003165b8-0

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COLLABORATORS

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REVISION HISTORY

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Contents

Chapter 1

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1.1 GroovyPlayer Documentation

You are reading the

GroovyPlayer 1.0 BETA AmigaGuide Help
Created by Alan on 24 September 1996 at 10:32 am

1.2   Introduction to GroovyPlayer

　　　　　　　　　You have just gotten hold of a speedy SCSI-2/ATAPI audio CD player ←
　　　　　　　　　, which was
designed to be a high end program, beating all other software available on
the Amiga in terms of both look and features.

Well, I don't know if I am reaching this goal or not – you decide. In fact,
this program is the result of 3 months of hard work, started without any
documentation but with abounding enthusiasm. I even did some little research
in this field and took a look at several CD players on the Amiga, the Mac and
the pc, and I also analyzed a "real" CD player (Technics) to brush up a
little on advanced features.

The program does not have too serious requirements: you need a CD-ROM drive
(of course...), a device driver for it (usually atapi.device or scsi.device,
but any SCSI-2 compliant device should work), KickStart 3.0 and (currently)
about 220K of free memory.

So, let's proceed to
　　　　　　　　　installation
　　　　　　　　　/
　　　　　　　　　usage
　　　　　　　　　, or to the
　　　　　　　　　quick start
　　　　　　　　　 section if you are
very impatient (like I am...:-).

1.3   The motivation behind GroovyPlayer

 I purchased a CD-ROM drive three months ago, and the retailer bundled three
or four (freeware/shareware) CD players with it. I was happy when I first
connected the drive and it worked without a hitch, so I thought I'd listen to
my audio CD (the only one I had :-).

 Unfortunately, the programs did not do much beyond playing the CD, offering
nothing more than play/pause, stop (did not work), eject, skip and some kind
of random access. Oh yes, volume, too: one of the programs
(PlayCD, to be precise) allowed me to control the audio
volume. I wanted something more!

1.4   Let's go, man!

 Installation:

· Copy the contents of the 'Fonts' sub-directory to your FONTS:
  directory/assign.

· Copy GroovyPlayer anywhere you want.

· Copy the contents of the 'CD Titles' sub-directory anywhere you want.

```
 Usage:
```

· Start the program (WB or CLI, all the same).

· If you use a CD-ROM device driver other than the default
('a1200_atapi.device'), a requester will pop up, followed by the preferences
window. Define the name and the unit number of your driver.

· That's it! (Please, read the Usage section, too, as it ain't always easy to
figure out all the weird functions).

1.5 The features of GroovyPlayer

```
                    GroovyPlayer has the following features:
```

 · Supports standard SCSI-2 and ATAPI drives

 · All standard CD player functions including play/pause, skip, search, stop,
eject and random track access

 · Nice front-end that adapts to your screen depth and palette (a la
Empy...)

 · Track
                list
                 including name of author, CD title and track
titles, compatible with MCDPlayer (so you can use your
saved list files)

 · Support for multimedia CD's (compact discs with one or more data tracks
and at least one audio track)

 · Adjustable volume (256 levels) and balance (left/right 0% to 100%)

 ·
                Mute
                 function (3 selectable gain levels)

 ·
                Random shuffle
                 ·
                Repeat
                 mode (repeat all tracks, programmed tracks or
tape selection)

 ·
                Intro
                 mode (listen to the first x seconds of each
track)

 ·
                Fade out
                 (immediately or at the end of the intro)

·

Program mode
(max. 100 tracks; recall button for
retrieving finished programs)

·

Tape mode
(selectable/user definable tape length (like
C-60 or C-90), layout tracks to side A/B of tape)

· Adjustable
preferences
with various settings

· Informative LCD-like display including current track and index, track
numbers,
titles
, several time counters and a status
indicator LED (play/pause/ffwd/rev)

· Programmed entirely in MC68020 assembly (fast!)

1.6   How to install GroovyPlayer?

Installation is very simple:

· Copy the contents of the 'Fonts' sub-directory to your FONTS:
directory/assign;

· Copy GroovyPlayer anywhere you want;

· Copy the contents of the 'CD Titles' sub-directory anywhere you want

and you are ready to go!

1.7   Using the program

Using the standard functions is pretty straightforward, so I won' ←
t steal
your time explaining it. However, some hints may come handy for more advanced
functions.

Direct track access: The buttons for this function (1-20, 0, +) are
located in the middle of the window. Track numbers above 20 can be specified
by first pressing +, then entering the two digits using the buttons 0 to 9.
Track numbers outside the 1-99 range will be rejected (an audio CD can hold
up to 99 tracks as specified in the standard).

Repeat: When this button is active, the entire CD (in normal mode),
the current program (in program mode) or the tape side being played (in tape
mode) will be repeated again and again.

Mute: Cuts the volume by 5/10/15 dB (selectable in preferences)

Intro: When activated, only the first x seconds of each track will
be played (adjustable in preferences)

Fade Out: Currently this button has two functions: if you press it
during p layba ck and the Intro button is not active, the program fades the
current audio track out (the volume drops to zero), then pauses playing. If
the Intro button has been active, the Fade mode is entered, and every track
will be faded out after the intro is played (the length of the played intro
can be set in the Preferences window (see Prefs button).

Random: Shuffles tracks in a random order. If you press this button
while playing, the CD keeps playing the current track, but all other tracks
will be shuffled.

Program: This button takes you into program mode. The display in
program m ode shows the number of entries in the program, while in the INDEX
number position (right to the track number in the upper left corner of the
display) you can see the number of the currently selected track. The small
yellow numbers at the bottom also indicate selected tracks. You can add
tracks to the program with the direct track access buttons (1-20, 0, +),
delete the last program item using the Clear button, or even cancel
programming by pressing the Program button again. When you are finished, you
can start playing the program using the Play/Pause button. If you press the
Stop button either during or after playing the programmed tracks, the current
program will be cleared and you get back to normal mode, but you can retrieve
the previous program by pressing the Recall button.

Tape: This button takes you into tape mode. Subsequent presses
advance the current tape length counter (you can follow it on the display).
Once you have traversed through all predefined tape length settings
(currently C-45, C-50, C-60, C-80, C-90), a blinking cursor appears on the
display and you can enter a custom tape length using the 0-9 direct access
buttons . Remember that a cassette has two sides, thus if you enter e.g. 47,
the program will create a track layout for a (virtual) tape that has two
sides 23.5 minutes long each. After selecting the desired tape length and
waiting for a while (waiting lets the program know that you do not want to
change the setting any more), GroovyPlayer creates a track layout and
displays the tracks to be recorded on side A as lines above the small yellow
numbers, and the tracks for side B below these numbers. A mode LED in the
lower left corner of the display also appears to indicate the active side.
Remaining tape length is displayed in the TOT. REMAIN time counter field. The
Play/Pause button starts playing to tape. The active side can be exchanged
using the Side A/B button (activating this button will STOP playing,
so be careful).

Prefs: see
               preferences
               .

List: see
               list window
               .

1.8   The Preferences window

 This window offers several program settings, some of which are ghosted –
these are not yet implemented in this beta version. The window contains the
following gadgets:

· General Settings

These settings affect general aspects of GroovyPlayer's operation.

   Winding speed: The number of seconds in one jump while you are
holding down the cue/review button. Should be between 1 and 99999.

   Fading speed: <not implemented yet>

   Task priority: The priority of the MAIN task of GroovyPlayer.

   CD access frequency: <not implemented yet>

   Delay tracks: <not implemented yet>

   Intro length: The length of the intro in seconds. Should be
between 5 and 99999.

   Mouse repeat delay: If you hold down one of the volume or balance
buttons, you will see that the number advances one, then there is a delay,
and the number only starts 'running' if you keep the button down (this works
similarly to the keyboard). You should experiment with this value, because it
is a tad CPU speed dependant – the default setting is 30, which works fine on
my machine.

   Mute gain: This cycle gadget is used to change the mute gain
applied when you press the Mute button. Its predefined settings are –5
(lightest), –10 and –15 dB (strongest).

   Iconify method: <not implemented yet>

· Startup/Exit Settings

The settings here will only be used upon startup/exit, so you have to save
the preferences and restart the program to see any change. (Well, this is not
exactly true... changing the default playmode or hot program gadgets will
work immediately. Maybe I'll redesign the gadget layout in the next
release).

   Repeat on/Intro on: The corresponding buttons will be active and
appear lit when you start the program.

   Mute on/Logarithmic volume: <not implemented yet>

   Stop on exit: If this button is ticked, playing will be stopped
when you decide to exit the program.

   Autoplay CD's: Newly inserted CD's will be started automatically
if this switch is active.

Hot program: Normally, you are not allowed to program a CD player
while it is playing (I mean a 'real' player). This default setting is
overridden if you tick this gadget. The upper line of the display (the time
counters) keep going during programming except the INDEX number, which shows
the index of the current program entry (see Usage).

PubScreen: <not implemented yet>

SCSI device: Enter the name of the device here that handles your
CD-ROM drive (e.g. 'atapi.device', 'scsi.device', 'squirrelscsi.device'
etc.). Case is important!

SCSI unit: You also have to specify a unit number (SCSI ID) for
your device. The program allows for unit numbers 0 through 7, and it's no
problem if you don't know it: just try one, and GroovyPlayer will tell you if
it works or not. You can try different numbers until one works. If you have
'atapi.device', then your (first) harddisk will probably be unit 0, so the
number 1 seems the best choice in this case (unless, of course, you have two
harddrives, in which case you should try number 2 first).

Default Playmode: When the program is in normal mode (that is,
neither in program or tape mode), it compiles a default program to use for
playing CD's. This default setting can either be 'forward' (play tracks
sequentially), 'reverse' (start with the last track and proceed towards the
beginning) or 'random shuffle' (see Random button).

· Path Settings

This is where you can define paths for the program.

Programs: <not implemented yet>

CD Titles: The location where CD title files can be found. If you
set a wrong path, the program will display <UNKNOWN CD> for every audio CD
you insert. Do not forget the trailing slash!

1.9 The List window

This simple window enables you to edit and save/use author names, titles and
track titles for your CD's. The upper two gadgets are self-explanatory. The
number of entries in the listview is equal to the number of tracks on the CD,
so you only have to go through those <unknown title>'s and enter the details,
then hit the 'Save' button.

1.10 Known bugs in this version

                  This is a BETA version. But: I have tried everything to keep the ←
                       project
under control, so the only reason why I did not stomp on the bugs listed here
is a notorious lack of time :-(:

· the precision of the Mute function simulates a pentium...

· the List window is not notified when a disc is inserted/ejected

· direct (but OS-friendly!) CIA timer allocation/programming is used (if interested in details, see the
                  Tech section
                  ), thus if you
have a module-player and e.g. some benchmarking tool running, GroovyPlayer
may refuse to run. I will completely rewrite the timing engine, because this
is unacceptable (you should be able to start GroovyPlayer in 20 copies if you
want and tile them on your Workbench...)

· lines above/below small yellow numbers are not always accurately showing
which tracks have been played already and which tracks haven't.

·
                  Preferences
                   and
                  List
                   windows
are font-sensitive, but for some fonts they appear to be way too narrow. I'll
fix it (although I hate to tinker with such shit).

1.11   The future of GroovyPlayer

My plans include:

- A med-res (640x256) version (for PAL users) (85% ready)

- The next version will surely be based on MUI, because I'm fed up with
having to program/manage GadTools structures, font sensitivity etc. manually.

- More advanced list functions (drag and drop program editing, save/load
programs for discs etc.)

- Enhance memory efficiency

- Locale support (it is half done, just try and snoop the catalog in the
Preferences and List windows...)

1.12   Acknowledgments

I am very grateful to the following people for their programs/assistance:

Boris Jakubaschk - for MCDPlayer (the source helped me a lot, and my
list files are also made MCDP-compatible)

Thomas Klinger - for the GFX in Empy (yeah, you have probably
noticed where the inspiration came from...)

Victtorio Kritty – for his help with the AMIGA logo

Peter McGavin – for his chunky-to-planar conversion routine I
borrowed

Ian OConnor – for Designer, the program I used for the GUI (I am
planning to use MUI in the deluxe version, though, but definitely NOT because
Designer is bad or something – it is a great piece of software, but I think
MUI is a rare example of near perfection on the AMIGA as it is)

Louise of AMIGAonly and Benny – for their help with testing
and distribution.

Jay Miner – you know why, guys – for The Amiga.

1.13   How to register

                  You can register for a meagre price of HUF 250 (Hungarian Amiga ↩
                     freaks)
or $5 or 8 DM (foreign Amiga freaks). I believe this is quite a fair price,
as the registered version has all bugs fixed (sorry for this, dudes...) and
also has some more exciting features (see GroovyPlayerREG.guide, somewhere in
this archive).
 The preferred way is to send the money to
                 me
                  in an envelope INCLUDING a
self-addressed envelope. You will receive the latest version of GroovyPlayer
on a 880K FFS disk. Please allow some weeks for delivery as the Hungarian
post office is not one of the fastest agencies in the Universe...

1.14   About the author

 My real name is Miklós Árpád, and I am Hungarian. I have had an Amiga since
1990, and this is one of the greatest experiences of my life. I remember when
I first had the chance to look at the ROM Kernel Manual (I swapped 5 Amiga
Magazines to get it), it was raw excitement and pleasure just to read what
these guys have managed to design.

I'd appreciate your comments and ideas, and I won't be hurt if you send me
some money – I would even appreciate if someone sent me his own product to
share, but if you can't or you're too lazy (like me...), just give me a
thought or two. Unfortunately, I don't have an email address (I used to :-|),
but feel free to call me or drop me a fax or a letter:

        Miklós Árpád

        Address: 1039 Hunyadi u. 65.
                  Budapest
                  Hungary

        Tel/fax: (36 1) 160 8851

1.15   For those tech freaks...

 Technically, the program consists of three processes that have a limited
communication between each other. This means that you can edit the list or
adjust the preferences while the CD player display is 'alive'. The timer is
directly allocated from cia.resource (using AddICRVector(), of course), which
has the disadvantage that the program will not run in more copies than free
CIA timers (usually only 1 by the time you load Workbench!!!!). I chose this
solution because of its super precision (if you have a PAL Amiga and you
write 64489 to the counter register, you'll have a 11 Hz timer with a
precision of 1 microsecond (!)) – and it turned out to be completely useless,
since who cares if the current position is displayed 1/50th of a second later
than expected? Once I remove the CIA dependency, you will be able to run the
program in any number of copies at the same time.

The graphics is stored in chunky format, since it is much easier to remap a
chunky image to adjust to current Workbench colours. This also means that if
you compress the program (180 Kb), you get a 30 Kb archive – the chunky
format compresses pretty well.