

akJFIF_Documentation

COLLABORATORS

	<i>TITLE :</i> akJFIF_Documentation		
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REVISION HISTORY

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Ahm...well:

...and thanks for all the fish.

1.2 copyright

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

The right of using this program is granted to you by paying the a SHAREWARE-fee of 15 DEM (10 U\$) or equivalent to the author, or by being a owner of a Shareware program or commercial software, whose authors did avoid that for the users of their software (see below).

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

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.

1.3 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.

1.4 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 be included in commercial packages or commercial program collections without my written permission, nevertheless it must not be sold commercially as a single program.

WHEN being included with commercial or Shareware programs I hereby demand to receive a free copy of the final program - after you did so, the users of your program no longer need to pay the Shareware fee to me.

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.

1.5 Usage and so on

Usage

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

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.

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:" - 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 V6a.

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 Ralph Schmidt's picture.datatype V43 as well optionally 24 Bit output may be done.

You must use the included preferences program for best configuration.

akJFIF.datatype is SHAREWARE, the future depends on YOU (-> see README).

Thanks go to

=====

- Martin Sprenger	- Kristian Phillips	- Swen K. Stullich
- Brad Avery	- Erik Magnusson	- Matthias Kraft
- Allan Odgaard	- Francesco Doro	- Per Jonsson

1.6 correspondence

```

|   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
|                   +49-271-22838
|
|           Weekdays after 17.00h.
|
|           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:

DO not SEND ANY binaries (or uuencoded) VIA THE FOLLOWING EMAIL ADDRESSES, EXCEPT MAYBE small ONES VIA t-online.de (smaller or equal 16 KB).
THANK YOU.

```

- Fido    Andreas Kleinert 2:2457/350.18
- Usenet  Andreas_Kleinert@superview.ftn.sub.org  (Fido-Gate)
          Andreas_Kleinert@t-online.de          (T-Online)
          ARK@COB.wwbnet.de                     (Z-Netz)

```

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

```

In Germany:
  Andreas_Kleinert@p18.f350.n2457.z2.fido.sub.org

```

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From USA or elsewhere:
  Andreas_Kleinert@p18.f350.n2457.z2.fidonet.org

```

Please note, that the "superview.ftn.sub.org" domain will perhaps be renamed in late 1996.

1.7 prefs

akJFIFPrefs

akJFIFPrefs is the Preferences Program for akJFIF.datatype.
 GUI has been created with Designer 1.54 by Ian O'Connor.
 Icon by Detlef Winkler (same as SVPrefs.info)

You can do the following, settings, which will be written
 to ENV: and/or ENVARC: into a settings file called
 "Datatypes/akJFIF.prefs":

- 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) HAM_MODE=(HAM6|HAM8)
- 5) COLOR_QUANTIZING=(SLOW|FAST)
- 6) UPSAMPLING=(ON|OFF)
- 7) PROGRESSBAR=(ON|OFF)

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
HAM_MODE=HAM6
COLOR_QUANTIZING=FAST
UPSAMPLING=OFF
PROGRESSBAR=ON
```

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	*
	DITHERMODE=HAM_OUTPUT	
	V43_MODE=256	
	HAM_MODE=HAM8	*
	UPSAMPLING=OFF	*
Dithered Output (V40/V43):	DECODE_METHOD=FAST_INTEGER	*
	DITHERMODE=DITHER_ORDERED	*1
	V43_MODE=256	
	COLOR_QUANTIZING=FAST	*
	UPSAMPLING=OFF	*
256 Colors (V40/V43):	DECODE_METHOD=FAST_INTEGER	*
	DITHERMODE=NO_DITHERING	
	V43_MODE=256	
	COLOR_QUANTIZING=FAST	*
	UPSAMPLING=OFF	*
24 Bit (V43):	DECODE_METHOD=FAST_INTEGER	*
	DITHERMODE=NO_DITHERING	


```
V43_MODE=24BIT
UPSAMPLING=OFF *
```

- * may be changed
- *1 maybe changed to: DITHER_FLOYD-STEINBERG

General Explanation of Options

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1) DECODE_METHOD

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SLOW_INTEGER:  slot, but accurate integer algorithm
FAST_INTEGER:  faster, but less accurate integer algorithm
FLOATING_POINT: floting point algorithm
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2) DITHERMODE

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NO_DITHERING:      no dithering, best pen selection
DITHER_FLOYD-STEINBERG: slow, hight quality, floyd-steinberg dithering
DITHER_ORDERED:    ordered dithering on fixed palette
HAM_OUTPUT:        generate HM output from 24 Bit data
```

3) V43_MODE (only with "NO_DITHERING")

```
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```

```
256:  enables dithered 256 color output for V43 picture.datatype
24BIT: does raw 24 Bit output with V43 picture.datatype
```

4) HAM_MODE (only with "HAM_OUTPUT")

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```

```
HAM6: generates HAM6 output
HAM8: generates HAM8 output
```

5) COLOR_QUANTIZING (not with "DITHER_ORDERED", "HAM_OUTPUT" or 24 Bit)

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

6) UPSAMPLING

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

7) PROGRESSBAR

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```

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

1.8 history

History

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```
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