JukeBox

COLLABORATORS

	TITLE : JukeBox		
ACTION	*NAME*	*DATE*	*SIGNATURE*
WRITTEN BY		October 20, 2024	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

Chapter 1

JukeBox

1.1 JUKEBOX

```
        J U K E B O X
     PRODUCT DOCUMENTATION
  by F.J. Reichert, January 1993
     (last revision 20.01.94)
```

JukeBox is a program to play compact digital audio discs by emulating a graphical user interface similar to common CD players. It provides a command line oriented, fully programmable ARexx user interface as well. It will work on CD-ROM players plugged to a scsi-hostadaptor. JukeBox will open its windows on the workbench (or any other public screen with intuition V36+) and do its best to allow a font sensitive layout. The main goal during development was to create a very comprehensive, self-explanatory utility.

```
   Copyright                 Quick Setup
   Credits                   Troubleshooting (FAQ)


   SHAREWARE REGISTRATION


   Program documentation

      User Interface       ARexx Commands
      Tooltypes            Catalogs
      Keyboard Shortcuts   Error Messages
      Supported Drives     Compatibility


   Changes
```

1.2 Changes

```
CHANGES AND BUGFIXES SINCE 1.2522
=================================

- Problem fixed: switching from shuffle mode to stop doesn't
clear the playback completion address.
```

– reworked interface for adding external player modules.

– Added AmigaGuide® documentation.

– Added player module for Commodore CDTV and A570.

– When using CHANGEINT=1 with no disc inserted on program startup,
JukeBox incorrectly stated "<no title assigned>" instead of "no disc
inserted".

– Added player module for Matsushita CR-501B (aka Panasonic, Targa).

– Now uses the screen font instead of the system default font for
the user interface layout, if no other font was selected (Suggested
by Olaf Barthel).

– Starting a new project will no longer discard the project's path
name and try to save the new project to an empty named file, instead
"Save" will bring up the filerequester when the name string is empty.

– When adding new discs, each label name will contain a four-digit
unique identifier appended, thus allowing to distinguish the names.

– When using real media catalog numbers as read from the disc, zero
digits doesn't have any importance when comparising to numbers in the
catalog. Some drives turned out to report bad catalog numbers, thus
preventing proper recognition of some discs.

– Pressing the right mouse button while holding the shuttle wheel
custom gadget (V36+) now aborts gadget operation without repositioning.

– Added support for TEXEL DM-xx24 drives.

– Closing the program window shortly after program startup (while
the catalog was read in) could left the info requester. It is now
cleared properly.

– Added new ARexx command 'inquiry firmware', giving byte 36-43
firmware date and 44-55 vendor specific data.

– Added player module for SONY CDU-541 and CDU-561 (Thanks Heiko Rath!).

– A generic 'ANSI' player module to be added externally by the
'PLAYER=...' tooltype or command line option. Any drive conforming to
'SCSI-2 draft proposed American National Standard REV 10c' should be
useable with this module (note well: *SHOULD*, most CDROM drive's
firmware around which claims to be SCSI-2 compliant is simply *BROKEN*).

– Possible enforcer hits when changing discs with time display
operating in remaining or absolute time mode.

– Added support for CHINON CDS-431 drives.

– Added support for TEAC CD-50 drives.

– Possible Semaphore deadlock problem with shuttle wheel custom gadget

```
fixed.
```

- JukeBox was compiled with SAS/C 6.3.

1.3 Copyright

Copyright © 1992-94 by F.J. Reichert. All Rights Reserved. This program
and all accompanying files are copyrighted by their author

>   Franz-Josef Reichert
>   Kuchlingerstraße 13
>   66271 Kleinblittersdorf, GERMANY
>   FAX: +49-6805-21266
>   eMail: fjrei@kbsaar.saar.de

>   Freely distributable release
>
>   Shareware release
>
>   Licensed release
>
>   Special note for CDROM vendors

   And finnally, this is for the elected audience of lawyers and other sort
of somewhat paranoid people. Read carefully and enjoy:

1.4 Quick Setup

   Oh well, you just unpacked the JukeBox archive and want to know how to
do a quick setup? You already know how to deal with audio CD player devices
and want to play around with that nifty toy without reading first lots of
useless documentation :-)? Alright, here we go. Just copy the complete
drawer to you harddisk or make a copy of the entire disk. After having a
backup copy, we only need to set up a couple of tooltypes to start:

```
    DEVICE=<name_of_your_scsi_device>
```

```
        e.g.      DEVICE=scsi.device
                  DEVICE=gvpscsi.device

     Default:  scsi.device
```

Note that exec device's names are case sensitive! Commonly, they have to be specified in lowercase letters, but if in doubt, better check out your hostadaptor's documentation.

```
   UNIT=<target_ID_of_your_cdrom_player>

        e.g.      UNIT=4

     Default:  3
```

Normally, there is only one single Target ID. Hostadaptors supporting multiple LUN's and Board ID's might need to have a special number composed out of the Board, LUN and Target ID. The 100's digit stands for the Board ID, the 10's digit for the LUN ID, the 1's digit for the unit ID. For example, a target located at board 3, LUN 4, unit 5 might want to have as tooltype UNIT=345 to be specified.

That's all! Alter the appropriate tooltypes, start the program and enjoy!

1.5 Freely distributable release

Sorry, sorry, sorry! But I spent more than one year working on that project, and I simply can't afford to throw away my time for free. There had to be some main program features being disabled to encourage everybody to get a registered owner of this product. For the freely distributable release, the following features are restricted:

```
   –    only some ARexx Commands available
   –    no keyboard shortcuts
   –    no catalog expansion ability
   –    copyright requester upon startup
   –    shuttle wheel not functional
```

Note well: Even if you got this copy for free, THIS PROGRAM IS NOT IN THE PUBLIC DOMAIN!

It may be USED for any purposes, commercial, personal, public, and private, as long as ALL of this text, all files, copyright, mailing address, and this notice are retained in their entirety. It is provided without warranty of any kind, so use it at your own risk!

This program may be DISTRIBUTED by any means as long as there are no charges specifically for the program. Charges for downloading from electronic BBS systems, or charges for copying and media for freely redistributable software libraries are certainly permissible. The entire archive has to be left intact and unchanged. You must not distribute any changed or imcomplete set of the original archive.

1.6   Licensed release

The following companies licensed my program and are authorized to
distribute it. You can buy the full featured shareware release from there
as well. Please contact them directly, I can't tell anything about pricing
or shipping costs.

Hirsch & Wolf oHG
Mittelstraße 33, 56564 Neuwied GERMANY
TEL: +49-(0)2631-83990 FAX: +49-(0)2631-839931

Wallasch & Witte GmbH
Daglfinger Straße 18a, 81929 München GERMANY
TEL: +49-(0)89-938224 FAX: +49-(0)89-9303377
D-Netz Hotline: +49-(0)171-4201583

Would you like to see your company address here?
See   License agreement

1.7   Shareware release

If you used this program for a while and feel that it's time to
register, the full blown shareware release comes with the following
features:

    -     full ARexx command set
    -     keyboard shortcuts
    -     catalog expansion --- add YOUR own audio discs!
    -     full featured shuttle wheel

The suggested registration fee is US $30.00, DM 50,00 or any equivalent
amount in worldwide exchangeable foreign currency. Nevertheless, if you
feel that being too much, too few or you can't afford that for various
reasons, feel free to send me any amount you think this program is worth.
Any donation will be gratefully accepted. Bug reports, suggestions and
enhancement requests are highly appreciated as well.

 Address to send registration requests to

But please, don't send me foreign checks! It costs me more to cash them
than the suggested amount, so there are actually pretty "worthless" for me.
Eurochecks or checks drawn on german banks will be fine, though. Sorry, I'm
not prepared to handle credit card payment. People living in europe might
want to send me money to a bank account, the number is 152 408 664,
Postgiroamt Saarbrücken (BLZ 590 100 66). Otherwise, please send me a
50-DM-bill (any bank should be able to exchange) or foreign bills (no
coins, please!) which I can exchange or use for my next holidays. Don't
forget to enclose your complete address with your registration request.
Thanks for your support!

The shareware release must not be redistributed by no means without the

prior written consent of the author.

1.8   Special note to CDROM software/hardware vendors

Yes, you may distribute the freely distributable release along with your product as long as there is no additional fee for the program itself. Surprised? Well, I'll like that, really! Possibly, you may even ask me to do the appropriate adaption work to player hardware not supported yet, providing the necessary information and materials, I will try to do my best for *free*.

On the other hand, you should consider carefully about the possibility of distributing the full featured version instead, which could greatly improve your sales. Please contact me for a license agreement.

1.9   User Interface

User Interface

    Time display
    Track entry listview

Gadgets

    Graphical symbols   Shuttle wheel
    1-16   ++
    A^B   Lock
    Macros   Time
    Repeat   Shuffle
    Edit   Continue
    Titles

Menus

    Project   Catalog   SCSI
    New   Append...   Board >>
    Open...   Display...   Logical Unit >>
    Save...   Sort...   Target ID >>
    Save as...
    About...
    Shortcuts...
    Quit

1.10   The time display

User Interface: Time Display

Gives information about track, index, minutes, seconds and frames (1/75s) of the current audio disc. Playing status will show a triangle for play and two sticks for pause, as known from audio player devices. The name

of the current disc will be displayed in the window's title bar (casually
stripped down to a maximum of 60 characters, followed by '...'), the name
of the current track (and/or optionally index) will show up below the time
display (see the catalog chapter to learn more about
catalogs). Graphic symbols '__V___' and 'o' stand for the meaning of the
time display to be track-relative oder disc-relative. 'A<>B' serves to
display marked passages (see below).

1.11 The track entry listview

User Interface: Track entry listview

Gives information about all tracks on a disc currently inserted. Only
audio tracks will be selectable. Double clicking on a track entry will
cause the pickup to be moved to the beginning of that track. The "TITLES"
gadget switches between normal entry information (track number, playing
time or CTRL value for (unselectable) data tracks and absolute starting
time on the discs) or title names. Title names are only available if there
is a catalog entry for a given disc in the current catalog file. Otherwise,
a dummy name "<no title assigned>" will be displayed.

1.12 Graphical symbols

User Interface: Graphical symbols

Eject, Play/Pause, Stop, TIMESET = fast forward and fast backward,
AMS/RMS = move to start of track and end of track, left and right channel
enable/disable (speaker symbols).

CDTV remote control:

<<   Press short to skip backwards, hold long to move fast backward

>>   Press short to skip forward, hold long to move fast forward

>|| Play/Pause

[]   Stop

1.13 The shuttle wheel

Gadget: Shuttle wheel

This custom gadget may be used for convenient positioning of the pickup
with Intuition V36+. It is a passive information gauge with Intuition V34
and below. It depends on the current time display mode in which way it
acts. The needle may be positioned by dragging it with the mouse.
Complement mode will show the dial gadget to be the active one, "release
verify" operation, as known from standard boolean intuition gadgets is
supported as well. The needle appears in plain color for played time (it

will move clockwise then), a rastered image will be shown for remaining
time (it will then move in the opposite direction) while playback is in
progress.

1.14   1 to 16

Gadget: 1-16

(shortcut: numeric keys, CDTV remote control 0...9)

Select a given track. For extended track selection (see below), "10"
will act just like "0".

1.15   ++

Gadget: ++

(shortcut: <+>)

Extended track selection. Allows to specify any track number above 16.
two minus signs (--) will appear in the track display, e.g. pressing "2"
and "4" consecutively will specify track number 24. If input operations are
abandonned for longer than ten seconds or set to an invalid (nonexistant)
track, no repositioning will be done at all.

1.16   AˆB

Gadget: A^B

(shortcut: <^>)

May be used to mark a desired passage. Pressing this gadget first marks
the beginning (A) of the passage, the second press will mark the end of the
passage (B). JukeBox will then restart the whole passage from A to B. To
play the passage continguously, the "Repeat" mode needs to be enabled (see
below). Pressing "Play/Pause" will restart playing the marked passage,
"Continue" (see below) will clear both marks. To mark just the beginning of
a passage (only A), just press "A^B" once. This position will be searched
for every time "Play" is pressed. Certain players might restrict marked
areas to be located inside one single track, currently supported players
are not (see below), areas may range over several tracks without
restrictions.

1.17   Lock

```
    Gadget: Lock

    (shortcut: <L>)
```

   Locks the disc tray. Pressing the eject button on the CDROM player will
take no effect. Depends on the drive being used.

1.18 Macros

```
    Gadget: Macros

    (shortcut: <X>)
```

   Invokes the ARexx command shell (ARexx is required to take advantage of
this). Commands may be issued asynchronously to normal program operation.
Editing capabilities on the command line depends heavily on the console
handler currently used. See below how to specify a console handler (CONSOLE
tooltype).

1.19 Time

```
    Gadget: Time

    (shortcut: <T>)
```

   Switches between four different display modes specifying playing time.
First mode describes played time relative to the beginning of the current
track, second mode remaining time of the current track, third mode played
time relative to the whole disc and fourth mode remaining time of the whole
disc.

1.20 Repeat

```
    Gadget: Repeat

    (shortcut: <R>)
```

   Toggles between repeat mode and normal mode. In normal mode, playback
stops if a disc is completed. In repeat mode, playback of a completed disc
(or a completed passage, see "A^B") will restart at the first track or the
beginning of the passage, respectively.

1.21 Shuffle

```
    Gadget: Shuffle
```

```
    (shortcut: <S>)
```

   Toogles between shuffle mode and normal play mode. In shuffle mode,
JukeBox will play tracks on a disc randomly. Particular tracks may be
enabled or disabled (by clicking on them in the track's listview or
pressing appropriate track number gadgets/keys). Note: If you quit the
program while in shuffle mode, audio playback may continue even if it had
been currently in pause mode. This is due to the playback completion
address, which must be cleared to get the player to a known state before
exiting.

1.22 Edit

```
    Gadget: Edit
```

```
    (shortcut: <E>)
```

   Allows the pickup to be positioned by specifing an absolute time value
(relative to the start of the current disc). Four minus signs '--:-- ' will
appear in the display until the input is completed. If input operation is
abandonned for longer than twenty seconds (or set to a non existing value),
no repositioning will be done.

1.23 Continue

```
    Gadget: Continue
```

```
    (shortcut: <C>)
```

   Suspends "SHUFFLE" mode or passage playback (see "A^B") and switches
back to normal playback.

1.24 Titles

```
    Gadget: Titles
```

```
    (shortcut: <I>)
```

   Toggles the display mode for the track's listview. Either the format
"<track number> <time> <starting time>" or the title name as specified in
the catalog may be choosen.

1.25 Project

```
    Menu: Project
```

   The current project is always a selected catalog file (see also
tooltypes, CATALOG) which allows the program to
find and display the label and title names for the current disc and the
track currently playing.

1.26 Project, New

```
    Menuitem: New
```

```
    (shortcut: <R-AMIGA>+<N>)
```

```
    Clears the current catalog file, leaves the catalog window empty.
```


1.27 Project, Open

```
    Menuitem: Open
```

```
    (shortcut: <R-AMIGA>+<O>)
```

   Brings up a file requester to select a new catalog file. Uses standard
system ASL requester for AmigaOS 2.x and up, tries to open the public
domain ARP-filerequester for AmigaOS 1.3 and below. If neither asl- or
arp.library is available, brings up a simple string requester to specify
the desired file name after informing the user once that none of those
libraries is available.

1.28 Project, Save

```
    Menuitem: Save
```

```
    (shortcut: <R-AMIGA>+<S>)
```

   Saves the current project. Not accessible for freely distributable
release.

1.29 Project, Save as

```
    Menuitem: Save as
```

```
    (shortcut: <R-AMIGA>+<A>)
```

   Brings up a file requester (see above) to specify the file name to save
the current project. Not accessible for freely distributable release.

1.30 Project, About

```
    Menuitem: About

    (shortcut: <R-AMIGA>+<I>)
```

    Gives program information. Provides a vendor-specific graphics image for
the cdrom player device currently used.

1.31 Project, Shortcuts

```
    Menuitem: Shortcuts

    (shortcut: <R-AMIGA>+<K>)
```

    Brings up a requester which shows the keyboard shortcuts available.
Note: For the freely distributable release, those are all unavailable
regardless whether they are shown or not.

1.32 Project, Quit

```
    Menuitem: Quit

    (shortcut: <R-AMIGA>+<Q>)
```

    Quits   the   program.   Any opened window (catalog, ARexx console,
requesters) will be closed first, waiting ARexx commands will be suspended
to   return   immediately. If there were changes made to the current project,
this command will first bring up a file requester to give the user a chance
to save changes.

1.33 Catalog, Show

```
    Menuitem: Show

    (shortcut: <R-AMIGA>+<D>)
```

    Brings up the catalog window. If already opened, will force the catalog
window to be the topmost window. Disc label entries are highlighted and
non-selectable, title entries will appear as plain text and are selectable.
Selecting a title entry inside the catalog window will show the name of the
disc this track belongs to in the window's title bar. Double clicking on an
entry will either reposition the pickup to that track immediately (if the
matching disc is inserted), or bring up an asynchronously requester to
prompt the user to insert this disc. If the request is satisfied, it will
disappear automatically and the selected track will be played. There may be
only one pending play operation per disc JukeBox is waiting for, so "older"
requests will disappear with "newer" to come up. Requesters may be
cancelled any time by pressing the "Forget" gadget.

1.34   Catalog, Append

Menuitem: Append

(shortcut: <R-AMIGA>+<+>)

Appends the catalog "dummy" entry (provides "<no title assigned>" for
each entry) of a currently unknown disc to the current catalog. After
saving, label and title names may be edited by hand. This item is disabled
for the freely distributable release, you cannot expand the catalog.

1.35   Catalog, Sort

Menuitem: Sort

(shortcut: <R-AMIGA>+<T>)

Sorts the catalog. Initially (mode 1), catalog will
be sorted by discs (i.e.: in the same order as there are stored in the
catalog file). Issuing the sort command first will display each entry
(labels and titles) to be sorted alphabetically (mode 2). Issuing the sort
command a second time, the unselectable disc labels will be shown at the
end of the file (mode 3). Issuing the sort command another time will switch
back to mode 2 and so on. Closing and reopening the window will switch back
to mode 1. Sorting supports foreign language methods, as provided by the
locale.library for AmigaOS 2.1 and up. Below that, standard ASCII sorting
will be performed.

1.36   SCSI

Menu: SCSI

Selects the current host address. Multiple items selection supported.
Any change will take place after releasing the menu selection button, i.e.
you should browse through all three submenus to select a given host
address. JukeBox will then try to open the specified host device and issue
a inquiry command to figure out the matching player module, if any. If
anything fails, the user will be informed by requesters. There is a "dummy"
default player provided which just does nothing at all, and will do no harm
to any scsi target device.

1.37   SCSI, Board

Menuitem: Board

Subitems allow to specify the ID number of the adapter board to be used
(the 100's digit).

1.38   SCSI, Logical Unit

        Menuitem: Logical Unit

    Subitems allow to specify the logical unit number (the 10's digit).

1.39   SCSI, Target ID

        Menuitem: Target ID

        (shortcut: <R-AMIGA>+<0...7>)

    Subitems allow to specify the target ID (the 1's digit).

1.40   Catalog

    Note: Using the freely distributable release, you cannot expand the
catalog file with your own discs. Only the default demo catalog file, which
comes along with the distribution archive, might give you a chance to
recognize some of your discs. To take full advantage of the catalog
ability, please register for the shareware release.

    The catalog file is a normal ASCII text file, which may be edited by any
word processor or editor. Default postfix for catalog files should be
#?.cat, since the ASL-filerequester will be invoked with that pattern
definition to filter otherwise named files.

    Every time an unknown disc is inserted, JukeBox creates a "dummy"
catalog entry, which looks like:

```
<04B0A043FB0522D05A8A04FFD3AA25/240165;53:22>="<no title assigned>"
        <01/00/000000;04:33>="<no title assigned>"
        <02/00/020477;05:09>="<no title assigned>"
        <03/00/043655;04:41>="<no title assigned>"
        <04/00/064692;03:52>="<no title assigned>"
        <05/00/082095;04:16>="<no title assigned>"
        <06/00/101305;04:57>="<no title assigned>"
        <07/00/123562;04:06>="<no title assigned>"
        <08/00/142010;05:02>="<no title assigned>"
        <09/00/164625;05:18>="<no title assigned>"
        <10/00/188477;03:15>="<no title assigned>"
        <11/00/203135;03:33>="<no title assigned>"
        <12/00/219102;04:41>="<no title assigned>"
#
```

    First line describes the disc ID and label name. Between '<' and '>',
there are 15 bytes of a media catalog number (MCN) stored, which serves to
give an unique identification for this disc. Depending on the player device
currently used, this may be a "real" media catalog number (UPC/EARN
barcode) as defined by the ANSI specifications for cdrom player devices,
read directly from the disc. If there are no commands (as for current NEC
drives) to read such a number, or the number on a given disc is invalid,

then a "faked" MCN will be composed out of the track starting times of the disc. Separated by a slash, the total block number count follows the MCN, after a semicolon comes the total disc time. Then, the label name follows, encapsulated by '"'. "Escaping" is supported for two special characters so far, '"' and '\' must be written as '\"' and '\' respectively inside the name definition.

For each track on the disc, there is a separate track entry in the catalog entry. The identification is composed by the track number, index number, starting block address and (optionally) the play time of this track, followed by the title name string. There are two different means to specify title string for indexes:

Hierarchical indexing

Non-hierarchical indexing

In addition, there is one mean to alias a disc layout from one disc to another:

Aliasing

A catalog entry is terminated by a hash sign in the first column. Anything between square brackets, but after the ';' is ignored and considered to be a comment. Anything outside <> or "" is ignored, and is not written back (i.e. will be lost) when the catalog file is resaved.

1.41 Hierarchical indexing

Let's say, track five (named "foo") contains four different indexed areas, named "bar1", "bar2"... "bar4". Thus, the track entry would look like:

```
<05/00/082095;04:16>="foo"
<05/01>="bar1"
<05/02>="bar2"
<05/03>="bar3"
<05/04>="bar4"
```

When playing track five, JukeBox will display "foo; bar1", "foo; bar2",... "foo; bar4" as title names. Hierarchical index names are always appended to their parent's track name this way, delimited by a semicolon.

1.42 Non-hierarchical indexing

Let's assume the same as above, but track five inherits no "hierarchical" meaning, each of the four indexed titles are of the same importance. So our track entry will look like:

```
<05/01/082095;04:16>="bar1"
<05/02>="bar2"
<05/03>="bar3"
```

```
        <05/04>="bar4"
```

Note that "bar1" is *not* the null indexed entry, thus any following index titles are considered to be of same importance.

General note: In fact, cdrom player devices are not able to read indexing information from the table of contents stored on the disc. Thus, indexing of catalogs always needs to be done by hand, otherwise no index distinguishing can be done by the program. Indexing is an optional feature. And, it is not possible to position the pickup on a given index directly, since the player device doesn't know at all where they are located inside the track. So, positionning to an index entry (e.g. by double clicking on an index name in the listview) will always position the pickup to the beginning of the index's parent track.

1.43 Aliasing

Another feature for catalog entries is aliasing entries to another disc's layout. Let's say, you have two different discs which produces different MCN's, but actually have the same layout. An excellent example are certain data discs of different release versions, as the hypermedia fish CDROM. Both discs may be recognized as the same disc, by specifying a parent entry and an alias to that entry consecutively:

The first entry to appear has to be a normal catalog entry representing one of the discs:

```
<0000000000000000000000B99DB399DB/235995;52:27>="The Fred Fish Collection  on
CDROM"
        <01>="Fish disk data track"
#
```

Then, an alias entry may refer to this parent entry:

```
<0000000000000000000000C16EA416EA/268010;59:33>=<0000000000000000000000B99DB39
9DB/235995;52:27>
```

The alias consists of two disc identifications, concatenated by the equality operator. Note that the track's identification entry is stripped down to contain just the track number. Why? As any given information is of importance, the index and block numbers are intentionally omitted, so JukeBox will only test for the track number to match when comparing to a real disc. Otherwise, different starting block numbers could prevent the program from recognizing the track as "Fish Data Track".

Another reason for specifying aliases is to create catalog files which can be read both by drives supporting real MCN's and drives creating "faked" MCN's, due to the lack of the opportunity to read "real" MCN's of certain CD-ROM player devices.

1.44 Tooltypes

There are several tooltypes for program configuration. JukeBox will always read the tooltypes from its proper icon file. Tooltypes are also accessible via normal shell command lines, e.g. 'jukebox DEVICE=gvpscsi.device'. Command line arguments take precedence over tooltypes defined in icon file.

```
DEVICE          UNIT

PUBSCREEN       FONTNAME

FONTHEIGHT      CONSOLE

UPDATE          NASTY

PORTNAME        STOP

REXXSHELL       KEYREPEAT

MACRO_1...5     STARTUP

CATALOG         CHANGEINT
```

1.45 DEVICE

Tooltype: DEVICE=<NAME>

Specifies the device to be used. Default is "scsi.device".

1.46 UNIT

Tooltype: UNIT=<NUMBER>

Specifies the unit number to be used. Default is 3.

1.47 PUBSCREEN

Tooltype: PUBSCREEN=<NAME>

For Intuition V36+, JukeBox will try to open its window on the public screen of this given name. If open fails, it will fall back to the default public screen (almost the workbench screen). Note that it depends on the console handler device (see also CONSOLE) if the ARexx macro shell might be opened on a public screen or not.

1.48 FONTHEIGHT

```
      Tooltype: FONTHEIGHT=<NUMBER>
```

   JukeBox tries to use that font for rendering the texts of its graphical
user interface. Otherwise, the system default text font, as specified by
the preferences font editor for workbench 2.0 and above (workbench 1.3 and
below will allow topaz eight or nine) will be used. If strings don't fit
(will be calculated on every item), it will fall back to topaz eight.

1.49 FONTNAME

```
      Tooltype: FONTNAME=<NAME>
```

   JukeBox tries to use that font for rendering the texts of its graphical
user interface. Otherwise, the system default text font, as specified by
the preferences font editor for workbench 2.0 and above (workbench 1.3 and
below will allow topaz eight or nine) will be used. If strings don't fit
(will be calculated on every item), it will fall back to topaz eight.

1.50 CONSOLE

```
      Tooltype: CONSOLE=<DESCRIPTION>
```

   Specifies the console name for the ARexx macro shell. Default is
'CON:0/0/320/100'. A '/' and the name of the ARexx port (see PORTNAME)
will be postponed, acting (hopefully!) as titlename for the new window. As
well, (for Intuition V36+) '/SCREEN ' and the name of the desired public
screen (see PUBSCREEN) are appended to the stream name, which will
(hopefully, at least Amiga Shell and WShell will do fine) force the window
to be opened on the preferred public screen.

But nearly any other interactive, line-oriented console handler may be
used, for example CONSOLE=CNX: (for WShell, AUX: should do just the same
for Amiga Shell) will open a command shell via the serial port to another
terminal.

1.51 UPDATE

```
      Tooltype: UPDATE=<NUMBER>
```

   Specifies the time interval for updating the display in microseconds.
Default is 250000, so the display will be updated every 1/4 second. Note
that several program functions depend on this update ratio, e.g. repeating
discs after completion, recognizing disc changes and so on.

1.52 NASTY

```
Tooltype: NASTY=<BOOLEAN>
```

If set to a value greater than zero, updates the display continguously
even if the application's window is not the active one. Otherwise, the
display is only updated if the window is the active one. Defaults to one.

1.53 PORTNAME

```
Tooltype: PORTNAME=<NAME>
```

Specifies the name to use for the public ARexx port. Defaults to
'JUKEBOX'. External programs may use this port to communicate with the
active ARexx host of JukeBox.

There is a slot numbering mechanism which will provide unique names for
each port even if JukeBox was launched several times. Starting with
"<portname>.0", every subsequent port will have the next available slot
number, "<portname>.1", "<portname>.2" and so on.

1.54 STOP

```
Tooltype: STOP=<BOOLEAN>
```

If set to a value greater than zero, forces the program to suspend any
audio playback on program startup or exit. Otherwise, the current playing
status is not affected. Defaults to zero.

1.55 REXXSHELL

```
Tooltype: REXXSHELL=<BOOLEAN>
```

If set to a value greater than zero, a ARexx macro shell will be opened
upon program startup automatically. Defaults to zero.

1.56 KEYREPEAT

```
Tooltype: KEYREPEAT=<NUMBER>
```

If set to zero, repeated key events from the keyboard will be discarded.
Otherwise, they will be treaded as valid command keys up to the given
maximum number. Defaults to one.

1.57   MACRO_1...5

```
Tooltype: MACRO_1=<COMMANDSTRING>
         MACRO_2=<COMMANDSTRING>
         MACRO_3=<COMMANDSTRING>
         MACRO_4=<COMMANDSTRING>
         MACRO_5=<COMMANDSTRING>
```

Define ARexx macros. Those may be inline-stringfiles as well as
filenames (default postfix #?.np) containing complete scripts. They will be
invoked by pressing the function keys F1, F2,... F5 respectively. Not
available for the freely distributable release.

1.58   STARTUP

```
Tooltype: STARTUP=<COMMANDSTRING>
```

Defines an ARexx macro (same conventions as macro) which will be
executed upon program startup.

1.59   CATALOG

```
Tooltype: CATALOG=<FILENAME>
```

Defines the name of the initial catalog file to be used.

1.60   CHANGEINT

```
Tooltype: CHANGEINT=<BOOLEAN>
```

If set to a value other than zero, tries to install a TD_CHANGEINT to
recognize disc changes. If that mechanism is not supported by a particular
driver, JukeBox will bring up a requester. When using changeint's, JukeBox
will no longer "poll" the drive as long as there is no disc inserted.
Defaults to zero.

1.61   ARexx Command Interface

There are 26 ARexx commands supported so far, implemented by an active
ARexx host interface. The host interface may be used via the builtin
command line interpreter (invoked with the MACRO-gadget), or any other
external program using the application's public ARexx message port, named
'JUKEBOX.n' by default (other names may be specified by the PORTNAME
-tooltype as well, see above).

Note: Commands marked '*' will not work for the freely distributable
release.

Syntax is similar to standard AmigaDOS conventions:

/A: Always required. This argument always needs to be given.

/K: Keyword required. The argument's keyword needs to be included along
with the argument itself. Keywords are not required by default.

/M: Multiple Arguments of the same type are accepted. Up to 14 Arguments
may be specified in general to any command supported by JukeBox.

/S: The argument works as a switch. Simply type the keyword in the
command line to turn the switch on.

/N: Number. The argument is numeric.

KEYWORD={...}: Describes the expected format of an argument. If there are
several, mutually exclusive options for an argument, they are seperated by
"|". E.g., EXAMPLE={BLACK|WHITE} means that "EXAMPLE" may be either
"BLACK" or "WHITE", TIME={HH:MM:SS} means that "TIME" should be specified
as two-digit hours, minutes and seconds, seperated by colons.

* ADDTIME	* CATALOG	* CHANNEL
* CMPTIME	* CURRENT	EJECT
GETATTR	INQUIRY	* LOCK
* LOCKGUI	MOVEWINDOW	* NEW
* OPEN	PAUSE	PLAY
REQUESTRESPONSE	* SAVE	* SAVEAS
* SET	STOP	* SUBTIME
* TOC	* UNLOCKGUI	* WAIT
WINDOWTOBACK	WINDOWTOFRONT	ARexx scripts

1.62 ADDTIME

```
ADDTIME TO={MM:SS:FF}/A
        FROM={MM:SS:FF}/M
```

Simple time arithmetics. Adds several time descriptions of the format
MM:SS:FF (M=minutes up to 99, S=seconds up to 59, F=1/75s up to 74) to each
other and returns the result. Ambiguous values, e.g. 0:2:105, will be
corrected to 00:03:30. Note: Time descriptions need to be enclosed in ' or
" for ARexx command parsing rules to detect them correctly.

See also: SUBTIME , CMPTIME .

1.63 CATALOG

```
CATALOG SHOW/S,
        APPEND/S,
        MCN/S
```

Manipulation for catalog entry of the current disc. SHOW shows the

template, APPEND adds it to the global media catalog, MCN returns the disc
identification given by the media catalog number stored on the cdrom, or a
"faked" number computed from several start times of the cdrom's tracks, if
there is no valid MCN or reading this number is not supported by a
particular drive/firmware.

    See also: catalogs.

1.64 CHANNEL

CHANNEL STATUS={LEFT|RIGHT|BOTH|NONE}/A

   Choosing the output mode. LEFT or RIGHT play only one channel on both
outputs, BOTH plays both channels in stereo mode, NONE plays no channel at
all.

1.65 CMPTIME

```
CMPTIME DEST={MM:SS:FF}/A,
        SRC={MM:SS:FF}/A
```

   Simple time arithmetics. Returns 1 if destination time is below source
time, -1 if above, 0 if both times are equal. Times have to be given as
MM:SS:FF (M=minutes up to 99, S=seconds up to 59, F=1/75s up to 74).

    See also: ADDTIME , SUBTIME .

1.66 CURRENT

```
CURRENT TRACK/S,
        INDEX/S,
        BLOCK/S,
        RELTIME/S,
        TIME/S,
        TRKTIME/S,
        CDTIME/S,
        STATUS/S,
        CONTROL/S,
        PLAYBACK/S,
        LABEL/S,
        TITLE/S,
        BREAK/S
```

   Returns the number of the current TRACK, INDEX, BLOCK number, time
relative to the start of the current track (RELTIME), absolute time (TIME),
whole time of the track currently playing (TRKTIME), playing time of the
whole disc (CDTIME), current playing status (STATUS) given as "PLAY",
"NODISC", "PAUSE" or "COMPLETE", contents of the control nibble for the
current track given as:

```
Bit     equals zero                      equals one
------------------------------------------------------------
0       Audio without pre-emphasis    Audio with pre-emphasis
1       Digital copy prohibited       Digital copy permitted
2       Audio track                   Data track
3       Two channel audio             Four channel audio
------------------------------------------------------------
```

the current playback status (PLAYBACK) given as:

```
    0 = playing
    2 = pause
    3 = disc completed
```

the disc's label name (LABEL), the current track's name (TITLE) and the
BREAK status (issued by the escape key) of zero or one.

1.67   EJECT

EJECT

   Stops playing, turns motor and laser beam off and ejects the cartridge,
if supported by the particular drive. If cartridge ejection is not
supported, the disc tray is now safe to be opened manually and a cdrom may
be removed.

1.68   GETATTR

```
GETATTR   VERSION={FULL|DATE|VER|REV}/K,PLAYER/S,
          WINDOW={TITLE|LEFT|TOP|PUBSCREEN|GUILOCKS}/K,
          PROJECT={FILENAME|PATH|FILE|CHANGES}/K,
          PORTNAME/S
```

   Returns program information. VERSION FULL/DATE/VER/REV gives different
version strings, PLAYER identifies the player module used currently, WINDOW
gives information about the window position (LEFT/TOP), its TITLE, the
underlying PUBSCREEN (if supported by the current operation system), the
nesting count of GUILOCKS. PROJECT FILENAME gives the complete path- and
filename of the current catalog, PATH only gives the path part, FILE gives
the filename part, CHANGES reports the changes made to the catalog.
PORTNAME returns the name of the public ARexx-Port.

1.69   INQUIRY

INQUIRY

   This command will send an Inquiry command to the current drive and
return 36 bytes of data.

    Example: options results; inquiry; say c2x(result)

1.70 LOCK

LOCK   STATUS={0|1}/N

   Looks or unlocks (depending on status) the disc tray, if supported by
the current drive. With a locked tray, cartridges may only be ejected by
pressing the eject gadget within JukeBox, but not by the button on the
drive.

1.71 LOCKGUI

LOCKGUI

   Inhibits the graphical user interface. This call may be nested. See
also: UNLOCKGUI .

1.72 MOVEWINDOW

MOVEWINDOW   LEFT/N,
               TOP/N

   Moves the user interface window to the absolute position given by LEFT
and TOP. They may not exceed the dimensions of the current screen, the
command will take care of this.

1.73 NEW

NEW   FORCE/S

   Abandon the current catalog, FORCE prevents a prompt requester to appear
if the current catalog was altered.

1.74 OPEN

OPEN   FORCE/S,
        NAME

   Open a new catalog, either by bringing up a file requester, or by the
NAME given with this command. FORCE prevents a prompt requester to appear
if the current catalog was altered.

1.75 PAUSE

PAUSE

   Switches to pause mode. Current playing is interrupted and the pickup
will stay at the same position.

1.76 PLAY

PLAY

   Starts (continues) playing from the current position. If there is a
range marked by A and/or B, starts from the beginning of this range (the A
position).

1.77 REQUESTRESPONSE

REQUESTRESPONSE PROMPT

   Brings up a requester, prompting with PROMPT string for a psotive or
negative answer. The user's choice will be reported to the caller.

     Example:

     requestresponse 'And the answer is...'

1.78 SAVE

SAVE

     Saves the current catalog.

     See also: catalogs.

1.79 SAVEAS

SAVEAS NAME

     Saves the current catalog under the name given by NAME.

     See also: catalogs.

1.80   SET

```
SET     TRACK=NUM/N/K,
        BLOCK=NUM/N/K,
        TIME={MM:SS:FF}/K
```

   Moves the pickup to a given TRACK, BLOCK (frame) number or an absolute
TIME position on the disc given as MM:SS:FF (M=minutes up to 99, S=seconds
up to 59, F=1/75s up to 74).

1.81   STOP

```
STOP
```

   Stops playing and moves the pickup to the first audio track.

1.82   SUBTIME

```
SUBTIME TO={MM:SS:FF}/A,
        FROM={MM:SS:FF}/M
```

   Simple time arithmetics. Subtracts several time descriptions of the
format MM:SS:FF (M=minutes up to 99, S=seconds up to 59, F=1/75s up to 74)
from destination (TO) and returns the result.

      See also: ADDTIME , CMPTIME .

1.83   TOC

```
TOC     NUM/N,
        STEM=NAME/K
```

   · Without any arguments, returns the current table of contents given as
(example):

```
     TDT 53:22:15 (53:24:15)
     #01 04:33:02 (00:02:00)
     #02 05:09:03 (04:35:02)
     #03 04:40:37 (09:44:05)
     #04 03:52:03 (14:24:42)
     #05 04:16:10 (18:16:45)
     #06 04:56:57 (22:32:55)
     #07 04:05:73 (27:29:37)
     #08 05:01:40 (31:35:35)
     #09 05:18:02 (36:37:00)
     #10 03:15:33 (41:55:02)
     #11 03:32:67 (45:10:35)
     #12 04:40:63 (48:43:27)
```

Values in parantheses describes starting time of particular tracks and (TDT) ending time of disc respectively.

· Given a track number as argument, returns information about the particular track, e.g. TOC 4 will give:

    03:52:03 (14:24:42-18:16:45) $10 "If I Were (In Your Shoes)"

which describes the track duration, starting and ending time in parantheses, the ADR and CTRL nibble and the track's name.

· STEM will put the table of contents (as given above) in an ARexx stem of the given name, storing the number of lines in element zero of the stem, e.g.

```
TOC STEM a.
DO i=0 TO a.0
    SAY a.i
END
```

1.84   UNLOCKGUI

UNLOCKGUI

Enables the user interface for normal gadget/menu processing. This call may be nested as well. See also: LOCKGUI .

1.85   WAIT

```
WAIT    COMPLETE/S,
        TRACK=NUM/N/K,
        ABSOLUTE={MM:SS:FF}/K,
        FKEY NUM={6|7|8|9|10}/N/K
```

Waits until current disc is COMPLETE, a particular TRACK is reached, an ABSOLUTE time expired, or a function key given by FKEY is pressed. The script doesn't proceed as long as the particular event doesn't occur. Note: function keys have to be pressed in the application's (or catalog's) window, not the window of the command interpreter, which would be hard for JukeBox to discover :-).

Warning: if a particular event doesn't occur, this command will never return. By pressing the escape key or the close gadget of the application's window, all hanging waits are devoted to return immediately.

1.86   WINDOWTOBACK

WINDOWTOBACK

> Switches the user interface window to the background.

> See also: WINDOWTOFRONT .

1.87 WINDOWTOFRONT

WINDOWTOFRONT

> Switches the user interface window to the top of any other window.

> See also: WINDOWTOBACK .

1.88 ARexx scripts

The default postfix for ARexx-Scripts is "#?.jb". You can start a script by simply typing its name to the ARexx console, e.g. "fwd" will search for the script "fwd.jb". You may type "inline"-scripts to the ARexx console as well. Example:

> do i=1 to 10; say 'hello, world'; end;

And you may type any command supported by JukeBox directly to the console, e.g. "play" or "pause".

There are several ARexx scripts in the distribution archive which serve as examples how to discover the full programming abilities of JukeBox. People comfortable in ARexx programming will be able to do nearly everything. Enjoy.

For the freely distributable release, most of the example scripts don't work because the full ARexx command set is only available for the shareware release. Please get registered!

1.89 Keyboard Shortcuts

For the shareware release, the following keyboard shortcuts are accessible. They will not work for the freely distributable release.

> F1...F5
>
> > > Invokes ARexx MACRO_1,...MACRO_5.
> > > See also: MACRO .
>
> F6...F10
>
> > > User definable command keys for ARexx
> > > macro definition 'wait fkey 6' ... 'wait
> > > fkey 10'. See also: WAIT .

```
ESC
                          Suspends any waiting ARexx command.
                          See also:  WAIT .

SPACE
CDTV = >||
                          Play/Pause

SHIFT-SPACE
CDTV = [ ]
                          Stop

SHIFT-TAB
                          Eject

+
                          Extended track selection.
                          See also:  ++ .

E,e
                          Edit
                          See also:  Edit .

T,t
                          Time
                          See also:  Time .

^
                          mark passage 'A^B'
                          See also:  A^B .

C,c
                          Continue
                          See also:  Continue .

X,x
                          Invoke ARexx command interpreter
                          See also:  Macros .

R,r
                          Repeat (toggle)
                          See also:  Repeat .

S,s
                          Shuffle (toggle)
                          See also:  Shuffle .

L,l
                          Lock (toggle)
                          See also:  Lock .

<
                          Left channel
>
                          Right channel
                          See also:  Channel .
```

```
    I,i
                                Titles
                                See also:  Titles .


    Arrow keys
    -----------


    UP
                                Scroll up
    DOWN
                                Scroll down


    LEFT
    CDTV = << (long)
                                Time Set <<

    RIGHT
    CDTV = >> (long)

                                Time Set >>
                                See also:  Time Set .


    SHIFT-UP
                                Page up
    SHIFT-DOWN

                                Page down


    SHIFT-LEFT
    CDTV = << (short)
                                AMS/RMS |<<

    SHIFT-RIGHT
    CDTV = >> (short)

                                AMS/RMS >>|
                                See also:  AMS/RMS .



    Numeric keys (also NKP and CDTV remote control)
    -----------------------------------------------


    0,1...9
                                Same as gadgets 10,1...9
                                See also:  1-16 .
```

1.90 Error Messages

```
++ Error 0 Unspecified error

    Should never show up.


++ Error 1 Target is no CD-ROM

    The specified scsi-target wasn't recognized as a CD-ROM player device.


++ Error 2 Can't create menu
```

The menu couldn't be created. This one might only occur if one of the
following calls to system libraries, GetVisualInfo(), GetScreenDrawInfo(),
CreateMenus(), LayoutMenus() or SetMenuStrip() fails for various reasons.

++ Error 3 Can't open timer.device

The timer.device couldn't be opened. This should never occur and is only
there for the sake of consistency.

++ Error 4 Can't create timer request

The timerequest structure needed for timer I/O couldn't be allocated,
probably due to the lack of memory.

++ Error 5 Can't create timer port

The messageport for doing timer I/O couldn't be allocated, probably due
to the lack of memory.

++ Error 6 Player module "<name string>" not found

Searching for a matching player module failed. Might occur if there is
no player module for a particular CD-ROM player device available. <name
string> represents the vendor identification, as read from the drive's
inquiry data.

++ Error 7 Can't open "<scsi.device>" unit <number>

Attempt to open the given device and/or unit number failed. Mostly
caused by a request to open nonexistant drivers/target addresses.

++ Error 8 Can't create SCSI request

The IORequest structure needed for scsi I/O couldn't be allocated,
probably due to the lack of memory.

++ Error 9 Can't create SCSI port

The messageport for doing scsi I/O couldn't be allocated, probably due
to the lack of memory.

++ Error 10 Can't open font

The desired font, specified as

  FONTNAME=...

and

```
  FONTHEIGHT=...
```

isn't available to be opened via OpenDiskFont().

++ Error 11 Can't open window

   The window couldn't be opened. Might be due to the lack of memory, or at
least the default public screen (almost workbench) isn't big enough
(584x200 pixel minimum). Bigger fonts might require bigger workbench screen
heights, e.g. when there are only 200 lines, you can't use any font higher
than nine pixels or so. Try a smaller font when you see this error.

++ Error 12 Can't open diskfont.library

   Standard system LIBS: device or exec libraries list lacks
diskfont.library. Otherwise, the version found is older than 33.

++ Error 13 Can't open graphics.library

   There's no graphics.library available. Should never occur and is only
there for the sake of consistency. Otherwise, the version found is older
than 33.

++ Error 14 Can't open mathtrans.library

   Standard system LIBS: device or exec libraries list lacks
mathtrans.library. Otherwise, the version found is older than 33.

++ Error 15 Can't open mathffp.library

   There's no mathffp.library available. Should never occur and is only
there for the sake of consistency. Otherwise, the version found is older
than 33.

++ Error 16 Can't open icon.library

   Standard system LIBS: device or exec libraries list lacks icon.library.
Otherwise, the version found is older than 33.

++ Error 17 Can't open layers.library

   There's no layers.library available. Should never occur and is only
there for the sake of consistency. Otherwise, the version found is older
than 33.

++ Error 18 Can't open intuition.library

   There's no intuition.library available. Should never occur and is only

there for the sake of consistency. Otherwise, the version found is older
than 33.

++ Error 19 Can't open console.device

   There's no console.device available. Should never occur and is only
there for the sake of consistency.

++ Error 40 SCSI error: HFERR_SelfUnit
++ Error 41 SCSI error: HFERR_DMA
++ Error 42 SCSI error: HFERR_Phase
++ Error 43 SCSI error: HFERR_Parity
++ Error 44 SCSI error: HFERR_SelTimeout
++ Error 45 SCSI error: HFERR_BadStatus

   These are specific SCSI-error numbers returned by the device driver upon
startup. Possibly, the drive is connected/terminated the wrong way to the
host adapter or doesn't conform correctly to HD_SCSICMD. During normal
program operation, SCSI errors are displayed on the main display and the
title name field (no requesters, since they might occur heavily).

   NOTE: You really should _never_ see this error message under normal
circumstances. If it shows up, there's something wrong with your SCSI
setup, which can't be fixed from JukeBox's point of view. Check
termination, cabeling, hostadaptor's firmware, drive's firmware, SCSI-ID
and so on. You'll probably not be able to run JukeBox successfully as long
as your specific problem remains unresolved.

++ Error 100 Out of memory

   Not enough memory available. JukeBox allocates its memory dynamically.
So, there might be no memory for a given operation, while there is enough
memory for another.

++ Error 101 Not added, label already exists (line #<number>)

   A disc ID number (MCN) already exists. One ID may be added only once to
the catalog by issuing the "Append" command.

++ Error 102 ASL- or ARP-library not available

   There's no arp.library (AmigaOS 1.3 and below) or asl.library (AmigaOS
2.x and above) available to bring up a file requester. The name is prompted
by a simple string-requester then.

++ Error 103 No parent entry found for link (line #<number>)

   Attempt to link a disc ID to a nonexistant catalog entry failed because
there's no such catalog entry in the catalog file. (See

   aliasing

in the catalog format description above).

++ Error 104 Media change interrupts not supported

   The selected device driver (#?.device) doesn't implement TD_CHANGEINT
and (gratefully!) responds with a value other than zero to the appropriate
I/O operation. Thus, changeints can't be used and shouldn't be requested
furthermore (just change the

   CHANGEINT

tooltype to zero). Warning: Some device drivers might actually claim to
understand changeints, but can't really handle them correctly. Be aware of
this, it may cause severe problems!

1.91 Supported drives

   As of this writing, this program was developed for and tested with the
following drives. Other devices might be easily adapted as well. There is
an internal communication protocoll (a vendor specific player "module"
concept) provided to archive this, as well as there are means to add new
player modules externally. If your drive is not in this list, don't worry.
Try it, and if it doesn't work, just give me the chance to have a test unit
and the appropriate scsi docs for a few days, and there's no reason why we
shouldn't be able to support it.

```
    NEC                    CDR-25,36,55,72/82,73/83,74/84,3X(e/i/p)
    TOSHIBA (SCSI-2)       XM-3301,3401,4101
    TOSHIBA (SCSI-1)       XM-3332
    MATSUSHITA             CR-501B
    TEXEL                  DM-3024,5024,3028,5028
    Commodore CDTV         CDTV,A570
    SONY (NeXT/Apple)      CDU-541,561 CD-150,300
    Apple CD-150
    CHINON                 CDS-431
    TEAC                   CD-50
    ANSI (other)
```


1.92 TEAC

    Tested: CD-50 1.00 (firmware: Mon Feb 22 10:29:00)

    Exceptions: None known

    Special notes:

    - Channel control: chosing the left OR right channel
    will connect the particular audio channel to BOTH outputs,
    so you will hear it on both speakers (mono sound).

- TEAC drives uses real media catalog numbers.

- TEAC/TEXEL drives are quite the same, from the viewpoint
of firmware. There is a reselection bug in older releases
which may cause the drive refuse to work with hostadaptors
used on the amiga. Texel already fixed that problem in their
current firmware, can't say if TEAC will ever do so. Best
solution found so far is to disable reselection for ALL drives
on the bus, but even then they work sometimes unreliable (certain
commands will "hang", block the entire bus and never come back).
Anybody going to buy this drive should carefully prove that the
current firmware fits all needs. Remember, "working well on any
IBM-PC" doesn't necessarily mean "flawless operation on any amiga".

- Make sure to get a recent firmware release! Older ROM's
are known to cause trouble. Advice: Test extensively before buy!

- GVP Series-II hostadaptor users might want to issue the
command "gvpscsictrl <unit> DCOFF" for ALL drives before the
first access to the drive, thus avoiding protocol failures
with the drive's firmware.

1.93 CHINON

Tested: CDS-431 (ROM H40)

Exceptions: None known

Special notes:

-    Chinon drives use real media catalog numbers.

-    Starting the program (or changing the unit)
interrupts audio playback for a short period of time, then
continues.

-    CHANGEINT's might be a problem with certain hostadaptors!
There is a bug in the firmware which may turn out to be a problem
causing a NOT READY status each time the command 0xC6 (10) is issued
(and JukeBox does this quite often), forcing the device driver to
detect a media change. Typically, you will notice a "flashing" title
listview, caused by repeatedly diskchange events. Just set

    CHANGEINT

to zero.

1.94 ANSI SCSI-2 command set

If your drive is not in the list of the vendors supported,
don't worry. There's a good chance that a particular drive is

able to understand the ANSI command set for CDROM drives.

   To add the ANSI-player as default player module, just add
the following text to the command line or the tooltypes list:

     PLAYER=ansi.player

   Make sure that the executable 'ansi.player' is located in
the current directory, or specify an absolute path name.

1.95 NEC

```
Tested:         CDR-25 1.0
                CDR-36
                CDR-55
                CDR-72/82
                CDR-73/83
                CDR-74/84 (*)
                MultiSpin 3X(e/i/p) 500 1.0 (*)

Exceptions:     None known
```

Special notes:

-    Most of NEC's firmware doesn't support to read a media
catalog number from the disc. Thus, "faked" MCN's,
composed out of the track's starting addresses are
used.

-    Channel control: chosing the left OR right channel
will connect the particular audio channel to BOTH outputs,
so you will hear it on both speakers (mono sound).

- Starting with somehow SCSI2-compliant firmware (*), there are
extended channel/volume selection capabilities. Channel selection
doesn't work as expected, though. See above, and have fun figuring
it out! I leave the player unchanged for the day they'll fix it. If
ever.

1.96 TOSHIBA

```
Tested:         XM-3301 (firmware 5.1)
                XM-3401TA 0283 (firmware date 01/28/93)
                XM-4101TA 2483 (firmware date 09/05/93)

Exceptions:     XM-3201 (use old toshiba driver)
                XM-3332 (use old toshiba driver)
```

   Special notes:

-    Toshiba drives use real media catalog numbers.

–   Some people might want to use the

     ANSI-player module

instead, as all those drives are good examples for ANSI-compliant
SCSI implementations.

1.97 Old TOSHIBA

Tested: XM-3332 (01/26/90)

Special notes:

–   Those are very old drives. They can often be found OEM't
by other computer manufacturers, which sell them under their own
label. They don't understand the SCSI-2 command set, you can't use
neither the default (built-in) toshiba player, nor the loadable
ANSI player module in conjunction with them.

– The required player module is not built-in. It has to be
added on top of any other player able to deal with Toshiba
drives, or JukeBox will use its build-in Toshiba (SCSI-2)
player. This will not work, since these drives don't understand
SCSI-2 commands. Thus, add the following string to your command
line or icon tooltype:

     PLAYER=oldtoshi.player

Make sure that the player module named 'oldtoshi.player' is in the
current directory, or specify an absolute path name.

–   You shouldn't use this player module with newer (SCSI-2) drives.

–   These Toshiba drives use NO real media catalog numbers.

–   Channel control: chosing the left OR right channel
will connect the particular audio channel to BOTH outputs,
so you will hear it on both speakers (mono sound).

1.98 SONY / NeXT

Tested: CDU-541 (a.k.a. Apple CD-150, firmware 2.6a)
                 CDU-561 (a.k.a. Apple CD-300, ROM sony 8003A 1.8f)

Exceptions: None known

Special notes:

 –   Sony drives use real media catalog numbers.

 –   Starting the program (or changing the unit)

causes audio playback to stop.

–   GVP Series-II hostadaptor users might want to issue the
command "gvpscsictrl <unit> DCOFF" before the first access to
the drive, thus avoiding protocol failures with the drive's
firmware. Newer firmware might fix this bug.

1.99   Apple CD-150

Tested: Apple CD-150, firmware 1.8g (a.k.a. Sony CDU-8002)

Exceptions: None known

Special notes:

– This is the SCSI-1 version of the Sony CDU-541. It doesn't conform
to SCSI-2. As all older Apple/Sony drives, it doesn't support
reselection well. Depending on your hostadaptor and other drives, it
might not be integrated very well in existing systems (read: may
cause nasty problems!). Advice: Test extensively before buy!

– This drive uses NO real media catalog numbers (at least, I couldn't
figure out how to read it :-)

– Starting the program (or changing the unit) causes audio playback
to be interrupted for a short period of time.

– You can't eject a caddy, neither by pressing the eject button on
the drive, nor by JukeBox gadget or ARexx command, if ejection is
software-locked. First unlock it by the "Lock" gadget.

– GVP Series-II hostadaptor users MUST issue the
command "gvpscsictrl <unit> DCOFF" before the first access to
the drive, thus avoiding protocol failures with the drive's
firmware. A3000/A2091 users need to replace their WD33C93-04
PROTO chip by the newer -08 version.

1.100   MATSUSHITA

Tested: CR-501B 1.0b
                 Conrad 977969 CDROM-Kit (firmware 1.0c)
                 TARGA TCD-320

Exceptions: None known

Special notes:

–   Matsushita drives use real media catalog numbers.

–   Starting or leaving the program (or changing the unit)
causes audio playback to stop.

– GVP Series-II hostadaptor users might want to issue the
command "gvpscsictrl <unit> DCOFF" before the first access to
the drive, thus avoiding protocol failures with the drive's
firmware 1.0b. firmware version 1.0c doesn't show this bug.

1.101 TEXEL

Tested: DM-3024 K 1.0
                 DM-5024 K 1.0
                 DM-5028 K 3.5 6/Aug./1993 09:50

Exceptions: None known

Special notes:

– Make sure to get a recent firmware release! Older ROM's
are known to cause problems. Advice: Test extensively before buy!

– Texel drives use real media catalog numbers.
Unfortunately, they sometimes miss to read the last digit,
which other drives will recognize. This might result in two
different MCN's for the same disc, depending on the player
device actually used.

        Example:

           7-3145123632-7 (barcode on the disc)

        will result in

           00070301040501020306030200000 (Texel)
                                    ^^
           00070301040501020306030207000 (any other drive)
                                    ^^

In order not to miss the matching catalog entry, any digit
not recognized (i.e. '00') will be set to '0*', thus matching
any digit read by a different player device from the same disc.
The result will be:

           0*070301040501020306030 20*0*0*

– Channel control: chosing the left OR right channel
will connect the particular audio channel to BOTH outputs,
so you will hear it on both speakers (mono sound).

– New for V2 player: Channel control works ambiguous, and
volume control doesn't seem to work consistent. I'm not sure
whether this is a subject to change, since looking at the
current docs, it should work as usual. I leave the player
unchanged for the day it will be fixed. Have fun figuring
out how it works :-)!

1.102   Commodore CDTV

        Tested: CDTV, AmigaOS 1.3, cdtv.device 35.7 (6.3.91)

        Exceptions: None known

        Special notes:

        -    Channel (speaker symbols) control has a different meaning

             none: audio output muted
             only left: quarter volume
             only right: half volume
             both: full volume

        -    Leaving the program (or changing the unit, which is actually
        useless, since there's only ONE CDTV-Unit) causes audio playback
        to stop.

        -    Leaving shuffle mode causes the pickup to be repositioned at
        the beginning of the current track.

        -    The front panel is under JukeBox's control while the
        program is up. The keys act as usual.

        -    CHANGEINT=1 should always be used.

1.103   Compatibility

   This program was developed on an A3000 using SAS/C 6.3. Much efforts had
been taken to ensure compatibility to any version of AmigaOS. It was tested
for 1.2 (33.180), 1.3 (34.5), A2024 Jumpstart disk, 2.04 (37.175 ROM,
workbench 2.1 and locale.library) and AmigaOS 3.0 (V39). It should run on
any amiga equipped with at least 1.2 ROM, 512K of chip memory (when using
1.3 and below, 2.0 requires 1M of chip memory), a scsi host adapter able to
deal with HD_SCSICMD and a CD-ROM player device, of course. ARexx version
1.15 is required to make use of the macro capabilities provided by the
built-in ARexx command interpreter. It was tested on A1000, A2000, A3000
and A4000.

   New for JukeBox V2.xxx: This program requires at least 1MB of memory.
Suggested are 2MB or more, especially when using big catalog files. JukeBox
was compiled using SAS/C 6.51.

1.104   Credits

 Thanks to all people who helped me developing this program!

 * Beta Testing:

  Ralph Babel, Torsten Blum, Pius Nippgen,
  Andreas Wallasch, Christian Witte.

* Test drives:

  Amiga Plus Magazin, Pius Nippgen, Burkhard
  Lilienbecker, Wallasch & Witte GmbH, Toshiba
  Europe GmbH, NEC Deutschland GmbH, Starline
  Computer GmbH, Conrad Electronic GmbH,
  Andreas Wittkemper, Commodore Büromaschinen
  GmbH, Ralf Deifel (aka Mephisto).

* Documentation:

  Jörgen Klein of Toshiba disc product division,
  NEC Deutschland GmbH, Starline Computer GmbH,
  Wallasch & Witte GmbH, Commodore Büromaschinen
  GmbH.

* Catalog submissions:

  Torsten Blum, Armin Sparr, Olaf 'Olsen' Barthel
  and his little sister, Rainer Hess.

* Localisation:

  Jean-Michel Forgeas (french).
  Paul van der Heu (dutch)

* Additional programming:

  Heiko Rath (Sony CD-300 player module).

1.105 Troubleshooting (FAQ)

   There had been some questions from program users why JukeBox might
refuse to work in the past. They are listed here in order to help other
people with similar problems. In general, I'm always trying to be as much
of help as I'm able to, regarding any problems with JukeBox. But, before
writing letters or dropping emails and FAX's, please make sure to have
carefully read and made sure that the following well-known issues don't
apply to you.

   [A word about giving me a phone call if in trouble with JukeBox... Yes,
I know that people have phones for no other reason than to call and to get
called, that there are phonebooks around everywhere, and that it's not hard
to figure out my private phone number. Though I'm really NOT planning to
run a JukeBox-hotline-service-seven-days-a-week-24-hours-a-day. And see, I
disclosed my mail and email address, even my FAX number, but NOT MY PHONE
NUMBER! Yes, I didn't just omit it, I did that intentionally! I beg, if
somehow possible, to leave that little piece of privacy to me. I hope most
people will understand and obey (!) that. No offense meant.]

*** getting started / how to set up minimal required tooltypes ***

Q: I just bought JukeBox from my local software distributor. Sad enough, it doesn't work at all. I double-click on the icon, and all it gives me are error codes #7, #1 and #6, then exits. I own an Amiga 500 (KS 1.3, 1M Chip RAM), an A570 add-on CD(TV) drive. How can I get this to work?

A: Read the docs! You need to setup at least two tooltypes, named DEVICE and UNIT. In your special case (CDTV and A570 users), the tooltypes need to be filled by DEVICE=cdtv.device and UNIT=0. Of course, if you are trying to load that piece of software from a CDROM (read-only) medium, you can hardly save those changes to the icon. Either copy the program from the CDROM to a writeable disc, or start JukeBox from a command line specifying the appropriate values, e.g. "JUKEBOX DEVICE=cdtv.device UNIT=0". [BTW, to clarify some things: You really can't *BUY* the freely distributable demo release. Maybe some people charged you a copying fee (and that's OK, read above), but you won't *own* a copy of JukeBox as long as you won't get registered for the licensed or shareware release.]

Q: JukeBox claims that it can't open the SCSI-Device. I'm absolutely sure that I've filled the tooltypes DEVICE and UNIT correctly.

A: Check the spelling of the contents of DEVICE! Exec device names are case sensitive, so there *is* a difference between SCSI.DEVICE and scsi.device! While the latter may be correct, the first might cause JukeBox not being able to speak to your cdrom drive. Also check if there are some unwanted blank characters before or after the name. If you managed to create a working mountlist entry for a CDROM filesystem, you already found the correct spelling of the device name. Copy this one verbatim!

Q: I can't even start JukeBox. It takes a looong time before anything happens. Then, there are lots of error requesters, most of them say "Error 100: Out of memory". My setup is an A2000-HD with KS 2.04, 1M chip RAM, one disk drive, A2091 and a Prodrive Q40, Toshiba XM-3401 CDROM player.

A: Come on, let's get serious! You need a little extra RAM to use your system successfully, anyway. Just go out and buy some RAM chips! Recommended memory available when using JukeBox is _at_ _least_ one megabyte chip RAM, one megabyte fast RAM. There is a _huge_ catalog file (app. 250K+), which will be loaded upon program startup. This will take some time, especially on unaccelerated systems. Take it easy, or if you don't like that, strip the catalog size down to an amount your system can stand.

*** window couldn't be opened ***

Q: JukeBox states that it can't open the window, then exits.

A: Check your screen size! You need as least 200 points height, as long as you are using no bigger font than topaz eight or nine. When you use taller fonts, you need to add some more pixels to your screen height. Either expand the overscan area, use an interlaced or VGA-style view, or chose a smaller font. Using 2.0 and above, setting AUTOADJUST=1 will force the windows to open on screens of any size.

*** unwanted interaction by nasty filesystem ***

Q: JukeBox starts to play for some seconds, then unexpectly stops and switchs to pause or completion ("disc completed") state.

A: You probably run a filesystem simultaneously, which doesn't handle your cdrom drive correctly. For example, the freely distributable AmiNet-CDROM-Filesystem (1.0) checks for disc changes every three seconds or so, using a CMD_READ (!). This will cause any audio playback to stop immediately, no way to do anything about that from JukeBox. Some of these bugs seem to be fixed in the meanwhile, the last tested AmiCDROMFS 1.4 didn't show it. Users of older releases should upgrade. If in doubt, remove your filesystem (you need to remove the mount-command from your startup-sequence, or the icon from devs/dosdrivers, and to perform a reboot to _really_ get rid of the filesystem), then check again.

*** file requester doesn't work ***

Q: The filerequester doesn't work. No files will show up, regardless which settings, directories or pattern are chosen. I use MFR 2.0e.

A: MFR doesn't work with JukeBox for some unknown reason. Any other ASL-replacement seems to work fine, though. Since there's nothing to be done about from the JukeBox' programmers viewpoint, don't use MFR until those bugs in MFR are fixed! As of this writing, the following tags need to be supported by any ASL-replacement candidate which claims to work with JukeBox:

    ASLFR_Window
    ASLFR_InitialFile
    ASLFR_InitialDrawer
    ASLFR_TitleText
    ASLFR_Flags1 = FILF_PATGAD | FRF_INTUIFUNC | [FRF_DOSAVEMODE]
    ASLFR_HookFunc
    ASLFR_InitialPattern

*** degraded overall system performance ***

Q: JukeBox eats lots of system performance.

A: No, it doesn't! Maybe your hostadaptor eats it all? Using reasonable equipment, you can't even measure the amount of cpu-time JukeBox uses for its own purposes. There _are_ bad BAD *BAD* designed hostadaptors around which will waste totally irrational amounts of system performance. All you can do about this is to degrade the UPDATE and/or NASTY tooltypes, causing JukeBox to do its playing time inquiries less often, and considering to buy a better hostadaptor one day.

*** ambiguous error messages ***

Q: My setup is a GVP Series II controller, NEC CDR-55JD drive, and AsimCDFS. I am running KS2.04, Amiga 2000, with 68030 installed. My GVP ROMS are pretty old, 3.0x (Can't remember the exact version). It seems to recognise the drive, but keeps returning "SCSI error: HFERR_DMA".

A: Any "HFERR..."-like error message means that the driver software has problems dealing with the hardware. JukeBox operates one level higher and can't do anything about that. Check termination and cabling! You need a ROM update for the GVP Series-II hostadaptor. At least v3.15 ROM is required to use CDROM drives successfully, outdated v3.07 and older ROM are no good for this purpose.

*** media changes not recognized ***

Q: JukeBox doesn't recognize media changes. I'm using a Sony CD-300 drive and the Fastlane Z3 SCSI hostadaptor on my A4000/040. I know for sure that there is no disc in the drive, but the title listview stills holds the contents of the last inserted disc.

A: Turn to CHANGEINT=1. For some unknown reason, the Fastlane makes JukeBox believe that there is still a CD in the drive, even after removing it. On the other hand, the device driver based media change recognition (TD_ADDCHANGEINT) seems to work reliable. So just use it, as you should do whereever possible. In older driver software (Dec '93 and ealier), there was a bug when doing TD_REMCHANGEINT, thus the Fastlane's driver software might guru when closing down the unit (quitting JukeBox or changing the unit). Contact the manufacturer to get a ROM update.

Q: JukeBox doesn't recognize media changes. I'm using a brand <censored> hostadaptor. Regardless whether I turn to CHANGEINT=0 or CHANGEINT=1, all it gives me are funny results, sometimes crashes or hangs. But finally, I decided to leave CHANGEINT=0 while I encountered less system crashes doing so. What's wrong with JukeBox?

A: There's nothing wrong with JukeBox. But some hostadaptors are known to have serious problems when dealing with changeable media. This is due to the fact that most of them were designed with only non-changeable (harddisk) media in mind, or they are reacting only on a few specific error messages from a small number of known and tested devices. This is bad, and there is nothing to be done about from JukeBox's point of view. JukeBox expects at least an error code when trying to access non-existant media. If the hostadaptor's firmware can't even deliver that, it's *BROKEN*. My advice is to get a working and reliable hostadaptor, and don't buy this sh*t again! Perhaps a ROM update might help, if available. Ask the dealer you bought it from. If you are not able to recognize media changes, but nevertheless you managed to get JukeBox to work somewhat reliable, there's a workaround which might help in some situations. Just close and re-open the device to force JukeBox to reorganize its internal states. E.g., if your CDROM device is connected to unit 2, press <right-amiga>+<2> any time you change the media.

Once again: JukeBox can't cure defective hostadaptors, nor can I repair them, neither can sending me the shareware fee do anything about that! If the freely distributable evaluation release of JukeBox doesn't work with particular hostadaptor's hardware, the shareware release won't either. I'm trying to be of help as much as I'm able to, but please don't sue me the way "Gimme back the shareware fee, it's useless as it doesn't recognize media changes".

*** problems with certain hostadaptors ***

   Q: I tried in vain to update my controller card's firmware to a level
which permits me to use CDROM. It's a mess, can't get it to work as it
should. Enough trouble, I'm planning to get another one. Which hostadaptor
should I buy?

   A: It's hard to make a recommendation for various reasons. There are
tons   of   useless,   unreliable,   broken and bad designed "so-called"
SCSI-hostadaptors on the market. So be VERY, VERY careful before buying one
of them! I've been told about so many problems in the past. Reporting bugs
to various companies mostly results in that certain people became upset,
rather than fixing it or even admitting that there was a bug. So I became a
little bit tired tracking down and reporting bugs. As I suppose, they'll
never get fixed as long as only a few (CDROM-) users have problems with
them. Most people seems to be satisfied if their hostadaptor accepts their
favourite harddrive, nothing else. Sad, but that's their main business. My
advice is to get a working, reliable combination of software and hardware,
manufactured by a well known company. Chose one which is in the amiga
market for years. Chose one which provides continued support, ROM updates,
service hotline. Chose one which has already proved being able to design
and market first-quality amiga products. Thats all. Don't blame me if
JukeBox refuses to work with certain el-cheapo-hostadaptors, which:

  - can't return error codes if there is no medium in drive
  - can't do SCSIF_AUTOSENSE for obscured "various reasons"
  - can't do TD_ADDCHANGEINT / TD_REMCHANGEINT
  - can't understand HD_SCSICMD command format
  - [to be continued]

*** problems regarding system software (WB/Kickstart) ***

   Q: I can't manage to get JukeBox to work flawless. It gives me some
recoverable alerts upon startup, a garbled display during program
execution, menus without text, sometimes crashes or hangs. I'm using a
rather old A3000 1C/1F with bootroms, last time I checked my workbench
version it was v36.anything, don't remember exactly. Surprising, when
booting into Kickstart 1.3, it works a bit better (well, not really, since
I'm missing some 2.0-features I'd really like to use).

   A: Finally, this might be a good reason to get your A3000 updated to a
more recent official system software release NOW! Unfortunately, some early
machines shipped with preliminary (beta) kickstarts, which really shouldn't
be used anymore. Especially those outdated V36 kickstart images and
workbench disks are obsolete and sometimes dangerous to use. Here are some
examples for major system software releases which are known to work with
JukeBox:

  Workbench 1.2 (33.61), Kickstart 1.2 (33.180)
  Workbench 1.3 (34.20), Kickstart 1.3 (34.5)
  Workbench 2.04 (37.67), AmigaOS 2.04 (37.175)
  Workbench 2.1 (38.35), AmigaOS 2.04 (37.175)
  Workbench 3.0 (39.29), AmigaOS 3.0 (39.106)
  Workbench 3.1 (40.x), AmigaOS 3.1 (40.x)

   Some of them are available as upgrade kits for older machines. Ask your

dealer. Don't use anything labeled less than V33, V35 or V36, those interim
releases are known to have bugs! Since there is at least V37 available for
any current Amiga by now, please get your upgrade kit. Don't waste your
time trying to use obsolete or even beta system software. It's not worth
it.

    Q: After   startup,   JukeBox   immediately   guru's   without   reasonable
comments about a problem which might have been occured.

    A: JukeBox needs exactly _one_ transcendental mathematics function to
calculate the position of the jog shuttle. It uses mathtrans.library, thus
you can't run it without being able to load this library from disk. Check
out   your LIBS:mathtrans.library! There are some bad programming exercises
around, which don't implement the SPSinCos() call correctly under any
possible coprocessor configuration. STAY AWAY FROM THOSE HACKER'S KLUDGES,
EVEN IF THEY PROMISE YOU *INCREDIBLE* SPEED INCREASES, SOME OF THEM ARE
SEVERELY *BROKEN*! Use mathtrans.library shipping with original commodore
system software kits, these are tested and are known to work. I'm not
planning to care about hacker's versions flying around, if they don't work,
throw them away! Enough... The following original commodore distributions
of mathtrans.library, and probably any subsequent update in the near
future, are _known_ to work under any possible configuration:

    – Workbench 1.2, 1.3: mathtrans.library 33.8 (11 Sep 1986)
    – Workbench 2.04, 2.1, 3.0: mathtrans.library 37.1 (22.1.91)

*** how to send in the shareware fee ***

    Q: I would like to send you the shareware fee by an international draft,
it will cost $8 at the bank on top of this to get a foreign currency cheque
made. Then I will send this cheque in a registered letter to you, which
will cost another $8. Do you like that?

    A: No, please don't! Last time I asked my bank, caching a DM-50
"international draft" would have charged me DM 35,-- processing fee! No
joke! That doesn't buy you anything, nor does it for me. I usually will
send those expensive pieces of paper back to the people who sent them to
me, and beg them to enclose a 50-DM-bill in an envelope to send it as a
registered letter. In germany, registered letters are insuranced up to DM
60,--, so I think the rules for other countries must nearly be the same.
The risk of such a letter getting lost or robbed seems to be covered well.
Remember: This is no advice that you should send the shareware fee always
and only this way. There might be better solutions from your point of view,
so it's up to you to chose the best.