

PIV-MooVId-english

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COLLABORATORS

	TITLE : PIV-MooVId-english		
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REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

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Chapter 1

PIV-MooVId-english

1.1 PIV-MooVId Main Menu

PIV-MooVId - AVI (Video for Windows) and MOV (QuickTime) player for PicassoIV

Version 1.1

(30.11.99)

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Features Supported codecs & other stuff

Requirements Required hard & software

Shell/WB parameters The shell parameters and tooltypes

GUI & Keyboard usage Some info about the GUI/Keys

Speeeeeeedresults Some speedresults

Good AVI/MOV sites Where can you found AVI/MOV files?

Questions & Answers FAQ

Used things Used hard & software

Author Who did it?

To do & known bugs Things to do and known bugs

History Revision history

Thanks The author wishes to thank..

Public version limit What is not in this version?

Copyright Legal mush

Note: if you use your PicassoIV in ZorroII based machine (A2000 or A1200-T) then read fist the "Questions & Answers" part!

1.2 Required hard & software...

Required hardware:

Kickstart 3.0+

PicassoIV Graphic board

68020 or Faster

about 1 meg of Free memory (Fast recommended)

Required software:

Picasso96 graphics system release 1.37 or newer (latest version recommended)

reqtools.library v38 or newer (included)

asyncio.library v39 or newer (included)

AVI/MOV files to play ;)

Recommended minimum configuration:

68030/50 MHz with some fast memory available. Harddisk and/or 4x CD-ROM.

(Will run on 030/25, too ;)

1.3 Features:

I made this AVI/MOV player to demonstrate the hardware PIP (Picture In Picture) of the PicassoIV graphic board...

Features:

100% assembly code (short & fast)

Special AccuPak® acceleration for CinePak/Indeo

Video layer optimized decoders (espec. CinePak & Indeo, Accupak...)

Support for AVI and MOV files in a single executable.

Support for INTEL INDEO 3.1 & 3.2 (IV31/IV32)

A nice and well integrated GUI with volume control, playback speed control, play/pause button, LCD, next/previous file select, etc.

Handles multiple files, you can step back/forth between files during playback!

Extremely fast playback speed, far superior to any other AVI/MOV player on any other computer platform!!!

Fast and buffered I/O handling (direct playback from CD-ROM or HDD)

Fast timer-based frame skipping method, the finest frame-skipping method known today!

Synchronized audio playback. PIV-MooVid has the very best asynchronous audio/video playback, audio playback remains completely smooth and uninterrupted even when most of the video frames are skipped on slower processors.

Adjustable playback speed.

Intelligent buffersize calculation to achieve the highest performance on your Amiga!

Completely system friendly. No hacks, nice, clean OS-friendly code.

Automatic audio frequency scaling when needed (allows 44Khz audio playback on PAL/NTSC)

Surround (fake STEREO) audio for MONO audio.

About the supported codecs:

Video for Windows (.avi)

Supported video codecs:

AccuPak (PalomAVI) (CLJR) 24 bit

Intel Indeo 3.1 (IV31) 24 bit (*)

Intel Indeo 3.2 (IV32) 24 bit (*)

Intel Raw (YUV9) 16 bit

Intel Raw (YUV9) 24 bit

Microsoft RGB (RGB) 8 bit

Microsoft RGB (RGB) 16 bit

Microsoft Video 1 (CRAM/MSVC) 8 bit

Microsoft Video 1 (CRAM/MSVC) 16 bit

Radius Cinepak (CVID) 16 bit

Radius Cinepak (CVID) 24 bit

Radius Cinepak (CVID) 32 bit

Run Length Encoded (RLE) 8 bit

Supported audio codecs:

PCM MONO/STEREO 8/16 bit

MS-ADPCM MONO/STEREO 4 bit (16 bit)

DVI-ADPCM MONO/STEREO 4 bit (16 bit)

QuickTime (.mov, .qt)

Supported video codecs:

Apple Animation (RLE) 8 bit (color/gray)

Apple Graphics (SMC) 8 bit (color/gray)

Apple Video (RPZA) 16 bit

Intel Indeo 3.1 (IV31) 24 bit (*)

Intel Indeo 3.2 (IV32) 24 bit (*)

Radius Cinepak (CVID) 16 bit

Radius Cinepak (CVID) 24 bit

Radius Cinepak (CVID) 32 bit

Supported audio codecs:

RAW MONO/STEREO 8/16 bit

TWOS MONO/STEREO 8/16 bit

IMA-ADPCM MONO/STEREO 4 bit (16) bit

MACE 6:1 MONO/STEREO 8 bit

MACE 3:1 MONO/STEREO 8 bit

(*) there is no INDEO support in the public version, you can "order" the needed library from [me](#) (for 5-10 DM or USD 5-10 - or more ;)

Note: i want to expand the audio/video format support, so if you have any docs

about other avi/mov en/decoder please mail or EMAIL to [me](#)

Note2: Please do not mail new INDEO (IV4x or IV5x) or TrueMotion (DUCK), Sorenson (SVQ1) files!

Note3: other YUV based RAW formats (CYUV, etc.) will be supported soon!

1.4 The shell parameters:

First: PIV-MooVid is startable from WB (too), the supported tooltypes are:

NOSOUND, NOSKIP, FPS, LOOP, NOVIDEO, PUBSCREEN, ZOOM, PIPX, PIPY, PIPWIDTH, PIPHEIGHT, MABFIX, NO-SURROUNDMONO, AuTOPLAY, NOAUTOEXIT, BORDERLESS, NOGUI, AUTOMODEREQUEST, PABLO, PABLOOVER-SCAN, BUFSIZE, ACCUPAK, DEFAULTPATH

For the tooltype description check the docs below. (there are same parameters for shell/workbench)

The Shell parameters are:

FILES

The AVI/MOV file(s) that you wish to play, if you don't specify a file, a file-requester appears, and you will be able to select files there.

NOSOUND

Disables audio playback (audio playback is enabled by default)

NOSKIP

Plays all frames without frame skipping.

This is especially useful on very slow systems where too many frames would be skipped.

(try it if your processor is too slow, when it's too fast, you won't see any difference, except if you use this option with the FPS parameter)

Use only when really needed, because PIV-MooVid has VERY GOOD frame skipping algorithms.

FPS

Frames per second: Allows you the specify the playback speed. The value describes how many frames are played each second. (the framerate is read from the AVI/MOV file by default)

usage: fps value (values between 1 - 120 are preferred)

example: fps 10 - sets the framerate to 10frames/s

If you set this too high (60 or above), you are likely to get only a black screen, because the player skips too many frames and is unable to display the frames at the requested rate... in this case It's a good idea to copy the AVI/MOV to ram: ... or onto a device that is able to read 4-5 MB/s without much CPU usage.. (oky.. maybe on SCSI-II ;)

Hint: try some AVIs/MOVs from ram: at frame rate 50 or faster on your 060 and show it to your pC friends ;)

LOOP

Turns on the animation looping (default off) This will make PIV-MooVid repeat the movie until it is stopped by the user.

VERBOSE

Gives information from the file being played (audio/video format, frame rate, played/skipped frames, playback frame rate).

NOVIDEO

Disables video decoding. (useful for testing)

With this option, no graphical output will be produced.

PUBSCREEN or PS

Use this parameter to set the Windowplay / GUI screen.

ZOOM

You can select the startup ZOOM size

Valid zoom range: 100 - 65535

Default is 100 (original size)

PIPX & PIPY

You can specify the PIP window coordinates. Default the window is centered.

PIPHEIGHT & PIPWIDTH

The size of the PIP window. Default is same as in the AVI/MOV

MABFIX

Fix to play the buggy AVI output from MainActorBroadCast.

(MAB saves Uncompressed Highcolor AVI's in 15bit (Big Endian) format, instead of the normal 15bit PC (Small Endian))

NOSURROUNDMONO or NSM

Disable the sorround (fake stereo) audio playback of AVI's & MOV's with mono sound. It is really amazing when you have good amplifier & speakers!

(It's enabled by default)

If you have problems with audio (echos, metallic sound) then please use this option. (use this one aswell, when you have mono audio equipment connected to your Amiga)

AUTOPLAY or AP

Enables automatic playback at startup. (Default autoplay is disabled)

This is irrelevant when the NOGUI option is used as there's no start/stop control in that case.

NOAUTOEXIT or NAE

Don't exit after the playback is finished (PIV-MooVid will seek to the beginning of the file after the end of the animation is reached)

NOGUI

Disable the nice GUI ;) This can increase playback speed. Sometimes you need just that little extra speed ;-)

BORDERLESS

Disable the border and the GUI of the playback window. Use this option when you want play animations without border. (you can scale the window to fullscreen, of course)

AUTOMODEREQUEST

This option is force PIV-MooVid to open screenmodeid requester (to open a custom screen) when the PIP window can't be open on the default/specified pubscreen.

PABLO

PIV-MooVid is able to play animations in fullscreen without gui/borders, like the Movieplayer/Present Movie (Macintosh), with PABLO you activate the 640x480 PABLO compatible output. (this option is useful for recording animations to VHS/S-VHS)

(Pablo module is requires for this option)

PABLOOVERSCAN

Same as PABLO, but this option is activate the overscan resolution (800x600).

(Pablo module is requires for this option)

BUFSIZE

This option allows you to set the buffer size to a specified amount.

Eg: BUFSIZE 100000 - sets the bufsize to 100000 bytes.

Use this option only for testing, becasue PIV-MooVid has internal bufsize calculation, which selects the correct bufsize for all files.

ACCUPAK

This option enable the special video mode of the PicassoIV, which one speed up the CinePak and the Indeo playback. The quality will be somewhat worser due the limited chrominance/luminance bits.

The playback will be about 30-70% faster, espec. in Zorro2 mode. (on my 68060/50Mhz, PIV Z3 mode with AccuPak mode i can play 640x480 CinePak compressed MOVs at 55FPS(!).

DEFAULTPATH

This is a tooltype option, you can specify the starting directory of the PIV-MooVid's filerequester. (recommend to set to you AVI/MOV file directory)

1.5 About the GUI / keys

A shematic "pic" from the GUI:

```
+---+-----+---+---+
| 1 |=====|2|=====| 3 |4|5|
+---+-----+---+---+
|6|7| |=====8| *|=====9| |10|11|
+---+-----+---+---+
```

1. Play/Pause button.
2. AVI/MOV playback status. You can use mouse to control the playback.
If you play big AVI/MOV files from your FFS Harddisk and you want to use this button to skip a part of the AVI/MOV then I recommend at least 300-400 buffers for your harddrive. From CD-ROM and from AFS/PFS formatted harddisks it's no problem (FFS is not ideal for seeking in big files).
3. This number shows the currently SET playback speed (It's not always the same as the ACTUAL playback speed, because PIV-MooVid is unable to play AVIs/MOVs faster than about 300FPS (Due to Zorro-bus limitations) :)
4. Decrease Framerate (you can use cursor left key for that too)
5. Increase Framerate (same as cursor right key)
6. Previous AVI/MOV from filelist
7. Next AVI/MOV from filelist
8. Volume control slider
9. Brightness (Works only with YUV based codecs)
10. Loop on/off gadget (or 'l' key)
11. Frameskip on/off gadget (or 's' key)

Some other keyfunctions:

Window zoom F1-F10 (1x - 10x ZOOM)

(and there are some keyfunctions for the cursor up/down keys (with and without Left Shift / Left ALT)

'c' - Center window

'r' - Reset to original framerate & audio/video sync (use this function when you changed the framerate, and after want to back to the default, because the MOV files can have different frametime)

'ESC' - Exit

'Space' - Toggle Play/Pause

1.6 About PIV-MooVId speed

The "official" internal speed tester arg. is the following:

"PIV-MooVId fps 1000 noskip verbose ap (avi/mov filename)"

On 040/25 (Standard C= A3640 card) i got the following:

320x240 24bit Cinepak (CVID) compressed

AVI playback from 8x speed CD-ROM (Sony-ATAPI): about 20-25FPS

160x120 24bit Cinepak (CVID) compressed

AVI playback from 8x speed CD-ROM (Sony-ATAPI): about 40-70FPS

320x240 16 bit Microsoft Video 1 (CRAM) compressed

AVI playback from Harddisk (IDE): about 15-20FPS

160x120 16 bit Microsoft Video 1 (CRAM) compressed

AVI playback from Harddisk (IDE): about 80-90FPS (!)

160x120 16 bit Microsoft Video 1 (CRAM) compressed

AVI playback from RAM Disk: about 100-110FPS (!)

Some tests on 060/50 (CyberStorm MKII) and PIV Z3 mode:

320x240 24bit Cinepak (CVID) compressed

MOV playback from 8x speed CD-ROM (Sony-ATAPI): about 50-90FPS

160x120 24bit Cinepak (CVID) compressed

MOV playback from 8x speed CD-ROM (Sony-ATAPI): about 90-150FPS

160x120 24bit Cinepak (CVID) compressed

MOV playback from RAM Disk: about 160-270FPS (!)

If you want to send me speedresults then simply copy/save PIV-MooVId text output like this one: (and do not forget to include your config too!)

8.@aM_đIzK:> PIV-MooVId AVI:Alien4Trailer.AVI fps 1000 noskip verbose

PIV-MooVId 0.96 beta (Internal Test) - THE AVI/MOV Player for PicassoIV

Copyright © 1996-98 László Török (09.08.1998)

Preload non-interleaved audio... Please wait..

Video: Microsoft Video 1 (CRAM/MSVC), 160×120 16 bit, 10 fps

Audio: PCM 8 bit, 11025 Hz Mono

Player statistic:

Total frames: 1448

Frames played (incl. skipped frames): 1448, Frames skipped: 0

Framerate: 81.634 fps

Btw you can try CyberAVI/QT (CyberAVI/QT is an other AVI/QT player for Amiga)

max. speed with the following:

"CyberAVI/QT maxfps stats (avi filename)"

But CyberAVI/QT is a bit slower.... ;)

1.7 Where can you found good AVI/MOV files?

First you can try pC Magazine cover CD-ROMs, but nowadays almost all AVIs on PCs are compressed with the new INDEO (IV4x/5x) that's currently not supported by MooVId.

Or better, try the following websites:

<http://www.imdb.com/> - Internet Movie Database Homepage, from there you can found many links, where you can find many filmtrailers.

and an other one:

<http://www.hollywood.com/> - I think its name says it all ;)

Or try any other film-maker company's website (Warner, Sony Pictures, etc.)

1.8 Frequently Asked Questions

Question:

On my PicassoIV what i use in a ZorroII machine (A1200T or A2000) i got recently "unable to open PIP window" message. Why?

Answer:

(According to Flemming Steffensen/Niels Knoop/p96 docs):

There is a tooltype (devs:Monitors/PicassoIV) called "GrantDirectAccess".

Please set this to "no" (default), to allow all combinations of screen and PIP color formats.

Question:

Will be there DUCK (TrueMotion) codec support?

Answer:

No. TrueMotion refused to give licence/docs.

Question:

Will be there SVQ1 (Sorenson - new in QT3) codec support?

Answer:

Maybe. I'm still waiting for a reply from Apple.

Question:

Will be there "new" Indeo support (IV4x and IV5x)?

Answer:

Maybe.

Question:

Will be there MPEG or MPEG-2 support?

Answer:

Good news: There is a new MPEG player in progress (called RiVA) which will initially support MPEG-1, then MPEG-2, DVD, CD-i as development progresses. Audio playback is also planned. It is currently being developed by Stephen Fellner <sfell@xtra.co.nz> and myself.

Question:

I heard something about a non-PicassoIV version of PIV-MooVId. Where can i get it from ?

Answer:

From my homepage: <http://www.dfmk.hu/~torokl>

MooVid demo version can download from there.

Question:

Will there be a PPC version of PIV-MooVid?

Answer:

Maybe. But i need a PPC board, because i coded PIV-MooVid in assembly, and i can not make PPC a version without a PPC board.

Question:

Will there be RealVideo support?

Answer:

Maybe. (But they do not want to answer to my mails...)

Question:

On my 1024x768 (or bigger) hi/truecolor screen with 70Hz (or more) refresh PIV-MooVid open double size (double width to be correct) PIP window, why?

Answer:

It is HW related problem, because for the PIP window you need some extra bandwidth, and this cause problem in bigger, high-refreshed screenmodes. To avoid this problem i recommend to use smaller screen (800x600) or try the ACCUPAK option/-tooltype, because in AccuPak mode you need less bandwidth for PIP. (But please note, the AccuPak mode affect only CinePak and Indeo playback)

1.9 About the author

Some foreword:

Im a really Amiga fan... I have 5 Amigas (A500, A1200, CDTV, CD32, A4000 and i like all...) and i collect weird Amiga HW/SWs (Like beta/unfinished Zorro cards, etc...).

I'm looking for an original C= MPEG Module for my CD32, so if you have any then please contact me!

Ok... now the standard text:

If you have any problems, suggestion, bug reports then write to:

(send the 5-10DM / USD5-10 -or a bit more ;) - here for the indeo library)

snail mail: László Török

H-8900 Zalaegerszeg

Cserfa 31.

Hungary

phone: +36 92 310 396 (after 18:00 CET)

EMAIL: torokl@alpha.dfmk.hu

WWW: <http://www.dfmk.hu/~torokl>

(PalomAVI, MooVid, PIV-MooVid, Savage homepage)

iRC (mostly mornings) : [ph03N1x@iRCNET](irc://ph03n1x@ircnet) (mostly #amigahu channel)

(sometimes on #amigager, but my german is very limited ;)

As you can see my english knowledge is very limited... so sorry for my english bugs...

1.10 Revision history

revision history:

0.1b First vesion... based on AVId 0.9987

(31.08.97)

0.2b Fixed CVID modulo like bug... (AVId 0.9988)

Now show 8 bit avis.. (i hope :) but with incorrect colors

(02.09.97)

0.3b Fixed the 8 bit AVI playback.. i hope now works correctly..

Changed the 16 bit PIP/RGB mode

(03.09.97)

0.31b Fixed (?) the 16bit AVI playback...

(10.09.97)

0.4b Added RLE 8 bit decoder support (AVId 0.9990)

(14.09.97)

0.5b Fixed some audio memory allocating problems (only with stereo audio)

Added 32 bit CVID support

Fixed the RLE8 bit decoder i/o buffer calculation

(aahh... what a stupid format... some times the compressed

image bigger than the orginal... uhh... mICROsOFT...)

Fixed an aligment problem in the AVI file structure reading

(this caused some i/o errors in the previous versions with

some AVIs)

(24.09.97) (AVId 0.9992b)

0.6b Added (?) a workaround to avoid the 8bit PIP palette problems

& some optimization

(01.10.97)

0.61b Added PUBSCREEN option

Changed the FPS arg parameter (to FPS/K/N) t

o reduce the program size ;)

(02.10.97)

0.62b Added ZOOM option (from 100% to 400%)

& ESC keyb checking (ESC = quit)

(03.10.97)

0.63b ZOOM option code changed... now works correclty.. (i hope ;)

(07.10.97)

0.64b Fixed a bug in the 8bit workaround (detected by Splitti..)

(14.10.97)

0.65b Added PIPX/PIPY for PIP position setting, and PIPWIDHT/PIPHEIGHT

for force PIP window width/height

(19.10.97)

0.66b Fixed ESC keyb checking

Added Small GUI (will be changed soon!)

A little faster CVID playback (about 10%)

Now show at least one frame/sec when the machine too
slow or the framerate too big - no more black window!

(requested by Flemming Steffensen)

(19.11.97)

0.67b Major speedup during 16bit AVI playback (about 1.5 times!)

- only when avi width dividable with 16

(01.12.97)

0.70b Major GUI update... Thanks to ALAN for the GUI design & code!

(14.12.97)

0.72b GUI Changes: new LOOP Gadget, and the FPS counter now 3 digits

PIP window resize gadget now invisible..

(the PIP win looks even better)

Thanks again to ALAN for the PIP window resize fix, and for
the GUI update

Reworked the zoom parameter for the new p96 release:

now zoom from 100 to 800% (hmmm... really great now ;)

Small optimization in the GUI code... (pc relative code rulez ;)

PIP window depth gadget temporally removed due the PIP
antialias/windepth prob.

No more disabled PIP antialias or black PIP window at startup

(22.12.97)

0.73b Now PIP opens always on the frontmost pubscreen when the ps
not specified (insted of Workbench),

when unable to open PIP on the frontmost or the user specified
screen then falls back to Workbench
screen again

(10.01.98)

0.75b Major Speedup in CVID decoder (about 1.6-2 times faster)

Fixed an FPS roundig problem.. (huh.. what a lame bug ;)

Removed frame skipping during CVID playback

Added filename to window title

(17.01.98)

0.76b Fixed a prob with the CVID playback on ZorroII

(hmmm.. it seems the PIV unable to make Hicolor colorspace

conversion in ZorroII mode)

(22.01.98)

0.80b Fixed problem with the index search..

(if there not was an index then it caused i/o error)

Added MABFIX switch for Hicolor RGB AVIs, because

MainActorBroadcast save RGB15 bit instead of 15RGBpC... ehh...

Added non-interleaved sound support & some small fixes

Added support for Macintosh VFW converter saved AVI files index

(ShapeShifter Rulez ;)

(15.02.98)

0.81b Various audio related fixes (espec. with interleaved audio

correct detection)

8 bit Audio sync changed back again to M\$ standard

(but added AUDIOSYNC=AS/S switch)

(22.02.98)

0.82b Reworked release for new p96:

GUI now in the PIP window

Faster CRAM decoder (direct mem access) now no more need

16byte width align

PIP window depth gadget now again back, again standard

(C= like) window resize stuff

Added "Surround" like (fake stereo) audio support for MONO audio

default on (can be switched off with NSM)

GUI frame position slider now again old style

(fast search with picture)

(15.03.98)

0.83b Now GUI is below the PIP... bah.. i was so lame how used a wrong

PIP_TAG (PIP_RelBottom, instead of PIP_RelHeight)

Fixed GUI refresh problems (thanks for the hint Alex!)

(17.03.98)

0.84b Corrected Begin/Endrefresh() during GUI refresh

Added AVI size [width & height] to windowtitle

Audio Freq. now recalculated dinamic with the FPS changes..

(hehe... you can get "Donald Duck" effect when specify

high framerate ;)

(22.03.98)

0.85b Fixed a volume settings bug (introduced in 0.82b)

(no more video frame search after volume setting)

No more wait after volume changes (immed. vol setting)

Fixed problem with Mac Video for Win converted stereo non-inter.

audio detection...

(27.03.98)

0.86b Added Lock/UnlockBitMap() stuff for direct addressed PIP bitmap

(30.03.98)

0.87b Fixed 16bit stereo audio playback prob..

(hmm.. i just forgot a debug line in the source code...)

Thanks for the test CD to Phil Rhodes!

Added a size check to the CVID decruncher

(avoid to overwrite some gfx-memory)

(09.04.98)

0.88b Faster CRAM16bit decoder

(about 10% faster on Zorro3 and no speed diff. on Zorro2)

Added Microsoft ADPCM 4 bit audio support (MS-ADPCM)

(mono & stereo too, but stereo is untested)

(13.04.98)

0.89b Fixed problem with non by 4 dividable width RGB avis

(same bug is in all other AVI player on Amiga ;)

(29.04.98)

0.90b Major Update:

Added MOV support (verbose, fps, etc too!)

(only 16/24/32 bit Cinepak video and 8bit mono raw audio)

The GUI controls are usable with MOV files too

(but no skip to keyframe... will be added)

Various problems with the MOV index generator

(possible to crash... better mov index generator will be added)

Ahh... and the most important:

Name changed from PIV-AVId to PIV-MooVId (Moo from MooV and VI from AVI ;)

(07.05.98)

0.91b Fixed playback problem with video only MOVs

Fixed problem with MOV GUI position slider (overseek prob..)

Added RPZA (Apple 16 bit video) support for the QT part

(Finally i can watch my favourite Starship-Troopers MOVs ;)

Various fixes.. (espec. some pre-code for multiple MOV video codecs)

(but the MOV index generator still possible to crash with some MOVs!)

(10.05.98)

0.92b Fixed some problems with mov index generator..

(now able to play the famous Bill Gates vs Cake and Win98 blame MOVs ;)

(11.05.98)

0.93b Major changes...

Better frame skipping with "normal" Cinepak AVI/MOVs

Normal means AVI/MOV with keyframes

(no without keyframe, or all frame is key)

The other codecs still use the old way!

MOV player now always seek to keyframe when GUI slider used

(23.05.98)

0.94b Added UV color for INDEO decoder

Other small fix..

(25.05.98)

0.95b Removed two harmless enforcer hit (introduced in 0.93b)

Fixed some prob. with the bufsize calculation (AVI)

Fixed a bug in the non-interleaved audio preload routine (AVI)

Faster 16bit audio conversion routines (AVI audio)

Added much more safer I/O routine (internal buffer size check)

(the not fully supported MOV files do not crash now.. just I/O req instead)

Switch back to topaz.font when the GUI font not found (no more error msg)

Added support for 8bit MONO TWOS audio (MOV)

More precise GUI position slider calculation (fixed rounding problem)

(26.05.98)

0.96b Some fixes in MOV index generator (still not bugfree!)

Added support for Cirrus's AccuPak (CLJR) codec

(CLJR is PalomAVI video capture format)

Totally recoded CinePak decoder (about 8-25% faster than the old)

(now use YUV PIP window instead of hicolor, so better quality too)

Added brightness control (finally ;) for Accupak (CLJR),

Indeo (IV31/32), CinePak (CVID) AVI/MOVs (because all YUV based)

Frame Skip changed back to old style (but new skip planned)

Max Zoom changed to 65535 (due the new p96)

Added intelligent window position center stuff (default on)

(when PIPX specified center just the y position for example ;)

Added window zoom for key F1-F10 (1x - 10x ZOOM)

Added some new keyfunctions (like zoom window, center window)

(09.08.98)

0.97b Added key 's' for skip, and 'l' for loop

Fixed a bug in the AVI structure parser, what caused crash with some

(espec. INDEO) AVIs

Fixed a bug in the zoom window stuff

Changed all requesters to reqtools requesters

Added a requester, when unable to open PIP on the specified PubScreen

Fixed 16bit PCM stereo audio playback (AVI)

Able to open own pubscreen, when unable to play movie on selected
pubscreen/Workbench

Fixed default centering (the old was not exactly center)

Added WorkBench TOOLTYPE support, the usable TOOLTYPES are:

NOSOUND, NOSKIP, FPS, LOOP, NOVIDEO, PUBSCREEN, ZOOM, PIPX,
PIPY, PIPWIDTH, PIPHEIGHT, MABFIX, AUDIOSYNC, NOSURROUNDMONO
(06.09.98)

0.98b MUCH MORE better Frame Skip (AVI/MOV too!)

Fixed a color bug with some INDEO movie (UV modulo problem)
(15.09.98)

0.99b FIXED a small bug in LockBitmap()

ADDED YUV9 (Intel Raw) video codec support (due PalomAVIconverter)
(08.11.98)

0.990b ADDED YUV2 (Component Video) support (due PalomAVI 0.4)
(22.11.98)

0.991b FIXED YUV2, YUV9, AccuPak playback when PIV operate in ZorroII mode
(26.11.98)

0.992b FIXED some MOV index generator problems (still not bugfree...)
(fixed stsc problems)

ADDED function for 'R' key to reset the FPS to the original FPS
(it will set back the FPS rate from the anim. file)
(29.11.98)

0.993b FIXED MOV frame selector (now always jump to keyframe when GUI used)

ADDED PAUSE function when gui position slider used (AVI/MOV too)

ADDED PAUSE/PLAY button code (work with <SPACE> too)
(09.12.98)

0.995b FIXED many bugs in MOV header parser (bahhh.. lame QT docs...)

ADDED support for a MOV files without mdat/moov header (hmmm)

SPEEDED up non-interleaved audio preload (AVI)

FIXED some non-interleaved audio preload bugs (AVI)

NEW MOV header parser & MOV index generator

(i hope now all MOV related i/o & recognition problem gone)

ADDED support for CinePak 16 bit Video

FIXED audio stuff when pause used

ADDED workaround to fix centering problem when PIP window
opened on hi-bandwidth screen (like 1024x768 hicolor 75Hz/60kHz)
(03.01.99)

0.9951b FIXED a crash-problem with some bad MOV files
(PIV-MooVID now skip the bad part)
(04.01.99)

0.996b ADDED multiple file selection code (both shell/reqtools)
NEXT/PREV animation button is working now (multiple file selection)
FIXED PIPX/PIPY bug, what introduced in 0.9951b
ADDED AUTOPLAY and NOAUTOEXIT options (shell/tooltype)
FIXED some MOV related code again
ADDED some new error requesters ;)
FIXED verbose FPS rounding problem
FIXED CinePak decoder odd-height problem
(14.01.99)

0.997b FIXED a MOV TRAK detection problem
CORRECTED FPS (verbose) calculation
FIXED a multiple file windowopen bug
Fixed problem with AVI/MOV GUI position slider (overseek prob..)
REMOVED custom I/O, PIV-MooVid now use asyncio.library (v39+)
FIXED AVI w/o INDEX playback stuff (first frame seek was wrong)
(03.02.99)

0.998b NEW MOV Index generator (About 130 times (!) faster than the older one)
ADDED support for IMA-ADCPM (IMA4) MOV audio (at the moment mono only)
ADDED support for MACE 3:1 (MAC3) MOV audio (at the moment mono only)
ADDED support for MACE 6:1 (MAC6) MOV audio (at the moment mono only)
ADDED support for DVI-ADPCM AVI audio (mono/stereo, but mono is untested)
SOME Pre-Code for the new AVI/MOV audio stuff
Fixed 16bit TWOS/RAW audio (MOV) loader code (ehh.. i was so lame..)
Now able to play the famous new Starwarstrailer.mov w/o problem ;)
Removed a harmless CyberGuard (Enforcer) hit, what introduced in 0.997b
(16.02.99)

0.9981b FIXED a minor bug in the MOV index generator
FIXED AVI playback with AVIs, where the INDEX keyframetab is wrong
(some avi generator creates wrong AVI index, because forgot to set at
least one keyframe, but the first frame MUST be always keyframe)
ADDED filename output for the VERBOSE option
CHANGED windowtitle, now show only the filename w/o the path
FIXED a minor bug in the MOV header analyzer
ADDED detailed PIP error message, when there was an error during the
PIP window opening
ADDED NOGUI parameter/tooltype

ADDED BORDERLESS parameter/tooltype (this parameter swich off GUI too!)

ADDED AUTOMODEREQUESTER parameter/tooltype, with this possible to open the modeid requester, when the PIP open failed

ADDED PABLO/PABLOOVERSCAN parameter/tooltype

(full screen playback w/o gui/pointer espec. for video recording)

(28.02.99)

0.9982b FIXED volume gadget hide code

FIXED a zero divide problem (MOV)

FIXED a sync bug in IMA-ADPCM mono audio decoder

FIXED compressed MOV audio loading calculation (smoother playback)

ADDED support for IMA-ADPCM (IMA4) stereo MOV audio

ADDED support for MACE 3:1 (MAC3) stereo MOV audio (untested, but sould work)

ADDED support for MACE 6:1 (MAC6) stereo MOV audio (untested, but sould work)

ADDED support for 8bit RAW/TWOS stereo MOV audio

CORRECTED MOV FPS verbose/display (rounding)

CHANGED verbose text output (added some colors, etc.)

(07.03.99)

0.9983b ADDED support for 16bit RAW/TWOS stereo MOV audio

ADDED support for multiple frame time MOVs

some minor fixes

(16.03.99)

1.0 FIXED MONO DVI-ADPCM (AVI) playback (crash bug)

MAJOR CHANGES in the mono audio playback routine (now perfect ;)

(new sync, no more audio clicks, new audio player codes)

IMPROVED surround (MONO->STEREO) playback quality

(now use a really precise code)

FIXED TWOS/RAW 16 bit audio converter (masking problem)

FIXED non-interleaved audio sync, and fixed overread problem

MAJOR CHANGES in the stereo audio playback routine

ADDED BUFSIZE option

CORRECTED audio period calculation (now the max difference is below 0.002%)

ADDED support for the multiple audio TRAK MOVs (first TRAK at the moment)

CORRECTED AVI audio/video sync w. some spec. AVI (now i think it is perfect)

ADDED audio scale when the selected AVI/MOV file audio is higher than the usable Amiga audio frequency (tipical for 44Khz audio)

FIXED a bug in the internal MOV buffer calculation

OPTIMIZED RAW/TWOS audio decoders (shorter code)

ASM OPTIMIZED IMA-ADPCM MONO decoder - 1.5 times faster decode

ADDED MS-ADPCM frequency scale code

(now all audio codec support frequency scale)
REMOVED AUDIOSYNC option, because of the new audio code it is unneeded
FIXED NOSOUND tooltype checking code
FIXED a minor bug in the MOV header identifier (skip/mdat check)
MINOR fixes in the non-interleaved audio code (AVI)
CHANGED SKIP gadget state
ADDED size check/size correction (when need) for the non-interleaved code
(11.05.99)
1.1 Spec. acceleration for CinePak/Indeo (AccuPak)
ADDED Apple Animation (RLE) 8 bit codec support (color/gray too)
ADDED Apple Graphics (SMC) 8 bit codec support (color/gray too)
FASTER (2-6times) 8bit video playback (own routines instead of p96 calls)
ADDED defaultpath tooltype, and requester appear when you select
a directory in the command line mode
(31.10.99)

1.11 To do list/bug list

Known bug:
None
Todo:
AHI support
PowerPC version (when a PowerPC assembler will come out & i have a PPC board)
QuickTime3 and QuickTime3 Stream support
QuickTimeVR support (not so hard)

1.12 Used hard & software

Hardware:
UP to 0.61:
A1200-68040/40 (Blizzard1240T-ERC) 2meg Chip + 16 meg Fast
C=1942 multisync monitor.... (its important... :)
Note: as you see I wrote this program first versions WITHOUT any kind of graphics card..
(yeah... it was really fun :), I guess you can imagine.. :)
Till 0.991:
A4000 & A3640 3.2 (040/25) & 2meg Chip + 16 meg Fast
Now:
A4000 (REV D) - with 030/882 on the Motherboard (!)
& CyberStorm MKII (060/50) & 2meg Chip + 16 meg Fast on MB, 128 MB fast on MKII

PicassoIV + Paloma (proto) A/V module + PabloII + Concierto
A2091 SCSI controller (with oldie C= 6.6 ROMS ;)
Buddha&CatWeasel Z2 controller (3x IDE & 2 Drive)
Nexus SCSI board (Z2)
Samsung SyncMaster 15GL (before that i had an 12 year old 12' Eizo..)
2x80watt audio.... (its VERY important... :)
CDTV as Audio CD Player :)
Software:
Asm-one 1.29 .. I think all found all bugs in it ;)
Groovypayer & Songplayer Need some zax for developing...

1.13 The author wishes to thanks:

The author wishes to thanks:

First:

The authors of the Picasso96 system (Tobias Abt and Alexander Kneer) - a really great system

Village Tronic (for the great PIV)

K-P Koljonen (for Hippoplayer)

Stephane Tavenard (for SongPlayer)

Alan/United Force (for the system friendly audio playback routine, Idea & for ALOT of p96 help, beta testing, GUI Design and some GUI code (to be correct almost all gui code except GUI Message handling & AVI/MOV related GUI stuff..))

Alexander Wild (for the beta testing and some nice talk on iRC :)

Flemming Steffensen (for docsfixing, cool ideas, beta testing, and for the Amiga service manuals)

Jens Langner (for betatesting)

Last, but not least: the Developers of the Amiga and AmigaOS (yes this is a real OS -okay, has some bugs & missing features -, but really fun to develop on!!)

1.14 What is not in public version?

There is only one limitation: there is NO Intel INDEO support. All other stuffs working, there is no speed/frame limit or other thing.

If you need Indeo (IV31 & IV32) support then please send 5-10DM / USD 5-10 (or more, if you like ;) to **my postal address** in **!CASH!**

(just put the money in an envelope)

Please support my work! Thanks!

1.15 Copyright

PIV-MooVid and the sources of this program are copyright © 1996-1999 by László Török.

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If you are doing an article or a review of PIV-MooVId then please send me a copy of the magazine! (It's not a must, but I would be very happy :)