AnimationFAQ

COLLABORATORS

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AnimationFAQ

1.1 main

Info about MPEG (MPEG graphics) programs for AMIGA

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XingPlay 1.0 .... MPEG player
      XAnim 8 beta .... MPEG player

MPEG_stat 2.2a .... MPEG analyzer

Speed results for Amiga MPEG players

1.2 mp

1) Where to get:
 – Aminet   58KB   aminet/gfx/show/mp103.lha

2) What it can play:

   Dither types:

      ordered   use simple ordered dithering
      ordered2   a faster ordered dither. This is the default.
      mbordered   ordered dithering at the macroblock level.
      fs4   Floyd-Steinberg dithering with 4 error values propagated
      fs2   Floyd-Steinberg dithering with 2 error values propagated
      fs2fast   a faster fs2
      hybrid   Hybrid dithering, a combination of ordered dithering for
                        luminance and fs2 dithering for chrominance. Errors are
                        not propagated properly.

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    hybrid2        Hybrid dithering with error propagation among pixels.
    2x2            A dithering technique using a 2x2 pixel area for each
                      pixel. The image displayed is 4 times larger than the
                      original image encoded. Random error terms are added to
                      each pixel to break up contours and gradients.
    gray           Grayscale dithering. The image is dithered into 16
                      grayscales. Chrominance information is thrown away.
    gray8          Grayscale dithering with 256 grayscales (AGA only).
    color          'True' color display with 4 bits luminance and 2*2 bits
                      for chrominance.
    ham6           'True' color display using HAM approximation. For each
                      pixel either red, green or blue are set correctly and
                      the other color components are the same as the pixel to
                      the left. As the name implies this uses the 6bit HAM mode
                      and is limited to 4096 possible colors.
    none           no dithering is done, no image is displayed. Used to time
                      the decoding process.
    mono           Floyd-Steinberg dithering in black and white.
    threshold      Simple thresholding in black and white.
    ham8           'True' color display using HAM approximation. In HAM8
                      mode you have a 18bit color palette for a maximum of 256k
                      colors produced by mp. This mode produces finer gradients
                      than ham6 but it is significantly slower.

  GFX cards modes:

    opal15         and
    opal24          generate a 15bit or 24bit display on the OpalVision.
                       Playback speed is somewhat slower than for the native
                       Amiga graphic. This requires the opal.library to be
                       present in the LIBS: directory.
    village24       generates a 24bit display on the PicassoII board. This
                       requires the PicassoII software to be installed
                       properly. You don't need to redirect the Workbench to
                       the PicassoII board nor use the ChangeScreen commodity
                       as the player directly talks to the PicassoII driver
                       software. The player will open a display as large as
                       necessary which will be 320x240 for most MPEG files if
                       you have the latest Picasso software. I talked to the
                       VillageTronic people to support a 352x288 mode as well
                       which is the standard resolution for full screen MPEGs
                       (in PAL).
                       The player cannot be retargeted by the Picasso's
                       Intuition driver, so the standard dither modes will
                       get the native Amiga display.
    retina24        generates a 24bit display on the Retina board. This
                       requires the Retina software to be installed properly.
                       The player was tested with version 1.3 of the Retina
                       software. The player uses the standard screen dimensions
                       for the 24bit display. You can change the resolution
                       with the Retina software, you will probably prefer the
                       lowest resolution to get the largest image size on the
                       screen.
    egs24           generates a 'true color' display on any hardware
                       supported by the EGS libraries. Dithering and rendering
                       is done by EGS while the player just supplies the 24bit
                       raw data. If you have an EGS supported 24bit board this
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                              means you will see full 24bit. In any case the _default_
                              EGS screen is used, you can choose the dimensions and
                              depth with the EGS preferences tools.

3) Future:

 I don't know if there are going to be any new versions
 (Michael is a bit lazy ;))

4) On what machines it works:

- 68020 or higher CPU. Some thoughts went into that decision since it rules out
  many people in viewing MPEGs but IMHO a 68000 is way too slow to decode MPEG
  at a useful rate. Even an 68030/25MHz is quite slow, at least with this
  program.

- about 2MB memory. The program uses table lookups for some functions,
  especially the HAM rendering code and the hybrid dithering need a large
  table. Other display and dithering options can live with less memory.

- AmigaOS 2.0 or higher. Well, everyone should have updated to AmigaOS2.0.
  Compatibility to AmigaOS1.3 would have added more special cases. I also
  believe that people who can afford an accelerated Amiga have no problems
  with that requirement and it made some functions a bit easier.

5) How to contact with author:

Please send any suggestions and bug reports to me. I can be reached via E-Mail
as mlelstv@mpifr-bonn.mpg.de. People with Internet access can also find me
often in the IRC (Internet Relay Chat) channels #amiga and #amigager.

Michael van Elst

1.3 amipeg

1) Where to get:
 - Aminet 150KB   aminet/gfx/show/aMiPEG_0.7.lha

   The official aMiPEG WWW page is:
   http://dedal.man.szczecin.pl/~thorgal/AMIPEG/
   where you can always download the newest version.

2) What it can play:

DITHER - selects from a variety of dither options.
          The possible values are:
                color   - lores HAM8 screen
                hiresham   - hires HAM8 screen (better but slower)
                ham6   - for OCS users
                cybergfx   - 15/16/24-bit CyberGraphX display
                cybergfxgray   - gray display on 15/16/24-bit screen
                gray   - gray display on 8-bit screen
                none   - no display at all

3) Future:

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TODO     (sorted by priority)

          * asynch I/O
          * 96 pixels or 80 pixels wide animations look awful.
            New scaling modes are not ready yet.
          * MPEG audio is on its way. The demo codec from DEC is running,
            Tobias Bading's maplay is ported to Amiga and rewritten for integer
            arithmetic ...
```

4) On what machines it works:

  AGA chipset is recommended, OS 2.04 or up required. With version 0.3,
  rendering to a HAM6 screen is supported. From version 0.5 CyberGraphX is
  supported. Versions optimized for 68020 and 68040 are provided.

  Implied with the usage of MPEG is some speedy processor as well. 68020
  will do, but don't expect too much. "DebbieHarry.mpeg", which I use for
  testing purposes, is played with 1.0 fps on my chipmem-only A1200 (PAL
  screen), compared with 6.5 fps on the A4000/040 (Euro72 screen) and
  3.1 fps on an A2000 with 28Mhz 2630 (PAL screen). On the A4000/040 with
  CyberVision64 and CyberGraphX 2.15 it managed 7.1 fps on 24-bit screen
  in color and 11.0 fps on the same screen in gray.

  For recompilation, SAS/C and Devpac assembler is required. Other compilers
  and/or assemblers may work with some fiddling.

5) How to contact with author:

  First few released were made by Michael, last one by Milek

  You can reach Michael via email at

        linux@uni-koblenz.de

  In fact, my account is rausch@uni-koblenz.de; but with this, I'm not allowed
  to receive/send any mail from/to outside the campus.
  Alternatively, you might try FidoNet

        2:245/5618.3

  or snail-mail:

        Michael Rausch
        Schanzenpforte 33-35
        D-56068 Koblenz

  Milek's email is

  smykm@felix.univ.szczecin.pl

  snail-mail:

  Miloslaw Smyk
  ul. Orawska 22/34
  70-131 Szczecin

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   POLAND
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1.4   xingplay

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1) Where to get:
 - Aminet   20KB   aminet/gfx/show/XingPlay.lha

 Probably also on
     http://www.ifi.uio.no/~carla/triumph/
 Or send EMail to author

2) What it can play:

    CyberGraphics 32 bit mode (provided your card has one!)
    CyberGraphics 16 bit mode
    CyberGraphics  8 bit mode in grey
    AGA HAM8 mode   (AGA default)
    AGA Grey8 mode
    ECS Grey4 mode  (ECS default)

  To select pixel mode:

    1x1 pixel mode
    This gives you 160x120 with 1x1 pixels centered on the screen.

    1x1 pixel mode, black dither
    160x120 scaled to full screen, but only every other pixel on
    every other row is set.

    2x2 pixel mode                 (default)
    160x120 scaled to full screen with 2x2 pixels.

3) Future:

 It's FINAL version so there won't be NEW versions (hope not).
 Under this text are some futures/bugs of XingPlay

What's hot...
-------------

   * the fastest Xing-Mpeg player available for the Amiga!

   * supports Cybergraphics with custom made render routines
     for all 16 and 32 bit modes

   * very fast 2x2 AGA HAM8 mode

   * extremely fast GREY modes!

   * even works on ECS based machines in 16 color grey mode!

   * double buffering in all modes!

   * loads entire Mpeg at once
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...and what's not
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    * crashes badly for no reason at all :-)

    * somewhat system friendly, but not too much

    * probably trashes the sprite pointer on non-cgfx systems

    * Cybergfx modes are more reliable than the AGA/ECS modes

    * unsupported, I won't provide any upgrades

4) On what machines it works:

- An amiga :-)
- A 68020 processor or better
- OS 3.0+ is nice, but it has been reported to work on 2.0 systems

5) How to contact with author:

email: Nils.Corneliusen@spk.dep.telemax.no
       (try spelling it right or I won't get it!)

www:   http://www.ifi.uio.no/~nilsco

snail: Nils Corneliusen
       Frydens gate 5A
       0564 Oslo
       Norway
```

1.5 mpeg_stat

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1) Where to get:
 - Aminet  136KB   aminet/gfx/misc/mpeg_stat-2.2a.lha

2) What the hell it is ?

   Analyzes & tests MPEG-1 streams, v2.2a

   In fact this small program can show you almost everything
   about any MPEG file. It's size, fps, structure, lenght,
   compression etc. You can use it to check integrity of MPEG
   files.

4) On what machines it works:

   You need ixemul.library v45+

5) How to contact with author:

   Jussi Lindgren - jussuf@klinja.fipnet.fi
```

1.6 mpeg_play

```
              1) Where to get:
 - Aminet  147KB  aminet/gfx/show/mpegplay201bin.lha
          170KB  aminet/gfx/show/mpegplay201src.lha


2) What it can play:

 Dither types: ordered, ordered2, mbordered, fs4, fs2, fs2fast,
              hybrid, hybrid2, 2x2, gray, color, none, mono,
              threshold
 For every dither you can choose screen resolution. For more
 info about ditherething see description of
                MP 1.03
              3) Future:


- this version is from Jan 27, 1993 so ...


4) On what machines it works:


- Amiga with 020+ and FPU
- AmigaOS 2.04+ required and 3.0 recommended
- ixemul.library


5) How to contact with author:

Send me email if you have questions, comments or suggestions!

UseNet: balzer@heike.informatik.uni-dortmund.de
or at home: bilbo@bagsend.aworld.de
Z-Net:  m.balzer@aworld.zer
```

1.7 results

```
 All tests have been made on 040/40Mhz. MPEG animations were in RAM
 (XingPlay always reload anim. first) and can be found on Aminet.
 The bigges problem was XingPlay because in my collection of MPEG
 I found only ONE working with it ! I'll try to find FULL SCREEN
 (like warp-s1.mpg) MPEG that works OK on aMiPEG and XingPlay,
 but for now I had to use this:

1) warp-s1.mpg        pix/mpg 1.3M
                     size 352 x 288 pixels
                 compression 1:55.5
                    frames 240

2) bigbend.mpg        pix/anim 352K
                     size 160 x 120 pixels
                 compression 1:30.9
                    frames 193


          GRAY 256      HAM8 1x1      HAM8 2x2      NO DISPLAY
```

```
              |--1--|--2--||--1--|--2--||--1--|--2--||--1--|--2--||
-------------+-----+-----++-----+-----++-----+-----++-----+-----++
........ MP | 5.32|20.10|| 2.12| 9.28|| -.--| -.--|| 5.41|18.59||
.... aMiPEG |  NW |12.70|| -.--| -.--||  NW |10.16||  NW |18.47||
.. XingPlay |  NW |24.31||  NW |11.23||  NW |11.35|| -.--| -.--||
. mpeg_play | 2.22|10.19|| -.--| -.--|| -.--| -.--|| 4.83|12.95||
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Results are in frames per socond
-.-- program don't have such a display mode
 NW  program don't want to work with that MPEG
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```
If you have 24+ bit GFX board you will probably have similar
results to GRAY 8 bit mode, but if you can please send me
your's one.
```

1.8 exampl

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1) Where to get:
 - Aminet     aminet/gfx/show/*.lha

2) What it can play:

3) Future:

4) On what machines it works:

5) How to contact with author:
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