

# **TIFFView**

Bert Wynants

**COLLABORATORS**

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WRITTEN BY	Bert Wynants	February 12, 2023	

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# Chapter 1

## TIFFView

### 1.1 TIFFView Guide 1.16 Copyright © 1993-95 B. Wynants

Table of Contents:

Welcome to the TIFFView AmigaGuide®. Select any of the following topics:

Introducing TIFFView

System requirements

How to use TIFFView

TIFFView Menu's

ARexx Port

Known Problems

Tips

To Do's

About the program

About the author

Program History

### 1.2 Introducing TIFFView

This is a utility to read, view and print  
TIFF

,  
MacPaint

,

```
        GIF
        &

        IFF
        ,
        JPEG
        or any image you have a
        DataType
        for, and to write
them back as
        TIFF
        ,
        JPEG
        or
        IFF
        files.
```

Starting from version 1.11 TIFFView requires at least 2.04. To get the most out of it you must have an Amiga with the AGA chipset. Then you can open your images at 8-Bit Color or Gray!

The name TIFFView did cover the functionality of the first releases but since then other file types where added, therefor TIFFView should get a new name and one of the next releases may get another name.

### 1.3 TIFF Files

TIFF Files (Tag Image File Format) are files commonly used in the graphic computer world (Mac, Sun, NeXT, IBM)

TIFFView is compatible with the 6.0 specs of TIFF.

supported TIFF:

- multiple image TIFF
- 1,2,3,4,5,6,7,8,24,32 Bit
- Line-art, gray, palette images, 24 bit color RGB, 32 Bit color CMYK.

### 1.4 MacPaint Files

MacPaint Files are that old files used on Macintosh. I included this format because some clip-art libraries still use this format...

### 1.5 GIF Files

GIF Files (Graphics Interchange Format(c)) are files that are commonly used in the BBS and IBM World it is however limited to 256 colors.

supported GIF: GIF87a & GIF89a

---

- multiple image GIF files
- 1,2,3,4,5,6,7,8 Bit interlaced & non interlaced files
- Line-art, gray, palette images.

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

## 1.6 IFF Files

IFF Files (Interchange File Format) are files that are commonly used in the Amiga World.

supported IFF:  
-1,2,3,4,5,6,7,8 Bit  
-Line-art, gray, palette images.

## 1.7 JPEG Files

JPEG (pronounced "jay-peg") is a standardized compression method for full-color and gray-scale images. JPEG is designed to handle "real-world" scenes, for example scanned photographs. Cartoons, line drawings, and other non-realistic images are not JPEG's strong suit; on that sort of material you may get poor image quality and/or little compression.

JPEG is lossy, meaning that the output image is not necessarily identical to the input image. Hence you should not use JPEG if you have to have identical output bits. However, on typical real-world images, very good compression levels can be obtained with no visible change, and amazingly high compression is possible if you can tolerate a low-quality image. You can trade off image quality against file size by adjusting the compressor's "quality" setting.

This reading and writing is based in part on the work of the Independent JPEG Group

## 1.8 DataTypes Files

The `datatypes.library` provides transparent data handling abilities to applications. If TIFFView finds an image it can't read it asks to the `datatypes.library` to read the file. This enables TIFFView to read a lot more image types.

This is available from WorkBench 3.0 and higher.

---

## 1.9 System Requirements

TIFFView should run on any Amiga system with at least 512K RAM and one disk-drive. TIFFView requires KickStart v2.04 or higher to run.

TIFFView also requires the ReqTools.library v38 or higher. ReqTools is copyright 1993 by Nico François.

Should you have any trouble running TIFFView on your machine, please write to me with the full specifications of your machine, that is KickStart version, model, expansion boards etc...

## 1.10 How to use TIFFView

TIFFView can be started from the Shell or the Workbench.

CLI Usage:

```
TIFFView [filename(s)] [-r file]
-r file : startup ARexx command (no parameters yet).
```

WB Usage:

Shift select files and double click TIFFView.

## 1.11 TIFFView Menu's

File Menu

Preference Menu

Operations Menu

## 1.12 File Menu

Open...

Calls File Requester to select an image to load.

Scan...

Not available.

Image Info...

Shows information about the currently active image.

---

**Print**

Prints the currently active image.

**Kill Memory Image**

Removes the memory image from the currently selected image.

**Save**

Saves the file using the name and path that shows in the title bar. Only enabled if something was changed to the Image and the full image is in memory.

**Save As...**

Saves the file using an option requester and a File Requester to select options, name and path.

**Close**

Closes the currently active window.  
Asks if changes have to be saved if needed.

**Quit**

Closes all TIFFView windows and Quits.

## 1.13 Preference Menu

**First Image Only**

Used for multiple image

TIFF  
and  
GIF  
Files.

If you check this option the reading will be slightly faster but only the first image of multiple-image files will be shown and you are not warned of the presence of more images in the file.

**Full File Names**

If this is checked then the window title bar will show complete file path.

**Screen Mode...**

Shows a requester to define custom screen attributes.

**Open Settings****Keep Memory Image**

If checked and the original image has more colors like the screen image the complete full color image is kept in memory. This memory image is used for operations (Gamma) and for saving. This however can occupy a lot of memory.

e.g. A

TIFF

24 bit image with the 'Keep Memory Image' option checked and a screen with an 8 bit representation requires 4 times the memory as without the memory image.

note: A memory image can be removed later by selecting the Kill Memory Image menu option.

---



#### All On Custom Screen

If checked, all images (also 1 bit images) open on the custom screen, otherwise 1 bit images open on the workbench screen.

#### Full Size

Images always open starting in Top Left corner and the maximum window size is ← used.

#### Cascade

Images are opened relative to previous opened window and shifted to left and bottom.

#### Buildin

TIFF

IFF

GIF

MacPaint

JPEG{ui}

Enables the buildin code to read this image types. If you want to read an image with a datatype, switch off the menu item for that image type.

#### Printer Settings

Half Size

Normal Size

Double Size

Allows to set an enlargement factor for printing.

#### Extra Info

Allows enabling of printing some information about the picture.

#### Center Horizontal

Sets print position.

#### Save as Settings

The Save as Settings are there to specify what kind of image has to be the default type for the Save As Options... requester.

#### The

TIFF

comp. mode option is there to generate a more compatible

TIFF

file for transportation across computers & applications:

- Some

TIFF

readers don't support 2 or 3 bit

TIFF

files.

(so 2 and 3 bit

TIFF

files are converted to 4 bit

TIFF

files when saving).

- 1-Bit

IFF

or

GIF

is saved as  
TIFF  
Line-Art (color information is removed)  
otherwise 1-Bit  
IFF  
and  
GIF  
is saved as a Palette  
TIFF  
of 1 Bit and the  
color information remains intact.

Without

TIFF  
comp. mode ON the generated  
TIFF  
files are also correct  
according to the  
TIFF  
6.0 standard but less common accepted by some other  
applications.

Create Icons?

Allows enabling of icon creation for saved files. TIFFView looks for ENV:Sys/ ↔  
def\_tiff, ENV:Sys/def\_jpeg and ENV:Sys/def\_ilbm  
for the creation of it's icon. If these are not found ENV:Sys/def\_picture is ↔  
tried.

Dithering Settings

No Dithering  
Dithering is disabled.  
Simple  
Just a simple and fast one dimensional dithering.  
Floyd & Steinberg  
Good and fast 2-dimensional dithering.  
Jarvis, Judice & Ninke  
Slow dithering over 3 lines.  
Stucki  
Slow dithering over 3 lines.  
Stevenson & Arce  
Slow dithering over 5 lines.

Gray

TIFF  
The dithering is for converting  
TIFF  
files to  
1, 2, 3, 4 or 6 bit Gray images.

Color

TIFF  
Color to Gray: Converts Color to Gray according to the Gray ↔  
settings.  
Color to 3 Bit: 1 bit red, 1 bit green and 1 bit blue.  
Color to 5 Bit: 2 bit red, 2 bit green and 1 bit blue.  
Color to 6 Bit: 2 bit red, 2 bit green and 2 bit blue.  
Color to 8 Bit: 3 bit red, 3 bit green and 2 bit blue.

---

## Palette

TIFF

Remains untouched if the number of colors is less or equal to the value specified in the color to menu. ←

Otherwise it is re-dithered to the value specified in the color to menu.

See Color

TIFF

.

## Gray

GIF

The dithering is for converting GIF files to 1, 2, 3, 4 or 6 bit images.

## Color

GIF

Remains untouched if the number of colors is less or equal to the value specified in the color to dithering menu. ←

Otherwise it is re-dithered to the value specified in the color to menu.

See Color

TIFF

.

IFF

Remains untouched if the number of colors is less or equal to the value specified in the color to dithering menu. ←

Otherwise it is re-dithered to the value specified in the color to menu.

HAM & EHB

IFF

files are not supported.

## Scroll Settings

Sets scroll speed when clicking arrows from scroll bars.

## Unit Settings

Used by printing for extra print information.

Used in Image Info Window to show image size.

## Load Settings@.{ub}

Use these menu items to load a settings file.

## Save Settings

Use these menu items to save the current settings to the tiffview.prefs file.

## Save Settings As...

Use these menu items to save the current settings as a preset.

## 1.14 Operations Menu

Gamma mapping...

Allows definition of gamma curve to re-map the image.

Higher Gamma values give more detail in Dark Image parts (brighter Images).

Lower Gamma values give less detail in Dark Image parts (Darker Images).

No gamma is 1.0.

A Good value for dark images should be 1.5.

## 1.15 ARexx Port

TIFFView is equipped with an ARexx Port. The name for the ARexx Port is 'tiffview'. So if you want to send commands to that port you would have to issue

```
ADDRESS 'tiffview'
```

If you have more TIFFView's running '-number' is appended to the port name.

DoMenuItem Menu Item [Sub [val]] executes a menu item like if it was selected.

Ex: domenuitem 1 6 1 ON selects scrolling speed normal

Full\_file\_names [OFF | ON]

Screen\_Mode screenwidth [xxxx]

Screen\_Mode screenheight [xxxx]

Screen\_Mode screendepth [xxxx]

Screen\_Mode screendisplayid [xxxx]

Screen\_Mode screenautoscroll [xxxx]

Screen\_Mode screenoverscan [xxxx]

Screen\_Mode Requester ; pops up a requester

Open\_Settings First\_Image\_Only [OFF | ON]

Open\_Settings Keep\_Memory\_Image [OFF | ON]

Open\_Settings All\_On\_Custom\_Screen [OFF | ON]

Open\_Settings Full\_Size

Open\_Settings Cascade

Buildin\_settings TIFF

Buildin\_settings IFF

Buildin\_settings GIF

Buildin\_settings MACPAINT

Buildin\_settings JPEG

Printer\_Settings Half\_Size

Printer\_Settings Normal\_Size

Printer\_Settings Double\_Size

Printer\_Settings Extra\_Info [OFF | ON]

Printer\_Settings Center\_Horizontal [OFF | ON]

Save\_as\_Settings IFF\_Uncompressed

Save\_as\_Settings IFF\_Compressed  
 Save\_as\_Settings TIFF\_Uncompressed  
 Save\_as\_Settings TIFF\_Packbits  
 Save\_as\_Settings TIFF\_LZW  
 Save\_as\_Settings JPEG\_HIGH\_QUALITY  
 Save\_as\_Settings JPEG\_QUALITY  
 Save\_as\_Settings JPEG\_SPEED  
 Save\_as\_Settings TIFF\_Comp.\_Mode [OFF | ON]  
 Save\_as\_Settings Create\_Icons [OFF | ON]

Dithering\_Settings Dithering No\_Dithering  
 Dithering\_Settings Dithering Simple  
 Dithering\_Settings Dithering Floyd\_Steinberg  
 Dithering\_Settings Dithering Jarvis\_Judice\_Ninke  
 Dithering\_Settings Dithering Stucki  
 Dithering\_Settings Dithering Stevenson\_Arce

Dithering\_Settings Gray [To\_Line-art | 1]  
 Dithering\_Settings Gray [To\_2\_Bit | 2]  
 Dithering\_Settings Gray [To\_3\_Bit | 3]  
 Dithering\_Settings Gray [To\_4\_Bit | 4]  
 Dithering\_Settings Gray [To\_6\_Bit | 6]  
 Dithering\_Settings Gray [To\_8\_Bit | 8]

Dithering\_Settings Color [To\_Gray | 0]  
 Dithering\_Settings Color [To\_3\_Bit | 3]  
 Dithering\_Settings Color [To\_5\_Bit | 5]  
 Dithering\_Settings Color [To\_6\_Bit | 6]  
 Dithering\_Settings Color [To\_8\_Bit | 8]

Scroll\_Settings [Slow | Normal | Fast]

Unit\_Settings [Millimeters | Inches | Pixels]

Configuration SAVE  
 Configuration SAVEAS filename  
 Configuration LOAD filename

Version

About

Open filename

PullToFront filename ; filename is name used for open

Close filename ; filename is name used for open

Save filename ; filename is name used for open

Save\_As filename newfilename ; filename is name used for open

Print filename ; filename is name used for open

ImageInfo filename width ; filename is name used for open

ImageInfo filename height ; filename is name used for open

ImageInfo filename depth ; filename is name used for open

ImageInfo filename resolx ; filename is name used for open

ImageInfo filename resoly ; filename is name used for open

ImageInfo filename imageKind ; filename is name used for open memory image ↔  
 must be available

ImageInfo filename imageClass ; filename is name used for open

ImageInfo filename compression ; filename is name used for open  
 result contains the requested information

Kill Memory Image filename ; filename is name used for open  
 Operations Gamma factor ; factor must be 10 times to big

## 1.16 Known Problems

If an image is dithered to more colors than the available colors of the screen, the image will look bad, but it is correctly in memory so saving the image will work correct.

e.g. Opening an

```
IFF
  5 bit image (32 colors) with dithering color to 5 bit
  on an interlaced 4 bits (16 colors) screen gives a bad image on that screen.
```

## 1.17 Tips

On a system with not much memory or if you only use TIFFView for viewing leave the 'Keep Memory Image' in the 'Open Settings' sub menu off. This saves a lot of memory if you open 24 bit images, but does not allow you to use the Save menu item (Save As works!!) if the image has changed.

## 1.18 ToDo

```
  24 bit
  IFF
  reading & saving (request by Jean-Pierre LeBel)
  Image cropping tool (request by Jean-Pierre LeBel)
  Implement Scanning with AGFA scanners (request by Jochen Brusseler)
```

## 1.19 About the program

Current version 1.16

This program is freeware, this means that you can copy it freely as long as you don't ask any more money for it than a nominal fee for copying. If you want to distribute this program you should keep this document with it. This program cannot be used for commercial purposes without written permission from the author

TIFFView has proven to be stable in everyday use. The author is not

responsible for any loss of data, damages to software or hardware that may result directly or indirectly from the use of this program. The author reserves the right to make changes to the software or documentation without notice.

TIFFView was written in C and compiled using SAS/C 6.55.

None of the files of the TIFFView package may be modified. Crunching or achieving is allowed only if none of the TIFFView files get modified by it.

## 1.20 About the Author

If you have suggestions or remarks about this program, or if you find any bugs, please let me know.

When sending in bug reports, please state exactly under what circumstances the bug occurred, what equipment was used and what happened. If possible also try to give me enough information to reproduce the bug. It is very difficult to find bugs when you don't know exactly what happened.

Write to the following address:

email : bert.wynants@innet.be

Fido : 2:292/603.76 (Bert Wynants)

SnailMail: Wynants Bert  
Hogeheide 6  
B-2260 Heultje-Westerlo  
Belgium - Europe

## 1.21 Program History

Changes & Fixes:

1.16

Fixed guru on 68000 machines, 1.15 would only work correctly on a 68030+ (Thanks to Bill Bennett and others for reporting)  
Fixed bad icon in 1.15 archive (Thanks to Rudy Kohut for reporting)  
Sorry, it's back the old icon, nothing fancy :-)  
Fixed broken IFF reading  
Changed email adress

1.15

added TIFF.Datatype to archive  
several small fixes  
recompiled with SAS/C 6.55  
used JPEG Code 5b

1.14

---

ENV:Sys/def\_picture added for icon creation  
JPEG reading and writing added  
File Saving choice for memory/screen image fixed  
Fixed update problem with very small images

## 1.13

Width and Height update on the fly if the resolution changes in info window.  
Busy requester has a progress bar now.  
All requesters have the ReqTools backfill look now.  
Using GetDiskObjectNew for WB startup now.  
Aborting Creating Screen Image no longer gives a Memory Error.  
Scroll bars have newlook and are one linked boopsi gadget.  
Setting Scroll Speed for arrows works better.  
Buildin sub menu added to override buildin reading by datatype reading.  
Added support for datatypes for unknown image types.  
Added icon creation for saved files.  
Settings Load/Save added.  
Task and port names for multiple instances of TIFFView improved and corrected.  
Workbench color changing fixed. (Thanks to Peter Stuer for reporting)  
Public screen handling fixed and improved.

## 1.12

Handling more multiple image TIFF files correctly now...  
Gamma mapping on a CMYK image worked inverse.  
Multiple Image GIF files are now also supported.  
Complete revision of GIF reading, now I think it even works :-)  
thanks to all those who reported GIF reading bugs (Bart, Peter, Tom...).

## 1.11

Save/Discard/Cancel Dialog added

## IFF

dithering added  
Search scanner option removed  
Gamma handling moved to image windows menu's

## MacPaint

reading added  
Screen closing fixed for visitor window (e.g. Scale by Erik Wistrand)  
interleaved screen and bitmaps added  
bugfix for

## IFF

& interleaved screen  
3.0 NewLook Menu's added  
color to gray conversion uses luminance calculation now  
CMYK image conversion corrected  
removed 1.3 compatibility  
printing can be aborted now  
now the custom screen uses the user font also  
all requesters font sensitive  
requester added for saving options  
localized under OS2.1 and higher  
rewrite of internal ARexx handling

## 1.10

Save as gives warning if destination file already exists.  
some bugfixes in ARexx part.

---



## 1.09

Abort added for opening and saving images.

CMYK image conversion added (TIFF only).

Multiple file selection in file requester.

Choosing between images in case of some mullet image TIFF files.

(requested by Peter Stuer, not all multiple image files are yet supported)

Window tiling added for opening images. (Suggested by Peter Stuer)

Preferences moved to ENVARC: on a 2.0 or 3.0 system.

(Suggested by Peter Stuer)

Corrected Default prefs for 3.0.

Planar 24 bit

TIFF reading added.

Interlaced

GIF reading handled correct now

(Thanks Tom De Mulder for reporting).

## 1.04

General changes:

Using ReqTools library for better requesters.

Thanks to Nico François for ReqTools & his testing on the A4000.

1-Bit

IFF

->

TIFF

Line-Art bug corrected.

Bug fixed which caused custom screen to generate some bad colors for menu's.

Color dithering fixed and added.

Problem with mutual excl. menu's fixed.

GIF

Reading added.

Crash bug fixed for screens with more like 5 bits.

Dithering improved.

2.0 Specific:

Screen mode requester added.

Gamma Definition Requester added.

Image information Requester added.

3.0 Specific:

8 bit screens support.

256 grays or colors possible.