

akJFIF_Documentation

COLLABORATORS

	<i>TITLE :</i> akJFIF_Documentation		
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WRITTEN BY		August 22, 2024	

REVISION HISTORY

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Chapter 1

akJFIF_Documentation

1.1 Commercial Break

DON'T click here > < or here > <

```
-----  
*****  *****  *****  *****  ++++++  
*          *    *   *   *    *   +   +  
*****   *    *   *   *****  +++  
          *    *   *   *   *  
*****   *    *****  *           +  
-----
```

and now to something completely different...

<Commercial> BTW: What is SViewNG ? </Commercial> with PPC support !

<Commercial> Already tested PMPPro ? </Commercial> with PPC support !

...before you E N T E R the DATATYPE documentation!

(no this isn't an aggressive commercial - if you want to see one,
just wait for the NEXT release ;-)

1.2 akJFIF : Documentation

akJFIF.datatype V43.187

- SHAREWARE -

© 1996-98 by Andreas Ralph Kleinert. All rights reserved.

A PerSuaSiVe SoftWorX PRODUCT.

Needs Kickstart V3.x

Release Date : 5.6.1998

Please consider registration - usually less than 1% of the users of a program do register. That's not much.

<Commercial> BTW: What is SViewNG ? </Commercial>
<Commercial> Already tested PMPro ? </Commercial>

Copyright
Disclaimer
Distribution
Payment
Usage and Notes
Free algorithms... PNG and JFIF: a team ...and free speech !
Datatype FAQ
68020-68060, PPC
Prefs
Correspondence
Thanks
Version-History

_ //
Only \X/ Amiga makes it possible!

Please visit:

WWW Support Site
<http://www.amigaworld.com/support/akjfif/> (AWeb-II)

The CHAOS theory:

"Like finding that bloody butterfly whose flapping wings cause all these storms we've been having lately and getting it to stop." (see "Witches Abroad" by Terry Pratchett)

Ahm...well:

...and thanks for all the fish.

1.3 copyright

The akJFIF.datatype in this version and its documentation files are (C)opyright 1996-98 by Andreas R. Kleinert. All rights reserved.

The right of using this program is granted to you by paying the SHAREWARE-fee of 15 DEM (10 U\$) or equivalent to the author.

This software is based in part on the work of the Independent JPEG Group.

akDT_Installer by Robert C. Reiswig ©1996-1998.

If you wish to use any part of this installer you must ask. May not be integrated/placed into any other package! Changes, suggestions or problems: akDatatype@vgr.com

Prefs GUI design improved by Georg Rottlaender <Georg.Rottlaender@bonn.netsurf.de> under use of a 'NewIcon' graphics by Philip Vedovatti <vedovatt@u.washington.edu> - included with kind permission by the 'Team NewIcons'

The patch files were created using the scompare SAS Binary File Compare Program V6.50 which is copyright © 1992-1993 SAS Institute, Inc. The spatch SAS Binary File Patcher V6.50 is copyright © 1992 SAS Institute, Inc.

Some of the mentioned names or products within this or other documents may be copyrighted by companies or trademarks of companies or persons.

Should any of the listed terms and clauses within this document not be valid in conjunction with the law of certain countries this does not affect the validity of the other clauses.

1.4 disclaimer

The author takes no responsibility for any results of the use of this program.

This software is provided "AS IS" and there is no warranty of any kind, so that you use this software at your own risk.

The author reserves the right to discontinue development of the program.

1.5 distribution

The akJFIF.datatype in this version is freely distributable (SHAREWARE). You may copy it, if the copyright notice is left intact and all of its parts are included in the distribution.

This program may only be included in commercial packages or commercial program collections with my written permission - ask for it.

This program may be put on public domain disks or included in public domain disk libraries - when being distributed that way, it is allowed

to take a nominal fee including the costs for copying, without considering that as "commercial" in the above mentioned sense.

This program may also be distributed via electronic mail and may be put into mailboxes as long as the redistribution conditions are respected in all points.

By using or distributing this program you automatically agree to all of the above conditions and terms.

1.6 payment

You may send cash money in an envelope, euro-cheques, or just transfer the 15 DEM (10 U\$) shareware fee to the following account (mention your name): Deutsche Bank Siegen, BLZ 46070090 Kto. 0298174

No foreign cheques, please (euro-cheques or DM-cheques are ok).

1.7 Usage and so on

GIF is obsolete - you neither should use nor support it any longer. If you are doing WWW design, use PNG and JPEG instead. It's important !

Installation and Usage

Just install the datatype files to their appropriate directories, and copy the akJFIFPrefs command to SYS:Prefs/Datatypes (optionally).

The .ppc module (manually) has to be placed into the same directory where the .datatype file goes to (usually SYS:Classes/Datatypes).

Please make sure, that there is a directory available, where temporary data can be stored. There must be an assignment called "VMEM:" to this directory (just like with SuperViewLibrary and akPNG-dt).

The assignment originally would have been "JPEGTMP:" for the JFIF sources, but the memory manager has been strongly modified and enhanced - on a system with many RAM available you will perhaps never actually encounter usage of that directory.

Do not assign it to "T:" if it is somewhere on a Ram-Disk (that's why T: is not used by default) - just create a safe place for it.

Program information

akJFIF.datatype is a new JPEG datatype, which is based on the latest IJG JFIF sources V6b.

So it does support progressive JPEG and all the other things introduced with V6a (note: it reads progressive JPEG, but DataTypes cannot display images progressively - instead only as a single chunk).

With V39-V42 picture.datatype it produces 256 color palette-based (with either none, floyd-steinberg or ordered dithering) or HAM6/8 output, with picture.datatype V43 as well 24 Bit may be exported unmodified.

There are picture.datatype V43 versions available for both, CyberGraphX and Picasso96, while the one for Picasso96 does work with ECS/AGA, too - simply use the appropriate one.

You must use the included preferences program for best configuration - of course you can also use one of the alternative prefs programs from Aminet, which should deliver the same functionality (but please remember not to send any corresponding bug reports to my address).

akJFIF.datatype is SHAREWARE, the future depends on YOU.

1.8 Datatype FAQ

Keyfile system

Yes, there's now a keyfile system used for this datatype - one could say, that this has been demanded, since it seems that most users obviously would like to get some value for their registration and also would like to see that "Registered ?" text disappear in the progressbar, after they indeed did register.

Please note, that the keyfile actually does not enable any "extra functionality" except making the PPC module fully functional and just replacing that "Registered ?" text in the progressbar.

Since the shareware fee of 15 DM is very low, and the keyfile is just an extra gimmick, I won't send any keyfiles via snail mail. If you want to receive the key, please mention your email address (clearly written) with your registration ! Otherwise I'd assume, that you don't need/want the keyfile...

If you registered the datatype earlier (when there wasn't a keyfile system at all), simply send me an email and request your keyfile afterwards.

NOTE: keyfile can be placed to either S: or where KEYPATH (env-variable) does point to.

PPC module (ELF)

Yes, this datatype is prepared for a great speed up with phase5's powerUP (TM) boards.

For this, the ELF JFIF decoder module has to be placed at location SYS:Classes/Datatypes/akJFIF.ppc - the installer script will manage this for you on demand.

Make sure that you've the 68040/060 versions of the datatype installed, since the 68000/030 versions don't contain the necessary

extra code (there are no powerUP boards with 68000/030s CPU available or planned as far as I know). Also, don't install the ELF module and/or ppc.library if you don't have a PPC board plugged in.

Raw loading speed up should be very impressive with this PPC module, although it of course can't increase rendering or dithering (remapping) speed of other system modules or the calling program.

HAM conversion (for 24 bit images, i.e. if not in V43 mode) is NOT yet PPC optimized - get a graphics card !

Please note, that this optional ELF decoder only will become fully functional for registered users of this datatype, which have a keyfile installed.

If you don't have a keyfile installed, you have two choices:

1. remove the PPC module and make use of the plain 68k decoder
2. make use of the PPC module but get only every 3rd line of the image (the whole image will be loaded and decoded, but only every 3rd line will be passed to the caller)

Speed: to test the speed of the decoder, you should go online with AWeb and load a WWW page with several large JPEG graphics. Then go offline again, and load the same page from the cache: this will show you the raw decoding speed, without any influence of download time or other tasks.

NOTE: decoding will need about twice as much memory as with the 68k decoder, plus approximately another 110K for the loaded ELF module, 16K for stack and 16K for I/O buffers (you know, RISC is 'reduced instruction set' and not 'reduced memory usage' - but now you are able to actually make use of all that expensive RAM ;-)
Also, the progressbar is not available for PPC decoding (does not make much sense when e.g. WWW browsing, anyway).

Small PPC FAQ

-
- Q: Why is a 060/PPC combo faster than the 040/PPC combo ?
A: Perhaps because the 060 can process the I/O requests (aka OS calls) faster than the 040. Small differences may also be caused by using different hard drives - to minimize this, one could put the files into RAM: for example, but this wouldn't deliver real-life results. The following question is related, too.
- Q: Can't PPC loaders be faster than this datatype one ?
A: Yes, they actually *can* be faster than the measured results may indicate. Problem is, that datatypes have to deal with bitmaps, which slows everything down. For example, in 24 bit mode DTM_WRITEPIXELARRAY still has to be performed by the 68k, and in 8 bit mode, the same does apply to WritePixelLine8() - the latter one may include a c2p version on systems without a graphics card. To avoid the latter, one for example could try the PPC native loaders for SuperView-Library instead.
-

Q: Why are there different speed-up factors for different images ?
I've performed Jan Uerpmann's PicBench test from his site
<<http://www.tu-bs.de/~y0002723/files/PicBench.lha>> and it
seems to indicate this.

A: The "larger" the images, the more the PPC can help increasing
decoding speed; however, file size, image size and compression
ratio of the JPEGs will influence the benchmark results, i.e.
a small file with a high compression ratio may be more suitable
for the PPC than a large file with only low compression (while
keeping the image dimensions). Larger images, on the other hand
may deliver better results than smaller images (keeping the
compression factor constant). This benchmark does not check/proove
this, we just tried "average" (accidental) images.

More datatypes ?

On Aminet:util/dtype/ you can also find akLJPG, akPNG, akSVG and
the co-production FAXX (with GPSoft) datatype.

What's the relationship between JFIF and LJPG ?

The answer is simple: on file format level, there actually
is none (*), thus neither one of the two datatypes does replace
the other one and you would need to install both to get the
functionality of both - but akJFIF perhaps is the more
important one.

(*) well, there *is* a relationship, but it only does concern
the file format construction and does not actually build
a base for upward/sideward compatibility

No V43 with AGA ?

There's a V43 picture.datatype coming with the Picasso96 RTG
package (on Aminet), which works with plain AGA, too.

Crashes ?

The first reason for a crash often is stack size. Not enough stack size.
IPrefs/WBPatterns has this problem, and others as well.
Checking this and/or using FastIPrefs (the replacement) is recommended.

Using (Fast)IPrefs in PPC mode may not be a good idea at all,
but for some people, the following did help in s:startup-sequence:

```
Wait 8 secs  
C:FastIPrefs W M L A G
```

For the others, the trick from the Picasso96 FAQ should do the job:
put the tool "CPUBlit" (an old patch available on Aminet) to your
s:startup-sequence *before* the monitors are started. You must
call it as follows:

```
CPUBlit -a -b
```

No write support ?

 Sorry, there won't be write support (DTM_WRITE method), since I think, that datatypes are mainly a system for data exchange and not to do the job of existing conversion utilities.

To explain it even further:

The datatype mechanism certainly is a system to HIDE implementation and data format details. If one does offer too much choices for destination file formats, this would - in my opinion - completely be against this concept. The ideal way of keeping the datatypes' concept cleanly OOP would be to internally handle everything in an amiga-unique IFF format - which BTW is quite essential for clipboard data exchange as well. Unfortunately IFF-ILBM isn't very suitable for color depths greater than 8 bit. Maybe IFF-RGFX could be a good choice, here.

Why are "progressive" image files not displayed progressively ?

 Because picture.datatype's API (upto V43) relies on complete bitmaps to be returned by a datatype of subclass "picture". Unfortunately the datatype cannot:

- supply many small bitmaps, one for each line
- give control back to picture.datatype during reading a file
- write into an existing, given bitmap

(to just supply some possible considerations how to solve this problem), so there currently is no way of displaying images progressively. Nevertheless the support of "progressive JPEG" is a noticeable feature, since (speaking of the JFIF file format) it is not backward-compatible with common JPEG and readers need to take special care for these files (JFIF V6a extensions).

When running in PPC mode, progressive display BTW would be a bad idea, anyway.

Odd screenmode selection

 graphics.library's BestModeID function isn't so well designed. Try Patching to a better one, e.g. with Aminet:util/sys/ModeP.lha

Progressbar and programs (esp. Browsers)

 Please note, that the (optional) progress bar will either open on a windows's screen as specified via pr_WindowPtr, or on the default Public Screen, thus if your favoured Web Browser does not set pr_WindowPtr or does not declare its screen as default pub screen, that's not my fault. PDTA_Screen will be checked first, as well - but usually this won't work at all.

Unknown datatypes (V43)

 If your datatypes stop working (unknown file format), please don't blame me, but at first check, whether you've still installed an already expired beta version of picture.datatype V43...

An other reason may be, that you did not delete all of the old (obsolete) "competing" JFIF descriptors from DEVS:Datatypes - in general, there should only remain JPEG/JFIF descriptor files that

are shipped with the CURRENT release of this datatype.

1.9 Making use of 680x0 CPUs and PPC accelerators

Basically, this program does run with a plain 68000 CPU.

But if you do own an 68020/030+68881/882 FPU or 68040/060+FPU, or maybe a dual processor board with PPC, you may wish to make use of the extra horse power.

PPC Support

=====

1. With CyberStorm PPC cards, it may make sense to make use of the "SetFastAvec" and "Set60nsMode" (SetMemMode) tools, which should speed up the system performance somewhat, i.e. by addressing your RAM with 60ns instead of 70ns access time...
2. Make sure, that you have a lot of RAM on the accelerator, so that the PPC isn't forced to make accesses to the slow motherboard RAM.
3. This program does make use of "ppc.library". So: Make sure, that you a) don't have "powerpc.library" installed or b) have a version of "powerpc.library" installed, which does not conflict with "ppc.library". Don't install ppc.library without having a PPC board plugged in.
4. Read the corresponding FAQ pages for more information on PPC support and configuration.

68020/030+68881/882 FPU and 68040/060+FPU Support

=====

Usually, Amiga OS' mathieeee-Libraries do automatically manage the coprocessor support, but for some reasons, these libraries are not used with this datatype:

- they can't be shared between processes
- they are not actually optimized for 68040/060+FPU as with OS 3.1

Unfortunately, the used FFP libraries don't support an FPU at all.

But there's a solution: it is strongly suggested, to use some of the available math-library replacements and/or patches from Aminet.

1. FMath by Martin Berndt, for example does replace all of them:
 - mathieeedoubbas.library
 - mathieeedoubtrans.library
 - mathieeesingtrans.library
 - mathtrans.library

It is strongly recommended to install V40.6 or a newer version from Aminet (Aminet:util/libs/FMath406.LHA).

2. FFPpatch by Jess Sosnoski additionally patches some functions of mathffp.library to use 68881/2 instructions. It currently makes use of some mathtrans.library functions for FFP/IEEE conversion and thus does require FMath as well. (There's a 'ffptest' program included, so that you can test, whether it improves speed or makes it worse.)

It is strongly recommended to install V1.7beta or a newer version from Aminet (Aminet:util/boot/ffppatch.lha).

On a A4000 with A3640 (68040-25) running FMath, it gave the following results:

[before]

```
mathffp.library speedtest
© 1997 Jess Sosnoski
```

Test Name	Time in Seconds
-----------	-----------------

SPAbs()	took: 0.79 sec
SPNeg()	took: 0.80 sec
SPAdd()	took: 1.38 sec
SPSub()	took: 1.31 sec
SPMul()	took: 1.87 sec
SPDiv()	took: 2.05 sec
SpFlt()	took: 0.76 sec
SpFix()	took: 1.04 sec
SpFloor()	took: 1.09 sec
SpCeil()	took: 1.99 sec

[after]

```
mathffp.library speedtest
© 1997 Jess Sosnoski
```

Test Name	Time in Seconds
-----------	-----------------

SPAbs()	took: 0.52 sec
SPNeg()	took: 0.48 sec
SPAdd()	took: 1.06 sec
SPSub()	took: 1.05 sec
SPMul()	took: 1.06 sec
SPDiv()	took: 1.32 sec
SpFlt()	took: 0.49 sec
SpFix()	took: 0.77 sec
SpFloor()	took: 0.82 sec
SpCeil()	took: 1.73 sec

3. This one has nothing to do with the FFP libraries, but since there's also a bug in mathieeesingbas.library (which resides in ROM), you should install a patch for that:

- best solution is a newer SetPatch Version V43.x (available from ftp.amiga.de somewhere in "/pub/")

- if SetPatch V43 does not work with your OS version, you should try for example "SetMathPatch" (coming e.g. with GhostScript)

4. This one has nothing to do with the FPU, but if you do own a 060 and OS 3.0 you should perhaps consider to install "Mult64Patch", which claims to implement the 64 bit integer functions UMult64/SMult64 utility.library V39+ (which have to be software emulated on the 060) two times faster than the patches done by 68060.library and four times faster than the trap emulation. A speed test program is included.

It is strongly recommended to install the newest version from Aminet (Aminet:util/boot/Mult64Patch.lha).

If you do own a CyberStorm 060 board, just ignore what I said before and follow the instructions given in the 68060-Library documentation.

1.10 correspondence

WWW Support Site

<http://www.amigaworld.com/support/akjfif/> (AWeb-II)

```

|-----|
| You may reach me the following way. |
| Send bug-reports, money or whatever to: |
|-----|
| * SuperView Development & Registration * |
| * DRAFU Development & Registration * |
| * Image Engineer Registration Site Europe * |
| | |
| | PerSuaSiVe SoftWorX |
| | |
| | Andreas R. Kleinert |
| | Sandstrasse 1 |
| | D-57072 Siegen |
| | Germany, Europe |
| | |
| Any snail mail to the old address will still be routed. |
| | |
| | Phone: +49-271-22869 also FAX + AM |
| | |
| | Weekdays after 18.00h. |
| | |
| | When calling via phone you may leave a message, |
| | if I'm not available - but don't expect me |
| | calling back to USA, Australia, ... since |
| | german phone rates are HIGHLY expensive. |
|-----|

```

EMail:

Please send binaries via ARK@News.wwbnet.de, and keep

them smaller than 16 KB. Please think twice before sending them - my postbox is not unlimited in size.

* Do not send binaries via Fido or Fido-Gates ! *

- Fido Andreas Kleinert 2:2457/350.18
- Usenet
 - ARK@superview.ftn.neckar-alb.de (Fido-Gate)
 - Andreas_Kleinert@t-online.de (T-Online)
 - ARK@News.wwbnet.de (Z-Netz)
 - ARK@amigaworld.com (AmigaWorld)

- If nothing else works, try one of these public Fido-Usenet gateways:

In Germany:

Andreas_Kleinert@p18.f350.n2457.z2.fido.sub.org

From USA or elsewhere:

Andreas_Kleinert@p18.f350.n2457.z2.fidonet.org

1.11 thanks

Thanks go to (in order of appearance ;-)

=====

(some of these people did register, others did make suggestions/bug reports or helped otherwise - how about you ?)

- | | | |
|----------------------|------------------------|--------------------------------|
| - Martin Sprenger | - Kristian Phillips | - Swen K. Stullich |
| - Brad Avery | - Erik Magnusson | - Matthias Kraft |
| - Allan Odgaard | - Francesco Doro | - Per Jonsson |
| - Ariel Magnum | - Jürgen Klein | - Gabriele Guardi |
| - Arno Richter | - Philippe Reux | - Matteo Tenca |
| - Odd H. Sandvik | - Ingo Jürgensmann | - John Millington |
| - Jerome Lovy | - Carlos Lopez Otero | - Henk Jonas |
| - Albert Meyer | - Thomas Boerke | - André Laemmer |
| - Edwin H. Bielawski | - Matthias Schulz | - Dipl.Phys.Carl-Rudolph Naefe |
| - Trevor Daley | - Paul Wood | - Ludwig Berndt |
| - Roger Hågensen | - Dr. Rainer M. Herold | - Jan Skypala |
| - Thomas Nilsson | - Michael Schulz | - Thomas Steinbichler |
| - Roland May | - Jon Peterson | - M. A. Jones |
| - Andreas Mixich | - Robert Wahnsiedler | - Jörn Krüger |
| - Bodo Thevissen | - Helge Thorsten Kautz | - Troels Walsted Hansen |
| - Thomas Nolte | - Harry W. Turner II | - A. P. Suggitt |
| - Mat Bettinson | - Luco Nora Giorgio | - Dr. Greg Perry |
| - Stephen Bridges | - Philippe Duchenne | - Jure Dolanec |
| - Tom Lively | - Adam Atkinson | - Ben Vost |
| - Alexander Fichtner | - Dennis Lee Bieber | - Max Headroom |
| - Ian Barclay | - Marc-Tell Volkmann | - Christian Beck |
| - Torbjörn Aronsson | - Jürgen Haage | - Michael C. Battilana |
| - Jens Gössing | - Robert S. Puffer | - Dirk Busse |
| - Rolf Schuster | - Joel Alvim | - Christian Zimmermann |
| - Lothar Schülke | - Roland Gerecke | - Armin H. Pöhlmann |
| - Per Jonsson | - Les Morgan | - Roland Mainz |

- Thorsten Ernst	- Wolfgang Wichmann	- Robert C. Reiswig
- Dave Sparks	- Uwe Cremerius	- Andreas Kramer
- Guillaume DuFour	- A J Price	- B & D Kubler
- Michael Aigner	- Christer Oldhoff	- Joel Alvim
- Frank Dietrich	- Donald Feldbruegge	- Arndt Bußmann
- Torsten Moll	- Georg Rottlaender	- Phil Vedovatti
- Burkhard Breuer	- Ulrich Falke	- Aubert Pascal
- Martin Pape	- Sanjo Schiffmann	- Slobodan Todorovic
- Walter Gierholz	- Petra Struck	- Michael Steinke
- Bernd Mingers	- Wendell Watanabe	- Dr.-Ing. Heiko Pollmeier
- Ramiro Garcia	- Heiko Kröhnert	- Edward J. Barcik
- Rick Rudge	- Alvaro Thompson	- Achim Stegemann
- Bert Bosma	- Steve Brightman	- Michael Tobin
- Christian Hattemer	- Ignazzi Carmelo	- Eike Biel
- Heinz Rohner	- Christian Hattemer	- Kirk Strauser
- Dirk Hallen	- Jürgen Ofner	- Jürgen Barthmann
- Tilo Hanich	- Roman Patzner	- Klaus B. Künsche
- Jörg Handweg	- Stefan Michel	- Jochen Rhein
- David Newman	- Marco Vernaglione	- Bradley Rogers
- Simo Koivukoski	- Michael Jaccoud	- Jan Uerpmann
- David Gill	- Willi Demuth	- Sander Assenbroek Machielsens
- Achim Akkermann	- Steven Taylor	- Jörg Bierwagen
- Hans Eiblmeier	- Harry Miktarian	- Gerrit-kjeld Dusselje
- Yann Muller	- S.W. de Vries	- Gernod Schomberg
- Gerald Lorang	- Sebastian Becker	- Mario Kuchel
- Gabriele Greco	- Gérard Cornu	- Martin Mittelbach
- Hynek Schlawak	- Karl-Heinz Schulz	- Alexander Wissnet
- Anders Bolager	- Christian Hunyar	- Ralf Lillemäe
- Andreas C. Schmidt	- Daniel Kasmeroglu	- Frank Durban
- Gunnar Schuster	- Tim Pykett	- Thomas Körner
- Malcolm Harnden	- Christoph Kirsch	- Daniel Boerger
- Thorsten Marquardt	- Bjarke Vangsgaard	- Jukka Anttila-Vatjus
- Dave Fieldman		

Thanks also must go to:

- ...the AWeb-II team, namely AmiTriX (<http://www.amitrix.com/>) and Brant Coghlan ↔
- ...the DOpus team, namely Dr. Greg Perry
- ...the StormC/Wizard team, namely Jürgen Haage and Markus Nerding
- ...the Cloanto team
- ...the people on the DTA (Datatypes) Mailing List on Amiga World and the people of the "Datatypes Replacement Project" in general

This datatype also has been quite often quite high in the Aminet charts, so there hopefully soon will be many registered users... :-)

1.12 prefs

akJFIFPrefs

akJFIFPrefs is the Preferences Program for akJFIF.datatype.

GUI has been designed with StormWizard 2.0, so this program needs "wizard.library" V37+ (you can find a copy on Aminet under "biz/haage/WizardLibrary.lha").

Icon by Bert Bosma <lmb@wxs.nl> (based on NewIcons).

An alternative MUI prefs program replacement by Alvaro Thompson (originally) and Achim Stegemann (later) is now available as util/dtype/akMUIPrefs.lha

The global settings will be written to ENV: (and maybe also ENVARC:) into a preferences file called "Datatypes/akJFIF.prefs".

OPTIONAL

----- task specific settings files -----
Settings specific to different caller programs may be created by copying the global settings from "Datatypes/akJFIF.prefs" to an optional task-related prefs file called

"Datatypes/akJFIF.prefs_Tasks/TaSkNaMe"

where "TaSkNaMe" means the name of the program as e.g. shown by a system monitor (for obvious reasons, this does work best with workbench programs, which don't require name patterns as some CLI programs might do, like for example "CLI(3):Work:Browsers/XWebber"). So, with AWeb for example, you would just edit your global settings file and then do the following:

```
MakeDir ENV:Datatypes/akJFIF.prefs_Tasks
Copy ENV:Datatypes/akJFIF.prefs ENV:Datatypes/akJFIF.prefs_Tasks/AWebIP "
```

[... and the same for ENVARC: ...]

After that, AWeb will ignore the global settings and fetch its own from the given file.

(Currently you can't edit them locally, sorry - but for e.g. AWeb it should be simple to manage that via ARexx by just including an appropriate script to AWeb's ARexx menu).

You can do the following settings:

- 1) DECODE_METHOD= (FAST_INTEGER | SLOW_INTEGER | FLOATING_POINT)
 - 2) DITHERMODE= (NO_DITHERING | DITHER_FLOYD-STEINBERG | DITHER_ORDERED | HAM_OUTPUT)
 - 3) V43MODE= (256 | 24BIT)
 - 4) V40_DEPTH= (3..8)
 - 5) V40_COLORSPACE= (COLOR | GRAY)
 - 6) HAM_MODE= (HAM6 | HAM8)
 - 7) COLOR_QUANTIZING= (SLOW | FAST)
 - 8) UPSAMPLING= (ON | OFF)
 - 9) SCALE_DENOM= (0..3)
 - 10) INTERLEAVED_BM8= (ON | OFF)
 - 11) PROGRESSBAR= (ON | OFF)
 - 12) SPEEDUP
 - 13) CUSTOM_MODES
-

- 14) NOPPC
- 15) NOASPECT

That's mostly self-explaining, but as an example, here are the default settings and a short explanation:

```

DECODE_METHOD=FAST_INTEGER
DITHERMODE=DITHER_ORDERED
V43_MODE=24BIT
V40_DEPTH=8
V40_COLORSPACE=COLOR
HAM_MODE=HAM6
COLOR_QUANTIZING=FAST
UPSAMPLING=OFF
PROGRESSBAR=ON
SCALE_DENOM=0
INTERLEAVED_BM8=ON

```

General Explanation of Options

=====

1) DECODE_METHOD

```

SLOW_INTEGER:    slow, but accurate integer algorithm
FAST_INTEGER:    faster, but less accurate integer algorithm
FLOATING_POINT: floating point algorithm

```

2) DITHERMODE

```

NO_DITHERING:      no dithering, best pen selection
DITHER_FLOYD-STEINBERG: slow, high quality, floyd-steinberg dithering
DITHER_ORDERED:    ordered dithering to fixed palette
HAM_OUTPUT:        generate HAM output from 24 Bit data

```

The datatype will only output 24 Bit data, when DITHERMODE=NO_DITHERING _and_ V43_MODE=24BIT are set. Otherwise even with V43 picture.datatype the data will be dithered, HAM-converted or best-pen colormapped. Thus DITHERMODE=NO_DITHERING activates the V43_MODE switch for picture.datatype V43+

3) V43_MODE (only with "NO_DITHERING" and picture.datatype V43+)

```

256:    disable 24 Bit output even for V43 picture.datatype
24BIT:  do raw 24 Bit output with V43 picture.datatype

```

The datatype will only output 24 Bit data, when DITHERMODE=NO_DITHERING _and_ V43_MODE=24BIT are set. Otherwise even with V43 picture.datatype the data will be dithered, HAM-converted or best-pen colormapped. Thus V43_MODE will only act as a switch, when DITHERMODE=NO_DITHERING has been set and picture.datatype V43 is running.

4) V40_DEPTH

When dithering to a palette (so: when in V40 mode) the number of palette

colors, which is 256 by default, may be reduced here (e.g. on ECS systems). Valid depth values are 3..8 (which results in 16..256 colors, easily calculated by 2^{depth}).

5) V40_COLORSPACE

Whether you want to get 16..256 colors or 16..256 grayscales when requesting V40_DEPTH.

6) HAM_MODE (only with "HAM_OUTPUT")

HAM6: generate HAM6 output (max. 4096 different colors on screen)
HAM8: generate HAM8 output (262144+ different colors on screen)

Note, that HAM8 is native to AGA machines and thus may cause difficulties with graphic boards and won't work with OCS/ECS Amigas. With HAM6 and graphic boards also problems may occur.

7) COLOR_QUANTIZING (with "DITHER_FLOYD-STEINBERG" only)

FAST: high speed color quantization
SLOW: high quality color quantization

8) UPSAMPLING

ON: do careful upsampling of chroma components
OFF: do faster, but sloppier upsampling of chroma components
(often very small visual impact)

9) SCALE_DENOM

0..3: use a scale factor of either 1/1 (none), 1/2, 1/4 or 1/8 for graphics reading.
For reasons of better failure safety checks, this is specified as an exponent value between 0 and 3 ($2^0=1$, $2^1=2$, $2^2=4$, $2^3=8$).

10) INTERLEAVED_BM8

ON: will output interleaved bitmaps upto 256 colors
OFF: will output normal bitmaps (BMF_CLEAR only) - you may switch interleaved mode off for specific programs, which cannot handle it, or when AllocBitmap() has been patched for chunky modes by a graphics card software or e.g. EGSPPlus

Note: There's no need for BMF_DISPLAYABLE, don't rely on it.
And: If you encounter 'out of memory' or 'cannot open screen' problems, first try disabling interleaved bitmaps.

11) PROGRESSBAR

ON: pop up percentage display
OFF: do not pop up percentage display

12) SPEEDUP (hidden option)

Activates some bitmap related optimizations, including a special hack for making image loading with AWeb somewhat faster.

13) CUSTOM_MODES (hidden option)

 When the keyword CUSTOM_MODES is set,
 only viewmodes out of the standard set
 will be generated:

- LowRes (320x200/256)
- HighRes (640x200/256)
- SuperHighRes (1280x200/256)
- LowRes Lace (320x400/512)
- HighRes Lace (640x400/512)
- SuperHighRes Lace (1280x400/512)

When CUSTOM_MODES=0x##### (e.g. CUSTOM_MODES=0x00000000)
 is set, the specified hexadecimal viewmode ID will be used always
 - alternatively, you can specify the viewmode name as plain text,
 for example "CUSTOM_MODES=PAL:HighRes". Note, that spelling is
 very critical here.

For HAM output, this is only true, if the mode ID actually is
 capable of HAM (this usually is indicated by OR'ing it with HAM_KEY),
 otherwise a different ID will be computed.

14) NOPPC (hidden option)

 When the keyword NOPPC is set, the PPC encoder module won't be used,
 even with a PPC available. Instead the datatype will fall back to
 68k mode. Useful e.g. for speed comparisons.

15) NOASPECT (hidden option)

 If x/y aspect generation produces buggy results,
 e.g. with PictIcon, this option may be used to
 always force 1:1 to be returned.

Explanation of settings

=====

Please note, that it does not suffice to simply specify the preferred
 options. Some also do react as switches. Here are some examples how
 to manage specific configurations:

HAM Output (V40/V43):	DECODE_METHOD=FAST_INTEGER	*1
	DITHERMODE=HAM_OUTPUT	
	V43_MODE=256	x1
	HAM_MODE=HAM8	*1
	UPSAMPLING=OFF	*1
Dithered Output (V40/V43):	DECODE_METHOD=FAST_INTEGER	*1
	DITHERMODE=DITHER_ORDERED	*2
	V43_MODE=256	x1
	COLOR_QUANTIZING=FAST	*1
	UPSAMPLING=OFF	*1
256 Colors (V40/V43):	DECODE_METHOD=FAST_INTEGER	*1
(Best Pen selection)	DITHERMODE=NO_DITHERING	
	V43_MODE=256	x2

```

                                COLOR_QUANTIZING=FAST          *1
                                UPSAMPLING=OFF                  *1

24 Bit (V43):                   DECODE_METHOD=FAST_INTEGER     *1
                                DITHERMODE=NO_DITHERING
                                V43_MODE=24BIT                 x2
                                UPSAMPLING=OFF                  *1

x1 here: always ignored
    (because DECODE_METHOD not equal NO_DITHERING)
x2 here: acts as a switch between V40 and V43 mode,
    when running picture.datatype V43
    (because DECODE_METHOD=NO_DITHERING)
*1 may be changed as preferred
*2 may be changed to: DITHER_FLOYD-STEINBERG
    (side-effects described by "x1" and "x2")

```

1.13 history

There's a Datatype Developers Mailing List (DTA) running now. If you are a datatypes programmer and want to join, please don't contact me for further information, but maybe ask info@amigaworld.com (Bodo) or simply visit the Datatype Association's WWW homepage under <http://www.amigaworld.com/support/dta/>

Known Bugs: - Some people reported problems with the installation scripts in the past. If you encounter any problems or bugs, please report these directly to the script author Robert C. Reiswig <akDatatype@vgr.com>

- There did occur problems with V36.126 of wizard.library, so you might wish to upgrade to V37.127 or higher (see Aminet:gfx/show/SViewNGWiz.lha). There's also a V39.101 available now - ask Haage and Partner. It's only used for the prefs program, so no need to worry, if you don't use the wizard version.
- viewmode selection may not always be 'perfect'

Hint: - if you use this datatype with a WWW browser, then create a separate partition (sized 30-70 MB) for temporary data storage and do assign VMEM: and your browser's cache directory to it. Also, make sure that it has a decent AddBuffers setting (128 or more). When partitioning (danger: data loss), it may make sense to increase the filesystem block size to a higher value, too (1024). And make sure, you're using the latest FFS file system 43.x from www.amiga.de (it won't expire) - note, that you may update the FFS without repartitioning, but you have to be very careful when doing this fromout HDToolBox.

Keyfile problems:

People, who did not receive their keyfile within 2-4 weeks after sending their registration should also contact me.

History

=====

- V43.187 (5.6.98):
- updated akDT_Installer by Robert C. Reiswig
(-> Robert C. Reiswig, akDatatype@vgr.com)
 - please consider to register...
my gfxcard just broke :/
 - you have to handle a large number of images ?
Organize, view, convert and process these ?
Do you want speed up through PPC support ?
Check out PMPro, the universal graphics tool and picture manager. ←
 - did you already notice, that SViewNG now has PPC native loaders/savers for e.g. PNG, JFIF, TIFF, PICT, too ?
They're even faster than the datatypes, since they don't have to deal with OS bitmaps.
 - the Datatype Association (DTA) now has its own homepage (courtesy by Roger Hagensen and Amiga World) - it easily can be reached under <http://www.amigaworld.com/support/dta/>
- V43.185 (7.5.98):
- if x/y aspect generation produces buggy results, e.g. with PictIcon, there's now an optional (and hidden) prefs switch to be set: "NOASPECT" will always let the datatype return 1:1
(-> Gunnar Schuster)
 - added internal replacement for BestModeID(); maybe it's still not perfect, but seems to work better than the original one, at least under CyberGraphX
 - fixed a bug in the HAM viewmode ID selection (related)
- V43.181 (23.4.98):
- prefs program redone with StormC 2.00.32
 - prefs program now internally does include a copy of the .wizard file, so even if it isn't in PROGDIR:, the GUI can be opened (it just won't remember size and position, then)
 - added missing icons
(-> CPurnell)
- V43.180 (30.3.98):
- updated statement on DTM_WRITE support
 - updated docs
 - upgraded to new IJG libjpeg V6b
 - updated/fixed prefs description
 - added new, improved Installer script by
-

Robert C. Reiswig (-> a lot of credits
hereby go to his address :-)

- V43.175 (17.3.98):
- unified installation procedure, removed "Install" and "FIRST_Unpatch" scripts, added new Installer script by Robert C. Reiswig which now again does handle everything that's necessary for a proper installation
 - PPC: - removed the 32 bit integer mulu limit (-> thanks to Tom Lane for the hint), although it does not seem to help increasing speed.
- V43.170 (12.3.98):
- PPC: - speed increase: using larger I/O buffers
 - improved code generation (hopefully)
 - forgot to bump revision in 43.165, now 43.170
 - now checks ENV:Classes/Datatypes/ for preferences, too
 - EXIF descriptor now case-sensitive. (-> with best greetings to Roland Mainz...)
 - version history clean-up
 - added "Small PPC FAQ" to the FAQ section; it explains how to interpret speed-test results on different PPC systems
- V43.165 (7.3.98):
- 030/040/060 versions now generated from patch files
 - added fixed "Install" script (thanks, Roger) (-> various)
 - PPC: - code should have become slightly faster
 - get ppc.library 45.20 from ftp.phase5.de ...
 - fix of the "custom mode" mechanism *may* follow in an upcoming release; no need to continuously report bugs!
- V43.160 (23.2.98):
- PPC: - fixed memory management
 - added version string
 - increased stacksize to 16K (fromout 68k side)
 - get ppc.library 45.17 from ftp.phase5.de ...
 - 68k: - adjusted to new PPC version
 - fixed possible small bugs (calling PPC)
 - added hidden prefs option "NOPPC" to allow disabling of the PPC decoder (e.g. for specific tasks). Useful e.g. for speed comparisons.
 - updated comments on (Fast)IPrefs; mainly important for PPC users (MCP-related ?)
 - removed "StripAOL" again. Make a backup copy yourself!
- V43.155 (13.2.98):
- removed PPC support in 68030 version (040/060 only now)
 - PPC module now works with ANY program, not only AWeb
-

- you still need a keyfile to make full use of the PPC decoder, but without a keyfile it now basically does work, too: it then switches to a DEMO MODE, where the whole image is loaded and decoded, but only each 3rd line actually exported (so you can guess how fast it is, but you won't be able to take full advantage from it without registering)
- the new JFIF-MAVI descriptor file accidentally was defective. It did contain "JFIF" as type, instead of "JFIF-MAVI". Thus you would have two "JFIF" type descriptors installed, with either one the following effects:
 - Sony Mavica (JFIF-MAVI) files would not have been recognized as images, but as binaries
 - normal JPEG files (JFIF) would not have been recognized as images, but as binaries

This already was fixed by uploading akJFIFfix.lha to Aminet.

(-> Harry J. Miktarian, Luca Longone)

- V43.150 (4.2.98):
- cleaned up source code
 - better modularization
 - reduced number of file access during handling of preferences settings (now just opened and read once)
 - various optimizations and fixes to the source code
 - added hidden prefs option "SPEEDUP", which just activates the bitmap related optimizations done in V43.135; it's no longer default, since users running a DraCo may have encountered problems with picture.datatype V42 (V43 BTW suffers from different problems)
(-> Edwin H. Bielawski)
 - 68000, 020/030 and 040 versions accidentally linked with a 060 version (jpeg part, only). Not really a serious problem, unless you actually tried running the 68000 version on a 68000 ;)
 - switched back to old descriptor system, since some JPEG files even did not match the new, small descriptor file's 4 bytes, but only 3 of these. LJPG uses exactly these 3 bytes, too - so I've decided to go back to the old mechanism. Added a new descriptor "JFIF-MAVI" for the Sony Mavica camera, also replaced the modified "Install" with the old version.
 - added PPC support via an ELF plugin module for PowerUP (TM): it will only work with AWeb and only for registered users, though. If you already are a registered user, you can receive the necessary keyfile via email on request. Note, that I won't send any keyfiles via snail mail in the future, so always mention your email address! See FAQ.
(You may have to install the PPC module by hand, BTW.)
 - decoder now single-threaded due to some strange
-

problems when under heavy parallel use
 (-> Troels Walsted Hansen)

- V43.140 (25.1.98):
- added new icon for prefs program (NewIcons)
 (-> by Bert Bosma <lmb@wxs.nl>)
 - removed all descriptor files except "JFIF";
 make sure that you remove all other JFIF/JPEG-style
 descriptor files from "DEVS:Datatypes/" (like e.g.
 JFIF, JPEG, JFIF-PS, JFIF-EXIF) since the new pattern
 now does match for all JFIF files. Since it did
 not work (as it should be done first) to include
 recognition program code into the descriptor, it now just
 depends on 4 single bytes for file recognition - time
 will tell, whether this does suffice to avoid
 accidental recognition of non-JFIF files, i.e. the
 LJPEG descriptor uses nearly the same pattern
 (-> thanks to Steve Brightman for sample images
 written by a Sony Mavica camera)
 - fixed Roger's "Install" script to handle removal of
 the old descriptor files as well
 - fixed enforcer hit as introduced in 43.135
 (-> Sebastian Becker, Thomas Tavoly, various)
 - tried some more fixes on the "custommode" code parts
 (-> Luca Longone)
 - you now can describe a custom mode as text OR
 as a hexadecimal value

- V43.135 (5.1.98):
- CUSTOM_MODES=0xhexnumber did not work for
 HAM output. Added filter routine, which checks
 for HAM capability: if the supplied mode is a
 HAM capable ID, it will be accepted now.
 (-> Luca Longone)
 - optimized progress bar code
 - fixed possible bugs in the progress bar code
 - fixed possible bug in JFIF error clean-up routine
 (according to Tom Lane)
 - the changes in V43.130 BTW also seem to have
 fixed the mysterious crash problems (formerly
 under "known bugs") as a side effect. Seems
 to have been a strange stack or compiler problem.
 - upgraded outdated "1997" to "1998" bugfix
 release ;-)
 - made bitmap allocation and handling a little
 bit more cgfx-aware
 - added special speed hack for 8 Bit output on
 AWeb-II screens under CGfx
 - added "StripAOL" tool to release archive

- V43.130 (8.12.97):
- speed: no longer checks for ENV:JPEGMEM
 (settings left from other programs might
 have slowed us down)
 - speed: optimized compiler's code generation

Effect:	Old size	New size [Bytes]
akJFIF.datatype	82552	77392
akJFIF.datatype.030	81276	77252

```

akJFIF.datatype.040 80116      77220
akJFIF.datatype.060 80140      77220

```

[I don't know, whether it's the fastest one now - but at least there's not much more room left for optimizations from now on]

- V43.121 (23.11.97): - the new dispatch routine again (or still) has been causing problems, this time with IBrowse (not displaying certain images, maybe because of refresh problems). Removed all the new code, again using David N. Junods good old method, here (-> Philippe Duchenne)
- V43.120 (11.11.97): - Prefs-GUI now with correct version id
- included fixed "install" script by Roger Hagensen, which - besides some other bug fixes - now also does check for the GUI version (-> several)
- V43.110 (15.10.97): - Prefs GUI design improved by Georg Rottlaender <Georg.Rottlaender@bonn.netsurf.de> under use of a 'NewIcon' graphics by Philip Vedovatti <vedovatt@u.washington.edu> - included with kind ← permission by the 'Team NewIcons'
- Prefs program accidentally linked with storm020.lib. Fixed ←
- V43.100 (5.10.97) : - rewrote Dispatch() routine completely, implemented new routines derived from Roland Mainz' improved sample code
- DTM_WRITE now can be forced to its old behaviour by specifying the hidden prefs option "OLD_DTM_WRITE" (IFF-ILBM then will be written without any error code given because of unsupported DTWR_RAW)
- recompiled prefs program with StormC 3.0 (2.00.23)
- prefs now using external .wizard file (improve GUI, if you like)
- prefs GUI now remembers position and size
- V43.97 (26.09.97) : - added descriptor file for JFIF-EXIF, as e.g. written by the "Fuji DS7 digital camera" (-> created and supplied by Michael Schulz)
- updated docs
- V43.96 (02.09.97) : - seems as if "CUSTOM_MODES" had been broken :-/
- updated docs
- V43.95 (12.08.97) : - recompiled with SAS/C V6.58
- V43.92 (28.07.97) : - updated docs
- updated 680x0 info
- updated akDT_Installer by Robert C. Reiswig (-> Robert C. Reiswig, akDatatype@vgr.com)
-

- prefs program may have writtem INTERLEAVED_BM8=0 instead of =ON (-> Stefan Hilgenstock Torbjörn Aronsson who sent me their akJFIF.prefs)
- recompiled prefs program with StormC V3.0
- prefs: fixed V40-depth slider layout
- fixed possible, `_small_` memory leak within progress window's msg handling

- V43.91 (04.07.97) :
- fixed "memory loss on LibInit failure" bug
 - added new akT V43.70 (-> Roger Hâgensen)
 - since after the CUSTOM_MODE addition, the bestmode routine looked quite ugly and was somewhat redundant. Fixed.
 - slightly improved memory manager
 - improved compiler settings and forced better omptimization; fasted *and* smallest version ever:

```

68000: 83404 -> 82576
030: 82140 -> 81300
040: 80992 -> 80156
060: 81028 -> 80184

```

(intermediate version byte counts)

- updated scripts (-> done by Roger Hagensen)
- progress bar: replaced two Forbid/Permit by semaphore
- removed another (unnecessary) Forbid/Permit pair
- some `__saveds` were missing
- `__inlined CalcProgressPos()` (not time-critical)

- V43.90 (24.06.97) :
- V43.81 should had been available as binary-only fix archive "akFix4381.lha" together with the other datatypes, only. Upload did not succeed (-> a zillion people did report V43.80 bug)
 - added akDT_Installer by Robert C. Reiswig (-> Robert C. Reiswig, akDatatype@vgr.com)
 - added note about mathffp.library patch program 'ffppatch' (Aminet:util/boot/)

- V43.81 (16.06.97) :
- found and fixed some bugs in the script (-> all done by Roger Hagensen)
 - new dispatcher code either still is buggy, only works with V45 or has been implemented wrongly. Anyway: V43.80 was messed up, better use V43.81 !!

- V43.80 (14.06.97) :
- SetPatch 43.6 is on ftp.amiga.de Get it!

- description of the V43_MODE prefs setting was a little bit inconsequent. Better now.
 - CUSTOM_MODES now (optionally) accepts a fixed hex value as viewmode settings (-> Joel Alvim)
 - protection bits now correctly set (-> Per Jonsson)
 - updated class dispatcher (-> Roland Mainz)
- V43.75 (27.05.97) :
- HAM indicator seems to have been broken since some releases (viewmode field, HAM_KEY)
 - added new viewmode generation routine, especial for HAM modes, which takes care of AGA HAM capabilities and PAL/NTSC
 - aspect ratio fields of BitMapHeader structure now are filled according the selected viewmode
 - added new akT V43.70 (-> Roger Hågensen)
- V43.70 (17.05.97) :
- install script would have messed up LJPEG.dt
 - added hidden prefs option, which generates all viewmodes out of the standard set (-> Joel Alvim):
 - LowRes (320x200/256)
 - HighRes (640x200/256)
 - SuperHighRes (1280x200/256)
 - LowRes Lace (320x400/512)
 - HighRes Lace (640x400/512)
 - SuperHighRes Lace (1280x400/512)
 - another descriptor file "JFIF-PS25" for Photoshop V2.5 written files, which are again different from the ones written by Photoshop 4.0 (-> Thorsten Ernst)
- V43.61 (04.05.97) :
- minor changes
- V43.50 (30.03.97) :
- "scale" setting did not work from prefs GUI (-> Paul Wood)
- V43.40 (13.03.97) :
- due to problems with the (global and custom) startup the prefs program did only run from CLI/Shell, not WB. Could not explain that at first, fixed now. (-> Tom Lively, Torbjörn Aronsson, Max Headroom, Ian Barclay, Marc-Tell Volkmann, Christian Beck)
 - note, that a copy of wizard.library also can be obtained from: Aminet:gfx/show/SViewNGWiz.lha (library only)
 - redone with StormWizard 2.0
 - etc.
 - there is a certain likelihood, that this version does either become:
 - most stable so far
 - nearly rock-solid
 - rock-solid
 - buggy as hell
- [please mark :->]
-

- V43.30 (03.03.97) : - now, finally the GUI of the prefs program has been re-designed with StormWizard, so this program needs "wizard.library" V37+ (you can find a copy in the StormC Demo archive or the Wizard Demo package on Aminet under "biz/demo/StormWIZARD1_0.lha"). Note, that the GUI is now **much* *more** sophisticated, as well as sizeable and font-sensitive.
- prefs program now developed/compiled with StormC 2.x
 - remember to delete "JFIF-Photoshop.info", since it now is named "JFIF-PS.info"
- V43.27 (23.02.97) : - added second descriptor file "JFIF-PS" to allow recognition of files written by Photoshop 4.0 (strange file layout - please complain about there) (-> Wulfraed Dennis Lee Bieber)
- there's now a global BestModeID() patch available as Aminet:util/sys/ModeP.lha
 - re-introduced "wm32 magic fix"
 - `__inline'd` HAM code also, now
 - there possibly were "memory losses": under low memory conditions there might even more memory have disappeared, since setjmp'ing of the JFIF sources did cause some high level allocations not to be delocated - this mainly did concern the non-V43 modes
 - gfx mode selection now a little bit more AGA sensitive, ModeP patch still recommended, though
 - added some notes to the docs
 - most stable version so far
- V43.26 (15.02.97) : - skipped V43.25
- fixed installer script's "copy 040 version" bug (-> Philippe Duchenne, Tom Lively)
 - added special note about progressive files and progressive display, since some people still did not get it right
 - superview.ftn.sub.org will be replaced by ftn.neckar-alb.de until 22.2.97
 - rewrote docs
 - removed charts
- V43.24 (04.02.97) : - updated docs
- V43.23 (30.01.97) : - there were not much registrations yet. HAVE YOU CONSIDERED TO REGISTER ? (spending lots of hours a week on this stuff)
- improved error handling
 - now explicitly checks DTA_SourceType == DTST_FILE
 - forgot to bump version
 - a "Prefs/Datatypes.info" was missing (-> Roger Hâgensen)
 - added support for forced grayscale output when in V40 mode. V40 depth will be respected, as well (-> Luca Nora Giorgio)
 - added new akT version by Roger Hâgensen
-

- a pr_WindowPtr of -1 was not recognized as NULL ptr
(-> Dr. Greg Perry)
- V43.22 (25.01.97) :
- reworked docs
 - added new installer script and special "akT" version of AmigaT tool by Roger Hâgensen (thanks, Roger).
 - prefs program moved from sys:prefs to sys:prefs/datatypes
(-> Roger Hâgensen)
 - various small changes to the code
 - now, in a first attempt, checks PDTA_Screen with highest pri for where to open the progress window - only works, when always remapping to the same screen (e.g. some web browsers)
(-> Mat Bettinson)
 - note: get and install SetPatch 43.4 or 43.5
- V43.21 (15.01.97) :
- installer script was faulty
(-> Harry W. Turner II)
 - added "http://193.203.162.219" info
(-> Harry W. Turner II)
 - guide now is interactive and connects URLs to AWeb-II if available
- V43.20 (09.01.97) :
- added new installer script and "AmigaT" tool by Roger Hâgensen (thanks, Roger). Only slightly modified script.
 - added script icon (using IconX), may nevertheless still be started from shell
(-> Roger Hâgensen)
 - added directory icon
(-> Roger Hâgensen)
 - fixed revision information
 - added note about new homepage
 - completely rewrote docs
- V43.19 (01.01.97) :
- reworked docs
 - added support for task-specific settings (private settings for specific programs)
 - fixed bug in Prefs' slider handling
(-> Jon Peterson)
 - 8 Bit only:
now by default uses interleaved bitmaps, which should fix the remaining problems with small sized bitmaps and/or distorted bitmap borders. Can be switched off.
- V43.18 (17.12.96) :
- installer script now asks for CPU type and selectively installs the single datatype versions (-> first version worked out by Roger Hâgensen)
- V43.17 (7.12.96) :
- updated/changed docs
 - now can dither to less than 256 colors in V40 mode (useful on ECS systems)
(-> Paul Wood)
-

- now offers scaling of images to 1/x
(with x=1,2,4,8, specified as y of 2^y)
(-> Paul Wood)
 - did not create correct mode ID for HAM6 display
 - fixed possible memory leak on temporary memory allocation error
- V43.16 (30.11.96) : - updated/changed docs
- fixed small bug (GadTools)
- fixed CTRL-C problem (IBrowse)
(-> Matteo Tenca)
- V43.15 (24.11.96) : - progress bar now treated like requester.
Now will check pr_WindowPtr before trying to open on (default) pubscreen
(-> Edwin H. Bielawski)
- added special fix for AWeb 2.1, which has pr_WindowPtr correctly set, but does let the Datatype operations do by an "AWebIP" task, which has not. Thus when being called by "AWebIP" we now refer to the pub screen "AWeb" instead of fiddling with pr_WindowPtr
- V43.14 (23.11.96) : - progress bar window no longer auto activated
(-> André Laemmer)
- when called by IPrefs (e.g. for WBPatterns), a progress bar will never pop up
- on missing picture.datatype V39, prefs program would have claimed about missing V40
- V43.13 (12.11.96) : - changed PubScreen behaviour of progress bar
(-> Thomas Boerkel)
- V43.12 (10.11.96) : - completely recompiled with SAS/C V6.57
- added 68030, 68040 and 68060 version
(-> Ingo Jürgensmann)
- there was a broken version of V43.11 (3.11.96) (in parts still labeled as V43.10) which unfortunately went on Aminet, but hopefully had been overwritten by the right version later
- added doc section about 680x0 CPUs and FPUs. Please follow the instructions given and use the FMath patches, also SetPatch 43. The latest version floating around was SetPatch V43.5 - which is currently not on ftp.amiga.de, but maybe available elsewhere
- V43.11 (3.11.96) : - bugfixes
- V43.10 (30.10.96) : - the prefs program did not run with OS V39
(-> Matteo Tenca)
- V43.9 (29.10.96) : - due to a stupid bug the progress indicator was not fully re-entrant and thus multiple image loading with active progress indicator may have caused crashes.
(-> Gabriele Guardi)
-

- V43.8 (28.10.96) :
- progress indicator window now can be closed when currently being in use (Closegadget) (-> Ariel Magnum)
 - added small pseudo installation batch file
 - upload delay because of Aminet restrictions
 - renamed archive name (no version counting)
 - updated/reworked docs
- V43.7 (26.10.96) :
- renamed devs/datatypes/akJFIF to devs/datatypes/JFIF for reasons of clearness
 - fixed some typos in the docs
 - fixed palette problems with HAM6/8 and e.g. MultiView (-> Ariel Magnum, Jürgen Klein)
- V43.6 (23.10.96) :
- reduced size by about 30 K
 - prefs program now creates ENV:Datatypes, if not already there (and ENVARC:) (-> Per Jonsson)
 - akJFIFPrefs.info no longer delete protected (-> Per Jonsson)
 - merged all text files to akJFIF.guide (-> Allan Odgaard)
 - fixed small bug in progress indicator
- V43.5 (20.10.96) :
- added HAM6/8 support
 - now even with picture.datatype V43 it is possible to use the internal dithering methods optionally
 - completely rewrote preferences and added more optional settings
 - to continue using it in V43 24 Bit mode, you now have rework your preferences as follows:
 - Dither mode: None
 - V43 Mode: 24 Bit
 - fixed bug in prefs program, which popped up an empty message requester and/or produced an enforcer hit, when leaving (-> Martin Sprenger)
 - removed "Fastest" option - it's just the same as "Fast"
 - slow (well) quantization does not work with ordered dithering (instead turns it to floyd-steinberg dithering), thus now disabled/overridden for that case (also in the prefs program)
 - etc.
- V43.4 (18.10.96) :
- in V43 mode (with installed picdt V43), grayscale JPEGs would not have been read (-> Kristian Phillips)
 - updated Prefs doc file
- V43.3 (6.10.96) :
- moved Prefs from ENV:akJFIF.cfg to ENV:Datatypes/akJFIF.prefs - respectively ENVARC: (-> Swen K. Stullich)
 - added optional progress bar percentage display
-

- (default is "on")
 - slightly fixed ModeID generation.
Please use SetPatch 43.5 for best results on OS 3.0 systems
 - changed distribution conditions: when being "licensed" by commercial or Shareware software by sending me a free copy, users of that software need no longer pay the Datatype shareware fee
- V43.2 (28.9.96) :
- upgraded to V6a sources, since some people seem to be so "version fanatic", that it doesn't matter, whether an upgrade actually makes any sense for our uses %-)
- V43.1 (17.9.96) :
- added picture.datatype V43 support, so that 24 Bit output can be done
 - added akJFIF.cfg file support, so that settings may be done (speed, dithering, etc.)
 - added Prefs program with GUI for changing settings
 - and more
- Thanks to Brad Avery, Erik Magnusson and Matthias Kraft for suggestions.
- V40.1 (2.9.96) :
- first release
 - not yet with picture.datatype V43 support and not yet with any preferences options

1.14 About PNG - successor of GIF

PNG is the successor of the GIF file format. Other than GIF it is completely free of patent claims and has been designed with free data exchange in mind. Drop GIF for PNG - free algorithms are as important as free speech on the internet:

GIF is obsolete - you neither should use nor support it any longer. If you are doing WWW design, use PNG and JPEG instead. It's important !

For more information on PNG (pronounce: PiNG) for example look at:

- [1] PNG specification (AmigaGuide format)
-> Aminet:docs/hyper/PNG-guide.lha
 - [2] PNG WWW homepage
-> <http://www.wco.com/~png/>
 - [3] PNG upgrade tools like gif2png
-> Aminet:gfx/conv/gif2png-0.6.lha
 - [4] programs capable of PNG, like PPaint, SuperView, or PNG-Box, etc.
-

1.15 PNG-Box - WWW tool for PNG writing

PNG-Box

- SHAREWARE -

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A PerSuaSiVe SoftWorX PRODUCT.

Program information

Now you can easily switch to PNG !

PNG-Box loads graphics files via SuperView-Library and allows to convert these to PNG (PiNG) file format for WWW usage with several WWW-specific options to be set:

- progression on/off
- transparency on/off
(and set a transparent color ranged in 0..maxcolors)
- compression 0..9

The GUI will show you compression efficiency (byte sizes) and display various other useful information.

It's style guide conform and based on wizard.library.

See program archive for copyright and distribution information.

See Aminet:gfx/conv/PNG-Box.LHA for download.
