

**sig**

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# Chapter 1

## sig

### 1.1 sig.guide

This document describes SIRDS\_GEN V3.7, a shareware SIRDS-Maker ↔  
for  
the Amiga. Many options, random dots as well as patterns are supported.  
You can choose between a picture and a mathematical function as source.

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Introduction

What are SIRDS?

Features

What this program can do

Distribution

About the package

Requirements

The things you need to run the Program

Installation

How to install

Registration

If you like it, read this

Usage

How to get along

Keys-Menus

The available menus & keys

Preferences window

The preferences

Options

---



You will be shipped a disk with your personal keyfile, and the newest version of the SIRDS\_GEN, with some patterns (and pics, if i get some via ftp...)

For all germans: Man kann mir auch die 15DM auch überweisen.  
Meine Konto-Nr ist:

Kreissparkasse Böblingen  
BLZ: 603 501 130  
Konto-Nr: 3684791

Und nicht vergessen, Name, Strasse & Ort mit draufschreiben. Das Land ist in diesem Falle überflüssig :-))

## 1.4 sig.guide/Distribution

Distribution

\*\*\*\*\*

SIRDS\_GEN V3.7 is Shareware. See  
Registration  
, for more info.

Good picture (preferrable the source picture, for generating others...), are always welcome via ftp to ftp.rus.uni-stuttgart.de in the directory pub/systems/amiga/incoming.

You may copy the program as you like, as long as no money is taken for it, except a small fee for copying which should be < \$5. Inclusion in PD-collections, such as the Fish-Disk, or Aminet is allowed, as long as the following files stay together:

cave.pic  
cave.pic.sirds  
cave.pic.sis  
pic2.sirds.iff  
SIRDS\_GEN  
SIRDS\_GEN.info  
SIRDS\_GEN000  
SIRDS\_GEN000.info  
SIRDS\_GEN.guide  
SIRDS\_GEN.guide.info  
testpattern.iff  
testpattern2.iff

Any Picture generated with SIRDS\_GEN may not be used in any commercial manner without registration.

The newest Versions will be available  
- via anonymous FTP: all aminet sites in the directory gfx/3d. Take a look at ftp.rus.uni-stuttgart.de in pub/systems/amiga/gfx/sirds I am collecting some pics there too, so send them!!!

- Mailbox: The Abyss: +49-711-617291 & +49-711-6159399. Type ul;16 at the main prompt to get in the right subboard. The program is free download there.

## 1.5 sig.guide/Introduction

### Introduction

\*\*\*\*\*

SIRDS means Single Image Random Dot Stereogram

The trick of SIRDS is, that you have to know how to view them. When just looking at them, like you look at normal picture, then you will just see some random placed pixels, which seem to not make any sense at all.

So how do you look at them? There are basically two ways of viewing SIRDS: Wide-Eye view (WE) and Cross-Eye view (CE). WE ist the easier way, though I have a friend, which can only see them with CE.

WE: You have to try to look behind the picture, actually the same distance, as you are away from it. To help doing this, you can put a glass over it, and look at your own mirrored face, an the try to get the SIRDS sharp. Then you should see the picture with a real 3D effect. For better help the "Eyes" in the picture can be used: When you got it, you see 3 of them. And the middle one must be sharp. The sharp middle one, is on the farest plane.

CE: Instead of looking behind, you must cross your eyes in front of the picture. A pencil is useful to hold between the eyes and the picture, concentrate on the pencil, and make the SIRDS sharp.

The difference of viewing CE and WE is, that CE swaps the depth of the picture: the farest plane ist the nearest, and vice versa.

Another useful help is the flimmering. Just calculate some pics (~10: save one; recal; save next ...) and put them together as an animation (e.g. DPaint can do this). This way you can't concentrate on a particular point in the picture, and you only see something, if you have focused on the right depth. (2 frames is not enough, so flimmer is discarded now; and making an anim is so easy...) And remeber: This works only with SIRDS and not with the pattern mode!

How does it work? When looking normally, you look with both eyes on ONE point. When looking on SIRDS, you have to look on TWO points. Each eye is looking at a different point. This way, the brain thinks it is one point with a virtual depth. Now, you can vary the depth with inserting/leaving out pixels. Inserting means the point more far away.

This is not limited to graphics. You can make them out of plain ASCII too, but they don't look that good.





```

%Dc>qx[B] |+"i%Dc>qx[B] |+"i%Dc>qx[B] |+"i%Dc>qx[B] |+"i%Dc>qx[B] |+"i%Dc>qx[B] |+" ←
i
xcnM@?N%8/j%DxcnM@?N%8/j%DxcnM@?N%8/j%DxcnM@?N%8/j%DxcnM@?N%8/j%DxcnM@?N%8/j% ←
D
srE@K^M|CB1LKsrE@K^M|CB1LKsrE@K^M|CB1LKsrE@K^M|CB1LKsrE@K^M|CB1LKsrE@K^M| ←
CB1LK
B)PCj=$/J5*3BB)PCj=/J5*53BB)PC=/J50*53B)PCo=/J50*53B)PCo/J50*53B)PCo/J50J*53B ←
)
)(S6E@k.AtCfQ)(S6E@.AtCPfQ)(S6@.At_CPf)(S6n@.At_CPf)(Sn@.At_CPf)(Sn@.At_CP-f) ←
(
P;:107Ne,C^5*P;:107e,C^'5*P;:17e,CN^'5*P;:17e,CN^'5*P:17e],CN^'5*P:17e]CN^'t5 ←
*
[:<7N=t+:m`c[:<7Nt+:m.`c[:<Nt+:ym.`c[:<Nt+:ym.`c[:<N0t+ym.[`c:<N0Jt+m.[`) ←
c
x[r9p+>%,w6y`x[r9p+%,w6oy`x[r9+%,wj6oyx[r9Y+%,wj6oyxr9Y+0%,j6o[yxrY+0v%,6o[ ←
y9x
l/FY`;^mD[J11l/FY`;mD[J11l/FY`;mD[7J1l/FY`r;mD[7J1l/Y`r;]mD[7J1l/Y`r;]mD7J11T ←
/
/6!p/rqpoVEHw/6!p/rpoVEHw/6!p/rpoV2EHw6!p/MrpoV2EHw6p/MrtpoV2EHw6p/ ←
Mrtpo2EHwS6
ZE@sr5DK.ed[*ZE@sr5K.edI[*ZE@s5K.ehdI[ZE@s;5K.ehdI[Z@s;5rKehdIE[Z@;5rKPedIE[ ←
CZ
ri0/F5xoZ=h7zri0/F5oZ=hU7zri0/5oZ=`hU7ri0/O5oZ=`hU7r0/O5&oZ`hU7r0/O5& ←
aoZhU7rd0
W6]t/65|3J-87W6]t/6|3J-r87W6]t6|3Jq-r8W6]tD6|3Jq-r8W6tD6|[3Jq-r8W6tD6|[Jq- ←
rf8W
y|K^%L_NEL/v5y|K^%LNEL/|v5y|K^LNEL3/|vy|K^FLNEL3/|vy|KFLNEL3/|vy|KFLNEL3/|vyv ←
|
4[V9T' zaPC"9X4[V9T' aPC"s9X4[V9' aPCF"s94[V9Q' aPCF"s94[V9QaPCF"s94[V9QaPCFh"s94 ←
[
#RA(gBIxKr540#RA(gBIxKr540#RA(gBIxKr540#RA(gBIxKr540#RA(gBIxKr540#RA( ←
gBIxKr540
j-hwRAH+&=DCNj-hwRAH+&=DCNj-hwRAH+&=DCNj-hwRAH+&=DCNj-hwRAH+&=DCNj-hwRAH+&= ←
DCN
=D' zm@kv9HWf--D' zm@kv9HWf--D' zm@kv9HWf--D' zm@kv9HWf--D' zm@kv9HWf--D' zm@kv9HWf ←
-

```

can you see it?

## 1.7 sig.guide/Features

Features  
 \*\*\*\*\*

SIRDS\_GEN V3.7 takes a picture or a formula as input. When using a picture, the value of the pixels determine the depth-position of the SIRDS there. e.g. if you have a 32-color picture, then you have a maximum of 32 layers in the picture, where the background is the lowest area, and the pixels with number 31 will be the highest one. But if you prefer using a grayscale, then you can sort the colors first, to let the darkest color describe the lowest area, and the lightest one the highest.

The second input form is a mathematical function.

The output is either a SIRDS or a SIS, when you supply a pattern.

Here is a further list of options:

- \* function plotting, and viewing as SIRDS
- \* free choice of screen-mode
- \* scaling of the picture
- \* should run on Gfx-cards too (not much tested, but Picasso II is working)
- \* automatic correction of the eyewidth to the displaymode
- \* uses datatypes for reading the picture
- \* 32-bit color-funktions are used.
- \* uses a symmetric algorithm
- \* generation of SIS possible
- \* flimmering
- \* various Settings possible
- \* 4 different pattern-modes

## 1.8 sig.guide/Requirements

Requirements

\*\*\*\*\*

SIRDS\_GEN V3.7 requires Kickstart 2.0+ & Workbench V2.0+, though some function work only with Kickstart 3.0+.

An accelerator with FPU is nice, but not recommended (use the 68000er version if you haven't got one).

Here is a list of functions disabled when operating under Kickstart 2.0:

- \* If you only have Workbench 2.0 you can't change the screenmode in the Prefs-window, and no localization is possible. Only possible with Workbench V2.1+
  - \* The picture to be converted can't be viewed before
  - \* The preview-Window of the Prefs-window is disabled
  - \* only loading of IFF-ILBM pictures possible
-

## 1.9 sig.guide/Usage

Usage

\*\*\*\*\*

Choose the right version: If you own a computer with at least a 68020 AND a 68881 then you can use the normal version. Otherwise you have to use the 68000-version.

After starting you are prompted with the Preferences window to do the various settings there. Either enter a formula, or (after finishing) you are prompted for a picture to load. Now the picture will be loaded into a screen (the PIC-Screen). Another Screen (the SIRDS-Screen) will be opened, and the SIRDS will be calculated.

Due to the fact, that the same loop, for both screens (PIC & SIRDS) is used you have the same menus, and keyboard functions. So saving for example effects the current active window.

## 1.10 sig.guide/Keys-Menus

Keys/Menus

\*\*\*\*\*

PIC-SIRDS-Screen Keys  
Keys available on the screens

PIC-SIRDS-Screen Menu  
Menu available on the screens

Preferences-Keys  
Keys available while in prefs-window

Preferences-Menu  
Menu available while in prefs-window

## 1.11 sig.guide/PIC-SIRDS-Screen Keys

PIC/SIRDS-Screen Keys

=====

1  
Loading of a new picture

s  
saving of the current screen as ILBM

g  
saving of the current screen as GIF

q  
exiting the program

ESC  
exiting the program

r  
Perform a new calculation

t  
switch to the other screen

p  
brings up the  
    Preferences window  
    . All functions there correspond  
to the ToolTypes.

## 1.12 sig.guide/PIC-SIRDS-Screen Menu

### PIC/SIRDS-Screen Menu

=====

Load Pic  
    Loading of a new picture

Save Pic  
    ILBM  
        saving of the current screen as ILBM

    GIF  
        saving of the current screen as GIF

Quit  
    exiting the program

ReCalc  
    Perform a new calculation

Switch Screen  
    switch to the other screen

Preferences  
    Brings up the  
        Preferences window  
        . All funtions there correspond to  
the ToolTypes.

---

## 1.13 sig.guide/Preferences-Menu

Preferences-Menu

=====

Project

Use

same as clicking on the USE button: Accept the changes

Open

You are asked for a config-file to load. The loaded config will be displayed in the Prefs-Window

Save

Saves the config to ENVARC:SIRDS\_GEN.prefs

Save As

Saves the config to a specified file

Cancel

Leave the Prefs-Window.

Edit

Default

Gets the default values

Last saved

reads the config from ENVARC:SIRDS\_GEN.prefs

Restore

reads the config from ENV:SIRDS\_GEN.prefs

## 1.14 sig.guide/Preferences-Keys

Preferences-Keys

=====

The Keys usable in the Prefs-Window are all the underscored ones, plus a few more:

q

CANCEL

ESC

CANCEL

h

hidden

---

e  
Auto Eye-Width

E  
activate the Eye-Width Gadget when possible

u  
USE

U  
Save

RET  
USE

s  
Get Source Screenmode

d  
Get Destination Screenmode

b  
beep

a  
Auto Source Screenmode

y  
cycle EyePos

c  
switch Colors

g  
switch camg-mask

i  
switch Invers

f  
switch function-mode

w  
activates the width-gadget

p  
switch pattern-mode

## 1.15 sig.guide/Preferences window

Preferences window  
\*\*\*\*\*

---

All the settings here reflect the  
Options  
via Toolstypes or CLI. See  
the descriptions there for their meaning.

A few things about the Prefs-Window. When clicking on the gadgets right next to the Screen-mode text-Gadgets, you get a screen-mode requester. The Gadget on the left of the Source-Screen-Mode is for the (not) visibility of the Picture-Screen.

When clicking on the gadget labeled "Preview" next to the Pattern-dimension area, a window will open, and you get to see the pattern. The viewing is done (how could it be else?) via datatype. This way, it can be (and is) done asynchronously. So if you load e.g. a GIF or even a JPEG, it can take a while before it is visible. You can do everything else what you want.

The preview window is an AppWindow. This means (if you have WBPREFS set) you can move your patterns on it, and they will be used, as if you clicked on the load pattern button, right of the display of the pattern-file-name.

The save-Gadget saves the current configuration to ENV:SIRDS\_GEN.prefs & ENVARC:SIRDS\_GEN.prefs. You can edit the options there if you like; they're saved as ASCII. If used is clicked, the options are saved only to ENV:SIRDS\_GEN.prefs.

## 1.16 sig.guide/Options

### Options

\*\*\*\*\*

Here are the Options for configuring the Program.

- you can use them as ToolTypes (e.g. HIDDEN)
- if you want to have an option disabled, add NO in front of it. (e.g. NOHIDDEN)
- use them as CLI-Argument (e.g. SIRDS\_GEN SIRDS\_SCREEN="PAL:HighRes Interlace" EYEPOS BOTTOM NOBEEP)
- When starting from CLI, you can specify an options-file to load. It is specified with a @ followed by a filename. Note: The @ has to be the first symbol in the commandline. Everything which follows will be parsed too. (example: SIRDS\_GEN @ENV:SIRDS\_GEN.prefs FILE cave.pic INVERSE) will load the prefs twice). If the file contains spaces, you can surround the file with quotes: SIRDS\_GEN @"t:SIG file"
- or click on the corresponding gadget in the Prefs window

Options marked with (Startup only) are only settable on startup (as CLI-option or Tooltype). If you want to set them for default, start the

---



program with the appropriate options, enter the prefs-window and click on save, or you can edit the prefs-file, and add the option there.

[NO]BEEP  
    Display a beep after drawing

[NO]CAMG\_MASK  
    Save IFF with modified CAMG\_MASK

[NO]COLORS  
    Sort colors of loaded pic before drawing

DARKNESS  
    Set the percentage of black pixels for SIRDS

EYEPOS  
    define where the eyes should be placed

EYEWIDTH  
    define the width of the eyes

FILE  
    specify the picture to be loaded as source (Startup ←  
    only)

FUNCTION  
    specify the function to be drawn (Startup only)

[NO]HIDDEN  
    use HIDDEN mode

[NO]INVERSE  
    create inverse-SIRDS

MINX-MAXX  
    define the x-dimension of the function

MINY-MAXY  
    define the y-dimension of the function

MINZ-MAXZ  
    define the z-dimension of the function

MIX  
    mix function & picture

PATTERN  
    choose the pattern for SIS

PAT\_MODE  
    choose the pattern mode

[NO]PICOSAVE  
    save IFFs on Piccolo (Startup only)

---

```

PIC_DEPTH
    set the virtual depth of the SIRDS

[NO]PREFS_FIRST
    show the preferences before drawing (Startup only)

RASTER
    set the raster for a function

SAVEFILE
    set the file to be saved (Startup only)

SAVEGIFFILE
    set the GIF-file to be saved (Startup only)

SEED
    set the initial seed for SIRDS (Startup only)

[NO]SHOW_SRC
    view the source picture

SIRDS_SCREEN
    set the display-mode for the SIRDS

SIRDS_HEIGHT
    set the height for the SIRDS

SIRDS_WIDTH
    set the width for the SIRDS

SRC_SCREEN
    set the mode for the source-picture

[NO]WBPREFS
    show Preferences on the workbench (Startup only)

```

## 1.17 sig.guide/FUNCTION

FUNCTION  
=====

Starting with version 2.7, you are able to plot 3-dimensional function with a SIRDS-algorithm. Really great if you can't think of what a function will look like. The way you see it, is straight from top down to the function. You can set all ranges of the function as you desire.

The complete EBNF-syntax of the function-plotter is:

```

func := 'z' '=' expr.
expr := CmpOp ('<' | '>' | '<=' | '>=' | '=' | '<>') CmpOp.
CmpOp := term {'+' | '-'} term}.
term := factor {'*' | '/' | '%' | 'div' | 'mod'} factor}.
factor := value {'^' | '**'} value}.

```

```

value := ['+'|'-'] number | 'x' | 'y' | '(' expr ')'.
value := ('abs'|'asin'|'acos'|'atan'|'cos'|'cosh'|'exp'|'log') '(' expr ')'.
value := ('log10'|'sin'|'sinh'|'sqrt'|'tan'|'tanh') '(' expr ')'.
value := 'if' '(' expr ',' expr ',' expr ')'.
value := ('rad'|'radius') '(' expr ',' expr ')'.
value := 'dist' '(' expr ',' expr ',' expr ',' expr ')'.

```

The function must contain a variable "z" at the beginning followed by a "=". The rest must be a valid function, else an error will occur.

The function parser understands the standard amount of functions:

"*"	"abs"	"cosh"
"/"	"acos"	"sinh"
"+"	"asin"	"tanh"
"-"	"atan"	"exp"
"^"	"cos"	"log"
"**"	"sin"	"log10"
"("	"tan"	"sqrt"

non standard:

"div"	- div-operator	5.7 div 0.5 (-> 11)
"mod"	- modulo	5.7 mod 0.5 (-> 0.2)
"%"	- same as modulo	
"if"	- if clause (see below)	
"<", ">", "=", "<=", ">=", "<>"	- boolean operators (see below)	
"radius"	- radius(x,y) = dist(x, y, 0, 0)	
"rad"	- same as radius	
"dist"	- distance of 2 points. syntax: dist(expr, expr, expr, expr)	dist(2,4,6,7) -> (2,4) to (6,7) -> 5

Numbers can be written as you like. e.g the following will be accepted:

```

1.2e-3
.67
-23.6

```

Another feature of the parser is, that a minus in front of a term, will be treated, as if there stands  $-1 \cdot \text{term}$ . e.g if you want to enter a term like  $z = -1 \cdot \sin(x)$  you could just enter  $z = -\sin(x)$ . Therefore this construction is valid too:  $z = 2 - x$  which would result in  $z = 2 - (-1 \cdot x)$

Of course \* and / have a higher priority than + and -. And ^ or \*\* have a higher priority than \* and /. So there is no need to use braces all the time, like  $2 + 3 \cdot x$ .

There doesn't exist any limit for the amount of braces. The only limitation is the length of 256 bytes for the whole function, which should be enough.

The boolean functions return a value of (1.0) for true and (0.0) for false. e.g.  $z = (x < 0) \cdot x$  would result in:

```

x < 0 : z = x
x >= 0 : z = 0

```

don't forget the braces; boolean expressions have the lowest priority. e.g  $z = x < 0 \cdot x$  would be the same as  $z = x < (0 \cdot x)$  which is  $z = x < 0$

The if-clause syntax is: `if (expr, true-expr, false-expr)` The expression is tested, against 0.0. If it's not 0.0 then the `expr` is true, and the true expression is calculated, otherwise the false-expression will be used. It is useful, to use the boolean expression for the first expression.

now a few examples:

```
z=if(x>0, 1, -1)
```

This would result in 1 if  $x > 0$ , and -1 when  $x \leq 0$ .

lets simulate the signum function:

```
x>0: z=1
```

```
x=0: z=0
```

```
x<0: z=-1
```

just do something like `z=if(x > 0, 1, if (x=0, 0, -1))` but you can do it faster if you type `z=(x>0)-(x<0)`

A great thing to do with the `dist()`-function is the drawing of interfering sine-curves. If you draw one starting from (0/0), then you would do `z=cos(radius(x,y))` which will result in a circular sine-curve, starting at the origin, just if you throw a stone in the lake, and watch the waves. You can set any middle point with the `dist()`-function. i.e. `z=cos(dist(x,y,0,3))` would start in (0/3). To overlap these two, just add them together. Multiplication is funny too.

As I often use the `rad()`-function, there exists a shortcut `r` for `rad(x,y)`. You can simply type `z=sin(r)` to get a circular sine-wave.

here is an example of three points:

```
z = cos(radius(x,y)) * cos(dist(x,y,0,5)) * cos(dist(x,y,5,5))
```

```
range: xmin = -11, xmax = 13
```

```
        ymin = -8, ymax = 10
```

```
        zmin = -1, zmax = 1
```

There exists a default function, which is `z=-0.3*(x*x+y*y)+2`

## 1.18 sig.guide/MINX-MAXX

MINX/MAXX

=====

MINX and MAXX define the x-range of the function to be plotted. Default is from -6 to 6. !

## 1.19 sig.guide/MINY-MAXY

MINY/MAXY

=====

MINY and MAXY define the y-range of the function to be plotted.  
Default is from -6 to 6. !

## 1.20 sig.guide/MINZ-MAXZ

MINZ/MAXZ  
=====

MINZ and MAXZ define the z-range of the function to be plotted.  
Default is from -2 to 2. !

## 1.21 sig.guide/DARKNESS

DARKNESS  
=====

Set the percentage of dark pixels, when drawing a SIRDS. 0 means all white 100 means all dark. Note: when using 50, the program is slightly faster. ! DEFAULT: 50

## 1.22 sig.guide/SEED

SEED  
=====

Set the initial seed for a SIRDS. If you pass 0, then the timer will be used for the seed -> every time another SIRDS.

DEFAULT: 0

## 1.23 sig.guide/SAVEFILE

SAVEFILE  
=====

When using this option, you have to pass a filename, which the SIRDS will be saved to. You can only save IFF-files this way. The picture is saved immediately after drawing, and the program then terminates. Useful for making a bunch of pictures, e.g. for an animation.

DEFAULT: <none>

---

## 1.24 sig.guide/SRC\_SCREEN

SRC\_SCREEN  
=====

Screenmode for the Pic-Screen. If no valid Screenmode is found, BestModeID() is used for getting the right mode.

DEFAULT: PAL:LowRes

## 1.25 sig.guide/SIRDS\_SCREEN

SIRDS\_SCREEN  
=====

Screenmode for the SIRDS-Screen.

DEFAULT: NTSC:HighRes Interlace

## 1.26 sig.guide/SIRDS\_WIDTH

SIRDS\_WIDTH  
=====

Width of the SIRDS-Screen. If zero, the STANDARD Overscan width of the screenmode will be used. Try bigger value than StdOscan. The Autoscrolling looks really nice.

DEFAULT: 0

## 1.27 sig.guide/SIRDS\_HEIGHT

SIRDS\_HEIGHT  
=====

Height of the SIRDS-Screen. If zero, the STANDARD Overscan height of the screenmode will be used.

DEFAULT: 0

## 1.28 sig.guide/EYEPOS

---

EYEPOS

=====

Position of the Eyes:

TOP

At the Top (default)

MID

in the Mid of the Screen (if you like it...)

BOTTOM

at the bottom

NONE

No Eyes (for those you dont like it at all)

DEFAULT: none

## 1.29 sig.guide/EYEWIDTH

EYEWIDTH

=====

The space between the eyes. If you specify "0", the space will be adjusted to the screenmode:  $EYEWIDTH = OSCAN\_STANDARD / 10$ . Actually EYEWIDTH is the number of pixels per inch. You can use this option if you want to calculate a SIRDS for another Media, e.g. for printing.

DEFAULT: 0

## 1.30 sig.guide/[NO]HIDDEN

HIDDEN

=====

If set, an algorithm for removing hidden layers is used.

DEFAULT: OFF

## 1.31 sig.guide/PIC\_DEPTH

PIC\_DEPTH

=====

The virtual depth of the SIRDS. It is calculation is the following:  
 $visible\_depth = 20 / PIC\_DEPTH * max\_visible\_depth$ . Due to this formula

PIC\_DEPTH has to be  $\geq 20$ .

DEFAULT: 55

### 1.32 sig.guide/[NO]BEEP

BEEP  
=====

If TRUE, a DisplayBeep(0) is generated after each calculation, to indicate a picture is finished. Some people find this nerveing, right Jens?

DEFAULT: TRUE

### 1.33 sig.guide/[NO]CAMG\_MASK

CAMG\_MASK  
=====

When saving as ILBM, some (in fact one) want to mask the screenmode in the CAMG-chunk to apply a default-monitor. If this flag is true, the screen-mode will be masked with INTERLACE | HIRES\_KEY.

DEFAULT: FALSE

### 1.34 sig.guide/[NO]INVERSE

INVERSE  
=====

If set, the virtual depth of the SIRDS will be reversed: The highest area will be the lowest, and vice versa. Useful for people who cross their view before the picture for viewing SIRDS.

DEFAULT: FALSE

### 1.35 sig.guide/[NO]COLORS

COLORS  
=====

If set, the colors are sorted. So the highest color will be the

---



front-most position in the SIRDS. The colors are sorted in the following way: r-Val + g-Val + b-Val, and the sorted.

DEFAULT: FALSE

### 1.36 sig.guide/FILE

FILE  
====

Here you can specify a file for loading. If none specified, you will be asked for one.

DEFAULT: <none>

### 1.37 sig.guide/PATTERN

PATTERN  
=====

requires a File, which will be used as pattern for SIS. The loading is done via datatypes, so you can use any format you like. The SIS-mode is automatically activated, when this options is specified.

DEFAULT: <none>

### 1.38 sig.guide/PAT\_MODE

PAT\_MODE  
=====

4 different Pattern-modes are possible:

1. The Pattern will be displayed normally on the left, and adjusted to the right
2. The Pattern will be displayed normally in the mid, and adjusted to both sides
3. The Pattern will be displayed normally on the right, and adjusted to the left
4. The Pattern is scaled to the farrest point on each line, and centered. This is the slowest mode, but the best one. (only available with keyfile)

If you pass a wrong value, a SIRDS will be generated.

---

DEFAULT: 2

### 1.39 sig.guide/[NO]SHOW\_SRC

SHOW\_SRC  
=====

If OFF, no screen for the source-picture will be opened. Just to save a little Chip-Mem for bigger SIRDSs.

DEFAULT: ON

### 1.40 sig.guide/[NO]WBPREFS

WBPREFS  
=====

If set, the Prefs-Window will open on the default PubScreen.. Otherwise it will open on the current screen.

DEFAULT: TRUE

### 1.41 sig.guide/[NO]PREFS\_FIRST

PREFS\_FIRST  
=====

When set to on, The Prefs-Window will show before the SIRDS will be drawn. This way, you can select a new screenmode first, if you like.

DEFAULT: ON

### 1.42 sig.guide/RASTER

RASTER  
=====

This option works in conjunction with the function-plotter. You can speed up the drawing, if you increase the raster. Setting RASTER to 1 will plot every pixel, and is really slow. A RASTER of 2 will draw a square of 4 Pixels which have the same value, and so on. Useful, when you want to see what a function will look like. Try using a high value, such as 50. Looks nice too.

---

DEFAULT: 3

### 1.43 sig.guide/SAVEGIFFILE

SAVEGIFFILE

=====

CLI-option only. You have to specify a file, which the GIF-file will be saved to. The difference to SAVEFILE is:

a. The file beeing saved is a GIF-file.

b. The SIRDS is not shown!

You have to specify

SIRDS\_WIDTH

&

SIRDS\_HEIGHT

, but they can be

any value. So you can generate huge pictures with this option, without having to worry about memory. The only limitations are 256 colors, and a width < 65536, but that's the limitation of the GIF-format. After drawing, the program will end.

### 1.44 sig.guide/[NO]PICOSAVE

PICOSAVE

=====

Due to the fact that saving iff-pictures didn't work on a Piccolo-Gfx-card, this option activates a small workaround: The Bitmap of the picture is copied to a temporary Bitmap first, which is saved then. I advise you to not set it if not necessary, due to extra memory usage when saving.

DEFAULT: OFF

### 1.45 sig.guide/MIX

MIX

===

This Options enables the mix of a picture with a formula. To get things right, you need to know, that all heights are scaled to an area between 0 and 1. 0 is the back plane and 1 is the front-most plane.

There are 4 different ways to mix:

**ADD**

This calculates the arithmetic mid of the function an the formula.  
i.e.  $(pic\_height + fml\_height) / 2$

**MUL**

Multiplication of picture and formula. Useful if you want to cut out something of a formula. Just take a 2-color picture.

**MAX**

takes the highest area's of picture or formula. You can have a Text fly above a sine wave for example.

**MIN**

takes the minimum of picture and formula. Just for completeness.

**none**

well, this is the default and doesn't mix the two.

DEFAULT: none

## 1.46 sig.guide/Address

**Address**

\*\*\*\*\*

Bugs/Suggestions/registration to the following address:

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## 1.47 sig.guide/Thanks

**Thanks**

\*\*\*\*\*

Greetings:

- \* Markus Wolf for the nice Test-Picture(s).
- \* Hans-Jörg Malthaner for the GIF-Save routine
- \* Christophe Wegmuller for the french catalog

"The Graphics Interchange Format (c) is the Copyright property of CompuServe Incorporated. GIF(sm) is a Service Mark property of CompuServe Incorporated."

## 1.48 sig.guide/History

```
                History
*****

                Version 3.1

                Version 3.2

                Version 3.3

                Version 3.4

                Version 3.5

                Version 3.6

                Version 3.7

                Version 3.8
```

## 1.49 sig.guide/Version 3.1

```
Version 3.1
=====
```

changes for Version 3.1:

- \* Bug Fix: when in the Prefs-Win the Source screen-mode was disabled, and you disabled the function, the program would crash.
- \* Internal changes to the parser.
- \* The Parser now translates ^2 ^3 ^4 to multiplications. ^2 is now twice as fast.

## 1.50 sig.guide/Version 3.2

```
                Version 3.2
=====
```

---

changes for Version 3.2:

- \* complete rewrite of the options. Now using ReadArgs() instead of ArgArrayInit(). See  
Options  
.
- \* Now using ReadPixelFormat8() for GIF-saving -> twice as fast as b4.
- \* When the pattern can't be loaded, a SIRDS will be drawn.
- \* Sometimes, when you clicked the pattern-filerequest Gadget, the screen wasn't refreshed. Fixed.
- \* Localization. If you want to make a catalog in a language not currently supported, please read the readme in the catalogs-dir.
- \* Due to localization, I found some strings, which were still german. oops.
- \* When using  
[NO]PREFS\_FIRST  
, and the prefs-window is cancelled, the program will quit now.

## 1.51 sig.guide/Version 3.3

Version 3.3

=====

changes for Version 3.3:

- \* Localized the string "Lines to do" in the Requester when saving a gif
- \* added new  
PAT\_MODE  
4 for registered users. Without Keyfile you wont be able to use it.
- \* Enforcer hit removed, when saving the config
- \* the dimension of the function will be saved now too
- \* serious bug during startup fixed.
- \* added cli-option  
SAVEGIFFILE  
.
- \* changed DST\_WIDTH, DST\_HEIGHT, DST\_SCREEN to SIRDS\_\*. But the old options will work for a while too... :-)

- \* Prefs\_FIRST is now true for default
- \* added another picture in the archive
- \* Now loading locale.library with V38 instead of V39.
- \* The error-messages relating the 68020er version of the lack of a 020 & 881 now localized.

## 1.52 sig.guide/Version 3.4

Version 3.4

=====

changes for Version 3.4:

- \* removed the flimmering. Didn't look that good, and wasted 1.5kb code. See  
    Introduction  
    , for a workaround.
- \* added "if" function to the function-parser
- \* when the source screen wasn't open, the main loop could guru.  
fixed.
- \* f & p - key now active again in prefs window.
- \* "radius" & "dist" function in parser.
- \* Prefs-Win now has the RMBTRAP flag set.

## 1.53 sig.guide/Version 3.5

Version 3.5

=====

changes for Version 3.5:

- \* removed history of pre 3.1
- \* a SIRDS\_WIDTH of 640 is now guru-free
- \* New option:  
    [NO]PICOSAVE  
    \* french catalog included

## 1.54 sig.guide/Version 3.6

Version 3.6

=====

changes for Version 3.6:

- \* added  
    MIX  
    -mode
- \* fixed pattern mode 1
- \* New documentation
- \* Made the Preview-Window an AppWindow. You can move patterns directly onto it
- \* Now the KEYPATH variable is used for searching for the Keyfile. If it is not present, S: will be used. Just like MUI.

## 1.55 sig.guide/Version 3.7

Version 3.7

=====

V3.6 was only for beta-testing; same as V3.7.

changes for Version 3.7:

- \* added "r" to function-parser (shortcut for rad(x,y))
  - \* when file loading fails, the program will not quit anymore. instead it continues, as if the requester has been cancelled
  - \* the getpattern filerequester now doesn't automatically disables the pattern-mode, when cancelled.
  - \* added 2.0-flag CLI-only option, which forces use of 2.0 function on newer OS-versions. This means, no datatypes are used!
  - \* now the darkest color is used for the BARDETAILPEN and the brightest for BARBLOCKPEN. This way you can always see the menu. This works on Kick3.0 only.
  - \* complete rewrite of the internal bitmaps: no more datatypes' bitmaps, but my own. This should solve the big trouble.
  - \* due to internal bitmaps, you can see the loaded picture under Kick2.0 too
-



## 1.56 sig.guide/Version 3.8

Version 3.8

=====

changes for Version 3.7:

- \* fixed wrong saving of mix-mode ADD
- \* darkness is now saved correctly too
- \* enhanced the command-line parser to accept an options-file. (see

Options  
)

- \* added menu to the Prefs-Window. (see  
Preferences-Menu  
)