



RELEASE NOTES

This document includes last minute product information about GEAR Release 4 for Windows95/NT. The information provided in this document isn't available in the printed or online documentation. (For specific information regarding version 4.01 see the file README.TXT in the root directory of this CD.)

GEAR Release 4

The following new features have been added to GEAR:

GEAR now has a totally redesigned user interface. Created with both the professional user as well as the CD-R novice in mind, GEAR Release 4 will let you create CD's in a matter of minutes.

Support for the following new recorders:

MITSUMI CDR2200
MATSUSHITA CW-7501 (PANASONIC)
RICOH 1420
PLEXTOR PX-R24
JVC 2010
PINNACLE 5020/5040
TEAC CD-R50S
PHILIPS CDD2600
SONY CDU924S

GEAR now has an option to set the reading speed of a recorder. This option can be set in the CD-R's Advanced Setup dialog.

GEAR now supports a directory nesting level up to 24 levels (was 12 levels). This option can be set in the Generator Preferences dialog.

GEAR now supports file name lengths up to 64 characters (was 37 characters) in case you decide not to translate file names to ISO compatible names. This option can be

set in the Generator Preferences dialog or directly in the Data Editor.

It is possible to use Disc At Once writing when using the following recorders. This option can be set in the CD-R's Common Setup dialog.

IMS CDD522	(audio only)
KODAK PCD225	(audio only)
IMS CDD2000	(audio only)
PHILIPS CDD2600	(audio only)
GRUNDIG CDR100IPW	(audio only)
PLASMON CDR4220	(audio only)
HP 4020i	(audio only)
KODAK CDR-240	(audio only)
YAMAHA CDR100/CDR102	
RICOH 1420	(audio only)
MITSUMI CDR2200	
MATSUSHITA CW-7501	
SONY 920/924	
Olympus CDS615	
HIGHTECH CD-R1002	
OPTIMA CD-R 650	
PLEXTOR PX-R24	(audio only)

GEAR now has an option to use cyclical buffer techniques for image writing. This improves the writing speed considerably. NOTE: This requires a very solid computer configuration. On some of the PC clones this option cannot work reliably. You can select this option in the CD-R's SCSI Setup dialog.

GEAR under Windows NT

GEAR release 4 is fully compatible with Windows NT. By default the software will use the NT miniport to get access to the recorder.

It is however possible to use ASPI under NT. To do so perform the following steps.

1. Install ASPI under NT (Note: ASPI is NOT delivered with GEAR)
2. Change the GEAR.INI file and set the following interface parameters to either ASPI with double buffering or ASPI with cyclical buffering.
 - CDRInterface in the [cdrecording] section
 - DiskInterface in the [harddisk] section
 - TapeInterface in the [tape] section

Type 5 (CDROM) recorders under NT

If you are using a type 5 (CDROM) recorder under NT you might have the problem that the NT SCSI CDROM manager 'grabs' your recorder so that GEAR cannot access it. You might get the error message 'No CD-Recording units found'. To fix this we advise use ASPI instead of the miniport (see above). Then this problem will no longer occur.

Jukeboxes

WARNING!

When using a K&S CDJ-30, exported discs must always be removed. GEAR can not detect a disc in the mailbox until a second export is executed. No error message is given but the operation is halted.

Known Problems

The Ricoh 1060C recorders do not support the Verify-After-Write option for XA images.

The Plextor PX-R24 and Ricoh 1060/1420 do not support the writing of mixed form data (mode2 form1 and mode2 form2 data in one track). This prevents you from writing most CD-i and video CD titles.

Compuserve support

Elektroson is of the CDROM Vendors B forum. Once on line users can GO GEAR for the latest GEAR news and demo's, or to leave a message for our support team.

World Wide Web

You can find Elektroson on the world wide web at www.elektroson.com

Supported SCSI drivers

GEAR supports the ASPI for DOS manager or compatible, the ASPI for Windows manager (WINASPI.DLL) and the Future Domain CAM driver. If you want to use the Future Domain CAM driver you have to install the Windows CAM driver (e.g. v18fcamd.386, v9fcamd.386 or vexfcamd.386). GEAR cannot work with the DOS version of CAM only!

SCSI controllers

Not all recorders on the market can work with the faster SCSI controllers like the VESA and PCI controllers. The Ricoh RS-9200CD, the Pinnacle CDR200 and CDR1000, the JVC XR-W1001 and JVC XR-W2001 all have problems with faster controllers. This isn't caused by GEAR but a hardware incompatibility between recorder and controller. In some case it might help to lower the DMA speed and/or to disable disconnection on the SCSI controller (refer to your SCSI controller manual).

Audio

Audio files on your hard disk must always fulfill the following requirements (the so called Red Book format):

- sample frequency must have been 44.1 KHz
- audio must be stereo
- each sample must consist of 16 bits
- the byte order should be the same as the byte order used on the computer running GEAR. If this is not the case the option 'MSBAudio=' in the [generic] section of the GEAR.INI can be used so that GEAR will swap the audio bytes for all tracks.

DOS/Windows: LSB audio default, with MSBAudio=TRUE each track will be swapped by GEAR.

You can also use the readtrack option of GEAR to copy a digital audio track from CD to a file on hard disk. The readtrack option creates no header so the resulting file can be used directly. GEAR will store the audio read from the recorder in the same format as the default of the system running GEAR (for DOS that is LSB).

Audio CD's with variable (or zero) pauses can be created with GEAR using a so called Tracklist File. This is a simple ASCII text file which can be created with any standard editor. Each line in the file contains the full path to a RedBook compliant audio file.

Each file will be loaded into a separate track. Behind the name a number of options must be given. First the 'DA' option should be added to identify the track as an audio track. The following option will describe the pause added to the track. The syntax of this option is [+,-] P:xxx. The +,- specifies whether the pause is included in the audio file. If so the + should be used. If not the - should be used and GEAR will generate the pause automatically. The xxx will specify the length of the pause in frames (2 seconds = 150 frames). It is possible to specify a length of 0. If the pause option is not included the a default pause of 150 frames is added.

examples:

C:\TRACK1.AUD DA	Default 150 frames pause is added
C:\TRACK1.AUD DA +P:150	A pause of 150 frames is included in the file
C:\TRACK1.AUD DA +P:225	A pause of 225 frames is included in the file
C:\TRACK1.AUD DA -P:0	No pause
C:\TRACK1.AUD DA +P:0	No pause
C:\TRACK1.AUD DA -P:225	A pause of 225 frames is added to the track.

Variable pause recording can only be used with disc-at-once recording.

GEAR for Backup

GEAR can be extremely useful for CD-R backups. Two special options in GEAR give you all the functionality to do backup on CD-R. The Generator setup contains the items **Archives Only** and **Archives Reset**. When the Archives Reset check box is enabled GEAR will reset the archive bit for each file that is loaded in to the image. When the Archives Only check box is enabled GEAR will only load files with the archive bit set and then after loading reset the archive bit (Note: The Archive bit of a file is set by DOS when a file has been modified).

These powerful features can be used in the following way

1. Enable the Archives Reset feature

2. Create a new CD-Image
3. Load all files in to this new image. All archive bits will be reset.
4. Write the CD-Image to CD-R in multi session format. Your files are now all saved on CD-R.

To update your backup on this CD you can do the following

1. Enable the Archives only feature
2. Put the CD back in the Recorder and choose Append Next Session
3. Load all files in to the next session. Only modified files will be loaded because only the modified files will have the archive bit set by DOS.
4. Write the CD-R. The modified files will be saved on CD-R. The CD will now contain 2 sessions, together forming the complete backup!

You can repeat this as long as there is space left on your CD!

GEAR for Automated image generation

GEAR has options which allow you to create images completely unattended! The GEAR batch programs can now run in unattended mode. In this mode all user dialogs will be automatically handled by GEAR. The default value for each dialog will be selected. Error dialogs will always appear to assure the high data integrity of GEAR. The automated option can also be used if GEAR is called from within another program by using:

```
WINGEAR [<batch file>] [/A]
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When the /A is specified, GEAR will run in automated mode.

GEAR for CD-Enhanced

GEAR has options for creating CD-Enhanced discs. CD-Enhanced discs allow you to 'hide' the audio from the data and vice versa. CD-Enhanced discs are multisession discs with multiple audio tracks in the first session and data in the other sessions. CD Audio players will only 'see' the first session and thus only play the audio. Multi session CD ROM players will automatically present the last session on the disc and thus only show the data. CD-Enhanced discs can be created as follows:

- 1) Create a new GEAR CD-image with a number of audio tracks.
- 2) Write the image to CD-R and make sure multi session is enabled.
- 3) Choose Append Next Session and use the last track on the CD-R as starting point for the next session.
- 4) Enter the name and type of the data part of the CD-R.
- 5) A new session will be created and you can add data as with any other image
- 6) Write the session to CD-R and your CD-Enhanced disc is ready!

GEAR for Video-CD

GEAR has the possibility to write video-CD images to CD-R disc. GEAR has no direct video-CD formatting support, but GEAR can write any video-CD image to CD-R. Video CD images can be written via the foreign image options as follows.

- 1) Select the 'Open' dialog from the file menu.
- 2) Select 'External image files' for the 'Show Files of Type' option.

- 3) Select your video CD image file and click on 'OK'.
- 4) The dialog for 'External image parameters' appears.
- 5) Select the correct image type. Most video CD images are of type 'CD-ROM XA sector size 2336'. Refer to the documentation of the tools you created the image with, in case you are not sure about the image type.
- 6) Select 'OK', the GEAR status bar will show the selected image type.
- 7) Write the image like any other image using the 'Write' menu.

Prechecks before calling Tech support

- Does the power LED of the recorder light up?
- Is the SCSI bus terminated correctly?
- Is the SCSI ID set correctly?
- Are the SCSI cables less than 1 meter in length?
- Are the other SCSI devices on the bus working correctly?
- Is the software driver installed correctly?
- Have you tried to burn with only the recorder active on the SCSI bus?

Placing a service call

Please contact your supplier. The following information is required:

- Registration number
- Version and date of GEAR (see the about box), and the installation type (Mac OS only)
- Recorder brand
- SCSI controller brand
- software driver used for SCSI controller
- Operating system version
- general system information (computer mainboard, hard drive, memory)
- GEAR.INI information (UNIX: .gearrc)
- Exact error message with the additional sense code if given
- The way to produce the failure
- LOG file and WORESLUT.TXT file
- Discinfo dialog
- Please be in front of your computer with GEAR running when you call!

For more information contact your dealer or:

Elektroson Europe
PO Box 2436
5600CK EINDHOVEN
The Netherlands

Tel: +31 40 2514 489
Fax: +31 40 2514 432

Elektroson USA
2105 South Bascom Avenue, Suite 160
Campbell, CA 95008
USA

Tel: +1 408 371 4800
Fax: +1 408 371 4895