GIFToolkit

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	TITLE : GIFToolkit		
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GIFToolkit

1.1   GIF Toolkit documentation

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                              GIF-Toolkit
                   Version 1.5.3

          A program to generate GIF v.89a files

           © Copyright 1996 Stephan Schupfer



      Introduction
       - Why did I make this?

      Requirements
       - What you need to use GIF-Toolkit

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```

1.2 Introduction

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Introduction
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I made this program because there was no similar one for Amiga computers
before. There are some similar programs for other platforms.
I made this program not for just view GIF v.89a files. Mainly i made it
to alter all the parameters you have in GIF v.89a files and especially to
create GIF v.89a animations.

As i'm also programming WWW-pages, GIF- and especially GIF v.89a files had
become more and more important to my work. There was only one solution
(Ibrowse) to view animated GIF files on the Amiga (as far as i know)
and just a few text oriented programs to create them.

GIF-Toolkit is totally programmed in C, and is my third MUI programm !

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Why MUI ?
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MUI makes me able to program complex programs with easy to use GUI in a
short time. As i have done some programms for the Amiga before, i know
how time consuming programming a good GUI can be.

1.3 Requirements

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Requirements
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You need:


· MUI (i don't know which version is at least needed, but why not using always
     the latest ?? Progammed under Version 3.6)
· Enough RAM (especially for big pictures or long animations)

GIF-Toolkit currently supports Standard Amiga Bitmaps and CyberGraphX 8-Bit
Bitmaps. The Standard Amiga Bitmaps should make GIF-Toolkit usable on all
different screenformats like OCS,ECS,AGA and graphicsboards.


My System (GIF-Toolkit runs on it):


Computer:   Amiga 2000 (1 MB Chip RAM, OS 3.1)
Expansions: A2060 (68060/50MHz with 32MB 32-Bit RAM and Quantum Lightning 730S
            A2091 (mit 2MB FastRAM) and Quantum LPS240S
            Picasso II with CyberGraphX WB emulation
            Multiface III
```

1.4 Registration

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                Registration
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GIF-Toolkit is SHAREWARE. To ease your decision wheather to pay the
unregistered version has some limitiations:

 · File saving is not supported.
 · A Requester is shown on startup.

The shareware fee can be found in supplied orderform.

I currently offer a cheaper registration for users which decide to get registered
fast. (use fastorder) This offer is ONLY VALID UNTIL 31.DECEMBER 1996.
Fastorders which are sent off after 31.December 1996 will NOT be handled !
After 31.December 1996 please use the normal orderform !


Please take attention that the shareware fee may change, so take a look at the
recent version of GIF-Toolkit on AMINET.


Registered users receive a personal keyfile, which enables the missing functions.
This keyfile will work with all future versions of GIF-Toolkit, so as a  ←
   registered
user you can always download the most recent freely distributable version.


How to become a registered user ?


The simple way is to fill in the file "OrderForm", to print it out,
sign it (in this order, if possible), put it in an envelope together
with the registration fee and send it to
              me
               . I won't accept order
```

forms which are not signed.

The keyfile will be sent to you either uuencoded via EMail (prefered) or on ←
   floppy
disk (as you like it).

! Please take attention that registrations, where the shareware fee is include in ←
   !
! cash, can be handled very fast. Registrations with check or money-transfer to ←
   my !
! account will take some time to validate. ←
                                              !

1.5 Support

Support

GIF-Toolkit is not on AMINET. Because of the unclear legal situation
of the GIF format. :-(
If you want to protest against this, please contact Urban Mueller
<umueller@wuarchive.wustl.edu>.

Therefore i've created a WWW-Hompage for GIF-Toolkit
which will be found at :

 http://www.sbox.tu-graz.ac.at/home/schupfer/GIF-Toolkit/

You will also find catalog files for other languages on this page.

I'm still trying to put it on AMINET.

1.6 Installation

Installation

Installation couldn't be easier: Use the supplied install script !

It can be possible, that catalog-files for languages other than german or
english are not created for the latest version, because they are made from
various translators, who are of course a bit behind the development.

Please take a look at the GIF-Toolkit Homepage, maybe you can find the newest
version of catalog-files there.

1.7 Usage

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              Usage
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Programstart


              CLI

              Workbench
              I have used the 'MUI Bubble Help' feature. You will get help to  ←
                 almost any
feature of the program. The GUI is useable with the mouse and also with just
keyboard inputs.
GIF-Toolkit also supports online help if the GIFToolkit.guide is in the current
PROGDIR:. This help is available via HELP key on the keyboard or the similar
menuentry.

After starting GIF-Toolkit you will see a Window with three buttons and a menu.


              Single Picture

              Animation

              The Menu
```

1.8 CLI start

```
CLI start
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GIFToolkit [HELP/S,CGRAPHX8/S]

· HELP      Displays a helptext.

· CGRAPHX8  If you use GIFToolkit on a 8 bit CyberGraphX Screen, you can enable
            some faster display-routines (chunky) with this option.
```

1.9 Workbench start

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Workbench start
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Following Tooltypes are supported:

· CYBERGRAPHX8   If you use GIFToolkit on a 8 bit CyberGraphX Screen, you can
                 enable some faster display-routines (chunky) with this option.
```

1.10   Single Picture

```
Single Picture
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```

This Window is especially for editing single picture GIF files.
You can of course load GIF v.89a multiframe files but you get warned and
won't be able to save them. You will also only see the first frame.

You can load or save a picture or cancel to the main menu or edit the picture
parameters.
While saving a picture you can select between IFF and GIF format. The loading
of this formats is autodetectet and all formats with a supporting datatype can
be loaded.

In the edit-window you can change following parameters:

- Comment   You can enter a comment here, thsi text is added to the
                   saved GIF file as a comment. (e.g. Copyright notice)

- Transparent   Choose whether a color of the image should have a transparent
                   color or not.

- Interlace   Choose whether the file should be saved interlaced or not.

- Local Colormap   Choose wheater the local colormap of the frame should be
                   used or not. This checkmark can only be used if a local
                   colormap of the frame is present. This option makes not much
                   sense, because single picture GIFs shouöld use the global
                   colormap. Otherwise the global colormap which must be present
                   is obsolete.

- Transparent Color If transparent is selected you can choose here the color
                   which should be transparent.

- Background Color You can change here the color of the Background. Most WWW- ←
    browser
                   replace this color with the backgorund color of the document ←
                       where
                   the picture is located.

1.11   Animation

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               Animation
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```

This Window is especially for editing GIF v.89a multiframe files.
You can of course load GIF v.89a single picture files but you get warned,
because some parameters make no sense with single picture files.

You can load or save a animation or just cancel to the main menu.
You are able to load both GIF v.89a animations and IFF-Animations.

The Frames Listview:

Every frame of the animation has its own entry in the listview.
Every listview entry displays all parameters of a frame.
The columns are:

Name: Just a entry for the user to determine the entry in the listview.
         The name must not be unique !
         If the frame is a plaintext extension you will see the name changed.
Size: The size of the frame. Can be different from the size of the animation
Pos: The position of the frame relative to the size of the animation.
Delay: The time a frame is displayed in 1/100 of a second.
Dispose: What should happen after displaying the frame
Transp.: Indicates if the frame has a transparent color or not.
Interl.: Wheather the frame should be saved interlace or not.
CMAP: Wheather the local colormap is used or not.
Sort: Wheather the local colormap is sorted or not.

You can sort the framelist by just drag & drop a frame.
A frame can be editied by just simple double-click the desired frame.
The framelist is multiselectable.

Plaintext extensions can't be created or edited in this version.

The Buttons:

Add Frame: You can add one or more frames. The frames will be added at the
              end of the framelist.
              You can load every picture you have a datatype for - up to 8-bit
              (autodetected). You can add single pictures or a animations.
Remove Frame: The selected entry of the framelist will be deleted.
Copy Frame: The selected entry of the framelist will be copied and added to the ←
     end
              of the framelist..

               Edit Frame:
                  The same as double clicking a entry in the framelist. You can
              edit the active entry of the framelist. A new window will be opened ←
                 .
              For details see the part about the edit window.

               Edit Global:
                You can edit the global animation parameters. This parameters are ←
                   valid
              for all frames in the framelist. A new window will be opened.
              Details see below.
Show: Opens a window, where the animation is displayed.
Optimize: Some animations are very memory consuming or just not perfect.
              You can optimize some animations to be less memory consuming.
              Please take attention that the contens of the frames will
              be altered so take care that the animation is saved first.
              Not every optimization method is the best for the current animation ←
                 .
              It is possible that a optimization method will result a worse ←
                 animation.

```
              Following methods are available.
                The view window:
----------------
```

The view window is only displayed if a frame is in the framelist.
The view window displays the animation and allows you to play or singlestep the
animation. If the view window is closed you can reopen it by selecting a entry
in the framelist.

The animation will be played as often as defined in the loops. If no loops
are defined the animation is only played once. Please remember that a number
of loops defined 0 means infinite loops.

1.12 Optimization methods

```
Optimize methods
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```
Fix Size:    The size of the animation is always as big as the biggest frame,  ←
   but

             if you have removed the biggest frame, the size is not  ←
                automatically
             changed. You can fix the size to be as big as the biggest frame by
             using this method.

Expand:      Each frame gets the size of the animation and the content of the  ←
   animation

             at displaytime.
             A animation optimzed with this method will look optimal on IBrowse  ←
                v1.02,
             but the filesize of the saved GIF-file is the maximum.

Method 1:    Tries to optimize the animation, that the content of each frame is  ←
   only

             these pixels which have changed from the frame before.
```


1.13 Edit Frame

```
Edit Frame
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This window looks different whether you want to edit a single frame or have
multiselected a couple of frames. The settings are the same, but if you edit a
couple of frames, you can select which settings should be changed for all
selected frames. The default settings depend on the active entry of the list or
if no active entry exists on the first frame of the list.

The single frame can be saved as IFF or GIF picture. If you have selected more
than one frame the Frames are saved as a serie of single pictures. A number is ←
   added
to the filename.

Position: You can change the position of the frame in the animation.
          The position must be (0,0) if the frame is as big as the animation.
          In that case the position can not be changed.

Disposal Method: GIF v.89a currently defines 4 different disposal methods. This
                 methods describe what should happen after displaying the frame.

              · Undefined: No disposal specified. The decoder is ←
                not
                                        required to take any action.
              · Do not dispose: The graphic is to be left in place.
              · Restore to background: The area used by the graphic must be
                                        restored to the background color
              · Restore to previous: The decoder is required to restore the ←
                area
                                        overwritten by the graphic with what ←
                                           was there
                                        prior to rendering the graphic.

                 Currently Restore to previous is not implemented. This is not a ←
                    big
                 problem as this feature is not supported by most WWW-Browsers too ←
                    .
                 But i'm working on implementing this feature in the future.

Delay Time: Set the time the frame is displayed in 1/100 of a second. After this ←
    time
            the next frame will be displayed.

Misc: You can set the 'Transparent', 'Interlace' and 'Local Colormap' Flag.
      The 'Local Colormap' Flag can just be used if the frame has a local colormap ←
         .

Transparent Color: Here you can select the color which should be displaed ←
    transparent.
                   A new window will open, which shows you the current colormap of ←
                      the
                   frame.

1.14 Edit Global

 Edit Global

Comment: You can enter a comment which is added to the GIF v.89a file. (e.g. a ←
    copyright
         notice)

Width, Height: You can change the width and height of the animation, but only in a
               limited space. The size can never be smaler than the one of the ←
                  smallest
               frame (the offsets are also checked).
               The maximum size is limeted to 2000x2000 pixels.

Depth: Is only displayed for user information. This parameter can not be changed ←
     .

Background Color: Select the color which should be used for background.
                  Most WWW-Browsers replace this color with the color of the page,
                  where the graphic is displayed.

Netscape Loop: You can select if a Netscape Loop extension is added to the file.
               In conjunction with that you can change the number of loops.
               Zero means infinit loops.

1.15 The Menu

```
The Menu
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```

The menu is only reachable in the main window.

Following menu entries are available :

```
Project
 · About...     Opens a requester with some copyright and version information.
 · About MUI... Opens the MUI About Window.
 · Help...      Opens a Window with the GIFToolkit.guide if present.
 · Iconify      Iconifies the programm.
 · Quit         Quits the program.

Settings
 · MUI Settings... Opens a Window to alter the MUI Settings for GIF-Toolkit.
```


1.16 General informations

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General informations about GIF-Toolkit
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· GIF v.89a :

  At this time GIF-Toolkit supports all features, except the disposal method
  'dispose to previous'.

  It is to mention, that GIF-Tolkit supports only one comment extension.
  I've made this limit, because it makes no sense to me to support more than
  one, which only increases the filesize. In my opinion the 255 charakters
  are enough for a text which isn't displayed with the most programs. More
  comment extension are only needed, if you want to add more than 255 charakters.

  The support for the plaintext-extension is in a very early state, because i ←
     have
  only one picture which supports this format (and even this pictures doesn't ←
     handle
  this format correctly as i interpret the specifications).
  If you have access to pictures with this extension, please send them to me to

      improove the support.

· Datatypes

   Picture loading (except GIF) is done via datatypes. As the GIF-format supports ←
      only
   pictures up to 8-bit, you can only load pictures up to 8-bit.

· IFF-ANIM

   Currently supported formats are: ANIM2,ANIM3,ANIM5,ANIM7 und ANIM8
   More formats will be supported if i think there is a demand and i have
   some testfiles for this format.

· BitMaps

   Because GIF-Toolkit manipulates the data of the Bitmap directly, and the
   bitmap formats of OCS,ECS,AGA or graphicboards differ, the display routine
   uses now standard Bitmaps.
   The only alternitive is currently the 8-Bit CyberGraphX format, which can be
   enabled via tooltypes and speeds up the display on such screens.
   GIF-Toolkit-versions less than 1.2.1 crashed on some machines, because i work
   internally with 8 bit bitplanes, which are often blitted (using ←
      BltBitMapRastPort)
   into a screen with less than 8 bit. For a fast fix i remove now the redundant
   planes, which causes sometimes bad results but it works ! For future versions
   i will of course work on a colortrue planereducing. At the moment using GIF-
   Toolkit on 8 bit screens is the best. ;-)

1.17 Known bugs

Known bugs

· As i have troubles with some other MUI programs i have written
   there may be GURU's because of the stacksize.
   If you get some of these GURU's please increase the stacksize !
   Currently i have not noticeed this problems with GIFToolkit.

1.18 FAQ

Frequently Asked Questions

· Why aren't my animations in my favourite WWW browser viewed the same
   as with IF-Toolkit ?

   GIF-Toolkit supports (almost) all features of the GIF v.89a format as defined ←
      in
   the specifications.
   WWW browser do not support all of this features, or interpret some of features
   different to the specifications (e.g. background color). Even Netscape (v3.0) ←
      does not

```
support all features of GIF v.89a !! I think about implementing special  ←
    optimization
methods for some browsers.
```

1.19 Tips & Tricks

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Tips & Tricks
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Here are a few tips for using GIF-Toolkit and for creating GIF animations

· Try to use as less colors as possible for a Picture

· Try to use only one colormap (the global one) for animations.

· Try to optimize your animation with GIF-Toolkit

· If you have removed the biggest frame of a animation try to fix the size.

· Not all WWW-browser support all features of GIF v.89a. It is possible to
  change every picture to look the same on most browsers.

· Looping IFF-ANIM need to have the last two frames to be identical to the
  first two. Using them with GIF-Toolkit, this two frames are obsolete –
  delete them.

1.20 Copyright

```
          Copyright
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```

The program "GIFToolkit" supporting documentation and included files are
Copyright ©1996 by Stephan Schupfer.

DISTRIBUTION

The distribution of the programs is free as long as following rules are
repected:

· All associated files included with the distribution archive are to
  remain intact and unaltered.

· The package is always distributed in its complete form.

· No profit must be made by distributing GIF-Toolkit, especially the price of a
  floppy disk containing GIF-Toolkit may not exceed US$ 5,- (or equivalent ←
      amounts
  in other currencies).

· It is free to distribute GIF-Toolkit over bulletin board systems and networks.

· disc-magazines, service providers and all other publishers who want to

include the GIF-Toolkit program on their disks, CD-ROMS or other media,
need to have my permission in case of a commercial distribution.

· Commercial use of GIF-Toolkit is forbidden unless permission is granted
  by S.Schupfer. Contact me at: schupfer@sbox.tu-graz.ac.at

 All rights for commercial use remain at the
                author
                   .

DISCLAIMER

The keyfile that registered users will receive, must only be installed
on one computer and in no case passed on to others. Offences will
result in penal prosecution by me. With your signature on the order form,
you accept these conditions.

The program is presented to the users as it is, without any warranty
of any kind, be it expressed or implicit. Anyone using this programs
agrees to incur the risk of using it for himself. In no way
can the author be made responsible for any damage directly or indirectly
caused by the use or misuse of the program.

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

The above Statement doesn't mean anything more than what is specified in the
GRAPHICS INTERCHANGE FORMAT v.89a specifications.

MUI is Copyright @ Stefan Stuntz

Names of other hardware and software items mentioned in this manual and
in program texts are in most cases registered trade marks of the respective
companies and not marked as such. So the lack of such a note may not be
used as an indication that these names are free.

1.21 Bugreports

                Bugreports

If you find a bug or a misfeature in GIF-Toolkit, or have an idea how
to make things better, then pelase drop me a note so I'll be able
to improve GIF-Toolkit in the future.
My address con be found
                here
                   .

Important for a bug report is the following information:

· Version of GIF-Toolkit (can be found by doing "version GIFToolkit" from Shell)
· Used Amiga configuration (e.g. 68030,..,2MB Chip,., OS 3.0,...)
· Used graphicsmode of the Workbench (e.g. ECS 4 Bit, .., CyberGraphX 8 Bit, ..)

- Information about installed startup programs on the Amiga
- Detailed decription what picture or command produces the bug and how
  it can be reproduced.

If you have any problems using a partikular picture , please add this picture
to your bugreport.

But first please look, if it's a
                  known bug
                      .

1.22 Thanks

 Credits

I would like to thank

- Stefan Stuntz <stuntz@sasg.com>
    for MUI, a powerful and easy to program GUI.
- John Barkaus <john@cooper.cooper.edu>
    his document about GIF and LZW.
- CompuServe
    for the document about GIF Version 89a
- SPARTA Inc. & Wolfgang Hofer
    for their document about the IFF-ANIM format.
- Marcin Orlowski <carlos@inet.com.pl>
    for his very good bugreports and new ideas.

Translators:

 The german and english texts are created by the author.

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1.23 The author

 The author

 Software development is a way to keep the Amiga alive !

 My address is:

```
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  http://www.sbox.tu-graz.ac.at/home/schupfer/

Questions, criticism, suggestions and bugreports are always welcome.
```

1.24 About MUI

```
                       This application uses


                   MUI - MagicUserInterface

              (c) Copyright 1993-96 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

                          Stefan Stuntz
                    Eduard-Spranger-Straße 7
                         80935 München
                            GERMANY



            Support and online registration is available at

                        http://www.sasg.com/
```

1.25 History

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                    History
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V1.0     04.11.96
  - first public release
V1.1     11.11.96
  - fixed bug in loadGIF (depth)
  - fixed bug in saveGIF (depth)
  - fixed bug while sorting the list.
  - Fastorder now till 31.December 1996
V1.2     17.11.96
  - GIF v.89a plaintext extension is supported
  - Save IFF pictures
  - Load IFF pictures
  - Hopefully fixed a bug with AGA-screens (some screens were identified
    wrong as CyberGraphX screens)
  - New tooltype CYBERGRAPHX8
V1.2.1   19.11.96
  - Filerequester should now open on the correct screen.
  - Playing the animation is only possible if more than one frame exists.
  - Comment-string disabled if no pictures is loaded.
  - The animation is played according the number of loops defined.
  - Num-Buttons are disabled if there is nothing to input.
  - !!! Fixed a major bug : no more crash on screen less than 8 bits!
    (works now, but not as i want it ! - see
                 General
                 )
V1.2.2   20.11.96
  - fixed a bug with 'restore to previous'.
  - added autodetection of the loading fileformat (GIF or IFF).
  - added new function 'copy frame'.
V1.2.3   22.11.96
  - The register is now useable with keyboard.
  - Some ASL mistakes corrected.
  - Some mistakes with sleeping windows corrected.
  - Numeric button shows now infinte for 0 loops.
  - Multiple selection of the framelist enabled.
  - New function 'Show'. The show window isn't opened by default anymore.
V1.3     26.11.96
  - fixed a bug while adding a animation.
  - loading of IFF-ANIMs implemented.
  - fixed a bug while loading uncompressed IFF pictures.
  - new buttons 'select all' and 'select none'
V1.3.1   28.11.96
  - Code cleanup (CopyMem,redundant stuff,...)
  - New NumButtons: Change the size of the animation (global).
V1.4     29.11.96
  - New: Italian installskript from Francesco Mancuso <mcfrank@mediatel.it>
  - New: load Pictures via Datatypes - up to 8-Bit (old IFF-loading removed)
V1.4.1   30.11.96
  - No change at multiedit is recognized.
  - New: Save the selected frames as serie of single pictures.
  - New: The ASL-Filerequester at 'Add frame' allows multiselection.
  - 'fix size' moved to optimization methods.
```

```
     - New optimization method: 'expand'
     - New requester to confirm deleting.
     - Replaced the register in single-picture with a new window.
V1.4.2   3.12.96
     - Fixed a bug in 'Load Datatype'.
V1.4.3   5.12.96
     - improoved support for keyboard-usage (hotkeys).
     - fixed a bug from versions 1.4.1 and 1.4.2 (edit a frame).
     - fixed a bug while saving delays > 255.
     - Quicker update of the listview because of temporary switch off.
V1.5     7.12.96
     - New: Dispose to previous method.
     - New display routine (should be faster and better).
     - fixed a bug while editing multiple frames - editing was not possible
       when no active entry exists.
V1.5.1   17.12.96
     - fixed a bug in english helptext (select none).
     - fixed a bug with the default settings while choosing a backg. color.
     - fixed a bug while saving the imagesize.
     - fixed the color-mistakes of the new displayroutine of v1.5.
     - New kind of remapping in the displayroutine.
V1.5.2   18.12.96
     - Some code cleanup
     - New: GIFViewer: a commandline,non-MUI GIF-Viewer for registered users.
V1.5.3   9.1.97
     - New: Pick transparent color from image.
     - New: Show RGB-values while choosing a background or transparent color.
```

1.26 Future

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Future
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I will contionue work on this product and support it where I have
the time, and would therefore appreciate any bug-reports, ideas,
gifts, etc.

The main goal is at the moment to fix all bugs.

i think about of implementing next:

· Load and Save Colormaps.
· More and better optimize methods.
· Save anims with IFF-ANIM format.
· Support for more languages.
```