

AlgoMusic

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Chapter 1

AlgoMusic

1.1 Welcome to the AlgoMusic documentation

AlgoMusic V1.3

(C) 13.05.95 by Thomas Schürger

A nice algorithmic song player

Freeware

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Note: My e-mail-address will change soon!

1.2 Copyright

AlgoMusic is Freeware. This means that you can copy, use or even delete it in any manner you like. But you mustn't modify ANY of the files supplied in the AlgoMusic-archive, crunching with any packer available to the public is allowed, though. You may not gain any commercial or private profit out of

this program.

AlgoMusic may be taken for use in any PD/Freeware/Shareware library (including Aminet and Fred Fish's library), but I would like to be informed about it via e-mail. It would be great if you could send me a copy of the disk/CD it is published on.

You are asked to upload AlgoMusic on every BBS you see! B)

1.3 Introduction

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

AlgoMusic is a little (?) program that creates and plays a song randomly out of a series of algorithms. Just try it, it sounds nice. :)

It first creates the song (which is very fast), then switches to a task priority of 25 (it needs as little CPU-time as possible) and switches off the filter (if not disabled), then plays and restores everything afterwards. It is safe to break AlgoMusic at any time. Another way to end AlgoMusic is to start AlgoMusic again from another task (arguments except QUIET then are ignored).

1.4 Requirements

AlgoMusic should (!) run on any Amiga with at least 512 KB of chipmem and 512 KB of fastmem. At least Kickstart 2.0 (V36) is required.

It was developed on a PAL Amiga 1200 with 68030/50. It has also been tested on an A500+, but never thoroughly on a 040/060 processor. If you have any problems (especially with CPU-caches left on on those processors) getting it run on your own machine, please let me know.

1.5 Usage

Upto this stage, AlgoMusic can only be started via Shell or using "Execute Command" via Workbench.

The argument-template looks as follows:

```
SPEED=DELAY/K/N, FOREVER/S, QUIET/S, FILTER/S, NOFADE/S, VOLUME/K/N, ACID/S,  
INIT=RANDOMINIT/K, BPM/K/N, NOCIA/S, NOALLOC/S
```

SPEED=DELAY n This is the speed the created song is played at. The lower the number, the faster it is played. The standard speed is 4. The speed must be in the range of [2..8]. It will be ignored if you don't use NOCIA.

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.
QUIET	All output is suppressed, except error messages.
FILTER	If this switch is activated, then the audio filter is switched on. By default, the filter is switched off.
NOFADE	Normally, the song is smoothly faded out in the song's last pattern. Using this switch, you can disable this.
VOLUME n	This sets the volume the song is played at. It must be in the range of [0..64]. Default is 64 (maximum volume).
ACID	Switches on the use of an acid-style sample where applicable. By default, it is switched off.
INIT=RANDOMINIT \$h	Initializes the random generator with the hex-value specified. Same hex numbers will result in same songs.
BPM n	Sets the playing speed to the BPM value specified. It will be ignored if you use NOCIA, because then, DELAY/SPEED will be used. It must be in the range of [84..250]. The default is 150.
NOCIA	If you don't want AlgoMusic to use a CIA timer, you can tell it to use Delay() instead. Then the DELAY/SPEED value will be used for setting the playing speed.
NOALLOC	This switch disables the allocation of audiochannels. By default, the channels are allocated.

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, you might use

```
1> AlgoMusic BPM 168 ACID FOREVER :^)
```

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 in another way. 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.

1.6 Changes

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

Changes since V1.0 (12-Apr-95 at 1 a.m.):

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

- 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.

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

- o Added optional fadeout at the end of the song.
- o Now 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.

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

- 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.

1.7 Bugs/Problems

There are still some bugs and problems left:

- o The player still does not run 100% smooth when certain programs are used. Those seem to use Disable()/Enable() while scrolling. Examples are FinalWriter and Mand2000Demo. This does rarely happen and I can't change it. If you find more, tell me!
- o Uses direct hardware access on audiochannels.
- o Especially the acid-style sample doesn't sound very nice sometimes. If you have a better one, let me know!
- o You will find that the RANDOMINIT values are useless when using different versions of AlgoMusic. You'll get other songnames as well.

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

1.8 Credits

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

- Rüdiger Prang o My betatester.
- 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, publishes AlgoMusic on Aminet.
- Mike Witte o Checked '040 compatibility.

Thanks to all the other people that send me a mail about previous versions!

1.9 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:

Phobos@eratosth.wwb.sub.de
or: T.Schuerger@proline.gun.de (preferably)

From July '95 (probably) and on, my e-mail-domain will change (only the Proline-address is affected). My new address from then on will be:

T.Schuerger@proline.ndh.com

But for at least a month my old address will be still valid at the same time.

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

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

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