Viewtek

COLLABORATORS

	TITLE : Viewtek		
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REVISION HISTORY

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Viewtek

1.1   Viewtek Documentation

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                                      Viewtek
        A freely distributable picture and animation viewer for the Amiga


                        Written by Thomas Krehbiel
                        (Another fine UBTASITE product)


                    Copyright © 1992-1994 Thomas Krehbiel
                             All Rights Reserved


        (Notice how the 'tek' in Viewtek is not capitalized in any way.)



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   This documentation assumes a basic familiarity with AmigaDOS and the Amiga
interface.  If you aren't familiar with the concepts of files, directories,
gadgets, windows, etc. you should consult your "Introduction to the Amiga"
manual.  Another excellent source of information is your local Amiga users
group.

   (Veteran users:  Areas with new information are marked with a '*'.)


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                Hope you enjoy the program!

       -  TEK
```

1.2 Distribution, Disclaimer, Etc.

```
Copyright
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   The Viewtek executables and documentation are Copyright © 1992-1994
by Thomas Krehbiel, All Rights Reserved.

   Viewtek is NOT public domain.  The author retains all rights to the
program.

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


Distribution
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   Viewtek may be freely distributed to any bulletin board service, commercial
network, public domain collection, human being, or alien race so long as the
```

following conditions are met:

    1) No fees (beyond reasonable media fees) may be charged for its sole
distribution. (That is, no unreasonable fees may be charged for, say, a disk
containing only Viewtek.)   I would call more than $3 unreasonable.

    2) All Viewtek-related files included in any distribution must remain
unchanged from the original archive as uploaded by me.

    3a) Any distribution of Viewtek must include all files as contained in the
original archive as uploaded by me, with the following exception:

    3b) If Viewtek is being used only as a viewer utility (ie. generally hidden
from the user) for another package (commercial or otherwise), you are free to
select only the files you require from the original archive. You must,
however, include somewhere in your documentation (either on disk or
printed), the following statement:

    Viewtek © 1992-1994 Thomas Krehbiel, All Rights Reserved

    3c) If you receive an incomplete copy of the Viewtek distribution (such as
within a larger commercial package; see 3b above), you are free to use it for
yourself, but heed conditions 3a and 3b above (ie. you may not distribute
incomplete Viewtek packages unless it is used only as a viewer for a 'larger
purpose').

    4) There are no special limitations on distributing Viewtek with commercial
products or disk magazines (beyond the above conditions, that is).

    (I think that covers it. Basically I wrote Viewtek for anybody that wants
to use it for whatever reason; I just don't want partial archives floating
around that people might mistake for a complete release.)

Disclaimer
~~~~~~
   No warranties of any kind are made as to the functionality of this
program. You are using it at your own risk.

1.3 Introduction to Viewtek

                    Viewtek is a picture and animation viewer utility designed for ←
                    Workbench
2.0 and up. It started out as a pretty simple project, but naturally it's
developed into a large shambling behemoth of a program (well, sort of).

    Viewtek can show the following types of files:

    IFF ILBM   (any depth, including SHAM, CTBL, PCHG)
    IFF ANIM   (op5, op7, and op8)
    Compuserve GIF   (GIF87a or GIF89a)
    JPEG   (the standard JFIF format)
    Amiga Icons   (.info files, that is)

    When showing an image, Viewtek tries to put the picture on a native

Amiga display without any rendering or color reduction. If this is
not possible (eg. the image is 24-bit), then Viewtek will then try to
make a passable rendering of the image to a HAM mode. Or, if you are
using one of the versions of Viewtek specifically made for a certain
display board, the image is rendered to that display board.

    Animations are always shown in native Amiga modes.

Starting Quickly
~~~~~~
   From Workbench: Double-click the VT program icon, and select one or
more files from the resulting file requester to view images or animations.
See
                 Useage From Workbench
                 for more details about Workbench operation.

   From CLI: Type VT followed by one or more image files or directories.
See
                 Useage From CLI
                 for details about CLI useage.

   Use the left mouse button to proceed to the next image when viewing a
batch of images. See
                 Viewing Commands
                 for details on keyboard commands
while viewing pictures and/or animations.

1.4   Viewing Commands

Viewing Commands
~~~~~~
   ESCAPE   Abort viewing immediately.

   BACKSPACE   Abort viewing current directory (when using 'ALL').

   LMB/RMB   Go to next picture (unless using the 'NOCLICK' option).

   SPACE   Will hold on the current picture, when using DELAY.

   S   (Picture Only) Will save the currently displayed
                    picture as an ILBM (you will be asked for an output
                    filename).

   ANY KEY   Go to next picture.

   Arrow Keys   (Picture Only) Certain versions of Viewtek use the arrow
                    keys to scroll around in images larger than the screen.
                    (For example, the OpalVision and EGS versions.)

   CTRL+Arrows   Move image/anim around on the display (overscan position).

   Up Arrow   (Anim Only) Return to beginning of the animation.

```
    Right Arrow     (Anim Only) Pause/single step animation.

    Down Arrow      (Anim Only) Resume playing animation after paused.

    C               (Anim Only) Toggle "continuous" mode.

    F1              (Anim Only) Play animation as fast as possible.
    F2              (Anim Only) Play animation at 60fps.
    F3              (Anim Only) Play animation at 30fps.
    F4              (Anim Only) Play animation at 24fps.
    F5              (Anim Only) Play animation at 15fps.
    F6              (Anim Only) Play animation at 12fps.
    F7              (Anim Only) Play animation at 10fps.
    F8              (Anim Only) Play animation at 5fps.
    F9              (Anim Only) Play animation at 1fps.
    F10             (Anim Only) Play animation at rate specified in ANIM file.
```

1.5 Useage From CLI

```
                  Useage From CLI
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   Viewtek generally works better from CLI (assuming you can type), since you
have more options immediately available to you.  Command lines are given in
the standard AmigaDOS format used by all the system commands.

   The basic syntax is:

    VT [options] <one or more files or directories>

   The following CLI options are available:

    VT
              [ALL]

              [BUFSIZE <bytes>]
               [CONFIG <file>]
              [CLIP]

              [CONT]

              [DELAY <seconds>]

              [DEFAULT]

              [DISK]

              [DATATYPES]

              [FOREVER]

              [FPS <speed>]

              [HIDE]

              [HIRES]
```

```
                    [ICONIFY]

                    [ILBM]

                    [INFO]

                    [LACE]

                    [LOWMEM]

                    [LORES]

                    [LOOP <count>]

                    [MAXFRAMES <frames>]

                    [NOBUSY]

                    [NOCLICK]

                    [NODISK]

                    [NOLACE]

                    [NOSCROLL]

                    [NTSC]

                    [PAUSED]

                    [PAL]

                    [POINTER]
                     [QUIET]
                    [REPEAT <count>]

                    [SUPER72]

                    [SAVE <file>]

                    [SCREENMODE <modename>]

                    [SPEED <jiffies>]

                    [SUPERHIRES]

                    [UNDERSCAN]

                    [UNIT <unit>]

                    [<file> ... <file>]
                       Typing VT ? will give you a brief, jumbled display of all  ←
                          available
options.
```

    If no files are given on the command line, a file requester will be

presented from which you can select files to view. All options given on
the command line will affect the files selected with the file requester.

   All options from CLI have two-letter abbreviations to ease your typing
burden. See the details about each option for the appropriate abbreviation.

1.6 Useage From Workbench

                  Useage From Workbench
~~~~~~
   Viewtek may be run from Workbench in several ways.

   1) Double-clicking on the Viewtek icon will bring up a requester asking
for one or more files to view. Options are read from the Viewtek icon's
tool types, and from the configuration file (see
                  Configuration File
)
if present.

   2) You may use extended selection to highlight several picture or
animation icons and, while holding shift, double-click on the Viewtek program
icon. The files selected will be shown. Options are read from the
Viewtek program's icon, and from the configuration file (see

                  Configuration File
                  if present. In addition,
options are read from the icons of each picture that is shown, so
you can set options up for each picture individually through its icon.

   3) You may set Viewtek as the default tool for any picture or animation
project icon. Options will be read from the Viewtek program's icon,
and from the configuration file (see
                  Configuration File
                  if present.
Options will also be read from the picture's project icon.

   The following tool types are available:

                  DEFAULTDIR=<picture_directory>

                  ALL

                  BUFSIZE=<kilobytes>

                  CLIP

                  CONT

                  DEFAULT

                  DELAY=<seconds>

                  DISK

```
DATATYPES

FOREVER

FPS=<frames_per_second

HIDE

HIRES

ICONIFY

ILBM

INFO

LACE

LOOP=<count>

LOWMEM

LORES

MAXFRAMES=<frames>

NOBUSY

NOCLICK

NODISK

NOLACE

NOSCROLL

NTSC

PAUSED

PAL

POINTER

QUIET

REPEAT=<count>

SPEED=<jiffies>

SUPER72

SUPERHIRES

UNDERSCAN
```

If you are planning to put Viewtek into your WBStartup drawer ←
and use
the
ICONIFY
option, you should also add the tool type DONOTWAIT to
the icon. Otherwise, you will get a requester to the effect of "Program
Viewtek not finished. Wait some more?" every time you reboot.

1.7 Configuration File (2.0)

Configuration File (2.0)
~~~~~~
   Viewtek 2.0 supports a simple configuration file which can be used to
set commonly used options so you don't have to type them every time.

   By default, Viewtek looks for the configuration file as "ENV:VT.defaults",
however you may change this with the CONFIG option.

   Note that command line options override whatever is in the configuration
file.

   Also note that if you specify a switch in the configuration file there
is no way to "undo" that switch from the command line.

   Each line in the configuration file must contain its own option (ie.
you cannot put more than one option on a line) just as you would specify
them on a CLI command line. However, note that you cannot abbreviate
options in the configuration file, they must be spelled out. Blank
lines and lines beginning with a semi-colon (;) are ignored.

   A sample configuration file:

      ; Sample Viewtek config file
      DELAY 2
      CONT
      POINTER

   The file "VT.defaults", included with the archive, contains a template
for building your own configuration files. Simply uncomment the lines
that you want to include (by removing the leading semi-colon).

1.8 Playing Animations From Disk

                Playing Animations From Disk
~~~~~~
   Viewtek can play animations directly from disk... sort of. How well
it works depends on many factors:

      - The speed of your computer.
      - The speed of your hard drive and/or controller.
      - The complexity/resolution of the animation.

     – The chosen playback rate.
     – The chosen buffer size.
     – How much you're willing to fiddle with parameters.

    Here's an overview of how it works: Playback from disk is done with two
tasks; one task is responsible for reading data from disk, the other task is
responsible for decoding and displaying the frames. Basically, while the
disk reader is getting data from disk, the playback task is playing the
frames from the previous batch.

    Buffer Size. The buffer size is very important to the performance of the
playback. The idea is to make the buffer size such that a new batch of
frames can be read from disk faster than VT can play the frames from the
previous batch. If the buffer size is too small, VT will end up stuttering
during playback because it has to wait for the disk reader to catch up to
the playback task. However, if the buffer size is too large, a lot of
wasted time will be spent reading from the hard drive (on my system, reading
from the drive for extended periods of time also causes the animations to
stutter – not sure if this is just my own HD or a universal problem tho).
(Buffer size is set with the
                BUFSIZE
                option.)

    (NOTE: Animations with large deltas will require larger buffer sizes.
Viewtek will inform if you need to increase the buffer size (and give you
an approxiamate target size).)

    Playback Rate. A good way to smooth out the playback is to slow down the
playback rate. This will give the disk reader task more time to read from
the disk.

    Animation Complexity. Let me be blunt: If you think a 736x480, HAM8
animation of a camera pan is going to animate well, you're crazy. The
Amiga's good, but it ain't *that* good. :)

    Computer Speed. Obviously, the faster your computer, the better the
results are going to be. I personally haven't tried VT on a system equipped
with less than a 68040 for quite some time, so I can't really comment on
whether it will even work at all on a 68000.

    Hard Drive Speed. I've tried HD playback on two systems: One is an
A4000 with the internal IDE drive, along with a GVP SCSI controller and a
Maxtor drive. The other is an A2000 with a GVP G-Force 040 (SCSI controller
built-in) and a couple Quantum drives. (Funny how I have all this GVP
stuff, ain't it? :) The results I get are generally pretty good, although
stuttering animations definitely do happen. Fiddling with the playback rate
and buffer size usually helps in all but the most severe cases though.

    In short, if you have a 1MB A500 and want to genlock your 40MB HAM
interlace animations onto videotape for production work, you'll be
disappointed. This feature is strictly a novelty at this point.

    CAVEATS: The Up Arrow does not work when playing anims from disk, and
the animations are always played in "continuous" mode; ie. if the anim
doesn't have loop frames it's going to look pretty strange. Also,
animations with small numbers of frames will not work very well (they
might even crash, actually).

1.9   Using Viewtek with DataTypes

```
                Datatypes (Kickstart 3.0 And Above)
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```
   Viewtek 1.05 makes use of 3.0's datatypes.library. This means that when
VT runs across a file it is not capable of reading, it then asks datatypes
to try and read the file. If it can, then VT will still be able to show the
file.

   If you want VT to use datatypes exclusively (ie. not try to identify or
decode the files within VT at all), use the
                DATATYPES
                option on the command line.
This lets you, for example, use the GIF datatype instead of VT's own GIF
decoding.

   NOTE: Processing files via. datatypes works a little differently than
things normally work in VT... there is no way to abort reading a file, and
the file is read entirely into memory before even opening a display screen.

1.10   Compressed Files (Using XPK)

```
Compressed Files (Using XPK)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
```
   Viewtek 1.05 supports the XPK compression package (a nice package, BTW),
allowing it to read any kind of encoding scheme that XPK itself supports.

   In order to continue using iffparse.library and in general keep VT the
way it is, it works a little strangely: the encoded file is decompressed to
a temporary file in T:, which is then shown normally by Viewtek. Obviously,
this could impose some memory problems if your T: directory happens to be in
RAM:.

   Once you have XPK installed properly, Viewtek's handling of compressed
files is totally transparent.

   You'll have to get the XPK package elsewhere; consult a BBS near you (I
got it from BIX).

1.11   Viewtek for DCTV

```
Viewtek for DCTV
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
```
   The program "VT_DCTV" is a special version of Viewtek compiled to
take advantage of Digital Creations' DCTV display gizmo. Images that cannot
be displayed on your normal Amiga display will be rendered to the DCTV
in 24-bits.

At this time, the DCTV version does not support scrolling in images
larger than your screen. (You will be able to autoscroll around in them
like a regular Amiga pic, but the DCTV cookie and such will not update and
you'll likely get a garbage display.)

Note that all DCTV renderings are by necessity HIRES, which means that
lores images will appear squished horizontally.

Small images may not render successfully to DCTV - you will get a message
that says "Cannot allocate DCTV context" if this is the case.

It should work with any version of the dctv.library.

1.12   Viewtek for IV24

                    Viewtek for IV24
~~~~~~
   The program "VT_IV24" is a special version of Viewtek compiled to
take advantage of GVP's IV-24 24-bit display adaptor. Images that cannot
be displayed on your normal Amiga display will be rendered directly to
the IV-24 in 24-bits.

At this time, the IV-24 version does not support scrolling in images
larger than your screen.

Note that the image will not be shown until it is finished reading
from disk. (In effect, the
                    HIDE
                    option is always on.)

1.13   Viewtek for OpalVision

                    Viewtek for OpalVision
~~~~~~
   The program "VT_Opal" is a special version of Viewtek compiled to
take advantage of Opal Technologies' OpalVision 24-bit display adaptor.
Images that cannot be displayed on your normal Amiga display will be
rendered to the OpalVision display in either 8-bits or 24-bits.

8-bit images (GIFs, for example) will be shown in an 8-bit OpalVision
screen. Deeper images will use a 24-bit screen.

Images larger than the screen can be viewed in their entirety by
using the arrow keys to scroll around. Sorry about the flash, but
I couldn't find a way to avoid this without using gobs of chip memory.
Note that showing super-bitmap images requires a great deal more
(Amiga) memory than normal - if enough memory cannot be allocated,
you will not be able to scroll around in the image.

Note that the image will not be shown until it is finished reading

```
from disk.  (In effect, the
                HIDE
                option is always on.)
```

1.14   Viewtek for Retina

```
Viewtek for Retina
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   The program "VT_Retina" is a special version of Viewtek compiled to
take advantage of Macro Systems' Retina 24-bit display adaptor.
Images that cannot be displayed on your normal Amiga display will be
rendered to the Retina display in either 8-bits or 24-bits.

   8-bit images (GIFs, for example) will be shown in an 8-bit Retina
screen.  Deeper images will use a 24-bit screen.

   Super-bitmap images (ie. images larger than will fit on the screen)
can be viewed in their entirety using the arrow keys.  Note that
showing super-bitmap images requires a great deal more (Amiga) memory
than normal - if enough memory cannot be allocated, you will not be
able to scroll around in the image.

   IF YOU USE ONE MONITOR AND RETINAEMU:  You will want to add an
entry to the screen list of RetinaEmu.  The screen name is called
"Viewtek's Screen" (without quotes), and you will need to set it to
output to Amiga instead of the Retina.  In order for the "Viewtek's
Screen" entry to show up in the RetinaEmu list, you will need to
run VT_Retina at least once on an image that will be rendered to
the Retina display (eg. a 24-bit or JPEG image, or a GIF on a non-AGA
machine).

   VT_Retina was tested using Retina software version 1.4, I have no
idea whether it will work with earlier versions (it probably will,
but I won't make any guarantees).
```

1.15   Viewtek for Firecracker

```
Viewtek for Firecracker
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   The program "VT_FC24" is a special version of Viewtek compiled to
take advantage of Impulse's Firecracker 24 display card.  Images that
cannot be displayed on your normal Amiga display will be rendered to
the Firecracker display in 24-bits.

   At this time, the Firecracker version does not support scrolling in
images larger than your screen.

   WARNING:  This version has not been heavily tested.
```

1.16   Viewtek for EGS

Viewtek for EGS
~~~~~~
    The program "VT_EGS" is a special version of Viewtek compiled to
work with Viona's EGS libraries. This should work on any EGS-compatible
display card. Images that cannot be displayed on your normal Amiga
display will be rendered to the EGS-compatible card.

    Images are always rendered using the same screen mode as the
default screen (but the images aren't actually rendered to the default
screen).

    Super-bitmap images (ie. images larger than will fit on the screen)
can be viewed in their entirety using the arrow keys.

1.17   Viewtek for Picasso

Viewtek for Picasso
~~~~~~
    The program "VT_Picasso" is a special version of Viewtek compiled to
work with Village Tronic's Picasso board. Images that cannot be displayed
on your normal Amiga display will be rendered to the Picasso board in
24-bits.

    This is a fairly late addition, and has not been tested very much
(although I didn't notice any problems with it).

    For each picture displayed, VT lets the vilintuisup.library figure
out the best scan rate and such to display in, so not all pictures will
be displayed in the same resolution.

1.18   Examples

Examples
~~~~~~
1> VT picdir

    Show all files in the "picdir" directory.

1> VT picdir ALL

    Show all files in "picdir", including subdirectories.

1> VT picdir SUPER72 SUPERHIRES LACE

    Show all files in "picdir", forcing them into Super72 800x600 mode.

1> VT myjpeg SAVE ram:mypic

    Show "myjpeg", and save the resulting screen to "ram:mypic".

```
1> VT picdir HIDE
```

   Show all files in "picdir", but don't show each picture until it is
   fully read into memory.

```
1> VT picdir FOREVER DELAY 2 HIDE
```

   Show each file in "picdir" for 2 seconds, repeat forever. A good
   way to do a slideshow.

```
1> VT picdir SCREENMODE "MULTISCAN:Productivity"
```

   Show all files in "picdir", forcing each one into Productivity mode.

1.19   Acknowledgements

```
Acknowledgements
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
```
   Thanks to the following people (in no particular order):

   o Peter Bornhall, who sent me a disk with AmigaGuide versions of
     all the Viewtek documentation. I didn't use his documents, but
     he did inspire me to create my own.

   o The Independant JPEG Group for their excellent JPEG decoder.

   o Kermit for relaying bug reports, suggestions, etc. from the
     nets.

   o Bob for "not caring"... :)

   o All the other ImageFX beta testers who got suckered into testing
     Viewtek.

   o And of course, all the people who use and like the program.

1.20   The Author

```
The Author
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
```
   I can be reached on BIX as "tkrehbiel". BIX is also connected to the
Internet, so my Internet address is "tkrehbiel@bix.com".

   Note: Any email that was sent to me in February or March sorta
got lost.

   (Warning: I'm pretty slow responding to email these days. And please
don't be offended if I answer tersely or not at all, I get a lot of email
and I don't really have time to answer each one with pages of text.)

   (Note: I am currently not available for any sort of programming work,
including, but not limited to, custom versions of Viewtek.)

1.21   Reporting Bugs And Suggestions

```
                    Reporting Bugs
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   When reporting bugs, it would help me a great deal if you could try to be
as specific as possible about the conditions under which the program failed.
For example, your configuration, what exactly you were doing, what options
you were using, what else might have been running, etc.  Usually whatever
file caused the problems will help me out too, if it's relatively small (you
can bixmail stuff to me, or uuencode stuff to me, or whatever - see my
internet address below).

   Make sure you check the
                    known bugs
                    before reporting a problem!


Suggestions
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   I am always open to suggestions; however, I do have goals in mind for the
program so I may not implement every suggestion I get if it doesn't really
fit with my "plan".  I'm also under pretty heavy time constraints these
days - I don't get much of a chance to work on Viewtek.  Generally, I'm more
likely to implement simpler suggestions than complex suggestions.  And I'm
very unlikely to support reading other file formats (use DataTypes for this),
or saving to other file formats, or more complex rendering algorithms.
```

1.22   Frequently Asked Questions

```
Frequently Asked Questions (well, some, anyway)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
   Q. Why don't you include versions compiled for 68030's or 68040's?
   A. The speed difference is so negligable as to not be worth the effort.

   Q. How come Viewtek's GIF and JPEG renderings on my A2000 don't look
      as good as some other software?
   A. Because Viewtek is not meant to be a dedicated rendering program;
      it is only meant to give you a fairly quick representation of the
      images.  High quality rendering takes time.  Viewtek generally
      works best when you are showing images that aren't deeper than
      your available display (unless you have a 24-bit card).

   Q. Will you support display card X?
   A. Internally, Viewtek 2.0 is organized much better for this type
      of support, so the chances of supporting new display cards are
      much better than they used to be.  Generally my criteria for
      picking display cards to support are:  1) how cool is the card,
      2) how easy is it to support with the supplied developer info,
      3) do I have one, 4) would I be likely to use one regularly.

   Q. Could you add a feature to show images in little Workbench windows?
   A. Besides the fact that I think this particular 'feature' isn't even
      remotely useful, it would require some fairly major internal
```

rewriting. Perhaps when every Amiga owner has a minimum 8-bit
(chunky) Workbench I'll consider it.

Q. Is there anything I can do to speed up GIF viewing?
A. Try using the HIDE option, or find a really fast GIF datatype.

Q. Will there ever be a Viewtek for 1.3 users?
A. Hah! Good one... :)

Q. What about some kind of graphical front-end?
A. It's on my list of things to do at some future date. Which could
   be anywhere from tomorrow to never.

Q. What the heck does UBTASITE mean?
A. :)

Q. How come you don't release new versions every other day?
A. Most of my time is spent working on ImageFX / CineMorph, which is
   what I get paid for so I give them a little more priority. :)
   My spare time goes to such projects as Viewtek and Rend24, along
   with about a dozen other programs that will doubtless never see
   the light of day. Not to mention my recently awakened
   all-consuming music habit.

Q. What was the deal with Viewtek 2.0?
A. Somehow, a beta version of the upgrade to 1.05, then called VT 2.0,
   was released (definitely not by me). Needless to say, it wasn't
   quite ready to go public, what with the GIF problems and all. I
   apologize for any inconvenience it may have caused, but unfortunately
   the program spread like wildfire so there wasn't much I could do
   about it.

Q. How come the program is so S-L-O-W?
A. You get what you pay for... :)

Q. Is there any way to use DataTypes under 2.0/2.1?
A. Not that I know of.

Q. How about showing animations on some other display boards, like
   my super-fast wizbang zappa board?
A. ANIMs are sorta optimized for bitplane-type displays, so the
   process of converting them to the format your super-fast wizbang
   zappa board could handle would negate any speed advantage the
   board itself might give.

Q. What about MPEG?
A. Yeah, right... :) Seriously, I consider this to be totally outside
   the domain of Viewtek.

Q. How come I can't ping-pong anims or show them in reverse?
A. ANIMs are encoded to be played forwards only. To play them
   backwards, you'd have to actually build it that way to start
   with.

1.23   Known Bugs In Viewtek

Known Bugs
~~~~~~
All:

   - Slight memory leaking aborting JPEGs in progress.

   - Memory fragmentation may become a problem when viewing a lot
     of JPEGs and GIFs.

VT_Opal:

   - Horrid screen flashing when scrolling in super-bitmaps.
     Not sure what I can do about it though.

   - Opal screens seems to "jitter" whenever there's hard drive
     activity (at least with GVP scsi drives on my A2000). Don't
     think there's anything I can do about it, though.

VT_Retina:

   - Regular Amiga screens (eg. HAM pics) don't show up on the
     Retina when using RetinaEmu and one-monitor (well, you get
     a black screen). Unfortunately, there's nothing I can do
     about this at the moment. If you have two monitors, you
     can set the "VT_Retina" output to appear on Amiga.

   - 32 bytes seem to disappear for each file shown. I'm not
     sure whether this is VT or the Retina software, though.

VT_EGS:

   - EI_ScrollWindow() doesn't seem to scroll in negative
     directions, so you can only scroll down and to the
     right in a super-bitmap image.

   - The way it currently gets a black background frankly sux.

1.24   File Handling Options: FILES

   FILES (CLI only)

   Format: <file> [<file> ... <file>]
   Template: Files/M
   ToolType: (not available)

      One or more files, directories, or patterns. If you give VT a
      directory, all files in that directory will be shown (in no
      special order). Standard AmigaDOS wildcards are supported.
      Basically, anything that is not a recognizable option is assumed

```
     to be a file spec.

Examples:

     VT mypicture

     VT DH0:picturedrawer

     VT DH0:#?.pic

     VT DH0:#?.pic DH1:

     VT DH1:(~#?.info)
```

1.25   File Handling Options: ALL

```
ALL

Format:      ALL   -or-   AL
Template:   AL=All/S
ToolType:   ALL

     Tells VT to recursively enter subdirectories.

Example:

     VT picdir ALL
```

1.26   File Handling Options: CLIP

```
               CLIP

Format:      CLIP   -or-   CL
Template:   CL=Clip/S
ToolType:   CLIP

     Show the contents of the clipboard.  By default, clipboard
     unit 0 is shown.  You can change this by using the
               UNIT
                     option.

Example:

     VT CLIP
```

1.27   File Handling Options: DELAY

```
DELAY

Format:     DELAY <seconds>  -or-  DE <seconds>
Template:   DE=Delay/K/N
ToolType:   DELAY=<seconds>
```

   Number of seconds to show each picture or animation before
   automatically proceeding to the next one. The timer doesn't
   start until *after* the picture or animation has been loaded.

   If you decide you want to look at a picture longer, press the
   space bar and the timer will be stopped. You can then press
   the left mouse button normally to proceed to the next picture.

Example:

```
   VT DH0:pictures DELAY 3    ; hold on each picture 3 seconds
```

1.28   File Handling Options: DATATYPES

```
DATATYPES

Format:     DATATYPES  -or-  DT
Template:   DT=DataTypes/S
ToolType:   DATATYPES
```

   Force VT to use Datatypes to identify and display files (normally
   datatypes is the last thing checked before giving up on a file).
   This lets you, for example, use a datatypes GIF converter instead
   of the one built into VT.

   This only works under Workbench 3.0 or greater.

Example:

```
   VT DH0:flower.gif DT
```

1.29   File Handling Options: DEFAULTDIR

```
DEFAULTDIR (Workbench or Configuration File only)

Format:     DEFAULTDIR <pathname>
Template:   DefaultDir/K
ToolType:   DEFAULTDIR=<pathname>
```

   Specify the directory where Viewtek will open its initial
   file requester.

Example:

```
   DEFAULTDIR=DH0:pictures
```

1.30   File Handling Options: FOREVER

```
FOREVER

Format:     FOREVER  -or-  FO
Template:   FO=Forever/S
ToolType:   FOREVER

   Repeat showing the list of files given on the command line
   forever and ever amen (and/or until cancelled with ESCAPE).

Example:

   VT DH0:pictures FOREVER
```

1.31   File Handling Options: ILBM

```
ILBM

Format:     ILBM  -or-  IL
Template:   IL=ILBM/S
ToolType:   ILBM

   Force VT to assume all files are ILBM pictures.  This is really
   only useful in case you only want to show the first frame of an
   animation and not the whole thing.

Example:

   VT DH0:running.anim ILBM
```

1.32   File Handling Options: NOCLICK

```
NOCLICK

Format:     NOCLICK  -or-  NC
Template:   NC=NoClick/S
ToolType:   NOCLICK

   Disable the standard method of using the mouse buttons to
   skip to the next picture.  With this option enabled, you will
   have to use the keyboard.

Example:

   VT DH0:pictures NOCLICK
```

1.33   File Handling Options: REPEAT

```
REPEAT

Format:     REPEAT <count>  -or-  RE <count>
Template:   RE=Repeat/K/N
ToolType:   REPEAT=<count>

   Repeat showing the list of files given on the command line
   the number of times specified (or until cancelled manually
   with ESCAPE).

Example:

   VT DH0:pictures REPEAT 5
```

1.34   File Handling Options: SAVE

```
SAVE (CLI Only)

Format:     SAVE <filename>  -or-  SA <filename>
Template:   SA=Save/K
ToolType:   (not available)

   Save the resulting image that VT renders to a displayable
   ILBM file.  This allows you to use VT as a (*very*) simple
   file conversion utility.

   Note that only images rendered to Amiga screens may be
   saved this way; you can't, for example, save images that
   are rendered to an OpalVision.

   Also note that this only works on still images, not on
   animations.

   You can also hit 'S' while viewing a picture to save it.

Example:

   VT DH0:rosebud.JPG SAVE DH0:rosebud.pic
```

1.35   File Handling Options: UNIT

```
                UNIT

Format:     UNIT <unit_number>  -or-  UT <unit_number>
Template:   UT=Unit/K/N
ToolType:   UNIT=<unit_number>

   Specify clipboard unit when showing contents of clipboard.
   This is only useful when used in combination with the

                CLIP
```

```
         option.

   (I believe there are 256 clipboard units, or thereabouts -
   VT does not check to see that you have given a valid unit
   number.)
```

Example:

```
   VT CLIP UNIT 4
```

1.36 Animation Options: BUFSIZE

```
BUFSIZE

Format:    BUFSIZE <kilobytes>  -or-  BU <kilobytes>
Template:  BU=BufSize/K/N
ToolType:  BUFSIZE=<kilobytes>

   Sets the buffer size when playing animations directly from
   hard drive, in KB (ie. BUFSIZE 128 == 128KB).  VT actually
   allocates 3 of these buffers, so don't get too crazy.  Also
   see the notes on playing animations from disk elsewhere in
   this document.
```

Example:

```
   VT BUFSIZE 256 big.anim
```

1.37 Animation Options: CONT

```
CONT

Format:    CONT  -or-  CO
Template:  CO=Cont/S
ToolType:  CONT

   Force animations to be considered "continuous".  My definition
   of a "continuous" animation is one that has those two looping
   frames stuck on the end (like the kind that DPaint always
   creates).  Normally, VT will only consider an animation to be
   continuous if a DPAN chunk is found.
```

Example:

```
   VT CONT water.anim
```

1.38 Animation Options: DISK

```
DISK

Format:    DISK  -or-  DI
Template:  DI=Disk/S
ToolType:  DISK

   Force animations to be played directly from disk.

Example:

   VT DISK water.anim
```

1.39   Animation Options: FPS

```
FPS

Format:    FPS <speed> -or-  FP <speed>
Template:  FP=FPS/K/N
ToolType:  FPS=<speed>

   Specify animation playback rate in frames per second.
   Values greater than 60 FPS are meaningless.

Example:

   VT FPS 24 water.anim
```

1.40   Animations Options: LOOP

```
LOOP

Format:    LOOP <count>  -or-  LP <count>
Template:  LP=Loop/K/N
ToolType:  LOOP=<count>

   Number of times to loop an animation before continuing on with
   the next file.  Normally, VT will loop until you tell it to
   stop.

Example:

   VT LOOP 3 water.anim
```

1.41   Animation Options: MAXFRAMES

```
MAXFRAMES

Format:    MAXFRAMES <frames>  -or-  MA <frames>
Template:  MA=MaxFrames/K/N
```

```
ToolType:   MAXFRAMES=<frames>
```

   Maximum number of frames to read from an animation. This is
   handy if you don't quite have enough memory to load an entire
   animation, or for some reason the anim is corrupted beyond
   repair halfway through; VT will only read in the number of
   frames you specify before going on to show it.

Example:

```
   VT MAXFRAMES 30 water.anim
```

1.42   Animation Options: NODISK

```
NODISK
```

```
Format:     NODISK  -or-  ND
Template:   ND=NoDisk/S
ToolType:   NODISK
```

   Never show animations from disk. Normally, VT will try to play
   an animation from disk if it sees you don't have enough memory
   to play the animation from RAM. If VT encounters an animation
   larger than you have memory for and the DODISK option is on, it
   will fail to play the animation.

Example:

```
   VT NODISK water.anim
```

1.43   Animation Options: SPEED

```
SPEED
```

```
Format:     SPEED <jiffies>  -or-  SP <jiffies>
Template:   SP=Speed/K/N
ToolType:   SPEED=<jiffies>
```

   Specify animation playback rate in jiffies per frame (one
   jiffy is 1/60th of a second).

Example:

```
   VT SPEED 3 water.anim     ; 1/20th second per frame
```

1.44   Animation Options: PAUSED

```
PAUSED
```

```
Format:     PAUSED  -or-  PA
```

```
Template:   PA=Paused/S
ToolType:   PAUSED
```

    Begin animations in paused mode; you must hit the right or
    down arrow to actually begin playing the animation.

```
Template:
```

    VT PAUSED water.anim

1.45   Display Mode Options: DEFAULT

```
DEFAULT

Format:     DEFAULT  -or  DF
Template:   DF=Default/S
ToolType:   DEFAULT
```

    Force pictures and animations to use the DEFAULT monitor id.
    This is handy in a couple of cases:

       1) The picture or animation you are viewing was saved using
         a monitor you do not have (eg. PAL).

       2) The picture or animation you are viewing was saved
         explicitly using a monitor setting you don't like
         (eg. PAL).

       3) You are running on an AGA machine and the picture or
         animation was saved explictely as NTSC or PAL, but you
         want the picture or animation to promote to DblNTSC or
         DblPAL so it won't flicker.

1.46   Display Mode Options: HIRES

```
HIRES

Format:     HIRES  -or-  HI
Template:   HI=Hires/S
ToolType:   HIRES
```

    Force pictures and animations into HIRES. Use with caution;
    some viewmode combinations are not allowed on non-AGA machines
    (eg. HIRES HAM images).

1.47   Display Mode Options: LACE

```
LACE

Format:     LACE  -or-  LA
```

```
Template:   LA=Lace/S
ToolType:   LACE
```

Force pictures and animations into INTERLACE.

1.48   Display Mode Options: LORES

```
LORES

Format:     LORES  -or-  LO
Template:   LO=Lores/S
ToolType:   LORES
```

Force pictures and animations into LORES.

1.49   Display Mode Options: NOLACE

```
NOLACE

Format:     NOLACE  -or-  NL
Template:   NL=NoLace/S
ToolType:   NOLACE
```

Force pictures and animations into NON-INTERLACE.

1.50   Display Mode Options: NOSCROLL

```
NOSCROLL

Format:     NOSCROLL  -or-  NS
Template:   NS=NoScroll/S
ToolType:   NOSCROLL
```

Disable autoscrolling large pictures. Why would you want
to do this, you ask? Beats me. :)

1.51   Display Mode Options: NTSC

```
NTSC

Format:     NTSC  -or-  NT
Template:   NT=NTSC/S
ToolType:   NTSC
```

Force pictures and animations to use the NTSC monitor.
(Make sure you have the NTSC monitor in DEVS:Monitors.)

1.52   Display Mode Options: PAL

```
PAL

Format:     PAL  -or-  PL
Template:   PL=PAL/S
ToolType:   PAL
```

   Force pictures and animations to use the PAL monitor.
   (Make sure you have the PAL monitor in DEVS:Monitors.)

1.53   Display Mode Options: SUPER72

```
SUPER72

Format:     SUPER72  -or-  S7
Template:   S7=Super72/S
ToolType:   SUPER72
```

   Force pictures and animations to use the SUPER72 monitor.
   Generally only useful on AGA machines. (Make sure you have
   the SUPER72 monitor in DEVS:Monitors.)

1.54   Display Mode Options: SCREENMODE

```
SCREENMODE

Format:     SCREENMODE <mode_name>  -or-  SC <mode_name>
Template:   SC=ScreenMode/K
ToolType:   SCREENMODE=<mode_name>
```

   Specify the name of any available screen mode to show pictures
   and animations in. The name must be exact, as shown in the
   preferences ScreenMode program (if used from CLI, be sure to put
   quotes around the name if it has spaces in it). Case is not
   sensitive.

Examples:

   VT SC "DBLNTSC:Low Res"

   VT SCREENMODE "MULTISCAN:Productivity"

1.55   Display Mode Options: SUPERHIRES

```
SUPERHIRES

Format:     SUPERHIRES  -or-  SU
Template:   SU=SuperHires/S
```

```
ToolType:   SUPERHIRES
```

   Force pictures and animations into SUPERHIRES mode.

1.56   Display Mode Options: UNDERSCAN

```
UNDERSCAN

Format:    UNDERSCAN  -or-  UN
Template:  UN=Underscan/S
ToolType:  UNDERSCAN
```

   Disables overscan for any pictures or animations that VT shows.
   This lets you see all the way to the edges of super bitmap
   pictures.

1.57   Miscellaneous Options: HIDE

```
HIDE

Format:    HIDE  -or-  HD
Template:  HD=Hide/S
ToolType:  HIDE
```

   Hide images while they are being decoded. Normally, VT
   shows you the images while they are being read; this option
   causes VT to only show you the images when they are completely
   decoded. You probably want to set this for slideshow-style
   presentations. Setting this option also speeds up the decoding
   process slightly.

1.58   Miscellaneous Options: ICONIFY

```
ICONIFY

Format:    ICONIFY  -or-  IC
Template:  IC=Iconify/S
ToolType:  ICONIFY
```

   Start VT in iconified mode. When iconified, a little AppIcon
   appears on your Workbench, where you can drag image icons to
   view them. Double-clicking the icon gives you options for
   quitting or showing files interactively.

1.59   Miscellaneous Options: INFO

```
INFO

Format:     INFO  -or-  IN
Template:   IN=Info/S
ToolType:   INFO
```

Only display information about files, do not actually display them.
This could be used, for example, to list information about pictures
for a BBS system.

1.60   Miscellaneous Options: LOWMEM

```
LOWMEM

Format:     LOWMEM  -or-  LM
Template:   LM=LowMem/S
ToolType:   LOWMEM
```

Disable double-buffering of pictures. Handy if you don't have
a lot of chip memory.

1.61   Miscellaneous Options: NOBUSY

```
NOBUSY

Format:     NOBUSY  -or-  NB
Template:   NB=NoBusy/S
ToolType:   NOBUSY
```

Do not show a busy pointer at any time. Effectively blanks the
pointer 100% of the time.

1.62   Miscellaneous Options: POINTER

```
POINTER

Format:     POINTER  -or-  PO
Template:   PO=Pointer/S
ToolType:   POINTER
```

Do not blank the mouse pointer when showing pictures. Leaves
the mouse pointer visible so you can point to things in the
picture (or whatever).

1.63   Miscellaneous Options: QUIET

```
QUIET

Format:     QUIET  -or-  QU
Template:   QU=Quiet/S
ToolType:   QUIET
```

   Do not print information about each file to the shell. Obviously,
   this is only useful when run from CLI.