

BurnIt

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BurnIt

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# **Chapter 1**

# **BurnIt**

### 1.1 Contents

BurnIt V2

The CDR software for Amiga & Draco computers

User manual Version 2.20

Copyright ©1996-1999, DnS

eMail: deising@TitanComputer.de siegel@TitanComputer.de

Preface

Legal

Prices

Distribution

Requirements

Supported CD-Recorder

Installation

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Introduction

Windows

BurnIT's preferences

Quick Start

Create a Data-CD

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Copy a CD

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On Fly Functions

Registration

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Support

FIRST AID

The authors

Thanks to

Known bugs

History

### 1.2 Thanks to

Thanks

There are a number of people who we would like to thank for their support:

Ingo Kleefeld for bug reports, ideas and more...

Alexander Seesko for bug reports

Marc Czascke for the Philips CDD2000 support

Thomas Wenzel for Play16

SONY(R) for the SCSI command set

Mr. Haecker of Mitsumi Germany for his fast and uncomplicated help

all beta testers

and last but not least, all registered users

### 1.3 Preface

Welcome to BurnIT

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Congratulations !!!!!!

You have purchased an easy to use, high performance CDR program for the Amiga and Draco.

BurnIt was designed for professional use and offers a great variety of features which are not available in other products.

As a special feature BurnIt can also be used to backup Amiga partitions. We have also added support for the next generation of Amiga processors, the Motorola PowerPC.

### 1.4 Who has made BurnIT

Responsible for BurnIt

Code: Axel Deising

Michael Siegel

Manual: Axel Deising

Michael Siegel Michael Garlich

Manual revision: Klaus B. Kuesche

English translation: Mat Colton

Michael Garlich

## 1.5 Legal Stuff

The information in this manual is published without consideration of possible patent protection.

Trade names are used without warranty of free use.

The compiling of documents and pictures was done with great care, nevertheless mistakes cannot be fully excluded.

The publisher and the authors can and will not undertake neither legal responsibility nor any liability for wrong instructions and their consequences.

### Trademarks

AMIGA is a registered trademark of Gateway 2000.

All other products mentioned in this guide are trademark by their manufacturers.

### 1.6 Prices

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```
Prices (SRP)
```

```
BurnIT - Track At Once - DM 99,- or 50 Euro (incl. online guide)

BurnIT - Disc At Once - DM 159,- or 80 Euro (incl. printed manual)

BurnIT - OEM Disc AT Once - ONLY FOR SALE WITH A CD-RECORDER!!!! Ask your dealer.
```

### 1.7 Updates

### Updates

\_\_\_\_\_

All registered users of BurnIt will be contacted as soon as an update is available.

Updates are not for free.

The update fee may differ, depending on size and depth of update.

Users who have updated still own a single user licence. It is not allowed sell or give an old version to anyone.

If this happens the old and the new user are excluded from further updates. Legal prosecution may follow.

All registered users can inform themselves about the current version through our support homepage, the Aminet or print and online magazines.

All registered users can get minor updates by e-mail. Major updates are not for free.

If the upate is sent by snail mail, an update is not for free.

If a user who has upgraded from TAO to DAO sells his TAO version, his version is not upgradable anymore. This is also valid for same versions, e.g. from DAO v1.0 to DAO v2.0.

Second hand BurnIt versions are not automatically upgrade enabled. We reserve the right to decide if a second hand version is upgradable.

Demo versions of major updates are available on our homepage and from Aminet.

### Updates:

```
BurnIT 1.x DAO to BurnIT 2.x DAO DM 49.- or 25 Euro BurnIT 1.x TAO to BurnIT 2.x TAO DM 49.- or 25 Euro
```

new printed manual plus DM 15.- or 8 Euro

```
BurnIT 1.x TAO to BurnIT 2.x DAO DM 125.- or 64 Euro (incl. new printed manual) BurnIT 2.x TAO to BrunIT 2.x DAO DM 59.- or 30 Euro (incl. new peinted manual)
```

Crossupdate:

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```
only from commercial software! You have to send your original disc, former updated disc will not be accepted only the latest version is valid.

CD-recording package xyz to BurnIT 2.x DAO 100.- or 51 Euro

printed manual plus DM 15.-
```

### 1.8 Support

### 1.9 Megaverteilung

```
Distribution through

Titan Computer
Mahndorfer Heerstr. 80a

28307 Bremen
Germany

Tel: ++49 0421/481620
Fax: ++49 0421/481620

WEB: http://www.TitanComputer.de

Office hours:

Mo - Fr. 10.00-13.00 and 15.00-18.00 MET
Sa. 10.00-14.00 MET
```

### 1.10 Requirements

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### Required hardware

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BurnIt needs an Amiga or a Draco with a 68030 or higher processor and at least Kickstart / Workbench 3.0, also 8MB free FastRam.

ATTENTION: To be able to write CDs on the fly you need at least a 68030/50 MHz, a fast SCSI host and devices.

You also need a harddrive with at least 650MB free space and some (>=8MB) fastram. The more fastram you have, the better it is. How much ram you will actually need depends on what you wish to do.

Oh and, by the way, you will need a CD writer :-)

At the moment BurnIt supports over 50 different CD writers including the new Re/Writeables in TAO/DAO mode, as long as the CD writer itself supports it. If you can't find your CD writer in the

supported

list

 ${\tt DON'T\ PANIC!}$  Check the list of supported CD writers this will help in any case.

#### Required software

-----

BurnIt needs at least Workbench 3.0. If you are using an earlier version errors and system crashes may occur. Loss of data is possible if this happens.

### 1.11 Install Burnit

### Installing BurnIT

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Here's how to install BurnIt to your hardrive:

- Turn on and boot your Amiga if you haven't done so yet.
- Insert the BurnIt floppy and double click the disk icon.
- Then you can see the contents of the disk and an icon named "Install\_BurnIt", double click this icon too.
- The installer will pop up and will ask you in which drawer BurnIt should be installed. The installer will create a drawer named "BurnIt" there.
- For the moment, please don't change the preferences.
- Click on the OK gadget.
- The installation will now proceed automatically.
- The installation script will ask you to insert the second disk.

  After a moment the register requester will pop up. Fill in your personal

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data and the register nr. from the second BurnIt disk.

- After completing the installation you can start BurnIt immediately, you do not have to reboot.

HAVE FUN!!

If an error requester pops up after clicking the install icon, by sure you are using at least V43.3 of the Installer (available on Aminet).

Copy the new Installer into the search path of your WB (e.g. C or Utilities)

### 1.12 Register BurnIT

			How t	o re	egister
Pleas	se req	giste	er!!		
Send	back	the	filled form		registration d

You are then registered for support and update services. The registration number is needed for these services.

You will find your registration number in the "About" menu of the program or on the second installation disk.

Please send the registration card to:

Titan Computer
Mahndorfer Heerstr. 80 A

D-28307 Bremen Germany

## 1.13 Registration card

First name:
Last name:
Street:
Country:
Street:Country:

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E-Mail Adresse:	
BurnIt Serial number:	
Bought from:	
Your System Configuration:	
Amiga-modell:CPU:	
SCSI-Host Typ: Device Version:	
FAST RAM: MB, Harddrive space: GB	
CD-Recorder/Rewriteable:	
CD-Rom type: Speed:	
Comments:	

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### 1.14 First aid

First aid:

If you encounter problems using BurnIt, please consult this online help first. Check out if you are using the function correctly. Use the table of contents, it will offer useful help in trouble shooting. If this doesn't help to locate the problem make sure that no other program running in multitasking with BurnIt is responsible for the misbehaviour.

Only contact the hotline if your sure that the problem is caused by BurnIt itself.

The

hotline

can be used by registered users only.

Email is probably the best way to get in touch with us.

Where can I send my bugreports and wishes to?

If you want to report bugs or have wishes for upcoming versions feel free to contact the authors. They will try to help you as fast as possible and are a always happy when someone comes up with a good idea.

### 1.15 Windows

Main menu

Iso-Maker

Multisession

Rename entry

PVD

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Convert Audio

Settings

ReadCDD

Make CD DAO

Recover track

Write CD

Audio Studio

Audio Player

Burn Info

Writing state

Select date

Select device

### 1.16 Main window

Main Window

Double click the BurnIt icon to start BurnIt.

After a short moment a screen with Burnit main gui appears.

Symbols explained from top left to bottom right (clockwise):

- 1 Convert Audio Convert audio files to other formats
- Write/Iso Prefs Preferences of BurnIt
- 3 Audio Player Play an inserted CD
- 4 ReadCDD read data, audio and mixed mode CDs

ISO-Maker

5

6

7

- Create ISO files to write on C

Audio Studio

- Audio processing with PPC-support

MAKE CD DAO

- Write CDs in DAO mode

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# 1.17 BurnIT Settings

BurnIT's preferences window

Click on icon nr. 2. The preferences window of BurnIt, in which the preferences of the program and your CD writer are set, appears.

The preferences are split into groups. You can see the groups in the lister on the left hand side of the window.

Click on the preferences group you wish to edit.

CDR (OM) s

Read

Write

Play

ISO-Image

TAO

DAO

Operators

Process

Sound

# 1.18 Drive Settings

Choose drive & CD writer

Click the "CDR(om)s" entry in the the list. A window appears:

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#### "Write drive"

Click on the "?" on the left hand side of the SCSI address field and the device requester will appear:

All devices are listed on the left side. Choose the device used for your CD writer. If more than one drive is attached to the device BurnIt automatically chooses the right one. If your CD writer is unknown (no native driver is found) BurnIt suggests which driver to use.

IMPORTANT NOTE: Check table in

Supported section for

correct driver emulation.

Click the "Use" gadget to confirm your choice.

Now click on the next "?" gadget to determine your read CD drive. You can also select an ATAPI CD-ROM or select your CD writer again.

IMPORTANT NOTE: Please keep in mind that you cannot use the OTF (On The Fly) copy functions if read and write drive are the same.

Also, about 80% of the ATAPI CD-ROMs cannot read audio (CDDA) data.

If possible use a SCSI CD-ROM for best results and system performance.

# 1.19 Read settings

### Read preferences

All preferences needed for reading are set here. The preferences are explained from top to bottom.

### Read steps

This determines the size of a read step. For the moment please use the default value of 32.

ATTENTION: If using a low end system (e.g. 68030) please set the read steps to a value of about 20.

The number of steps should be dividable through 2 (e.g. 32, 64, 128 or 256), because this guarantees maximum transfer rates with the Amiga filesystem. Experiences have shown that a lot of cpu time is left on fast systems using 32 steps. When creating audio and XA cds with Yamaha cd writers keep in mind to use a maximum of 222 read steps since Yamaha writers only have 512k of intern cache.

### Start read processs

This launches an extra process for reading data from the Read CDD drive. That means there are two processes running, one reading and one writing process. ATTENTION: The quality of the audio data can be pushed, because dropouts are avoided.

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### Cache size in kByte

Determines the amount of ram used as cache (e.g. for on the fly copying). If you have a large amount of ram you will like this function. For example you can load a complete audio track into ram without having to use your hard disk. Of course that will lower the possibility of drop outs.

#### Ignore error

If activated, BurnIt will ignore read errors according to the allowed amount of read errors defined in "Max. errors". As soon as the allowed amount is exceeded, BurnIt will stop the read process.

If set to 0 an infinite number of errors are allowed. You might need this setting with modern audio cds which contain audio and data tracks. This kind of cd might have more than 50000 errors, since they have several empty minutes between those two kinds of tracks.

Usually "Ignore errors" should be turned on.

#### Max. Errors

You can set the amount of errors ignored here. If set to "0" an infinite amount of errors are allowed.

ATTENTION: This function is only active if "Ignore errors" is turned on.

### Read speed data

Here you can determine which speed is used to read data tracks. If set to maximum, data is read with the highest possible speed.

IMPORTANT NOTE: If you encounter read errors, please try using lower read speeds until the data is read without errors. 1x, 2x, 4x, 6x, 8x, 10x and 12x read speed are available.

### Read speed audio

Here you can determine which speed is used to read audio tracks. See "Read speed data"

### Audio format

In order to read and write CDs BurnIt supports a large number of formats.

IMPORTANT NOTE: The RAW mode depends on the CD writer itself. For Yamaha writers please set the format to "Intel" and for Philips please use the "Motorola" format. Consult your CD writer manual if you're not sure which format to use.

The following formats are available:

### RAW format:

- LSB (Intel) or MSB (Motorola)
- 44.1 kHz sample rate
- without header
- 16 Bit

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- Stereo
- Intel format (lsbmsb) or Motorola format (msblsb)

#### WAVE format:

- 44.1 kHz sample rate
- 16 Bit
- Stereo

#### AIFF format:

- 44.1 kHz sample rate
- 16 Bit
- Stereo

### MAUD format:

- 44.1 kHz sample rate
- 16 Bit
- Stereo

#### Data blocksize

This option determines with which blocksize normal data is read. For TAO mode it should be set to 2048 and for DAO mode 2352.

IMPORTANT NOTE: The block size depends on the track type (data track=2048 Bytes audio or XA track = 2352 Bytes).

### XA block size

This option determines with which blocksize XA data is read. You can choose 2336 Bytes for TAO mode and 2352 Bytes for DAO mode.

### Del aborted files

Determines what happens to data which is not read completely, e.g. if the read process is aborted or read errors occur.

### CUT 150

Cuts a couple of seconds of an audio track.

This might come in handy for read audio tracks in which the first 10 seconds of the next audio track are included.

# 1.20 Write Settings

### Write preferences

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### Write steps

This determines the size of a read step. For the moment please use the default value of 32.

IMPORTANT NOTE: If using a low end system(e.g. 68030) please set the read steps to a value of about 20.

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### Launch write process

If set to on, writing is executed as an extra process. A buffer minimalizes the risk of write errors due to the CD writer waiting for new data. Owner of modern writers such as Teac R55S or MMC devices must activate this function.

### Cache size in kByte

This determines the amount of ram used as cache (e.g. for on the fly copying). If you have a large amount of ram you will like this function.

### Largest mem block

If activated, BurnIt tries to reserve the largest free memory block and uses it as cache.

#### Emulate write

If activated, BurnIt simulates the write process.

IMPORTANT NOTE: Do this before actually writing a cd. This is the best way to find out if errors will occur.

#### EmuWrite->Write

If switched on, the CD is written immediately after a sucessful Emulate Write. IMPORTANT NOTE: Does not work with CD writers which need a caddy.

### Eject

You might need this function for some CD writers to reset them in order to be able to keep on working after an error occurs.

IMPORTANT NOTE: Does not work with CD writers which need a caddy.

### Write speed

Determines the write speed.

# 1.21 Play settings

### Play preferences

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The preferences required for audio playback.

### Output

Select which audio output to use. You can choose between the audio.device of the Amiga OS or the AHI audio system, which trys to output a pseudo 14-bit signal using the Amiga sound chips or 16-bit signal using a sound card.

### Directplay

BurnIT plays the audio data directly from CD.

IMPORTANT NOTE: This only works if the phones or audio output of the CD-ROM is connected to an amplifier.

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### Preplay (Secs)

You have the possiblity preplay all selected tracks in the ReadCDD window. You can set the length of the preplay here.

### 1.22 ISO-File settings

ISO-Image preferences

This is the preferences section of BurnIt for creating ISO files.

CD format

If you wish to write an Amiga CD, please choose "Use ISO9660 Level 2 + RRIP". This format supports Amiga specific protection flags and comments.

IMPORTANT NOTE: Of course you can use this format if you wish to use it on other platforms. Amiga specific extensions are ignored.

Further explanations can be found

CD-Format

Dir handling

Without overlaying directories = All paths above the selected are ignored.

EXAMPLE: If SYS:Tools/Commodities is scanned, all files and sub directories are added without the overlaying directories (e.g. SYS:Tools/Commodities). SYS:Toools/Commodities/FKey is changed to FKey

Add last level = The directories are scanned using the path including the selected directories.

EXAMPLE: SYS:Tools/Commodities/FKey is changed to Commodities/FKey.

Add with complete path = The device is scanned using whole path

EXAMPLE: SYS:Tools/Commodities/FKey is changed to Tools/Commodities/FKey

Warn DirLevel>8

If switched on, you will be warned if the directory depth is higher than 8, since this is not allowed for the ISO9660 standard.

Device = Drawer

If switched on, the name of devices are added to the directory tree as drawer.

EXAMPLE: SYS:Tools/Commodities/FKey is changed to SYS/Tools/Commodities/FKey

Use file version

According to the ISO9660 standard, the version number should follow the filename separated through a semicolon.

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IMPORTANT NOTE: Most filesystems don't use this option, but means no harm to leave it activated.

### Uni date

If switched on, the date information of files and directories are set to the selected date.

### CDTV

If activated you MUST select the CDTV(TM) file using the "?" button. This is required to make sure that you can boot from the CD on a CDTV.

#### CD 32

If activated you MUST select the CD32(TM) file using the "?" button. This is required to make sure that you can boot from the CD on a CD32.

### Cook Data

If activated an ISO file is converted to 2352 Bytes in order to be written in DAO mode.

IMPORTANT NOTE: This routine needs a lot of cpu power, but is absolutely needed to write a track created with the ISO-Maker in DAO mode.

If you own a PPC card it will speed this function up.

### Cycle gadget

Write -> File = BurnIT writes the ISO file to the chosen device.

Write -> CDR = BurnIT writes the data directly to CDR without creating an ISO file first.

This is called writing On The Fly.

### 1.23 Tao settings

### TAO preferences

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All additional settings required for Track At Once writing are set here.

#### Set Pre-emphasis:

Sets the preemphasis bit for digitally treated audio data. This has no effect on the audio data which gets written on CD. This option activates the deemphasis during playback.

Normally pop and rock music productions are not preemphasis treated, classical music productions sometimes are. If the recording is not preemphasis treated, setting the preemphasis bit is not recommended.

Set (c)-Bit:

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If activated, a (c) bit is set, which enables copying.

### 1.24 Dao settings

### DAO preferences

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Settings required for Disk At Once writing are set here.

IMPORTANT NOTE: This is only of interest for owners of BurnIt DAO.

#### Scan Subcode:

Scans the CD according to different methods:

None = Indexes are not searched

Some = The CD is scanned for index marks in 5 seconds steps.

All = The CD is completely scanned for index marks.

Auto = Indexes are automatically set.

Auto read= All index marks are read while reading the CD.

### Test ISRC

Checks the International Standard Recording Code of the audio tracks.

IMPORTANT NOTE: Depending on the drive, this may take quite a while.

### 1.25 Operator settings

### Operator preferences

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The maximum amount of memory(in kByte) used by the audio operators is set here. Default is  $512\ \mathrm{kb}$ .

### 1.26 Process settings

### Process preferences

-----

The process preferences are used to set the task priorities of BurnIt's read and write process. In the Amiga's multitasking, the taskpri determines in which sequence the individual tasks are run. The higher the taskpri, the more cpu time the process gets. Be careful here. If you set the taskpri too high, the system itself might stall or crash.

IMPORTANT NOTE: The process preferences are only of interest if either "Launch write process", "Launch read process" or both of the formally mentioned are activated.

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### 1.27 Sound settings

Sound prefereces

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Here you can adjust some sound effects which will report some of this actions.

 $\hbox{\tt BurnIT ready\{ub\}} \qquad \hbox{\tt this jingle sounds if Burnit has successful recorded}$ 

a cd.

Error{ub} this should be explained itself.

Fatal Error {ub} this sound occurs when your Amiga is on fire :)

Attention {ub} no comments

BurnIT startup this jingle is playing while you start recording.

### 1.28 ISO-maker

The ISO-Maker

Please open the ISO-Maker (icon Nr. 5). A window will pop up. Of course it won't have any entrys, since nothing has been chosen yet. It's quite easy to create your own CDs using the ISO-Maker. After choosing and processing the data a so-called ISO file is created. You can select this file later in the "Burn CD" window to create a CD from it. In "Write/ISO Preferences" you can define what kind of ISO file is to be used.

Click once on the "Add dir" gadget to read a directory or a partition. Scanning directories shouldn't be a problem, but maybe scanning partitions is something you haven't done yet, so we'll explain how to do it.

Click once on the "Drive" gadget and AmigaOS will show all mounted drives. Now choose a drive, for example "SYS:". This is your boot partition.

After choosing a drive click once on the "OK" gadget to start the scan. Depending on how fast your Amiga is, this might take a couple of minutes. If everything works right your window will look somewhat like a directory manager.

You can edit the entries with the following function buttons:

Rename Entry = Changes the name of the selected file or directory

The old name of the file or directory is displayed in the upper part of the window.

IMPORTANT NOTE: If a directory name and/or the number of
 plains are changed, BurnIt automatically adds
 missing layers(directories).
 This is done so that this directory is accessable on the finished CD.

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Del Entry = The current item is deleted (NOT cut out!!!) If you use this button on a directory the complete path is deleted.

IMPORTANT NOTE: If the sub directories are not deleted too, a directory scan must be done, in order to be sure that all directories are accessable. This can take quite a while if it is a large directory tree.

Add File = Adds a file to the list. Of course you can also add another partition.

Add Tree = The chosen directory is scanned recursivly and added to current list. Double entrys may be renamed or skipped.

BurnIt then adds new drives or partitions as directories to the list.

The advantage of this procedure is that you don't have to rename files and/or directories which have the same name and are on more than one of the scanned partitions or drives. A good example of what this is all about is the "disk.info" which is on each drive and partition.

Edit PVD = Allows you to change the Primary Volume Descriptor

Preferences = Allows you to change the "Write/ISO Preferences".

Make ISO file= After selecting the file name an ISO file is created according to the "Write/ISO Preferences" specifications.

The 'Project' menu

New Project = Deletes current list.

Add Tree = Add directory tree to list.

Add File = Add file to list.

Make ISO file = Creates a ISO file according to the settings made in "Write/ISO Preferences".

Edit PVD = Edit Primary Volume Descriptor.

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references = Edit ISO Preferences.

About = Info about program and user

Quit = End BurnIt

The 'Edit' menu

Cut = The selected entry is cut.

Copy = The selected entry is copied.

Insert = The cut or copied entry is inserted at the current position.

Rename = Renames the selected entry.

Once you've finished editing the scanned files it's time to give the CD a name. Click once on the "Edit PVD" gadget.

PVD Infos

the window.

Now click once on the "Make ISO-File". A window with a cycle gadget will pop up giving you the possibility to write a

Multisession

CD.

Multisession means that you can write the CD piece by piece.

You can backup your Workbench partition today and add a backup of another partition next week.

Set the cycle gagdet to "No Multisession" and confirm your choice by clicking on the "OK" gadget. A file requester pops up asking for a name for the ISO file. Call it "Backup1.iso" or something like that. Of course you can choose any name you wish. Confirm your input with the "Return" key or the "OK" gadget. BurnIt will now start to create a ISO image.

IMPORTANT NOTE: In "on the fly" mode a small file (max. 20 MB) is created on your hard disk. Otherwise this mode is the same as the normal writing mode.

### 1.29 Macke die CD

Make CD TAO

\_\_\_\_\_

Close the ISO-Maker window and click on gadget 9 of the BurnIt main window.

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The "Make CD TAO" window pops up.

Set the "Type" cycle gadget to "Data file", click the "Add" gadget once and select the the ISO file you've made. After loading the file it will be displayed in the track window.

Repeat this procedure until you've loaded all ISO files you wish to write to the CD  $\,$ 

Using the "Up", "Down", "Top" and "Bottom" gadgets you can sort the files as you wish.

"Up" and "Down" move the selected entry by one step, "Top" and "Bottom" move the selected entry to the top or the bottom of the list.

Put a new CD-R in your CD writer and check if "Emu. write" in "Write/ISO preferences" is checkmarked. A so called "Dummy-Write" is performed before actually writing the CD. This means that the data is not actually written to the CD, this is a test run to see if the real writing process will work without errors. Now click the "Write track" gadget to write the selected track to the CD and/or to create a Multisession CD.

IMPORTANT NOTE: Audio tracks cannot be written in this mode, since most CD players would not able to recognize them.

Click the "Write CD" gadget if you wish to write audio CD. The "Write CD" function "finalizes" the CD. You cannot add further tracks to the CD.

As soon as you've clicked one of the write gadgets a window pops up displaying information about the write process.

CAUTION: This is the last possibility to cancel the process, BurnIt starts writing after clicking the "OK" gadget.

### 1.30 Create a blockbuster

Creating a audio CD with ReadCDD

Reading audio data

Please insert an audio CD (CDDA) in the CD-ROM drive you have determined as the ReadCDD in the preferences.

Choose the audio format you wish to use in the audio preferences.

IMPORTANT NOTE: If you wish to use to RAW format be sure to choose the correct type of RAW format for your writer.

Click on gadget nr. 4 in the BurnIt main window to open the ReadCDD window.

Read CDD-WINDOW

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BurnIt will display the table of contents of the CD. By using the "Play" gadget you can start the playback of the selected song.

If you click on "CD Pre Play" BurnIt only plays the first number of seconds you determined in the preferences. The pre play time can be set up to a maximum of 30 seconds.

#### Start

The slider is used to determine the start position for reading/playing the audio track.

#### Stop

Same as "Start" except that it determines the stop position.

#### Length

Determines the length of the audio track you wish to read/play.

Now select the audio tracks you wish to read/play. If you wish to choose more than one audio track you can do this by pressing the "Shift" key. Then click on "Read". You are asked to give the audio track a name.

EXAMPLE: Sound.CDDA is turned to Sound05.CDDA, SoundCDDA is turned to 05SoundCDDA.

Creating a TOC of an audio CD

After reading all audio tracks open the "Make CD" part of BurnIt (Gadget 9). Set type to "Audio" and click the "Add" gadget. Choose the the desired audio tracks (multiple select by keeping the "Shift" key pressed). The chosen audio tracks are displayed in the track window. Now you can sort the tracks by using the "Up", "Down", "Top" and "Bottom" bottons.

IMPORTANT NOTE: The tracks are written to the CD in the same sequence as they are displayed.

Writing audio data

Now click the "Write CD" button and check if the current settings displayed in the "Burn Info" window suit your needs. If the settings are ok, click the "Write" button and BurnIt starts writing the CD.

# 1.31 Backup any type of CD

Copying a CD with ReadCDD

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Reading the CD data(data/XA data/audio data)

Now open the ReadCDD part of BurnIt. The table of contents of the CD is dis-

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played there. Now select the tracks you wish to read (multiple select by keeping the "Shift" key pressed). Then click on "Read". You are asked to give the audio track a name.

 ${\tt IMPORTANT\ NOTE:\ In\ "Multiselect"\ mode\ the\ number\ of\ the\ audio\ track\ is\ inserted}$ 

in front of the period.

EXAMPLE: Sound.CDDA is turned to Sound05.CDDA,

SoundCDDA is turned to 05SoundCDDA.

Creating a TOC of a CD

After reading all tracks open the "Make CD" part of BurnIt (Gadget 9). Set the track type and click the "Add" gadget. Choose the desired audio tracks (multiple select by keeping the "Shift" key pressed). The chosen audio tracks are displayed in the track window. Now you can sort the tracks by using the "Up", "Down", "Top" and "Bottom" bottons.

IMPORTANT NOTE: The tracks are written to the CD in the same sequence as they are displayed.

CAUTION: The sequence must meet the

ISO9660 guide line.

Writing data

Now click the "Write CD" button and check if the current settings displayed in the "Burn Info" window suit your needs. If the settings are ok, click the "Write" button and BurnIt starts writing the CD.

THAT'S IT !!!

# 1.32 When nothing else helps

Save CD

This part of BurnIt is used to save CDR's if the write process was interrupted (e.g. because of a system crash caused by a task running in multitasking with BurnIt).

Besides that Save CD offers functions to examine empty or used CDR's.

Tracks

All tracks are displayed in this list.

Disk Info

Shows further information on the current CDR, e.g. how many blocks have been written.

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Track Info

Shows information about the selected track.

Free Blocks

Shows how many free blocks are left on the CDR.

TOC Type

Use the cycle gadget to select the kind of CDR or track you wish to repair.

IMPORTANT NOTE: Be sure to use the correct format!

Recover Track (only Philips or compatible)

Ends a track if the CD writer aborts the writing process or the computer crashes.

IMPORTANT NOTE: The CD writer must be resetted without taking the CD out of the drive, e.g. by resetting the computer.

Finalize Track

Finalizes the last track. A new TOC is applied and the LEADOUT information is written. Further tracks can be added later on.

IMPORTANT NOTE: Be sure to set the correct TOC type!

Finalize Disk

Finalizes the last track and the CDR. A new TOC is applied and the LEADOUT information is written.

IMPORTANT NOTE: Be sure to set the correct TOC type!

CAUTION: No further tracks can be added!

Finish Track (only Philips or compatible)

Finishes the last track if it wasn't completely written (e.g. because of a system crash caused by a task running in multitasking with BurnIt).

### 1.33 Special CD-RW functions

CDReWriteable functions

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Delete options

These functions can only be used with CDReWriteables. Don't bother to read this if your writer doesn't support CDRWs.

The cycle gadget offers the following possabilities:

Delete disk

All data is deleted from the CDRW and all blocks are set to zero.

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IMPORTANT NOTE: This normally takes as long as it took to write the CDRW.

Delete disk (fast)

Some writers offer a faster method to delete a complete CDRW.

Delete track

A window is opened in which all tracks of the CDRW are listed. You can select which tracks are to be deleted.

The deleted areas can be rewritten with new data.

Unreserve Track

If a CD is written in TAO mode, certain parts of the CD are reserved for the individual tracks. This funtion allows you to use these parts for other data.

Delete Track-Trail

This operator deletes tracks between tracks.

IMPORTANT NOTE: Only works if the tracks were written with Packet Writing.

The deleted areas can be rewritten with new data(also only with Packet Writing)

Open last session

The last session is opened in order to add further data.

Delete session

The last session is deleted.

Start the respective action by clicking the "Delete!" button.

New CD

Scans the CD again, e.g. after inserting a new CD.

## 1.34 What is cooking?

Current write settings

This window displays the write settings and is the last possiblity to abort the write process.

Write speed

Displays the current write speed.

Dummy Write = on

The write process is simulated. The CD is NOT written.

= off

The CD is written.

Finalize Session/Disk= Session

Further tracks can be added (Multisessions).

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= Disk

The CD is finalized. No further tracks can be added!

Tracks

The number of tracks to be written.

Track-At-Once

The current write mode.

Write time

The estimated time required to write the CD.

Length

The total length of all tracks in minutes.

### 1.35 Write status

Write CDR

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This window displays the current write state.

#### Position

The current position in the CD and the transfer rate in kBytes/sec.

### Cache Usage

Shows how much of the reserved cache is being used at the moment. In order to handle trouble which might occur during the writing process, keep the cache usage to at least 50%.

Track

Displays the precise track position of the CD writer and how much time it will take to complete the track.

Info

Displays BurnIts momentary position. Also displays which function caused an error.

Be sure to note the error before contacting your friendly BurnIt hotline. :-)

Cancel

Aborts the writing process. If you use this during the writing process the CDR will probably be unusable.

### 1.36 Choose device

Device selection

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The device drivers found in your system are listed on the left hand side. If the desired device driver is not listed, you can add it manually.

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The selected devices are displayed on the right hand side. Choose your CD writer as write device and your CD-ROM or your CD writer as read device. The "on the fly" copy functions are only available if you have different drives for reading and writing.

IMPORTANT NOTE: BurnIt offers driver emulations for unrecognized drives. Check appendix A.1 to find out which emultion is appropriate for your CD writer. If this fails to work, please contact our hotline.

### 1.37 window audiostudio

# Audio Studio

This is a new part of BurnIt. From v2 of BurnIt on you have the possibility to process audio data with some very powerful operators.

The available operators are displayed on the left hand side. Don't get confused if more operators are displayed in your version of the Audio Studio since we keep adding new powerful and exiting operators to the Audio Studio.

IMPORTANT NOTE: For explanation of new operators which were added after the
 manual was printed please consult the online guide which is
 included in every BurnIt distribution.

The loaded audio file (sample) is displayed on the lower right hand side(white amplitude).

### Load CDDA file:

Click once on the "?" gadget in the Edit window. A file requester will pop up, ask you to choose an audio file to edit.

IMPORTANT NOTE: If you attempt to load a file in RAW format BurnIt will ask you if it should be handled as "Intel" or "Motorola" format. Check your CD writer manual if you are not sure which format is appropriate for your CD writer.

After you choose an audio file BurnIt will load the file. This might take a while depending on the chosen preferences and the speed of your read drive. Two white amplitudes (left and right channel) indicates how much of the audio file has been read.

Functions in the editor window

#### Fader

The fader is used to scroll through the display. This comes in handy if you zoom in and not all of the files fit onto the display.

+ / -

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Using these buttons you can zoom in / zoom out in predefined steps.

#### Mark area

Press the left mouse button in the amplitude window, drag it over the entire area you wish to mark, and then let the left mouse button go.

### Zoom Range

The marked area is zoomed.

#### Select all

The whole file is selected.

#### Play

The marked area is played using either the Amiga sound output or a sound card output. If no file is loaded, this function will open a file requester, asking which CDDA file to load.

During reading the file is also played. (full duplex)

### Audio processing operators

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### Paste

A cut or copied area is pasted at the current position.

### FIRBAND (Finity Impluse Response)

This operator enables you "lay" a filter of a certain frequency onto audio material. This is a sort of full parametric EQ. Only the specified frequencies are cut or boosted. You can also set lower and upper limits.

#### FIR LOW

High pass filter. Filters out bass frequencies and lets high frequencies pass.

### FIR HIGH

Low pass filter. Filters out the high frequencies, the opposite of the FIR LOW.

### Fade OUT

Fades out the music in the marked area. The fade out is done according to the settings made.

### Fade IN-OUT

Fades the in and out of the marked area according to the settings made

#### Fade IN

Fades in the music in the marked area. The fade in is done according to the settings made.

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#### Silence

The marked area is filled with silence (digital 0). This comes in handy to keep the background noise down in parts which contain no audio signal.

#### Encode\_MP3

Converts the marked area into an AudioMPEG 3 (layer 3 MPEG) file.

#### Dynamic Range

This function optimizes the frequencies and dynamic range of a track for output on a CD player. This is needed for playbacks from a cassette, because an analog cassette has a typical frequence response, depending on the cassette type (e.g. Fe). Since this response is nowhere near linear, specific frequencies must be boosted and cut. Also keep in mind that all analog mediums have a headroom, digital mediums don't have one! So analog recordings normally have more dynamics in the peak section. When recording on analog multitrack machines, overloading the tape in reasonable sense may be wished to use the tape saturation as a so called "tape compression". But if you overload a digital medium it sounds terrible (digital distortion). Thats why limiting and compressing the audio signal is a very important chapter of audio CD productions. And, of course, you don't want your CDs to have less output volume than other CDs.

### De-Crackle

This is very powerful operator, which, as the name says, decrackles recordings. Have you ever wanted to backup your old vinyl records? Well, here's the tool. Better not use it on a complete track since this operator cuts the peaks.

### Analyze-FFT 3D

This operator displays the frequency response in a 3D manner according to the FFT method (Fast Fourier Transformation).

### Analyze-FFT 2D

This operator displays the frequency response in a 2D manner according to the FFT method.

#### Amplify

Boosts the amplitude of the marked area.

### Cut

Cuts the marked area.

# 1.38 Primary Volume aso

Primary Volume Descriptor (PVD)

The Primary Volume Descriptor contains all CD specific data of ISO9660

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formatted CDs. The blocksize, the position of the TOC and other important informations are saved in the PVD. The following fields can be filled out:

System ID = Destinated system.

CD-Name = Name of the CD.

CAUTION: This name is the one displayed on the Workbench  $\hookleftarrow$ 

You can change the name in later sessions, as long as  $\leftrightarrow$ 

CD was written in multisession mode.

Volume ID = Information on type of data (e.g. animations).

PublisherID = Information on the manufacturer of the CD (max. 128 characters). Normally the postal adress and telephone  $\,\,\hookrightarrow\,\,$  number.

Data-PreparerID= Information on data compiler. Normally the postal adress and telephone number.

Application ID = Information on progam used to create the CD(max. 128 characters).

IMPORTANT NOTE: Is always set to "BurnIT".

Copyright fileID= Filename and copyright specific contents.

Abstract file ID= Filename and information on the use of the CD.

Volume creation date = Creation date of the CD.

Modification date = Date of last modification.

Volume expiration date = "Expirement date" of the CD.

Volume effective date = Date of activation.

### IMPORTANT NOTE!

The CD name is the identification of a CD, like the name of a harddrive or floppy. The CD name and volume creation date are the only visable information available after creating a CD. All other informations are also upon the CD but have no effect under Amiga OS.

### 1.39 Write Tao

### Make CD

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Make CD is the "arranger" of BurnIt. You can choose which tracks you want to write onto the CD and in which sequence they are to be written.

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### The buttons :

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Add

This button is used to add new tracks to the current arrangement. Multiple select is supported. Click on "OK" to confirm the action.

IMPORTANT NOTE: By using drag'n'drop you can select the tracks of the CD in the Read CDD drive. They are then immediately read from the read CDD drive.

Del

Deletes the current item from the list.

?

After selecting a track you can choose another file with this button.

Up/Down/Top/Bottom

The position of the current track can be changed with these buttons.

 $\begin{tabular}{ll} {\tt IMPORTANT NOTE:} & {\tt This is very useful if you want to change the sequence of an audio CD.} \\ \end{tabular}$ 

Data file/Audio/XA file & track

Using the cycle gadget you can change the track type. This changes the block-size.

IMPORTANT NOTE: If the size of the file turns out to be incompatible with the blocksize, you will be warned.

The AIFF/MAUD or WAVE formats are automatically identified if the filetype is set to audio. They are converted to the correct format LSB/MSB) on the fly. If none of the formats were identified, BurnIt assumes that the data is already either in the LSB or MSB format (Depending on your CD writer). If you choose the track option, you can select tracks from the Read CDD drive. They are written to the CD on the fly later on.

Clear List

Deletes current list.

Write CD

The Write CD function closes the CD after writing. CAUTION: It is NOT possible to add tracks to this CD anymore.

Write Track

The Write track function does not finalize the CD after writing.

IMPORTANT NOTE: Further tracks may be added. This will not work for audio cds, since CD players cannot handle Multisession audio cds.

### 1.40 What the hell is multisession?

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### Multisession mode

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The options for creating multisession CDs are set in this window. You have to click on "Make ISO file" to access this window.

### No Multisession

An ISO file is created which will be written as the first track on the CD. If you are using a new CDR you have to choose this option.

### Ignore already existing files

An ISO file is created which is placed as a further track on the CD.

CAUTION: All files in previous ISO tracks are ignored and do not show up in the table of contents anymore.

 $\hbox{IMPORTANT NOTE: Previous tracks can be recovered by reading the track with } \\ \hbox{ReadCDD and writing the the data onto a new CDR.}$ 

## "Overwrite" already existing files

An ISO file is created which is placed as a further track on the CD. All files of the last ISO track are copied into the new table of contents.

IMPORTANT NOTE: If a file exists in both the older and the more recent track, then the file from the recent track is taken.

# "Overwrite" with more recent date or other size

An ISO file is created which is placed as a further track on the CD. All files of the last ISO track are copied into the new table of contents. If a file exists in both the older and the recent track, then the file with the latest date will be used.

This can be either the file from the old track or the new track.

The directory tree is automatically renewed after writing the CD. This means that only the data which is to be written is displayed in the list.

The last two functions open an additional window in which you can determine which track is offended by the next session.

IMPORTANT NOTE: This function is quite useful, e.g. if files from the 4th session are not accessable on a seven session CD. Just choose the 4th track and BurnIt analyses this track instead of the last one

The start block gadget is only important for Enhanced CD's written in DAO mode. Otherwise the start block is determined automatically.

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# 1.41 Create a DAO CD

Make CD DAO

The functions explained in this chapter are only of importance if you own the DAO version of BurnIt.

IMPORTANT NOTE: If you are a BurnIt TAO owner you can upgrade to the DAO version for 60.- German Marks. Contact the distribution address.

In this window you can write CDs in the Disc-At-Once mode. In DAO mode you are in precise control of how the data is written onto the CD. You can define gaps, index marks, the ISRC and you can set track and and catalog attributes.

IMPORTANT NOTE: This mode is needed to create professional master CDs according the the Red Book Standard

The other advantage is that you can create CDs in one session, without a gap or with a self defined gap length between the tracks.

You can choose between two windows by switching the expert mode on or off in the menu.

User mode = For fast backups

Expert mode = Absolute control over CD writing

IMPORTANT NOTE: Since DAO CDs are written in one (writing) session, it is not possible to create multisession CDs. The DAO mode is especially good for making backups of multisession CDs (e.g. XA mode plus audio), such as those used for game consoles, because a DAO backup is actually a 1:1 copy of the original. This is not possible in the TAO mode.

CAUTION: The copying of original CDs is only allowed for backup use, except otherwise announced by the manufacturer.

Gadgets in User mode

Scan CD

Scan CD scans the current CD in the Read CDD drive. You will be asked to enter filenames for the different track types on the CD, the current track type is displayed in the requester title.

If the scan was sucessful the data structure is displayed in the listview.

Read CD

Saves the whole CD as a file with the chosen name.

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IMPORTANT NOTE: Depending on your read CD-ROM and the CD itself this may take up to 74 minutes.

### Write CD

After successfully saving the data you can start the writing process with "Write CD".

### Write CD OTF

With this function you can copy a CD without having to create an image file on your hard disk.

IMPORTANT NOTE: You have to have a read AND a write drive in able to use this function. BurnIt scans the CD, then an information window pops up and asks if BurnIt should procede on writing the CD.

# Load CUE

Loads a CUE which has been saved with the Save CUE function.

### Save CUE

You can save the structure with the "Save CUE" function and then comfortably edit it in a text editor (e.g. GoldED, CED). Use "Load CUE" to reload the cue.

IMPORTANT NOTE: By using an external editor you can easily create complex CD structures (audio CDs with ISRC, catalog and loads of index marks).

Check the example CUE structures

### Preferences

Opens the DAO preferences window.

### Gadgets in Expert mode

Check chapter Gadgets in User mode for explanations to the gadets also accessible in User mode (Scan CD, Read data, Write CD, Write CD OTF, Load CUE, Save CUE and Delete CUE).

You can design the structure of your CD by using the following commands:

# ADD CATALOG

This command is used to set the UPC/EAN catalog number. A CD can be 100% identified if a UPC/EAN catalog number are used. This is normally used for commercial CD productions.

Syntax: CATALOG < UPC / EAN catalog number >

The catalog number must consist of 13 numbers coded according to the  $\ensuremath{\mathtt{UPC/EAN}}$  standard.

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Example: CATALOG 1234567890123

### ADD FILE

This command is used to choose file and the format and is only accessable if Index 1 of the track is selected.

IMPORTANT NOTE: If handling audio data dummy bytes can be added. This trick is used to create a file length which can be divided though the blocksize.

Syntax: FILE <filename> <file type> <blocksize>

File name:

File path + file name

File type:

AUDIO - Audiofiles in 44.1kHz 16Bit quality

- Intel (depending on the CD writer)
- Motorola (depending on the CD writer)
- WAVE
- AIFF
- MAUD

MODE1 - CDRom Mode1 data (Standard CD format)

MODE2 - CDRom-XA Mode2 Data

Blocksize: depending on the file type

AUDIO - 2352

MODE1 - 2048 or 2352 MODE2 - 2336 or 2352

> Examples: FILE WORK:Track1.iso MODE1 2048 FILE WORK:Track1.wave AUDIO 2352

CAUTION: This command can only be used one time per CUE list and must be in the first line except if a CATALOG was defined.

### ADD TRACK

This command places a track. The track number must begin with 1. Each following track number must be increased by 1. You can create up to 99 tracks.

Syntax: TRACK <Track number>

Examples: TRACK 1
TRACK 2
TRACK 3
TRACK ....
TRACK ....
TRACK 47

IMPORTANT NOTE: The TRACK command always follows a FILE command or initiates an

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new track in a FILE.

### ADD INDEX

This command is used to add index or sub-index marks in the TRACK command.

#### INDEX 0

Defines the start time of the pregap in a track.

#### INDEX 1

Defines the start time of the track, this index mark is used in the TOC (Table Of Contents) as the start time.

Syntax: INDEX <Number> <MM:SS:FF>

### Number:

All index marks must be between 0 and 99.

## Time:

The MM:SS:FF format is used.

MM : Minutes
SS : Seconds

FF: Frames (75 frames/second)

The first index mark in a FILE must be 00:00:00.

Examples: INDEX 01 00:45:45
INDEX 02 02:34:74

IMPORTANT NOTE: The first index mark in a track must be 0 (with pregap) or 1 (without pregap), each following track number must be increased  $\frac{1}{2}$ 

by 1.

IMPORTANT NOTE: Not all CD players support more than one Index in a song.

# ADD PREGAP

This command is used to define a pregap (a pause in front of an track). This command is internal and uses no data from the file.

Syntax : PREGAP <MM:SS:FF>

Example: PREGAP 00:02:00

The songs starts after a pregap of 2 seconds.

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### ADD POSTGAP

Defines a postgap (a pause after a track ). This command is internal and doesn't use data from a file.

### INDEX.

The size of the gap is set in the MM:SS:FF format.

Syntax : POSTGAP <MM:SS:FF>

Example : POSTGAP 00:03:00

A pause of 3 seconds is inserted after the track.

# ADD ISRC

This command is used to define the 'International Standard Recording Code' of an audio track. A track can be 100% identified using the ISRC. This option is normally used for commercial CD productions.

IMPORTANT NOTE: The ISRC is a 12 digit code, the first five characters are letters (A-Z), the last seven are numbers (0-9). The ISRC code format is:

## Characters :

1-2 Country ID (e.g. DE - Germany, US - United States of America)

3-5 Owner ID

6-7 Country code

8-12 Serial number

Syntax : ISRC <ISRC>

Example : ISRC ABCDE1234567

CAUTION: This command can only be used one time per TRACK and must be placed directly after the TRACK command.

### ADD FLAG

By using this command you can set the track attributes.

Syntax: FLAGS <Attributes>...

Attribute: DCP - digital copy permitted

4CH - four channel audio

PRE - preemphasis

Examples: FLAGS DCP

FLAGS 4CH PRE

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### FLAGS PRE 4CH

CAUTION: This command directly follows a TRACK command.

#### DELETE

This button is used to delete lines in the listview, depending on the context.

### CHANGE

You can change the filenames in the listview with this button.

# 1.42 QUICKY

# Quick start

Quick bear

This chapter is a quick start into BurnIt. You should be familier with the basic handling of BurnIt. It is also assumed that you have set the preferences correctly.

## copy of a CD

Click on the DAO gadget. The BurnIt DAO window pops up with four gadgets on the lower left hand side (User mode). Click the "Scan CD" gadget. Fill out the requester which will pop up asking for a file name and a path to save the file.

Click on "Read" and as soon as the read process is finished click on "Write CD" The CD will be written according to your preferences (Dummy/Real write).

### Create audio CD

Click the "ReadCDD" gadget and a window will appear showing the contents of the audio CD. Choose the desired tracks (multiselect through holding "Shift" key down). Click on "Read" and determine the save path and filename.

After reading the CD click on "Make CD".

Set the cycle gadget to "Audio data" and click on "Add". A file requester will appear. Choose the desired titles (multiselect through holding "Shift" key down) Use the "Up", "Down", "Top" and "Bottom" buttons to set the sequence as you wish.

The titles on the CD are written in the same sequence as they are displayed in the list.

Click on "Write CD". The CD will be written according to your preferences.

## Backup of a hard disk

Open the ISO-Maker. Click on "Add dir". Select the partition (be sure no files are selected) or directory you wish to backup. "Add file" can be used to add additional files.

Click on "Change PVD", fill in a CD name in the "CD name" field, e.g. Workbenchbackup. Close the PVD window.

Click on "Make ISO file" and select "No multisession" for new CDRs and "Multisession" for CDRs which already contain tracks.

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After the ISO file was created click on the "Make CD" gadget. Set the cycle gadget to "Data file". Use the "Add" function to add the ISO file. Click on "Write track" if you wish to add further tracks, otherwise click on "Write CD" if you don't intend to add further tracks to the CD later on.

# 1.43 On the Fly recording

On The Fly functions

These functions should only be used by advanced users on systems with enough cpu power. 68030 users can only use these functions if all drives are SCSI

You also need to have separate read and write drives. On the fly (OTF) means that data which is to be written on a new CDR is written without having to be saved to hard disk first. Of course this saves a lot of time, but is rather system dependent. If errors occur, the CDR ends up as a piece of junk. So please make a dummy run before actually writing OTF to be sure everything will work correctly.

ISO-File OTF

This function writes ISO files OTF. You can use this function to backup your hard disk OTF for example.

Set the "Write->File" cycle gadget in the "ISO image preferences" to "Write -> CDR".

Click on the "ISO-Maker" gadget and open the PVD window. Fill in a CD name. Close the PVD window. Now select the the directories and files you wish to include on the CD by using the "Add dir" and "Add file" gadgets.

Be sure not to select more than 640MB in order that the data will fit onto the CDR. To find out how big the loaded data is use the following formula:

blocks x 2,048 = amount of data in Kilobytes

The multiplier depends on the blocksize used (e.g. 2048, 2352). The TOC of the CD also needs a couple of MB.

Once you've chosen the data you wish to write to CD click on "Make ISO file". You will be asked if you wish to write in multisession mode, choose which mode you wish to use.

The "Write info" window will pop up giving you the opportunity to abort the write process. Click on "OK" to start the writing process.

Audio/Data OTF

This mode allows OTF copying of audio, data or mixed mode CD's.

Click on the ReadCDD gadget. Select the tracks you wish to copy (multiselect through holding "Shift" key down).

Now click the "Make CD" gadget and choose the appropriate data type in the "Type" cycle gadget.

Now go back to the ReadCDD window and click on one of the selected tracks with the shift key pressed. Keep the left mouse button pressed and drag the selected items to the Make CD window. Release the shift key and the left mouse button. If everything worked right, the dragged tracks are now in the Make CD list. Set the sequence of the tracks as you wish.

Click on "Write CD" and the CD will be written according to the set preferences.

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1:1 copy OTF

This function creates a 1:1 copy of a CD, no matter if it's a audio, data or XA CD.

Click on the "Make CD DAO" gadget, then on "Scan CD" to show the contents of the inserted CD. Click on "Write CD OTF" and the copy process is started.

Audio-MPEG OTF

Allows OTF converting and writing of AudioMPEG files. This function requires the MPEGA.library (not included in the distribution), which can be found on the Aminet or on Aminet CD's and a REAL fast Amiga (68060+ or PPC only). Click on the "Make CD" gadget. Set type to "Audio" and select the desired MPEG files with the "Add" function.

BurnIt offers the possibility to get an info on the selected MPEG file by double clicking the file with the left mouse button.

Start the write process by clicking the "Write CD" gadget.

# 1.44 Supported CD-R and CD-Roms

Supported CD writers IMPORTANT NOTE: If BurnIt can't recognize your writer even though it is listed below, please be sure that you have selected the correct emulation. JVC compatible CDRs JVC 2201\*), XR-W2001, XR-W2010\*), XR-W2012\*), XR-W2022\*) Pinnacle RCD 1000, RCD 5040\*) Mitsumi compatible CDRs Mitsumi CR-2201TS MMC compatible CDRs Mitsumi CR2600TE\*), Mitsumi CDR4800 Philips CDD 3600, CDD 3610 Ricoh 6200 R/W Traxdata 426 Yamaha CDR 200C/T, CDR 400C/T, CRW 2260C/T, CRW 4260T, CRW 4416C/T Philips CDD 2000 compatible CDRs Grundig CDR1001PW Hewlett Packard HP SureStore 4020i Kodak PCD225\*) Mitsumi CDR 2401\*) Philips CDD 521\*), CDD 522\*), CDD 2000 Plasmon CDR4220\*) Philips CDD 2600 compatible CDRs Hewlett Packard HP SureStore 6020i, HP Surestore 8020, Philips CDD 2600 Traxdata CDR 2600

```
Ricoh compatible CDRs
 Plextor PX-R24CS
 Ricoh RO-1420C, RS-1420C
 Turtle Beach 2040R*)
Plextor compatible CDRs
Plextor 820
Sony compatible CDRs
 Smart & Friendly CDR1002*), CDR2004*), CDR2006*)
 Sony CDU920S, CDU924S, CDU926S, CDU928, CDU940S, Spressa 9211*),
 Spressa 9411*), Spressa 9611*)
TEAC compatible CDRs
 TEAC CD-R50s, CD-R55s, CD-R56s
Traxdata 412
Yamaha CDR compatible CDRs
 DynaTek Systems CDM240*), CDM400*)
 Microboards PlayWrite 4000*)
 MicroNet Technology MasterCD Pro*)
 Plasmon CDR-4400*)
 Procom Technology PCDR-4x*)
 Smart & Friendly CDR1004*), CDR4000*)
 Yamaha CDE 100, CDR 100, CDE 102, CDR 102
*) This CD writer was not tested with BurnIt, but with a
   compatible model.
BurnIT was successfully tested with:
Computer
Amiga 1200 (68030/68060)
Amiga 2000 (68030/68060)
Amiga 3000 (68030)
Amiga 4000 (68030/68040/68060/PowerUp(r))
Draco
Controller
Blizzard 1230/2060 (Device 8.5 or higher required)
CyberSCSI MK II (Device 8.5 or higher required)
CyberPPC UW-SCSI
Oktagon 2008 (Device 6.15 or higher required)
CD-Rom
Pioneer CDR-U10X, CDR-U12X, CDR-124X
Plextor PX-12TS, PX-12CS, PX12-20
Sony 76S
Toshiba XM-3501B, XM-3701B, XM-4101B
Toshiba XM-5201B, XM-5301B, XM-5401B
CDR
Hewlett Packard HP 4020i, HP 8020
JVC 2201
Mitsumi 2401, 2800, 4800
```

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Philips CDD2000, CDD2600, Phillips3610, 3600
Plextor 820
Sony CDU920S, CDU924S, CDU928
Teac 50s, 55s, 56s
Yamaha CDR100, CDR102, CDR200t, CDR400t, CRW4260t, CRW4416

# 1.45 CD-Formats

### 4CH

Audio CDs have either 2 channels (stereo) or 4 channels (quadro). Theoretically only half of the time of a 2CH CD fits on a 4CH CD if this option is set.

## CD standards

There are several existing standards which determine the structure of a CD

### Green Book - mode 1

The Green Book standard defines the structure of a Compact Disc Interactive (CD-I). Images, data, full motion videos and audio tracks can be saved in this standard

### Green Book - mode 2

Same as mode 1 except that mode 2 has more data bytes and less error correction bytes than model.

## Orange Book - Part One

This standard is for Compact Disc Magneto Optical(CD-MO). Data can be written, deleted and rewritten. This standard is not compatible to CDRs.

# Orange Book - Part Two

This standard is for Compact Disc Write Once, better known as CDR (CD Recordable). The discs can be written, but not deleted.

### Red Book

The Red Book standard is for audio CDs, better known as CDDA (Compact Disc Digital Audio).

### White Book

The White Book standard is for video CDs with video and audio data. Normally the data is MPEG-1 encoded.

### Yellow Book - mode 1

The Yellow Book standard is for data CDs.

## Yellow Book - mode 2

Same as mode 1, except that mode 2 has more dat bytes and less error correction bytes. This mode is used for Photo-CDs and CD-ROM XA.

## There are also some special types of CDs:

-----

# Enhanced CD / CD Extra (CD Plus)

This CD standard includes audio and data tracks. The audio track is written in the first session, the data track in the second session. The data track is not available on a normal CD player.

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### Hybrid-CD

A Hybrid CD contains programs and data for Macintosh and PC computers and is usable on both systems.

### Mixed Mode CD

Simuliar to Enhanced CD, also contains audio and data tracks. The difference is that the data track is written in the first session and the audio track is written in the second session.

CAUTION: Playing the data track on a normal CD player can cause damage to the loudspeakers and/or to the CD player. More recent CD players have a protection circuit.

# Digital Copy Permitted

If the DCP flag for an audio track is set, then it is legally allowed to make a digital copy of this track.

### ISO9660

A standard read-only filesystem. Used on many different computer systems (e.g. Amiga, Linux, Unix, Winxx, Mac, MS-DOSE)

### ISO9660 Level 1

## ISO9660 Level 1 + other characters

The file name length is restricted to 8.3 (xxxxxxxx.xxx). Directory names are restricted to 8 characters without .xxx extension. All ASCII characters can be used. Protection bits are not supported. A directory depth higher than 8 is not allowed.

## ISO9660 Level 2

Filenames are restricted to a length of 30 characters. Actually it's limited to 31 characters, but AmigaOS can only handle 30. Protection bits are not used.

# ISO9660 Level 2 + RRIP

The ISO9660 standard is extended by the "RockRidge Interchange Protocol". Further information on files and directories are saved.

Filenames are restricted to a length of 30 characters. Actually it's limited to 31 characters, but AmigaOS can only handle 30. Supports protection bits.

### Joliet File System

Developed by Microsoft, based on ISO9660, this standard supports long file and directory names and is Winwuff95 compatible.

### LeadIn

The LeadIn of a track contains all important informations about the track, e.g. track type (audio, data), the table of contents (TOC) and the precise postion of the data on the CD.

### LeadOut

The LeadOut tells the CD player that it has reached the end of the track.

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## Pre-Emphasis

Normally a CD player uses a filter to improve the audio quality of the data on the CD. This bit tells the CD player not to use this filter.

UPC/EAN standard

Two different standards for encoding bar codes.

Universal Product Code
UPC is split into UPC A and UPC E.

Both of them consist of a certain amout of characters and a checksum. UPC A is used to encode 11 characters and a checksum. The first character is for the system. The first 6 characters identify the manufacturer the following 5 are the product code.

UPC E is simuliar, except that the zeros in front of the product code are cut. UPC E is identified by a  ${\tt 0}$  as the first character.

EXAMPLE: 07834100009 is turned to 0783419

It's allowed to add 2 or 5 characters as additional code. These are followed by the checksum.

If the additional code is used, the checksum contists of the 11 characters and the additional characters. The checksum is inserted between them.

European Article Number

The EAN standard is split into EAN 8 EAN 13.

 ${\tt EAN}$  8 consists of 7 characters,  ${\tt EAN}$  13 of 12 characters and a checksum. The  ${\tt EAN}$  contains the product number.

As by the UPC standard, 2 or 5 characters additional code may be added.

# 1.46 CUE-Sheet examples

Examples for CUE lists in DAO mode

Data CD

As usual for data CDs the CD consists of only one iso file and one track.

EXAMPLE:

File test:iso.file Mode1 2352
 Track 1
 Index 1 00:00:00

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```
Audio CD
Example 1 shows how to make four audio tracks out of one audio file.
EXAMPLE 1:
File 1 Audio 2352
  Track 1
   Index 1 00:00:00
  Track 2
    Index 1 04:34:00
  Track 3
    Index 1 07:42:42
  Track 4
    Index 1 14:16:65
Example 2 is simuliar, except that Index 0 and Index 1 are used to insert a
pause of 2 seconds in front of each title.
EXAMPLE 2:
File 1 Audio 2352
  Track 1
   Index 0 00:00:00
    Index 1 00:00:00
  Track 2
    Index 0 04:32:00
    Index 1 04:34:00
  Track 3
    Index 0 07:40:42
    Index 1 07:42:42
  Track 4
    Index 0 14:14:65
    Index 1 14:16:65
Example 3 again is very simuliar, except that it shows a CD that can be used as
a master for CD productions according to the Red Book standard.
Every track has it's own ISRC code.
The whole CD is identified by the Catalog entry in the first line of the CUE
list.
EXAMPLE 3:
Catalog 0042285274523
File 49 Audio 2352
  Track 1
  ISRC USPR39507061
    Index 0 00:00:00
   Index 1 00:00:00
  Track 2
   ISRC USPR39507227
    Index 0 04:32:00
    Index 1 04:34:00
  Track 3
  ISRC USPR39609020
   Index 0 07:40:42
   Index 1 07:42:42
  Track 4
```

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```
ISRC USPR39609018
Index 0 14:14:65
Index 1 14:16:65
```

## Mixed Mode CD

The example shows the structure of CD with a data track at the beginning and ten following audio track in one file.

CAUTION: Playing the data track on a normal CD player can cause damage to the loudspeakers and/or to the CD player.

```
EXAMPLE:
File 1 Mode2 2352
 Track 1
   Index 1 00:00:00
File 2 Audio 2352
 Track 2
   Index 0 00:00:00
   Index 1 00:02:00
 Track 3
   Index 0 03:14:32
   Index 1 03:16:32
 Track 4
   Index 0 08:16:32
   Index 1 08:18:32
 Track 5
   Index 0 10:35:23
   Index 1 10:37:23
 Track 6
   Index 0 10:46:33
   Index 1 10:48:33
 Track 7
   Index 0 12:31:17
   Index 1 12:33:17
 Track 8
   Index 0 14:43:47
   Index 1 14:45:47
 Track 9
   Index 0 14:52:45
   Index 1 14:54:45
 Track 10
    Index 0 16:15:23
    Index 1 16:17:23
```

# 1.47 What is legal?

```
Copyright and other legal matters
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Copyright
BurnIT is (c)1996-1999 by DnS
```

DnS Software Development reserves the right to make improvements and modifications to this product at any time and without previous announcements.

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DnS, Am Walde 3a,

D-28816 Stuhr

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\_\_\_\_\_\_

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You use this program on your own risc.