is first stored in a buffer in a large file known as an image file. From there, it is copied or burned onto the CD-R. In contrast to this, the method known

as On-The-Fly transfers the data directly from their original memory locations on a hard drive onto the CD-R. With **Nero**, a so-called compilation is used for this purpose. This is a small file which only cross-references the data to be transferred.

Orange Book

The standard in which the CD-MO (Magneto-Optical) and CD-WO (Write Once) technologies are defined. It provides the basis for CD-R.

PAL

PAL is the standard video and television in Europe. PAL has more horizontal lines than NTSC however, PAL has less frames per second than NTSC.

Photo-CD

A CD which is used for storing images, photos, slides and other visual data. The Photo-CD is generally capable of multi-sessions. The standard originates from Kodak and Philips.

Plugin

A plugin is a software file that allows one to have or use extra features with their software or to help fix an issue.

Premastering

The preparation of data which is to be written onto a CD at some later time. An image, which represents an exact replica of the data and the directory structure, is usually created first.

Red Book

This standard describes the CD-DA.

Romeo

An old outdated data structure standard which was created by Adaptec to support filenames up to 128 characters long including spaces. Files used with the Romeo standard can only be read under Windows '95 and NT operating systems. Unicode characters are not supported, however, they can be read on the Macintosh systems provided that the characters do not exceed 31 characters.

Scan Rate

This is the indication of the frequency with which analog signals are converted into digital characters.

SCSI

Small Computer System Interface. SCSI is a modern bus system to which different terminal devices such as an SCSI hard drive, streamers or a CD-burner may be connected. At this time, SCSI is the only possibility of operating a CD-burner on a typically-used computer system.

Sector

A sector is the smallest addressable information unit of a CD. It is composed of 2352 bytes of which - depending on the type of CD used - differing amounts are available as user data. A sector generally consists of a header, synchronization bits and user data. It may also have error recognition and correction data. To read a sector, a drive with simple reading speed requires 1/75th of a second.

Session

When data is written onto a disc, this is called a session. A session is marked at the start and at the end. You can write onto a disc and complete it in a single session. If more than one session is recorded on a disc, then this is known as a multi-session disc.

Session-At-Once

The session-at-once method is mainly used for CD-Extra. With the session-at-once recording type, a first session with several audio tracks is recorded in one operation. The latter is then switched off but the CD is not closed (meaning you are still able to write additional data to it). A second (data) session is then written and then the disc is closed.

Simulated Recording

Simulation of the burn process in order to test whether there is a constant writing flow. The procedure is the same as the writing of the disc, with the only difference being that the laser writer is switched off.

Single Session

When the data/audio is written or recorded to the blank disc one time only.

Super Video CD (SVCD)

Super Video CD or (SVCD) is very similar to a video CD however this format uses a compression standard called MPEG to store the audio and data. When creating Super Video CD's, the source data must be MPEG-2 coded and the parameters must be suitable for Super Video CD's. An encoder must be used to create Super Video CD's, which must have the required options. As the encoder supplier whether it supports coding for Super Video CD's or visit the Ahead website at <u>www.nero.com</u> for additional information on purchasing the encoder. SVCD discs can be played on DVD players, PC's with DVD-ROM's or a CD-ROM drive with software which allows this type of video format to be seen.

Table of Contents (T.O.C.)

This designates the contents of every session and is stored in the Lead-In.

Thermal Recalibration

As your hard drive platters rotate, they expand due to the heat that is generated. The hard drive will stop for a split second to readjust the heads (which does the reading of data) to the newly expanded platter(s).

Track

A disc is sub-divided into individual tracks - for example, separate songs or pieces of music on an audio disc are each a track.

Track-At-Once (TAO)

With this method, each track is individually written onto the disc. The write operation is briefly interrupted after each track. This means that a CD-R or CD-RW can be written onto just like any standard disk.

Twin VQF File

The acronym for Twin Vector Quantization File, it is a format that is similar to the MP3 format. It distinguishes itself by an even higher compression rate. Generally, the files have approximately 30% less data than MP3 files however, with the same quality.

UDF/ISO CD

The UDF file system has been especially optimized to handle large data quantities and to also be able easily modify an existing file system just like you would on a floppy however with a CD. This file format uses separate software and also formats your disc differently.

Video CD

An acronym for "Video Compact Disc", it holds movies and audio/video in stereo with a compression standard called MPEG. One can also say that it is also based on an ISO file system and contain digital video films. A video disc can be played on most CD-ROM's, DVD players, and DVD-ROM drives with the help of software.

Volume Descriptor

The Volume Descriptor is the area at the beginning of a CD in which the structure of the file system is contained. It may also contain additional and optional information about the CD, such as the name of the CD, the publisher, a copyright notice, etc.

WAV/Wave File (with the extension .wav on your computer)

Audio files are saved on the hard disk in the wave format. The wave format is part of the general RIFF Standard (Resource Interchange File Format). This format supports various scanning rates and depths. This is the PC format for saving audio files on the hard drive (Mac's use AIFF files). Audio files that are on a commercial CD (store bought CD), are in digital form. When saving your sound/audio that originates from a CD-ROM onto your hard drive, it must be saved in analog form. Audio files cannot be saved in digital form on the hard drive.

White Book

The format created by Sony, Philips, and JVC in 1993 that extended the Red Book CD format to include digital video in MPEG-1 format which is referred to as Video CD.

WO

Write Once. A medium which may be written to once. This includes the CD-Recordable.

WMA File

Windows media audio

Yellow Book

This standard defines the CD-ROM.

13 Index

A

Audio and data disc 41 Audio disc 35

В

Bootable disc 31

С

CD-DVD Speed 20 Configuration 13 Cover Designer 18

D

Data disc 24 Disc copy 79 Disc deletion 16 Disc image 84 Disc info 18 DriveSpeed 21 DVD disc 74

Н

Hide files 34

I

Installation 7 Installing 8

Μ

MP3 disc 45

Ν

Nero Toolkit 20 Normalize Audio files 55

S

Save audio tracks 13 Saved project 88 Serial number 10 Super Video disc 67 Super Video Properties 72 System Requirements 7 Hardware 7 Operating System 7

Т

Tab Cache 94 CD EXTRA 56 Database 99 Dialogs 101 Expert Features 97 Filters 59 General 92 Indexes, Limits, Split 57 Language 95 Sounds 96 Track Properties 55 Ultrabuffer 100 Technical support 102

U

Uninstalling 8

V

Version OEM 6 Retail 6 Video Disc 61 Video Properties 72

W

Wave Editor 23 WMA disc 50