

SineMaker

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COLLABORATORS

	<i>TITLE :</i> SineMaker		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
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REVISION HISTORY

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Chapter 1

SineMaker

1.1 Table of contents

SINEMAKER v 0.60

so-called "User's Manual"

Let's go:

1. What is it for?
2. How to use it?
3. Hardware required.
4. Distribution.
5. Disclaimer.
6. Bugs and limitations.
7. SineMaker history.
8. Some words about the author
9. MUI and MUI related notes

1.2 What You can do...

1. What You can do with this program?

As You can easy guess, this program can be used to calculate tables of $\sin(x)$ function. It is known, these are useful for coders, musicians (making samples) and for terrorists to calculate elevation angle of rocket launchers (e.g. type RPG-7).

1.3 Read this before using.

2. The way You should use SineMaker.

Since 0.52 version SineMaker has graphical user interface based on MUI

. So

You can run it both from Shell or from icon.

IMPORTANT! Minimal stack size for SineMaker is 8192 bytes. You should take care of it if You run it from Shell, or from icon other than original one. If You neglect this, system will hang if You start playing with MUI Prefs (especially with bitmap patterns). This note is valid for all MUI applications.

Some words about gadgets:

"Parameters" group:

- Table start: begin phase, argument value (in degrees) for first sample.
- Table end: end phase, the same as above for last sample.
- Samples: The number of samples (no more comments).
- Multiplier: You can multiply all samples by anything You want.

"Output format" group:

The radio buttons allows You to choose output format of the table. In 0.60 version 4 formats are available:

- > BYTE - numbers are written as bytes in two's complement code. Numeric range: <-128,+127>.
- > WORD - numbers are written as 16-bit words in two's complement code. Numeric range: <-32768,+32767>.
- > LONG - numbers are written as 32-bit longwords in two's complement code. Numeric range: <-2147483648,+2147483647>.
- > IEEEEDBL - numbers are written in floating point IEEE double precision format (14 significant digits). This format is used in mathieeedoubbas.library and mathieeedoubtrans.library. One number is 64 bits long. Numeric range: <-1.797693134862317E+308, +1.797693134862317E+308>

Examples:

Generating a table for "Doom 453827";-)

Set gadgets with 0 90 90 32767 WORD

Making sine wave sample for ProTracker:

Set gadgets with 0 360 100 127 BYTE

When You manipulate with 'Table start' and 'Table end' gadgets You can see the changes on the sine diagram at the bottom of the window. Playing with

'Multiplier' gadget gives no changes, because diagram is auto-scaling in both axes. When You want to write table to file just press 'Generate table' button. Then You can select file with standard asl requester.

When You give illegal parameters for the table (e.g. begin greater than end), SineMaker will inform You about this with adequate requester. But remember, gadget contents is left unchanged!. When multiplier is too big for choosen output format, You can allow limiting to format's numeric range (an "overdrive" effect for music samples) or cancel generation.

1.4 Do I need an A 4000?

3. Hard/Soft requirements.

SineMaker requires:

- an Amiga,
- Kickstart 3.0+,
- 68000 CPU (or better),
- MUI version 3.0+ (tested on v3.5)
- mathieeedoubbas.library and mathieeedoubtrans.library (any version) in your LIBS: directory.

It is possible, that SineMaker runs also on 2.0 systems, but I have no Amiga with it :-), so not tested. Program have been developed and tested on

my configuration

.

1.5 Can I give SineMaker to my (girl)friend?.

4. Distribution and copyrights

This software is released under
AFD-COPYRIGHT (TM)
licence. The category
of SineMaker is FREEWARE (see paragraph 4.a.)

1.6 Disclaimer

5. I can't be made responsible, ble, ble, ble....

Please read paragraph 3 of

AFD-COPYRIGHT (TM)

. Of course this program does

nothing but generates sine tables. But if You want generate table with 1 000 000 longword values having 2 MB free space on harddisk... Nobody

knows ;-). During extensive tests nothing dangerous happened.

1.7 Nobody's perfect...

6. Bugs and limitations.

0.60 version of Sinemaker is the third released. In spite of this there are many limitations and, maybe, bugs. Below some of these:

1. SineMaker doesn't check for I/O (disk) errors. Fortunately Amiga DOS is very stable and safe (compared to MS-DOS ;-). Of course I work on it.
2. You can't generate tables with more than 536870911 samples. It results from DOS limitations for file size (2 GB). This limitation will be removed only if we get 64-bit trackdisk.device in KickStart 4.0.

1.8 SineMaker's history.

7. History

Version 0.2 released 2-Nov-1996 - first commandline version.

Version 0.52 released 21-Dec-1996 - great changes. Program was totally rewritten, object oriented and

MUI

based. I added overdrive detection.

For coders: program is fully object oriented. Main loop is copied from MUIdev.guide :-). All the rest is done with classes and notification (sine diagram is a private class too). For PC coders: Try to write such a program for MSWin 95 and make it shorter than 20 kB... (Amiga code is written all in C and executable is not packed).

Version 0.60 released 28-Dec-1996. Program was localized. Because I'm a Polish patriot, the built-in language is Polish. English catalog is included in archive. For people for other countries I've included .cd and .ct file (.cd is of course in Polish, and .ct is in English). Feel free to make your motherlanguage locale.

Future?

- Bubble helps (MUI rules!).
- More output formats.
- Possibility for adding offset to sine.

1.9 Some words about author

8. Author

I'm an 23 years old student. I study electronic on Polytechnic College in Bialystok, Poland. My Amiga is A1200/10MB/Kick 3.0/68030 @50MHz/210MB/HDD/CD*4 etc. etc. On the scene I'm known as Krashan of Opium (let me guess: You haven't ever heard about Opium? ;-). I like cold milk, carrot and snickers. I don't like cigarettes, alcohol drinks and Personal Craps. I listen to the best music of the world: DISCO-POLO (specific Polish music). That's all for now.

Here is my address:

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16-003 Kozince

You think: How it is possible, he's a student and he hasn't an e-mail address?... It IS possible. In Poland... But I'm going to get an commercial access to Internet.

and greets, so hot shots to:

Pep\$on/Opium
Lopez/Opium
the rest of Opium
Adam Chudziak
Bogdan Langrzik
Krzysztof Konopko
Krzysztof Kurdzieko
Amiga Computer Studio crew
eNDecja (MarekPampuch)
Phase 5 for Blizzard 1230-IV (it's super)

1.10 AFD-COPYRIGHT

AFD

NOTE: According to AFD conventions AmigaGuide is used as Default Tool for this guide. However this file wasn't tested on it, since I use MultiView.

This software is subject to the "Standard Amiga FD-Software Copyright Note"
It is FREeware as defined in paragraph 4.a. [...]
For more information please read "AFD-COPYRIGHT" (Version 1.2 or higher).

Full AFD text in English

1.11 What's this: MUI?

This application uses

MUI - MagicUserInterface

(c) Copyright 1993/94 by Stefan Stuntz

MUI is a system to generate and maintain graphical user interfaces. With the aid of a preferences program, the user of an application has the ability to customize the outfit according to his personal taste.

MUI is distributed as shareware. To obtain a complete package containing lots of examples and more information about registration please look for a file called "muiXXusr.lha" (XX means the latest version number) on your local bulletin boards or on public domain disks.

If you want to register directly, feel free to send

DM 30.- or US\$ 20.-

to

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NOTE for people who likes to play with MUI Preferences. Frame and background for sine diagram are taken from read listview. So if You change the read listview prefs, You change the diagram. Unfortunately colors of axes and for the curve are not yet configurable.
