AlgoMusic

COLLABORATORS

	TITLE : AlgoMusic		
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WRITTEN BY		April 18, 2022	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

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Chapter 1

AlgoMusic

1.1 Welcome to the AlgoMusic documentation

AlgoMusic V2.3

(C) 03.12.97 by Thomas Schürger

A nice algorithmic song player
for House/Techno-style music

Giftware

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                          Future

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                    Registration
                              "Always remember: Music is the only drug you need."
                                   – Steve Mason –


             Note: Now there's a workaround for the comment problem!
                          See history or FAQ section.


          Please rate each update of AlgoMusic on Aminet! See "Author"!
```

1.2 Copyright

```
Software Copyright
------------------
  The Copyright for this program belongs to the author and noone else.

Type of Software
----------------
  AlgoMusic  is Giftware. This means that you can practically do anything to
it.  Copy,  rename or even delete it in any manner you like. But you mustn't
modify  or  disassemble  ANY of the files supplied in the AlgoMusic-archive.
Except  for  samples,  no  files  may  be  added or deleted from the release
archive,  especially  the executables and this guide must be left unchanged.
Crunching  with any good packer or other archivers available to the public is
allowed, but not suggested.

  You may not gain any commercial or private profit out of this program. You
even may not use it commercially (meaning running it in your shop to attract
customers, for example) without my written permission to do so.

  If  you use AlgoMusic for your own (noncommercial) productions (disk mags,
slideshows,  demos  etc.)  you  need to mention my name somewhere, send me a
mail about it and possibly also a copy of your program.

  This~  software  is  provided  "as is", meaning that I will not in any way
be  responsible  for  any  loss  of  data or damage done to your hardware or
software  directly or indirectly by the use of this program. No warranty for
the  functionality  is  given,  neither  implied  nor  expressed. If you are
against such regulations, don't use this program.

  You  are  asked  to send me a gift (stamps, disks, pinup-girls, umbrellas,
modems,  ZIP  drives,  GB HDs, mini disc players, A4000s, Ferraris, swimming
pools,  bungalows  and  MIG  29s  are preferred) if you like AlgoMusic. I'll
accept  small  financial  donations as well, of course. Even for private use
all  these  suggestions  are  actually  a  "must" if you use AlgoMusic for a
period of more than 2 weeks. Sending a gift will very well keep me improving
```

the code and functionality of this program. As you can see in the history,
loads of improvements have been included so far.

   Not sending a gift or a donation is both immoral and illegal!

Distribution Conditions

   AlgoMusic may be taken for use in any PD/FD/Shareware library (including
Aminet and Fred Fish's library). If it is published on any digital medium
and thereby sold for money, regardless of the profit, you simply
MUST send me at least one copy of the disk or CD it is published upon.

Availability

   Do your best to make AlgoMusic available everywhere on our small Earth
(BBS, WWW, FTP, CD-ROMs, ...) and tell your friends about it.

1.3 Introduction

                  Ever been tired of looking into your soundmodule-directory ↩
                     and yawning
your head off because you've heard all your boring mods thousands of times?
Well, here is the ultimate solution!

   AlgoMusic is quite a complex program that creates and plays a song
randomly out of a series of algorithms in a Techno/House manner. Just try
it, it sounds nice. :)

   AlgoMusic will read its samples randomly from different directories. You
may add, delete and configure these files. Please look at the readme-files
in the sample directories or the
                 Configuring Samples
                 -part for more info.

   AlgoMusic is a shell-tool only. Starting from Workbench is possible, but
configuration using tooltypes does not work yet. A prefs-program which also
features a GUI for everyday use with MUI 3.x is included since V1.5.

1.4 Features

AlgoMusic features:
----
   o Giftware.

   o Groovy song creation algorithms.

   o Samples totally customizable.

   o Speech sample support.

   o Short song creation times.

o Compiled using SAS/C 6.57 with proper optimization.

o Low memory usage.

o 68000, 68020/030 and 68040/060 versions included.

o MUI configuration and everyday-use utility including nice analyzer.

o Shell or GUI usage possible.

o Nice Installer script for easy installation.

o Update and full install archive available.

o Release archive includes a nice collection of acid, bass, chords,
  melody, base, breakbeat, clap, hihat, snare and speech samples.

o Archive includes developer files.

1.5   Requirements & Recommendations

```
AlgoMusic requires:
-------------------
  o any Amiga with Motorola 680x0 processor

  o Amiga OS 2.0 or higher

  o about or less than 512 KB of free chipmem

  o additional 512 KB of free chipmem or fastmem

  o a harddrive (or a HD disk or ZIP disk ;-D )

  o about 1.7 MB of free disk space

  o Commodore's or AT's Installer

  o MUI 3.x if you want to use the prefs-program


Recommended hardware/software:
------------------------------
  o Amiga OS 3.1

  o 68030/50, 68060/66 for hyperspeed use

  o Installer 43.3

  o MUI 3.8


AlgoMusic won't work on:
------------------------
  o Amigas with non-standard audio or CIA hardware (e.g. DraCo)
```

Development info:

   It was developed on a PAL Amiga 1200 with OS 3.1, 68030/50 and 48 Megs of
60 ns Fast-RAM. It has also been tested on quite a large variety of other
differently equipped Amiga hardware without any problems.

1.6 Installation

   Installation is performed using Commodore's (or AT's) Installer. It is not
included in the AlgoMusic package but is part of your Workbench. The newest
version should also be available on Aminet. That should be V43.3.

   Easy installation is guaranteed.

   Click here to install if you haven't done it already:

      Install AlgoMusic

1.7 Shell Usage

   AlgoMusic can be used either via launching it from the shell or,
alternatively, by using the prefs program which also allows starting
AlgoMusic.

   The argument-template looks as follows:

      ACID/S,AVOL=ACIDVOLUME/K/N,BB=BREAKBEAT/S,BBVOL=BREAKBEATVOLUME/K/N,
      BPM/K/N,BVOL=BASSVOLUME/K/N,CONT=CONTINUE/S,CVOL=CHORDSVOLUME/K/N,
      DVOL=DRUMSVOLUME/K/N,ECHO/S,FILTER/S,FINETUNE/K/N,FOREVER=REPEAT/S,
      FREEMELODY/S,INFO/S,INIT=RANDOMINIT/K,LOG=LOGFILE/K,NEWSONGCOMB/K,
      MVOL=MELODYVOLUME/K/N,NEWSONG/S,NOALLOC/S,NOENV/S,NOFADE/S,QUIET/S,
      QUIT=BREAK/S,QUITCOMB/K,SAFE/S,SPEECH/S,STOP/S,SVOL=SPEECHVOLUME/K/N,
      VOL=VOLUME/K/N

Flag Argument   Description

S   ACID   Switches on the use of an acid-style sample where
                     applicable. By default, it is switched off.

SR ACIDVOLUME n   Allows setting relative volume of acid sounds [0..64].

S   BB=BREAKBEAT   Enables using breakbeats where applicable.

SR BASSVOLUME n   Allows setting relative volume of bass [0..64].

```
SR BPM n              Sets the playing speed to the BPM value specified.
                      It must be in the range of [84..200]. The default
                      is 160.

SR BREAKBEATVOLUME n  Allows setting relative volume of breakbeats [0..64].

SR CHORDSVOLUME n     Allows setting relative volume of chords [0..64].

 R CONT=CONTINUE      Tells AlgoMusic to go on playing after having been
                      STOPped. Otherwise it is ignored.

SR DRUMSVOLUME n      Allows setting relative volume of drums [0..64].

S  ECHO               Tells AlgoMusic to use echo-effects, where possible.

S  FILTER             If this switch is activated, then the audio filter is
                      switched on. By default, the filter is switched off.

SR FINETUNE n         Sets the global finetune for the song to n. The value
                      is given in %% (thousandth) to add to the normal
                      frequency, thus 1000%% doubles the frequencies whereas
                      -500%% halves them.

S  FOREVER=REPEAT     If you want AlgoMusic to go on playing forever, this
                      is the right switch to use. After finishing a song,
                      a new song is quickly created and played. By default,
                      FOREVER is switched off.

S  FREEMELODY         Chooses "free melody" melody creation type.

SR INFO               Shows some information about used samples for each song
                      and general info about this AlgoMusic version.

S  INIT=RANDOMINIT $h Initializes the random generator with the hex-value
                      specified. Same hex numbers will result in same
                      songs.

S  LOG=LOGFILE name   Specifies a filename (with path) for a logfile. Each
                      time a new song is rendered, some information is
                      appended to that file. If not specified, no logfile
                      is generated.

SR MELODYVOLUME n     Allows setting relative volume of melody [0..64].

 R NEWSONG            Forces an already running AlgoMusic process to create
                      a new song and instantly play it.

S  NEWSONGCOMB n      Specifies a key/mousebutton combination for creating a
                      new song. n can be one of the following:

                        "Off"
                        "MMB"
                        "LMB+RMB"
                        "MMB+RMB"
                        "LMB+MMB"
                        "LMB+MMB+RMB"
                        "LALT+LMB"
```

```
                                  "LALT+RMB"
                                  "CTRL+LMB"
                                  "CTRL+RMB"

                                   LMB = Left Mouse Button
                                   MMB = Middle Mouse Button
                                   RMB = Right Mouse Button
                                  LALT = Left Alt
                                  CTRL = Control
```

S NOALLOC   This switch disables the allocation of audiochannels.
                       By default, the channels are allocated.

S NOENV   When enabled, AlgoMusic will ignore the preferences
                       in your ENV: directory. Cool for putting AM on e.g.
                       bootable CDs without having to bother about an ENV:
                       directory.

S NOFADE   Normally, the song is smoothly faded out in the
                       song's last pattern. Use this switch to avoid that.

S QUIET   All output is suppressed, except error messages.

 R QUIT=BREAK   Forces an already running AlgoMusic process to
                       immediately stop playing and quit. It is the same
                       as sending the process a CTRL-C (e.g. using the
                       Shell Break-command). If AlgoMusic was not running
                       before, it is launched.

S QUITCOMB n   Specifies a key/mousebutton combination for quitting
                       AlgoMusic. See NEWSONGCOMB section.

S SAFE   Uses workaround for a bad V37 and V39 Kickstart bug
                       when reading comments with ExAll(). If AlgoMusic
                       tells you some strange things about wrong comments,
                       you must use this switch. ExAll() is then emulated
                       via Examine()/ExNext(). Just try, if it works without,
                       leave this switch off, because directory scanning
                       is slightly faster then.

S SPEECH   Enables use of speech samples.

SR SPEECHVOLUME n   Allows setting relative volume of speech [0..64].

 R STOP   Forces a running AlgoMusic to stop playing but not
                       to quit. Using CONT you can tell it to go on playing
                       the song. All other commands may be used as well while
                       stopped.

SR VOL=VOLUME n   This sets the main volume the song is played at. It
                       must be in the range of [0..64]. Default is 64.

Flags:

  S: Usable when AlgoMusic is launched

R: Usable when AlgoMusic is already running

Examples:

1> AlgoMusic BPM 140

would play it a bit slower than with the default value.

If you like it fast and forever with acid-style, breakbeats, speech and echo, you might use

1> AlgoMusic BPM 176 SPEECH ACID FOREVER BREAKBEAT ECHO   :^)

Changing settings while running:

All changeable settings (those parameters marked with an 'R') can be modified while playing with the prefs program or by starting AlgoMusic again from shell with the desired new values.

Example:

AlgoMusic BPM 120 VOLUME 40

Changes BPM and main volume of AlgoMusic while playing.

Using a prefs-file by hand:

You can put your favourite arguments into a variable called "ENV:AlgoMusic.prefs". It is parsed just the way the shell arguments are parsed. Shell arguments override the variable arguments, which means that if you have specified "INIT $4002" in the variable and use "INIT $5" in the shell arguments, the second value is taken.

Switches are handled differently. They actually act as toggle switches, so if you specify the same switch in both the variable and the shell arguments, it is switched off, because it is first turned on and toggled back off afterwards.

If you already have an AlgoMusic process running, you can stop it either by sending a break signal to the process or by just running AlgoMusic again with the BREAK or QUIT argument.

1.8 AlgoMusicPrefs

AlgoMusic's prefs program features a config part as well as ←
a realtime
part where you can start AlgoMusic etc.

Note that the "config" page of the prefs program is not realtime, meaning that changing the settings there will not directly influence a running AlgoMusic. If you want to use these settings directly, you must first hit

"Eject" and then push "Play" or "New".

  As MUI 3.x help bubbles are heavily used, the prefs program should be
self-explanatory. If you are still unsure about something, have a look at
the
                shell arguments
                  .

  AlgoMusicPrefs may be exited either by closing the window (equals Cancel),
Use or Save and by sending a CTRL-C to the process.

  Since V2.3, AlgoMusic also supports passing arguments to AlgoMusicPrefs.

  The argument-template looks as follows:

    ICONIFY/S,PLAY/S

  Argument   Description

  ICONIFY   Do not open prefs window immediately but open the
                      MUI application iconified. Double-clicking on the
                      icon will open the prefs window. Additionally, you
                      might want to enable the iconify gadget in MUI
                      prefs to reiconify the prefs window when open.

  PLAY   Immediately start playing after opening the prefs
                      window. If already playing (or stopped), does nothing.

1.9 Configuring Samples

                Each sample may have an own configuration in volume, pitch ←
                  etc. You'll
just have to add a filenote (comment) with your wished template style string
to the sample's file.

  The following things are possible to set for each sample:

                  VOLUME/K/N

                FINETUNE/K/N

              PHASERDEPTH/K/N
                  works only with

              PHASERSPEED/K/N
                  acid, melody & bass samples

  Just concatenate these options in the filecomment of the specific sample.

It could look like this:

   "VOLUME=40 FINETUNE=1000 PHASERDEPTH=15000 PHASERSPEED=120"

   Additionally, please look at the different ".readme"-files in the sample
directories!

1.10 VOLUME

   The VOLUME=x template works as follows:

   It sets the relative sample volume (0-64). Relative, because you can also
alter the sample's volume by changing the main volume or e.g. the bassvolume
for bass-samples.

   The default volume for samples is 64. If any samples appear to be too
loud, just use a smaller value.

1.11 FINETUNE

The FINETUNE=x template works as follows:

Normal samples

It is the permillage (not percentage) of what is added to the samples normal
frequency. x may also be negative.

     x   Frequency   Factor

     0   0%% more = * 1
  1000   1000%% more = * 2
   500   500%% more = * 1.5
  -500   500%% less = / 2
  -750   750%% less = / 4

   So if a sample appears to be too deep, you can just add "FINETUNE 1000" to
the samples' file-comment in order to play it twice as fast (=1 octave
higher).

   So the formula is:

Factor = (x+1000)/1000

   If you're good at math, you can even calculate the x's for semitone
transpositions! ;-)

   For transposing a tone up n semitones, simply use this formula:

   $x = 1000 * 2 \wedge (n/12) - 1000$

FINETUNE won't work with drum samples (excluding breakbeat-samples), because the samples are mixed in order to get combinations (base+clap, for example). Different volumes for mixed samples are possible, though.

```
Speech and Breakbeat samples
----------------------------
```
   The finetuning works different for Speech and Breakbeat samples because the sample period has to be properly scaled to the specified bpm playback rate. Internally the period is calculated like this:

   period = (30000-finetune)/bpm

   This means that if you'd like to play a sample twice as fast (at the same bpm rate, of course) you'll have to put a "FINETUNE=15000" in the sample's filecomment. You'll also have to be careful not to hit the hardware's playback limit (being somewhere around 130 for the period). As the maximum bpm is 200, you can calculate the maximum finetune value you can use: it's 4000 (or you'll get strange results when playing rather fast).

1.12 PHASERDEPTH

   Some samples appear to have a transforming sound while being played. This is done by just changing the sample's start offset while playing.

   The PHASERDEPTH is the amount of words (=2 bytes) in the samples to move to and fro for the start offset.

   PHASERDEPTH 17000 would cause the byte-offset to move forward and back from 0 to 34000 bytes.

   So, the PHASERDEPTH should be slightly smaller than the sample's length divided by 2, here meaning the actual sampledata of the sample (not including 8SVX header).

   The initial starting offset and its movement direction are random.

1.13 phaserspeed

   You can set the amount of words to add to or subtract from the current starting offset for phaser-samples with this option. It should neither be to small nor to big. A value from 20 to 200 should be quite okay most of the time. Just check it out!

1.14 FAQ - Frequently Asked Questions

```
Frequently asked Questions about AlgoMusic
------------------------------------------
```

Q: When I start AlgoMusic, it keeps telling me that my sample's filecomments

are faulty. The first character in the displayed comment is always
missing.

A: This is a bug in OS V37 and V39 (the latter only when using DirCache on
your harddrive). Those two OS versions do not correctly read filecomments
when using the dos.library function ExAll(). Now there is a workaround.
Simply start AlgoMusic with the "SAFE" switch. ExAll() will then be
emulated using the OS functions Examine() and ExNext().

Q: When I start AlgoMusic, I get an error telling me that there's something
wrong with an acid sample's comment.

A: If you haven't changed any comment at all yourself, it seems as if it
has been destroyed, possibly by some application. This may happen when
copying files with certain DirOpus-like programs, for example, which
manipulate the filecomment.
When copying configured samples, always be sure that the filecomment
is copied along as well. This may be done by using "Copy Clone ...".
Especially Breakbeat and Acid samples cannot live with missing
comments.

Q: When I install own acid-samples, they sound weird sometimes.

A: You'll have to set the acid-parameters ACIDDEPTH and ACIDSPEED in the
samples' filecomments in order to work properly. You'll have to
experiment which values sound best. ACIDSPEED should be somewhat around
100, ACIDDEPTH should be about 10% less than your samplelength divided
by 2.

Q: When I install own breakbeat-samples, they seem to be cut off at the
end, almost regardless of the finetune-parameters for the samples.

A: You seem to want to use breakbeat-samples with eight (!) beats. This
is not supported. You can only use samples with four beats.

Q: What is the easiest way to install own breakbeat-samples?

A: Just start AlgoMusic several times until you hear a song starting with
a breakbeat. Now remember the randominit-number for it. Then you can
move all existing breakbeat-samples somewhere else on your harddisk.
After that just put your new breakbeat-sample inside the
rhythm-directory. Now you can start AlgoMusic with the randominit-number
over and over again in order to find out the right FINETUNE value.

Use this method for acid and speech samples as well.

Q: Will AlgoMusic be able to save a song in mod-format (Protracker, OctaMED)

        in the future?

A: No, I don't see a good reason why it should be able to. It would just
   cause a new mod flood on Aminet. My own player supports things that are
   not possible in PT anyway (e.g. volume cutoff and phasing simultaneously).

1.15 Tips

ToolsDaemon

   If you are using the great tool called "ToolsDaemon" by Nico Francois, you
should do the following to implement AlgoMusic into it:

   Create two menu entries, one called "AlgoMusic Start/Stop" (assign
Amiga-'m' to it) and one called "AlgoMusic Next Song" (assign Amiga-'-' to
it). The first menu entry should execute "AlgoMusic >NIL: BREAK" (CLI), the
second one "AlgoMusic >NIL: NEWSONG" (CLI).

   So whenever you want to start or stop AlgoMusic, just hit Amiga-'m'. If
you want to hear a new song (or want to start AlgoMusic), just hit
Amiga-'-'. It's very handy indeed!

   Additionally, you could map the command "AlgoMusicPrefs ICONIFY PLAY"
(CLI) to a key and would always have the appicon to doubleclick in order to
open the prefs window. Note that MUI will only allocate a minimum of memory
when an application is iconified.

   If you have other tips for other tools, please let me know!

1.16 Developer files

   AlgoMusic has a simple way to pass data to an external program. There is a
global message port where one can obtain this information, a simple call to
FindMsgPort() is enough to obtain it. For further details, please have a
look in the "Developer" directory. There are also some examples how to use
this facility properly.

   I would be glad if you'd send me some small programs (including sources)
that produce some fancy graphics depending on the music being played. Those
things should work on graphics cards, as well as on AGA or even ECS
machines.

   If your program is a rather big project, you can also release it yourself,
but I'd like to be informed about such thing before.

   Go on, do some fancy stuff!

1.17 Bugs/Problems

Known Bugs and Problems
----

  o Uses direct hardware access on audiochannels and CIA timers.

  o You will find that same RANDOMINIT values are useless when using
    different versions of AlgoMusic. You'll get other songnames with other
    versions as well.

  o If you have a proportional font for Floattext objects in MUI, the
    "Info" switch in the prefsprogram will cause rather odd looking
    results. That won't cause any damages, though.

  They will be (partly) removed in the future. So watch out for further
updates!

If you discover Bugs

  If you have discovered any kind of bug, please let me know what happens,
when it happens and where it happens. If the bug is song-dependent (meaning
strange things in a particular song, for example) please send me the
randominit-number and the song number of that song.

  The more thoroughly you check out these things, the more likely it is that
the bug is fixed quickly. Don't forget to tell me the version of AlgoMusic
where you have discovered the bug.

1.18 History

                  Release History

  Dates are dates of release as well as dates of last change.

V2.3: (03-Dec-97)   Major Update

  AlgoMusic:

  o If there is an error in AlgoMusic.prefs, AlgoMusic now tells the user
    to run AlgoMusicPrefs and to save the settings.

  o Implemented a nice way to obtain current notes being played, as well
    as other sample information. Have a look at the updated files in the
    "Developer" directory and read the
                  Developer section
                   in this guide.

  o From now on, AlgoMusic will be available as a 2-part split-archive
    (700 KB each) on the support page, because several people requested
    this. The two files must be joined together before LHA extraction.

  o Added volume cutoff "effect".

o Changed the output of "Info" a bit.

o Added the ability to specifiy a key/mousebutton combination that results
  in creating a new song or quit (NEWSONGCOMB and QUITCOMB).

o AlgoMusic's main program sourcecode now exceeds 100 KB (3500 lines)!
  Altogether (all .c and .h files) exceed 168 KB.

o Added MWB and NewIcons Icons.

o Fixed some stooopid bugs in the Installer script.

o A new songinfo (INFO switch) was only created after generation of a new
  song, so meanwhile changed volumes etc. were not represented in the
  output. Now fixed.

  AlgoMusicPrefs:

o Added shell argument parsing to AlgoMusicPrefs. There are two new
  switches: PLAY and ICONIFY. See the
                AlgoMusicPrefs
                 section of
  the guide.

o AlgoMusicPrefs now uses its icon as appicon when iconified.

o AlgoMusicPrefs refused to start if there was something wrong with
  AlgoMusic.prefs file. Now fixed.

o Removed the 2 Enforcer hits at start of program.

o Changed the appearance of the "About" window.

o Added two cycle gadgets for NEWSONGCOMB and QUITCOMB argument.

V2.2: (05-Jul-97)   Minor Update

  AlgoMusic:

o Fixed that nasty bug in the QUIET option that caused the samples
  not to be deallocated.

o Fixed the bug causing wrong playback speed below 163 BPM.

o Fixed some other unimportant stuff.

  AlgoMusicPrefs:

o Will not use the QUIET option anymore when launching AlgoMusic
  (there is no need for it anyway, because output is redirected
  to NIL:).

```
V2.1:  (24-May-97)   Major Update
---------------------------------
```
  I made a mistake at the second one of my two bank accounts, that has
  been corrected in the
                Author
                  section.

  AlgoMusic:

o AlgoMusic will from now on be available as update archive as well
  (at least when no vital things are changed).

o Implemented the ability of setting a global finetune.

o AlgoMusic used to Lock() and Open() files instead of just Open()ing
  them. Now fixed.

o Included some developer files. Look at Developer directory.

o Alphasorted the shell-argument template.

o In "Safe" mode, AlgoMusic did not unlock the sample directories
  after scanning (reported by A. Benden). Now fixed.

o Included echo effects for speech samples.

o AlgoMusic's "audioport" is no longer a global system port.

  AlgoMusicPrefs:

o Added a slider for the finetune.

o Fixed some silly Enforcer hits (reported by A. Leidinger).
  I used Signal() instead of SetSignal(). :(

o Now makes extensive use of MUI callback hooks. The GUI should have
  quicker response times now.

o Reduced the graphical layout weight of the Analyzer group making more
  space for the sliders etc.

o The song progress is displayed more smoothly now.

o Now Exchange will display and handle AlgoMusicPrefs correctly.

o All groups have proper backgrounds now.

o Rearranged the cyclechain of the objects which was rather crappy before.

o Added a "GUI" menu, where it is possible to show/hide parts of the GUI,
  giving the user the ability to let it appear smaller (inspired by
  C. Meilicke). Sadly, MUI cannot hide parts of a register object, so
  the user can't hide the "Config" page. The GUI settings will be saveable
  in the future.

```
V2.0:  (18-Apr-97)   Major Update
-------------------------------
  Note that my e-mail address has changed again.  The new address is
  "schuerge@studcs.uni-sb.de". The old address will be valid until end
  of 1997, but please don't use it anymore.


  AlgoMusic:

  o Immensely cleaned up code.

  o Included 68040/060 version.

  o Removed NOCIA and DELAY option because they were useless. Reorganized
    argument handling as well.

  o Adjusted some more samples.

  o Fixed some internal bugs.


  AlgoMusicPrefs:

  o Totally reworked the layout of the prefs program.

  o Now saving and using the settings is possible.

  o Added "analyzer" displaying base and clap. Nice!

  o Added ability to see guide when pressing HELP.



V1.8:  (30-Jan-97)   Major Update
-------------------------------
  AlgoMusic:

  o Fixed a small bug in the date of the logfile output.

  o Added much better melody creation. Can be switched on using
    "FREEMELODY" option. Does anyone know a better algorithm?
    I hope so.. :-)



V1.7:  (01-Nov-96)   Major Update
-------------------------------
  AlgoMusic:

  o Created an AlgoMusic support site:

    http://fsinfo.cs.uni-sb.de/~schuerge/AlgoMusic/

  o Now 68020+ version is included (handled automatically by installer).
```

o Implemented ExAll() workaround for faulty comment interpretation of
  some Kickstarts (the V1.6 workaround didn't work properly). If you
  have any problems running AlgoMusic, just try using the SAFE switch.

o AlgoMusic can now handle samples with lengths up to 128 KB.

o Added speech support.

o Added SPEECH switch and SPEECHVOLUME argument.

o INFO will now also show needed Chipmem for used samples.

o Made Breakbeat rendering somewhat cooler.

o Random generator initialization is now more random. :)

o Now also Bass and Melody samples can make use of PHASERDEPTH and
  PHASERSPEED sample options, making some things sound much better.

o Melody creation will now adapt to Maj/Min-4/6 chords, causing groovier
  sounding songs.

o Changed max. BPM rate down from 225 to 200. Some Breakbeat and speech
  samples couldn't be transposed properly (hitting the playback limit
  of Amiga's customchips) at very high bpm rates.

AlgoMusicPrefs:

o Removed Enforcer hit, which was caused when AlgoMusicPrefs was running
  while AlgoMusic was not.

o The displayed song number was an input button instead of a normal
  read-only gadget. Now fixed. <Claus Dyring>

o Added speechvolume slider.

o Fixed AlgoMusicPrefs <-> AlgoMusic communication bug.

V1.6: (23-Jun-96)   Minor Update

  AlgoMusic:

o Very stupid bug detected: when passing out-of-bounds values as
  arguments, AlgoMusic caused a Software Failure. Now fixed.

o Added echo effects for acid samples.

o Implemented OS 37.x ExAll() fix. AlgoMusic could not correctly
  read filecomments due to an error in 37.x's (Fast)Filesystem.
  Now AlgoMusic will really work on all Amiga OS versions starting
  with OS 2.0. <Michael van Elst>

AlgoMusicPrefs:

o Added more menu and keyboard shortcuts.

V1.5: (10-Jun-96)   Major Update

  AlgoMusic:

o Totally reworked sample organisation. Now they are randomly read
  out of directories.

o Samples can be configured by attaching a standard template-style
  filenote to them. Have a look at the readme-files in the sample
  directories to see how it works.

o Fixed a bug that didn't set the upper and lower bpm limit correctly.

o Removed that nasty bug that played a strange "beeep" sometimes. It
  will never appear again!

o Changed the internal chord-structure. Now also Maj6, Min6, Maj64 &
  Min64 is possible. Makes everything sound much nicer! ;)

o Reduced used player-cpu-time a bit.

o Breaking AlgoMusic just by running it again is not possible anymore.
  It must now be broken using an argument switch (QUIT).

o Uses real task communication now. You can ask a running AlgoMusic
  process about the songname and initnumber of the song currently
  being played. Just run AlgoMusic again without arguments to see
  that information. You can also change volumes and playing speeds
  while playing.

o Added much more structures.

o Added five more switches: NEWSONG, QUIT=BREAK, NOENV, STOP and
  CONT=CONTINUE.

o Added ability to set volumes for each type of sample. Added ability
  to set volume for each individual sample as well. Can be done by
  using "VOLUME=x" in the filenote of a sample.

o Ability of using a non-CIA (=VBI) player has been removed. This
  is due to different screen refresh rates in different screenmodes
  which would result in awkyard breakbeat sample periods and different
  playing speeds. Noone uses it, anyway (I hope). A CIA-timed player
  is much nicer.

o Started working on AlgoMusicPrefs for MUI.

o Added ability to specify a logfile. This can be done by setting
  "LOGFILE <Filename>" in the arguments. <Agust Arni Jonsson>

o Added ECHO switch. With it, you can switch on the usage of

echo-effects.

o AlgoMusic is now able to fade in and fade out any of its voices.

o Now an Installer-script is included for easy installation.

o Added INFO switch. It will show you lots of information about
  the current song.

o Fixed a bug in INFO generation. AlgoMusic could only display
  that info when launched while the prefsprogram was active.

o AlgoMusic will now show the sample's name and comment if
  something is wrong with its comment. You can then easily fix it.

o Removed all Enforcer hits.

o Now AlgoMusic will show all errors using system requesters.

o Logfile output includes AlgoMusic version and creation date now.

  AlgoMusicPrefs:

o Added Bubble-Help for most of the groups/buttons shown.
  Saving etc. is not possible yet.

o Added "Info" button, which shows just the same thing like when using
  the INFO switch.

o Now ALL AlgoMusicPrefs-windows can be closed via closegadget. :)

o The most needed buttons now have a keyboard shortcut.

o The information-listview is not an input-list anymore.

o The different groups and the "About" window in the GUI have other
  backgrounds now.

V1.4: (16-Oct-95)   Major Update

  AlgoMusic:

o Added breakbeats! I don't know anymore who proposed that, but I liked
  the idea! Can be enabled using the BREAKBEAT switch.

o Small bug: BPM rate could not be set below 84.

o Changed to Giftware!

V1.3: (13-May-95)   Major Update

  AlgoMusic:

o Included a nice CIA timer for playing.

o Added option NOCIA which plays just the former way (using Delay()).

o Added the ability to set the BPM rate per argument.

o Added acid-style sample and option ACID.

o Now outputs the random seed.

o Added the ability to set the random seed as a hex value via
  RANDOMINIT/INIT argument.

o Found out how to play a sample without automatic repetition... ;)
  The samples all used to have quite a big zero-byte buffer behind them.
  This has been changed -> AlgoMusic is MUCH shorter now!

o Rewrote the song creation algorithm. There used to be only four chords
  per pattern and fixed bass/melody sequences (16 steps long). This has
  been changed. Now the chords can span over several patterns and can be
  changed quicker etc.

o Added the ability to put one's favourite arguments into a variable
  called "ENVARC:AlgoMusic.prefs". Look at the "Usage" section to find
  out more about this.

o Now, "INIT $0" is possible. It turns the pseudo-random random seeding
  back on. Not bad if you have specified an init-value in the ENV-variable
  and want to specify in the shell arguments to have real randomization
  again.

o Rhythms don't sound as monotonous as before.

o Now allocates audiochannels. May be disabled using NOALLOC.

o Now songs have names. >;-)

o Switched to an AmigaGuide documentation.

V1.2: (18-Apr-95)   Major Update

  AlgoMusic:

o Added optional fadeout at the end of the song.

o Now at least Kick 2.0 (V36) is required (!).

o Added proper argument handling by using ReadArgs().

o Added new switches: FOREVER, QUIET, FILTER and NOFADE.

o Added the ability to set VOLUME.

o Added some more rhythms, chords, basses and melodies.

o Enhanced random generator.

V1.1: (12-Apr-95 afternoon)   Minor Update

  AlgoMusic:

  o Added the ability to choose playing speed per argument.

  o Used better rhythm samples (basedrum, clap).

  o Added other chords, basses~& melodies.

  o Added version-string. :)

  o Added more freedom for creating the song-structure.

V1.0: (12-Apr-95 2:00 a.m)

  AlgoMusic:

  o First public release.

1.19 Future

                 The Future of AlgoMusic

  I will continue working on AlgoMusic in the future, because I have already
received a lot of feedback. Of course, more gifts or financial donations
would morally support me as well!

  Many people have suggested to make AlgoMusic save a created module in
Protracker-format. This is not what AlgoMusic is supposed to do. My replayer
is much shorter than any Protracker-replayer, and AlgoMusic itself is
shorter than the resulting module would be, so I will NOT include that in
the future!

  If you still want module saving, you don't seem to have understood
AlgoMusic's aim. :*)

Things to be added:
----
  o Better melody creation.

  If you've got other wishes for improvement, please contact
             me
                .

I will, of course, add much more customization. Be prepared for it! :)

1.20 Wanted

```
Samples
-------
```
   I could need a lot of more samples for AlgoMusic, especially cool speech,
rhythm and acid samples (others are welcome as well). If you've got some,
please pick only the best, configure them (with filenotes) and send me
those. LZX or LHA packed will work best.

   Please don't send me hundreds of kilobytes of samples. You shouldn't send
me archives with more than 500 KB.

   If I receive enough more samples that I find usable, I will probably
release an Additional AlgoMusic Sample Archive.

```
Icons
-----
```
   I need someone who draws some nice icons for AlgoMusic. There should be
normal 4 color, MagicWB and possibly NewIcon icons available.

1.21 Credits

   I would specially like to thank the following people for their support and
help:

```
   - Rüdiger Prang         o My betatesters
   - Katrina Ratzlaff
   - Sascha Dages
   - Stefan Redel
   - Maic Striepe
   - Douglas Baigrie
   - Graeme Marshall
   - Agust Arni Jonsson
   - Hans Raaf

   - Kari-Pekka Koljonen   o Supplied me with a nice CIA-timing-routine.

   - Richard Körber        o Reported some bugs, sent me a source for
                             audiochannel allocation.

   - Ville Ranki           o Drew that nice ToolBrush icon for AlgoMusic.

   - Felix Müller          o Reported a bug.

   - Michael van Elst      o Sent me a Kickstart 37.15 ExAll()-problem
                             workaround.

   - Alexander Leidinger   o Sent me an Enforcer hit list.
```

– Linus Akesson   o Sent me some useful hints about notification.

– Andreas Benden   o Reported a bug.

– Carol Meilicke   o Sent me some nice ideas.

– Jim Maciorowski   o Also sent me some nice ideas.

– David Patterson   o Drew those nice MagicWB and NewIcon icons

Other special thanks to:

– R. Cant   o Thanks for letter and disks!

– Humanoid/Embassy   o Sent me some cool mods/samples.
– Durandal/dECiSiON
– Ramon Bleche

– Conny Cyréus   o I used some of their samples from
  Christian Cyréus   their cool MusicLineEditor.

– Mark Hillebrand   o Gave me some useful hints about creating
                           melodies.

   And thanks to all the other people that sent me a mail about any of
the previous versions!

1.22 Support

   You will find updates of AlgoMusic, announcements and possibly additional
sample archives on the AlgoMusic Support Site:

   http://fsinfo.cs.uni-sb.de/~schuerge/AlgoMusic/

or

   http://algomusic.home.pages.de

   Just have a look inside there regularly and leave me your comments. It is
also possible to register your e-mail address there so that you are
automatically informed if something changes on the page.

Remember: The availability of additional sample archives depends on you
          (as a user) sending me samples!

1.23 Author

If you like AlgoMusic, or even if you don't (but then let me know why), if
you have any suggestions, questions or ideas, or if you have found any bugs
(even in this guide), send a mail to:

    schuerge@studcs.uni-sb.de

  When writing mails, please let the message subject begin with "AlgoMusic".
It just makes things easier!

  For those still not being able to send e-mails or those who would like to
send me gifts:

  My snail-mail-address:

  Thomas Schürger
  Birkenbusch 39
  53757 Sankt Augustin
  Germany

  Tel.: Germany   02241/331935 (voice)
        Worldwide (+49)2241/331935

  My bank account:

  KNR: 0132107632
  BLZ: 386 500 00   Kreissparkasse Siegburg

  or

  KNR: 8781990
  BLZ: 590 200 90   Bayerische Vereinsbank

  If you consider sending me money, please do not send more than 30.- DM
(or $20 US).

  Please contact me, I would be very pleased to receive a lot of feedback.

  Have a look at AlgoMusic's webpage:

    http://fsinfo.cs.uni-sb.de/~schuerge/AlgoMusic/

  or

    http://algomusic.home.pages.de

  Please rate AlgoMusic on Aminet!

Simply send a message with no subject.

Recipient: Aminet-Server@aminet.org
 Contents: rate mus/misc/AlgoMusic2_2.lha <number>

where <number> is a number from 1 to 10, 10 is the best.

You'll get a mail back from the server telling you whether it
worked or not.

Please don't rate AlgoMusic update archives, simply rate the
full installation archives as instructed above!

My (new) PGP-key: (use it if possible!)

-----BEGIN PGP PUBLIC KEY BLOCK-----
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+vlCPeggaKC5zrRpHrGYJ6uG
=PQ+N
-----END PGP PUBLIC KEY BLOCK-----

1.24 Registration

Registration is not possible yet, but you may very well contact ←
the

Author
about that (silly questions are welcome!).