Documentation for SIRDS_GEN V3.4

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Documentation for SIRDS_GEN V3.4

1.1 Documentation for SIRDS_GEN V3.4

```
SIRDS
_GEN V3.4

 Written 1994 by Michael Mutschler


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```

History

1.2 Installation

Installation

To install, you just have to copy (drag) the file to the appropiate directory.
If you want to have it localized, you have to copy the appropiate catalog too.
Sorry for no install script. So here is how to do it from cli:
type the following:

```
 copy <path>/SIRDS_GEN/catalogs/<language>/SIRDS_GEN.catalog LOCALE:catalogs/< ↩
    language>
```

<path> has to be substituted by the path you have SIRDS_GEn copied to.
<language> has to be substituted by your favorite language, e.g. deutsch.
currently only the german catalog is available. So type

```
 copy <path>SIRDS_GEN/catalogs/deutsch/SIRDS_GEN.catalog LOCALE:catalogs/deutsch
```

to install the german catalog.

1.3 Registration

Starting with V3.1, SIRDS_GEN is now SHAREWARE. There is only a small cripple,
and this is, that the function-parser won't calculate the following functions:

sin, cos, tan, asin, acos, atan, sinh, cosh, tanh, exp, log, log10, sqrt.

And without registration you wont be able to use pattern mode 4.

Take a look at the picture pic2.sirds.gif. This one is calculated with the
formula "z=sin(x)+cos(y)" and pattern mode 4.

If you register, you will be shipped a keyfile, which will enable these
function for the parser.

The registration fee is US$10, or if you live in germany, you can send DM15 to
me. My adress is:

Michael Mutschler
Somborer Weg 11
71067 Sindelfingen
Germany

Only US$ or DM are accepted. All i need is your full address with your name,
Street, City and country (just like mine above.)

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 Disclaimer

```
                                    DISCLAIMER

This program was first made, for testing the code for generating
                SIRDS
                . After
a while, so much variables and other things came in, that I made the
Preferences-Window, and made everything ready to release it.

This Program is distributed without any warrenty.
```

1.5 Distribution

```
                                   Distribution

This  program is Shareware. See
                Registration
                 for more info.

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

You may copy the program as you like, as long as no money is taken for it.
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.gif
   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 "u1;16" at the main prompt to get in the right subboard.
```

1.6 Purpose

```
                                    Purpose

This program calculates of given picture a
                SIRDS
                 or
                SIS
                .
```

1.7 Features

```
                                        Features

- 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
  - you can load everything you got a datatype for :-)
- 32-bit color-funktions are used.
- uses a symmetric algorithm
- generation of
                SIS
                 possible
- flimmering
- various Settings possible
- 3 different pattern-modes
    ...
```

1.8 Requirements

```
                      Requirements
      Requires only Kickstart 3.0+ & Workbench V3.0


An accelerator with FPU is nice, but not recommended
```

1.9 Usage

```
                How to use the program:

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 asked via an ASL-Request for a file 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 a shared Userport is used for both screens (if the
Pic-Screen is open), you have the same menues, and keyboard funtions.
```

1.10 Menu

```
                                  Menu Functions
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.

1.11 Keyboard

Keyboard

PIC/SIRDS-Screen

Prefs-Window

1.12 PIC/SIRDS-Screen Keys

PIC/SIRDS-Screen Keys

```
l     :  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 funtions there correspond to the
         ToolTypes.
```

1.13 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
```

1.14 Prefs-Window

```
                                    Prefs-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 klicking 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 save-Gadget saves the current confirguration 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.
```

1.15 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)
- or click on the corresponding Gadget in the Prefs window


                  SRC_SCREEN

                  SIRDS_SCREEN
```

```
 SIRDS_WIDTH

 SIRDS_HEIGHT

 EYEPOS

 EYEWIDTH

 [NO]HIDDEN

 PIC_DEPTH

 [NO]BEEP

 [NO]CAMG_MASK

 [NO]INVERSE

 [NO]COLORS

 FILE
(Startup only)

 PATTERN

 PAT_MODE
(Startup only)

 [NO]SHOW_SRC

 [NO]WBPREFS
(Startup only)

 [NO]PREFS_FIRST
(Startup only)

 SEED
(Startup only)

 DARKNESS

 SAVEFILE
(Startup only)

 SAVEGIFFILE
(Startup only)

 FUNCTION

 MINX/MAXX

 MINY/MAXY

 MINZ/MAXZ
```

1.16 Function plotter

```
                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 occure.

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

plus a non-standard if-clause. see below for description.

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*term". e.g if you want to enter a term like
"z=-1*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*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*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)*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*x" would be the same as "z=x<(0*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<=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))"




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

1.17 Function dimension

```
                    Function dimensions

MinX and MaxX define the x-range of the function to be plotted.
Default is from -6 to 6.

MinY and MaxY define the y-range of the function to be plotted.
Default is from -6 to 6.

MinZ and MaxZ define the x-range of the function to be plotted.
```

Default is from -2 to 2.

1.18 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

1.19 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

1.20 SAVEFILE

SAVEFILE

When using this option, you have to pass a filename, which the SI(RD)S 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>

1.21 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

1.22 SIRDS_SCREEN

SIRDS_SCREEN

Screenmode for the SIRDS-Screen.
DEFAULT: NTSC:HighRes Interlace

1.23 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
```

1.24 SIRDS_HEIGHT

```
                    SIRDS_HEIGHT

Height of the SIRDS-Screen. If zero, the STANDARD Overscan height of the
screenmode will be used.
DEFAULT: 0
```

1.25 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)
```

1.26 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
```

1.27 HIDDEN

```
                    HIDDEN

If set, an algorithm for removing hidden layers is used.
DEFAULT: OFF
```

1.28 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 >=20.
DEFAULT: 55

1.29 BEEP

BEEP

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

1.30 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

1.31 INVERSE

INVERSE

If set, the vitual depth of the
SIRDS
will be reversed: The Highest area
will be the lowest, and vice versa. Useful for peole who cross their view
before the picture for viewing
SIRDS
.
DEFAULT: FALSE

1.32 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 followin way:
r-Val + g-Val + b-Val, and the sorted.
DEFAULT: FALSE

1.33 FLIMMER

FLIMMER

If set, a second plane will be drawn additionally, and you can use the flimmering-key, to start
flimmering
. If you dont like it, tun it off,
to get more speed & mem for the one picture.
DEFAULT: OFF

1.34 FILE

FILE

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

1.35 PATTERN

PATTERN

requires a File, which will be used as pattern for
SIS
s. 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>

1.36 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 farest point on each line, and centered. the slowest mode, but the best one. (only available with keyfile)
This setting is only possible at the start of the program. It was thought for my personal use only, but everybody should be able to test it.
If you pass a wrong value, a
SIRDS
will be generated.
DEFAULT: 2

1.37 SHOW_SRC

SHOW_SRC

If OFF, no screen for the source-picture will be opened. Just to save a little Chip-Mem for bigger SI(RD)Ss.
DEFAULT: ON

1.38 WBPREFS

WBPREFS

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

1.39 PREFS_FIRST

PREFS_FIRST

When set to on, The Prefs-Window will show before the SI(RD)S will be drawn. This way, you can select a new screenmode first, if you like.
If you want to turn it off for default, edit the prefs-file with an ASCII-Editor, and append the line

NOPREFS_FIRST

Don't forget to change both files, "ENV:SIRDS_GEN.prefs" & "ENVARC:SIRDS_GEN.prefs" for permanent change.

DEFAULT: ON

1.40 RASTER

RASTER

This option works in conjunktion 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 good too.
DEFAULT: 3

1.41 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.

1.42 Address

The Author is reachable:

Bugs/Suggestions/registration to the following address:

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71067 Sindelfingen
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FIDO: 2:246/1115.1

1.43 Thanks

Greetings: Markus Wolf for the nice Test-Picture(s).
Hans-Jörg Malthaner for the GIF-Save routine

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

1.44 Glossary

```
                Glossary

SIRDS means Single Image Random Dot Stereogram
  A picture of random dots is calculated

SIS   means Single Image Stereogram
  Instead of random dots, a pattern is used for rendering.
```

1.45 What are SIRDS?

```
                                What are SIRDS?

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 lok 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.

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.


                Example SIRTS
```

1.46 Example SIRTS

```
Small example
Here is how to make SIRTS (Single Image Random Text Stereogram)

************************************
#include <stdlib.h>
#include <stdio.h>

main()
{
char m[100], s[80];
int j,i,e;

srand(time(0));
for(e=0; e<6; printf("X%13s","",),e++);
for(puts(""),scanf("%d\n",&j);gets(m),j>=0;puts(s),j--)
for(e=s[79]=i=0;i<79;s[i++]=(e||i<14)?'!'+rand()%92:s[i-14])
for(e=0;m[i-14]=='#'&&i<79&&i>13;e=1,s[i++]=s[i-13]);
}
************************************

compile the program and start it with "a.out <sirt.inp"

for an input (e.g. sird.inp) you can use the following:
************************************
17
------------------------------------------------------------------
------------------------------------------------------------------
------------------------------------------------------------------
-----####-------####----####--------------################--------
-----####-------####----####------------####################------
-----####-------####--------------------####--------------####-----
-----####-------####------------------####---###----###---####----
-----####-------####----####----------####---###----###---####----
-----###############----####----------####----------------####----
-----###############----####----------####----------------####----
-----####-------####----####----------####--####----####--####----
-----####-------####----####----------####---##########---####----
-----####-------####----####----------####--------------####-----
-----####-------####----####------------####################------
-----####-------####----####--------------################--------
------------------------------------------------------------------
------------------------------------------------------------------
------------------------------------------------------------------
************************************
```

```
The first line ist the number of lines that follow. a "#" means a plane above
the other.
An example output can be:

X              X              X              X              X              X
%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%Dx
srE@K^M|CB1LKsrE@K^M|CB1LKsrE@K^M|CB1LKsrE@K^M|CB1LKsrE@K^M|CB1LKsrE@K^M|CB1LKs
B)PCj=$/J5*3BB)PCj=/J5*53BB)PC=/J50*53B)PCo=/J50*53B)PCo/J50*53B)PCo/J50J*53B)P
)(S6E@k.AtCfQ)(S6E@.AtCPfQ)(S6@.At_CPf)(S6n@.At_CPf)(Sn@.At_CPf)(Sn@.At_CP-f)(S
P;:107Ne,C^5*P;:107e,C^'5*P;:17e,CN^'5*P;:17e,CN^'5*P:17e],CN^'5*P:17e]CN^'t5*P
{:-<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{y9xr
l/FY`;^mD[J1ll/FY`;mD[J1ll/FY`;mD[7J1l/FY`r;mD[7J1l/Y`r;]mD[7J1l/Y`r;]mD7J1lT/Y
/6!p/rqpoVEHw/6!p/rpoVEHw/6!p/rpoV2EHw6!p/MrpoV2EHw6p/MrtpoV2EHw6p/Mrtpo2EHwS6p
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-rf8W6
y|K^%L_NEL/v5y|K^%LNEL/|v5y|K^LNEL3/|vy|K^FLNEL3/|vy|KFLNEL3/|vy|KFLNEL3/|yvy|K
4{V9T'zaPC"9X4{V9T'aPC"s9X4{V9'aPCF"s94{V9Q'aPCF"s94{V9QaPCF"s94{V9QaPCFh"s94{V
#RA(gBIxKr54O#RA(gBIxKr54O#RA(gBIxKr54O#RA(gBIxKr54O#RA(gBIxKr54O#RA(gBIxKr54O#
j-hwRAH+&=DCNj-hwRAH+&=DCNj-hwRAH+&=DCNj-hwRAH+&=DCNj-hwRAH+&=DCNj-hwRAH+&=DCNj
=D'zm@kv9HWf-=D'zm@kv9HWf-=D'zm@kv9HWf-=D'zm@kv9HWf-=D'zm@kv9HWf-=D'zm@kv9HWf-=

can you see it?
```

1.47 History

```
                                        History:

englisch history starting with V1.6.


                Version 1.6

                Version 1.7

                Version 2.1

                Version 2.2

                Version 2.3

                Version 2.4

                Version 2.5

                Version 2.6

                Version 2.7

                Version 2.8

                Version 3.1
```

```
                Version 3.2

                Version 3.3

                Version 3.4
```

1.48 History Version 1.6

```
                changes for Version 1.6:


The Background of the
                SIRDS
                 is now black

Patterns implemented

few small fixes

Flimmer &
                SIS
                 exclude each other. Even in the Prefs-Window

Key-Change in Prefs-Window. "p" now activates patterns. "y" now for Eye-pos
used.

Bug Fix: If a Picture is loaded, recalculation is startend immediately
```

1.49 History Version 1.7

```
                changes for Version 1.7:


Filelength now set to 100. Patterns  couldn't be loaded if the path was too
long.

Synchronos loading of the picture.

Usage of the Bitplane of the Datatype:
- ReadPixel() to the Picture is faster due to FAST-RAM access
- Pic-Screen not necessary anymore

fri_Dimension.Width does not return the right width of the picture. Caused the
black border of the Patterns. Fixed.

Bug Fix: The depth of the
                SIRDS
                 screen now adapts to the pattern, if
                SIS
                s are
```

```
rendered

New Flag: WBPREFS. Faster & better display of prefs & Filerequester.
```

1.50 History Version 2.1

```
changes for Version 2.1:


New Release, new version.
```

1.51 History Version 2.2

```
                changes for Version 2.2:

Bug Fix: When using the Prefs, it was possible to get a wrong Screen-Mode for
the SIRDS-Screen.

New: In the Prefs-Window, you can see the dimensions of the pattern.

New: It is possible to preview the Pattern in the Prefs-Window. This is done
asynchronously!

New:
                SEED
                -option. specify a seed value for SIRDS

New:
                SAVEFILE
                -option. when used, the SI(RD)S will be saved immediately, and
the program will terminate.

New:
                DARKNESS
                -option. specifies the percentage of dark pixels in a SIRDS.
```

1.52 History Version 2.3

```
changes for Version 2.3:

A few Enforcer-hits removed:
- When asked for the picture, before a screen was open, a hit occured.
- When the Picture-Screen ist turned off:
  a) opening the Prefs-Window caused 2 hits
  b) the menus in the SIRDS-Screen caused a guru
```

1.53 History Version 2.4

```
changes for Version 2.4:

Added Save option in the Prefs-Window. The Config is saved to the Icon of the
Program. Key "U" assigned to save config.

Better handling of initial screenmode. If the mode isn't available, then the
default will be used. If this fails too, DEFAULT_MONITOR_ID will be used.

New Progress indicator when saving a GIF.

SRC_DEPTH option removed. There isn't really any use for it.

Bug Fix: When selecting a new sirds-screenmode, the pattern-gadget became
checked.

Hidden-Mode accelerated. It is now 30% faster.
```

1.54 History Version 2.5

```
changes for Version 2.5:

Bug fix: When saving config, the Long-Options weren't saved correct
```

1.55 History Version 2.6

```
                changes for Version 2.6:

Bug fix: when the picture screen couldn't be opened, the default ID will be
used instead.

New Tooltype:
                PREFS_FIRST
                . Is this what you want, Jens?
```

1.56 History Version 2.7

```
                changes for Version 2.7:

the all new
                function plotter
                 implemented ...

The key-shortcuts in the Prefs-Window have changed a little bit: camg-mask is
now 'g'; flimmer enable is 'm'; function is 'f'

added a cycle gadget to the Prefs-Window, where you can select the SIS-mode.
```

1.57 History Version 2.8

```
                changes for Version 2.8:

added the
                RASTER-option
                . Great speed-up when drawing a
function.

Now using WritePixelArray8() for drawing, instead of WritePixel(). Big
speedup. SIRDS are now drawn twice as fast; a 4-plane SIS is even 3x faster.

The darkness is now setable in the Prefs-Win too.

darkness corrected. A higher value, will result now in a darker picture,
instead of vice versa.
```

1.58 History 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.
```

1.59 History Version 3.2

```
                changes for Version 3.2:

complete rewrite of the options. Now using ReadArgs() instead of
ArgArrayInit(). See
                Options
                 & ReadMeFirst.

Now using ReadPixelArray8() 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 PREFS_FIRST, and the prefs-window is cancelled, the program will
```

```
quit now.
```

1.60 History Version 3.3

```
                changes for Version 3.3:

Localized the string "Lines to do" in the Requester when saving a gif

added new
                pattern 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.
```

1.61 History Version 3.4

```
changes for Version 3.4:

removed the flimmering. Didn't look that good, and wasted 1.5kb code.

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 RMPTRAP flag set.
```