MooVId-english

László Török

MooVId-english ii

COLLABORATORS						
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REVISION HISTORY						
NUMBER	DATE	DESCRIPTION	NAME			

MooVId-english iii

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Chapter 1

MooVId-english

1.1 MooVld Main Menu

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

(Support AGA/ECS/CGFX/p96)

Version 0.42

(08.30.98)

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Features Supported codecs & other stuff

Requirements Required hard & software

Shell parameters The shell parameters description

GUI Usage Some info about the GUI

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..

Registration Registration & demo limitations

Copyright Legal mush

Note: The MOV (QuickTime) support is in alpha state! (i/o errors and audio problems are possible!)

1.2 Required hard & software...

Required hardware:

Without a graphics card:

Kickstart 3.0+ (AKIKO requires Kick3.1)

An AGA Amiga (ham8, 256 color, 18BIT, STORM and 16 grayscale)

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ECS/OCS (16 grayscale)

68020 or Faster

about 1Mb of Free memory (Fast recommended)

Graphics card users:

Same as above (AGA not required, of course!) plus:

A graphics card supported by Picasso96

Installed P96 system

or:

A graphics card supported by CyberGraphX

Installed CGFX system

Required software:

reqtools.library v38+

AVI or MOV files to play;)

Recommended minimum configuration:

68030/50 Mhz and approximately 0.5 - 1 Mb free Fast memory and fast Device (1Mb/s or faster) example: HDD or 4x Speed or faster CD-ROM drive.

On 68030/50 MHz it is able to play almost all AVI/MOV files at very enjoyable speeds.

Now MooVId can play 320x240 CVID encoded AVIs/MOVs on 030/50 at a very acceptable speed

about 12FPS in gray and about 8-10FPS in color (with STORM dither)

To get a higher framerate I recommend 040/060 (or 030+ with gfxcard :)

1.3 Features:

I wrote this avi/mov player because i tested many avi/qt players and I couldn't find any that

could play AVIs/MOVs decently on AGA/ECS/OCS Amigas. (and on my PicassoIV;)

Because all other AVI/MOV players on Amiga are very slow on 060/50 Mhz too...: (

I coded this program in almost FULL assembly language and it can play AVIs/MOVs very fast indeed.

Features:

AVI/MOV support in one file

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

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

FAST Chunky to planar

Fast Timer Based frame skipping method (like on pC's)

FULL AGA support (256 color/gray or ham8)

Bugfree "18bit" gfx on AGA Amigas

Special (fast & very good ham8) STORM dither on AGA Amigas

(with this mode you can play 320x240 CVID avi/mov at 15FPS in perfect(!) color on 060/50 mhz AGA machine)

ECS Support (16 grayscale)

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16 grayscale Window playback

Full support of the CD32 akiko chip

Synchronized audio playing

Selectable frame rate (up to around 60-300 Frame/Second.. on 060;)

Intelligent bufsize calculation

Fully system friendly

Fast Window Playback on ANY public screen (32 color pubscreen recommended)

Direct Picasso96 support (no CGFX "emulation")

Direct CFGX support

Optimized video decoders for gfxboards (for PicassoII/PIV, CV64 & CV64/3D, Spectrum/Piccolo, RetinaZ3, Domino, Merlin...)

Fast Grayscale playback

Optimized playback for ZorroII gfxboard (like PicassoII, PicassoIV or CV64/3D in ZorroII mode)

About the supported codecs:

Video for Windows (.avi)

Supported video codecs:

Intel Indeo 3.1 (IV31) 24 bit

Intel Indeo 3.2 (IV32) 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) 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)

Quicktime (.mov, .qt)

Supported video codecs:

Apple Video (RPZA) 16 bit

Intel Indeo 3.1 (IV31) 24 bit

Intel Indeo 3.2 (IV32) 24 bit

Radius Cinepak (CVID) 24 bit

Radius Cinepak (CVID) 32 bit

Supported audio codecs:

RAW MONO 8/16 bit

TWOS MONO 8/16 bit

STEREO and IMA4 (coming soon)

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) files!

Note3: YUV based RAW formats (like YUV9, CYUV, etc.) will be supported soon!

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1.4 The shell parameters:

First: now MooVId is startable from wb, but (yet) no tooltype support... sorry will be added;)

The parameters:

FILE

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

(at the moment you are unable to select multiple files... this will be added in the future)

DITHER

You can select the dither type here (example: dither gray for gray)

You can get help using dither?

Selectable dithers:

DITHER HAM8

AGA ham8 dithering for 15/24 bit avis/movs (slow and ugly)

DITHER GRAY or DITHER GREY

AGA 256 grayscale

(fast but only grayscale - recommended on slow systems - like bare A1200 or A1200 with fastmem)

Default dither in the demo version (on AGA)

DITHER ECS

16 grayscale (for ECS/OCS too!)

DITHER 18BIT

bugfree AGA HAM8 (real 18bit quality on AGA)

(gives real colors, but slow with bigger anims)

DITHER STORM

Fast AGA HAM8 gives almost perfect colors with extremly fast speed! (for 15/24 bit) Default dither in the registered version.

Disabled in the demo!

Note: in the unregistered version the STORM dither is disabled, so if you enable this, you will see only a black screen...

Speed comparison:

160x120 CVID 24bit AVI on 030/50/AGA (Mars.AVI)

dither STORM: 20FPS dither 18bit: 14FPS

dither gray: 30 FPS (using force16 mode too)

and with bigger anims the STORM dither is even faster!

On 060/50 with STORM you able to play 320x240 24 bit AVIs/MOVs at 15 fps without frame skipping!

DITHER p96

Picasso96 8bit/hi/truecolor

(default when gfxcard with p96 detected)

DITHER CGFX

CyberGraphX 8bit/hi/truecolor

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(default when gfxcard with CGFX detected)

MODEID

You are able to select the display modeid (default is pal-loresnolace or ntsc)

example: modeid 00029000

you must always use the full 8 digit value,

i.e. displaymode 29000 won't work... sorry (will be fixed .. ;)

If you want to use a screenmode requester then use: modeid?

Note:on Gfxcards you can select GFX-card modes of course!

NOSOUND

Turns off audio playback (default is sound on)

NOSKIP

plays all frames, so no frame skipping

Handy when you see only black or very few frames from the animation.

(example on standard A1200)

This function disables the frame skipping method...

(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)

FPS

Frames per second: you are able to select the framerate

(default is read from the AVI/MOV file)

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)

Note: in the demo version only first 400 frames will be looped

VERBOSE

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

NOCENTER

No centering of the animation on the screen

WINDOWPLAY or WINP

Enable the window playback on the active public screen. The animation will be converted every time to 16 grayscale (so 32 color Workbench or publicscreen is recommended)

This option without the AKIKO/GFXCARD parameter works fast on native Amiga chipset, and uses highly optimised assembly routines.

(I use 32 bit c2p, so the animation width will be rounded to a multiple of 32)

Don't blame me if it runs too slow on 6+ planes, because it's not my routines that are slow, only the Blitter and the AGA chipset.

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You can use this feature with the AKIKO switch and in this case it will work on gfxcards too. (AKIKO is not needed but it's recommended, because it speeds up the operation)

FORCE16

Force the chunky converter to convert 16 chunkypixels at a time.

This c2p conversion recommended for 020/030. (the default c2p is for 040/060)

AKIKO or WRITECHUNKYPIXELS

With this option you can use the CD32's Akiko chip to convert the chunky data to planar, and with this option can also turn on the gfxcard support (for the windowplay, and for 256 color/gray and for 16 gray)

This feature requires KickStart 3.1 (or any patch that can use the writechunkypixels() feature of the OS3.1)

I don't recommend to use this option on standard AGA. (standard means without AKIKO or GFXCARD)

SDBL or DOUBLEHEIGHT

With this option AVI/MOVs will play at twice the height.

With 18BIT this option also doubles the width, so it plays the anim at twice the size. This option is great for playing smaller anims at full screen!

This option now works on KICK3.0, but i still recommend 3.1 due speed.

Requires AGA chipset (and works only in LORES NOHAM, and LORES/HIRES HAM)

NOVIDEO

Disables the video decoding. (useful for testing)

MONITOR Parameters:

PAL,NTSC,VGA=MULTISCAN,EURO36,EURO72,SUPER72=SUP72,DBLPAL,DBLNTSC

For easiest video-mode selection

Some more parameters for video mode selection:

LORES=LO,HIRES=HI,SHIRES=SHI

(the modeid option will override these options)

NOGUI

Disable the nice GUI;)

PUBSCREEN or PS

Use this parameter to set the Windowplay / GUI screen.

WINX and WINY

These parameters let you specify the X and Y positions of the window that's opened in the Windowplay mode.

NICEAUDIO or NIAUD

Use this option to disable audio clicks

BEWARE: THIS OPTION CAN CAUSE HANGUP OR CRASH!

(the audio problem will be fixed soon)

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))

AUDIOSYNC or AS

With this parameter you can fix some AVI's audio sync.

(MooVId uses the default M\$ "standard", but there are several buggy AVI files around, mostly made by MOV->AVI converters)

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NOSURROUNDMONO or NSM

Disable the sorround (fake stereo) audio playback of AVI's & MOV's with mono sound.

(Default is enabled)

ZORRO2 or ZORRO2GFXBOARD

This option speeds up the playback on ZorroII boards (espec on CV64/3D)

Try it!

1.5 About the GUI

The GUI is half-finished... (non-added functions marked with "not yet")

A shematic "pic" from the GUI:

- 1. Play/Pause button (Not yet)
- 2. AVI playing status. You can use mouse to control the playback.

If you play big AVI files from your FFS Harddisk and you want to use this button to skip a part to the AVI then i recommend at least 300-400 buffers for your harddrive. From CD-ROM and from AFS formatted harddisks it's no problem (FFS is not ideal for seek in big files).

- 3. This number shows the selected playback rate (It's not always same as the real playback rate, because PIV-AVId 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. Prev. AVI from filelist (Not yet functional)
- 7. Next AVI from filelist (Not yet functional)
- 8. Volume control slider
- 9. Brightness (Not yet functional)
- 10. Loop on/off gadget (or 'l' key)
- 11. Frameskip on/off gadget (or 's' key)

1.6 Where can you find 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 not supported by MooVId (at the moment).

Better try the following websites:

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

and an other one:

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

If needed I can include some good filmtrailer sites...

(Warner, Sony Pictures, etc.)

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1.7 Frequently Asked Questions

Will there be a PPC version of MooVId?

Answer:

Question: Is Moovid really fast? Answer: Yes. But I recommend a GFX-board for optimal speed. (on 060/50 with ZIII GFX-Board 320x240 CinePak AVI/MOV playback is more than 50-70FPS!!!) Question: Will be there DUCK (TrueMotion) codec support? Answer: No. TrueMotion refused to give licence/docs. Question: Will be there "new" Indeo support (IV4x and IV5x)? Answer: Maybe. Question: When i tried to play some MOV files, i got "i/o error", "unable to allocate i/o buffer" requesters, or I had audio problems during playback (audio was distored, or simply disapeard). Answer: The current MOV player routine have some problems (with some MOV files), because i wrote that without any docs... Of course i will fix the problems ASAP! Question: Will be there MPEG or MPEG-2 support? Answer: Maybe. Sadly the ISO MPEG documentation's price is too high... (more than 500DM) If you have the ISO MPEG documentation then please EMAIL me! **Ouestion:** Why is WINDOWPLAYBACK so slow on GFX-Boards? Because i optimized the windowplayback for native Amiga chipset. Use AKIKO option (requires kick 3.1) to speed up the playback. Question: I heard something about a special PicassoIV version of MooVId. Where can i get it from? Answer: From my homepage: http://www.dfmk.hu/~torokl The PIV-MooVId is faster than the standard MooVId (due the video layer optimized decoders), and can playback AVI/MOV files in fullscreen window without slowdown! **Ouestion:**

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

Question:

Will Moovid support the videolayer of CV64/3D?

Answer:

Yes. (soon)

Question:

Will MooVId support the videolayer of CVPPC/BlizzardPPC boards?

Answer:

No. Becaue there is no videolayer (at least i got that information from p5 & CVPPC homepage) on CV/BlizzardPPC.

Question:

With CyberGraphX I get only a gray screen (with GUI) during some AVI/MOV playback on my Piccolo/Spectrum board. What's wrong?

Answer:

That is not your fault. Piccolo and Spectrum boards have a swapped R(ed) and B(lue) colorline, and therefore there are some special hicolor formats (like hicolor BGR), which are not supported by MooVId during Hicolor CRAM and RPZA playback. (other decoders support that mode) I will add the missing color converters soon!

(with p96 you can play them... but it is slow)

Ouestion:

Will there be RealVideo support?

Answer:

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

Question:

Does MooVId work on Draco?

Answer:

Yes. But there is (still) no audio playback.

Question:

Will there be a standard 68000 version from MooVId (to play AVI/MOVs on A500)?

Answer:

No. Because MooVId uses many 020+ instructions, and 68000 do not have enough power to decode animations at acceptable speeds anyway.

Question:

I have problems with swapping screens when i use MooVId on CGFX. (MooVId overwrites other screens, etc)

Answer:

Hmmm... use Picasso96!

Ouestion:

On my ZorroII GFX-Board the videoplayback is slower than on AGA with STORM DITHER (i have 060). Why?

Answer:

Because for the truecolor videoplayback on gfx-board need at least 3 byte/pixel. And ZorroII bandwidth is too low to move that much video data through.

Use ZORRO2 option to speed up the video playback! (Espec. on CV64/3D) Because in this case it will use hicolor video (which is just 2 bytes/pixel), instead of truecolor (which is 3 or 4 bytes/pixel)

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1.8 About the author

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

(send the registration fee here)

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(MooVId, PIV-MooVId, Savage homepage)

iRC (mostly mornings): pH03N1x@iRC (mostly #amigahu channel)

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

My old account (phoenix@master.fok.hu) is out of order... so use my new email address

only!

If you don't get any response after 1-2 weeks please resend you mail, because I'm too

busy and write 15-30 Emails every day, and maybe i lose your mail...

I'm working on a so called: "Secret Project";), and it will be at least as good as

the Savage drivers or MooVId.....

My secret project is still in progress;)

1.9 Revision history

revision history:

0.1b only rgb support

0.2b added 8 bit cram support

0.3b async i/o handling added

0.4b rgb 16 bit/16 bit cram support added

0.5b added cvid 24 bit support & timer based stuff

0.6b fixed a bug in the rgb 8 bit routine

0.7b added 16bit->gray support (05.11.96)

0.71b fixed some little bugs (07.11.96)

0.72b fixed the avi examining routines&the reqtools opening stuff (09.11.96)

0.73b fixed the first framez skipping bug (14.11.96)

0.75b the avi stream detection fully rewritten

(now support audio+video, video+audio, only video, only audio)

(17.11.96)

0.8b added i/o error handling & 8 bit (mono pcm) audio support (17.11.96)

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0.81b added audio.device allocation (system friendly audio allocation)
& better audio-error handling (18.11.96)
0.82b fixed mono sample playing bug: now plays mono sample in
left+right channels
0.9b finally fixed CVID 24 bit bug... huh... c compiler/d68k bug ;)
& size optimization (21.11.96)
0.91b fixed stupid (non dividable width by 8) avi files playing &
io bug handling fix (22.11.96)
0.92b fixed random pixels CVID bug... i hope now all CVID bugs fixed
+ Gray routine optimization (25.11.96)
0.93b added some brightness (a little bug in gray conversion..;)+
now really fixed the "modulo" like bug (26.11.96)
added 24 bit->ham8 support for cvid24 modes
0.94b optimized the cvid decrunch routine (-~300 bytez) (27.11.96)
0.95b Finally added shell argrument checking... (07.12.96)
0.96b Added screenmodeid requester (use modeid?) &
removed 2 harmless enfocer hits (08.12.96)
0.97b Mouse button detection rewritten.. no more btst #6,$bfe001;)
and optimization: -400bytez (08.12.96)
0.98b I/O handling rewritten: now buffered with
intelligent bufsize calculation (11.12.96)
0.981b i/o error detection added for the new buffered i/o routine (12.12.96)
0.982b audio bug fixed... thanx for Caveman/CDi;) (30.12.96)
0.983b cvid bug message added and first release for AmiNET (31.12.96)
0.984b lame library opening bug fixed (12.01.97)
0.985b added 18bit (bugfree ham8) support &
AVId now startable from WB (15.03.97)
0.986b Faster AUDIO conversion (16.03.97)
0.987b Verbose option and 16 bit Mono PCM audio support added (16.03.97)
0.988b Faster 18bit conversion and reduced about 300kb the 18bit mode
memory usage & fixed a bug in the 18bit screen init routine &
in 18bit the screen is centered (as in all other modes) (17.03.97)
0.989b Fixed a nasty bug in the 18bit init routine (could cause random crash)
Needs about 300kb smaller memory when no 18bit mode selected
MUCH more smoother audio playback & fixed audio sync problem
(19.03.97)
0.990b Fixed the cvid decompressor height/internal modulo error (20.03.97)
Fixed all CVID related bug.... huh... finally.. i almost give up.. ;)
0.991b Added support for stereo 16 bit sound (no stereo 8 bit yet, becoz
```

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```
i don't have such format avi;) & fixed fps display bug (01.04.97)
0.992b Fully system friendly audio (no more hw. poking) (may cause little
audio playback bugs with 16 bit stereo playback) & removed sound
play when noskip or/and fps parameter used
0.993b Fixed some audio related bugs...
No more CPU eating loops on fast machines.. (thanx to ALAN for the help!)
(01.05.97)
0.994b Added 32 bit c2p for 32 dividable width avis
(around 10-15% faster than the old c2p)
(10.05.97)
0.994b++ Added NOCENTER option and fixed many audio sync prob. (again...)
(21.05.97)
0.995b Added WINDOWPLAY option for 16 grayscale workbench window play (kick 3.1 req)
(25.05.97)
0.996b Added FORCE32 (32bit chunky force) and more than 2 times faster
24bit-> gray conversion
Sound again no disabled when FPS and/or NOSKIP parameter used
(01.06.97)
0.9961bFixed the Height problem in window playback mode
(05.06.97)
0.997b Added AKIKO parameter (for the window playback) and added ultra fast
window playback for AGA/ECS/OCS (and dont need kick 3.1 anymore for
win playback if you dont have gfxcard)
(15.06.97)
0.9971b Fixed a bug in the pubwin opening with windowplay (21.06.97)
0.9972b Optimized the memory allocation
(no more memory allocated which is really needed) (22.06.97)
0.9973b Fixed a bug in the stereo 16 bit audio playback and added 8 bit stereo
audio support (29.06.97)
0.9974b Fixed the 18bit modulo like bug (now able to play all 24 bit avis
in 18 bit)
(29.06.97)
0.9975b Added double height switch (kick 3.1 req)
(30.06.97)
0.9976b Added 16 grayscale ECS support
(01.07.97)
0.9977b Fixed a bug in the 16bit->ecs conversion routines
No more palette allocation for 18bit (unneded)
(03.07.97)
```

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```
0.9978b Added full system friendly c2p for ecs/gray/ham8 routines
(requires 3.1, akiko,gfxcard recommended, and i think ham8
wont work on gfx cards)
(03.07.97)
0.9979b Improved the audio channel allocation: now able to play 2
stereo (or mono) avis at same time with sound
(07.07.97)
0.9980b Some optimization in the 24bit->gray8, and in the 24bit->ecs
routines
(18.07.97)
0.9981b Improved the audio errorhandling, and some things added for
async i/o
(26.07.97)
0.9982b Removed some ham8 bugs from the 24bit->ham8 routine & from the
16bit->ham8 routine
(03.08.97)
0.9983b Fixed the RLE compression error requester and removed two
harmless enforcer hits (04.08.97)
0.9984b Little faster window playback (about 6-10% faster)
(10.08.97)
0.9985b Major rework in the video decoder/converter selection
(i can now easily add gfx card support:)
& faster 8/16bit->ecs and 8/16bit->window playback (about 10%)
(13.08.97)
0.9986b Added some monitor specific stuffs (PAL,NTSC... and LO/HI/SHIRES
Switches...) and better decoder/converter selection &
better audio converter selection
AVId now promotable (use a monitor switch to disable promotion)
(20.08.97 - Hungary Rulez:)
0.9987b The audio sync fixed again... i think there are 2-3 different AVI
encoders and all make different audio sync... now AVId use the most
recent audio format... (this cause problems on pC too.. :)
Much more precise frame timing
Fixed MSVC/CRAM detection bug.. (now able to play MSVC AVIs too)
(31.08.97)
0.9988b Fixed CVID non by 4 dividable width avis modulo-like bug...
Huh... that was hard to find;)
(02.09.97)
0.9990b Added RLE 8 bit decoder support
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```
(14.09.97)
0.9991b Fixed some audio memory allocating problems (only with stereo audio)
Added 32 bit CVID support (i hope work.. i have only 2 test AVIs)
Fixed problem: no more crash when ECS and WINP used at same
time (but still not recommended;)
(16.09.97)
0.9992b 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)
(21.09.97)
0.9993b Fixed problem with widder than 320 AVIs playback (huh... heavy workaround...)
(note: in 18bit mode the max width is 320 -
because of the super-hires 1280 width limit)
(26.09.97)
0.9994b Removed FORCE32 parameter (now FORCE16 instead of it)
No more 32 bit width masking with the screen playback
(only with the default 32bit c2p, with FORCE16 still masks to 16bit)
Some optimization in the 32bit c2p (no more stack using in the main loop)
(27.09.97)
0.9995b Added PUBSCREEN switch for the window playback (without PUBSCREEN option still
play on the default pubscreen)
(02.10.97)
0.9996b Added a SMALL GUI... (hehe:) - recommended with WINP option!
(05.10.97)
0.9997b Now seek every time to keyframe when the gui slider used
(except at some buggy index table avi)
(09.10.97)
0.9998b Optimization in the 24bit->18bit converter.. global speedup: ~10%
Added 18 bit support for 16bit AVIs
(and a side note: the source code length is now above 10000 lines...)
(11.10.97)
0.9999b No more 32 bit width masking with the custom window playback routine
& no more stack using in the window play c2p main loop
Faster 16bit->18bit conversion (about 10% faster)
(12.10.97)
0.99990b (huh.. what a stupid version number;) Fixed a really big problem,
what caused GURU on 3.0.. (sorry i tested only it under 3.1;)
```

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```
(reported by Alessandro Gerelli - thanks man!)
(16.10.97)
0.99991b (the stupid version number strikes back :)
So... added BREEZE (special fast & good ham8) dither for 24 bit AVIs
(dither by Stephen Fellner - thanks for it!)
Frame skipping changed: now AVId show at least one frame/s even on a
very slow systems
(06.12.97)
0.99992b Changed dither mode selection... now req. DITHER keyword and dither type
(use DITHER? option for help)
Some pre-code for GFX-Card Support (what will be picasso96)
(07.12.97)
0.99993b Fixed the BREEZE dither centering prob. and the BREEZE dither prob...
(09.12.97)
0.99994b Changed BREEZE dither name to STORM (what a big change;)
Major speedup during 24/32 bit CVID AVIs playback
(about 1.5 times faster 256 gray, 16 gray ecs, windowplay)
(01.01.98)
0.99995b Added full p96 support (but opens always a modeid req due a p96 bug..)
(04.01.98)
0.99996b Added STORM dither for 16bit avis too
(11.01.98)
0.99997b STORM dither optimization (about 10% speed up)
Fixed problem with the FPS reading from AVI (lame rounding prob..)
Fixed STORM problem with widder AVIs than 320
Now dither p96 default when p96 system deteted
(and the Workbench is a p96 screen)
Default dither now STORM (instead of gray)
When dither is gray and p96 screen selected then akiko option turned
on (req kick 3.1)
Optimized CVID decoder for S3 based cards too
(or similar cards what have ARGB 32bit)
(18.01.98)
0.99998b Fixed p96 bestmodeid() related stuff.. hu... not p96 was buggy just i
was lame;)
(19.01.98)
0.99998c (ceta:)
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... The default width now at least 320 at VGA/SUPER72/EURO72 monitor too! (and i hope now storm is working good on that monitors) Now STORM dither work with SDBL on all monitors and do not need kick 3.1 for that! (but i recommend 3.1 for PAL/NTSC, because of the speed!) (28.01.98)0.99999b (soon 1.0;) Added non-interleaved sound support & some small fixes Added support for Macintosh VFW converter saved AVI files index (ShapeShifter Rulez;) (15.02.98)0.99999a (hmm;) 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)0.99999c Fixed problem with Mac Video for Win converted stereo non-inter. audio detection... (PIV-AVId 0.85b) Added "Surround" like (fake stereo) audio support for MONO audio default on (can be switched off with NSM) Faster CVID decoder on p96 screens (about 2 times faster!) (31.03.98)0.9999d Removed a harmless Enforcer hit (introduced in 0.99999c) Faster CRAM16bit decoder on p96 screens (01.04.98)0.99999e Corrected audio buffer size Faster CRAM8bit decoder on p96 screens Various small fixes (p96 screen related, etc) (05.04.98)0.99999f Added Microsoft ADPCM 4 bit audio support (MS-ADPCM) (mono & stereo too, but stereo is untested) (13.04.98)0.99999gFixed problem with non by 4 dividable width RGB avis (same bug is in all other AVI player on Amiga;)

(29.04.98)

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0.1b (hehe;)

Major changes... so... new name: MooVId;)

Faster 16bit CRAM decoder on p96 direct screens

Support MOVs with Cinepak 16/24/32 bit

and Apple Video (RPZA) 16 bit video codec

And RAW 8 bit mono audio (other audio/video codec soon!)

But there are problems with MOV index generator, so crashes possible!

(16.05.98)

0.2b Major changes again... (+20 kb filesize & new ~5000 sourcecodelines;)

Added !full! GUI... (gui design & gui init code by Alan/UF)

GUI Features: Loop on/off

Fast seek in AVI/MOV file

Volume

Frameskip on/off

onfly FPS changer (with dinamic audio freq. recalc)

(other GUI featrues soon)

Known bugs: no GUI with WINP option (will be fixed soon)

use WINP NOGUI for window play

Wrong GUI color with 256 color AVIs (no color lookup code)

GUI problems possible with softsdbl

GUI is default ON, use NOGUI to disable

Added NICEAUDIO/S option (to avoid audio clicks, but hangup possible)

(17.05.98)

0.3b 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 keyfile when GUI slider used

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)

(27.05.98)

0.31b Removed all emulated (on 060) instructions from the main loop

(soft mulu64) So max. speed on 060;)

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```
Added support for a new video codec;) (very important one;)
Some fixes in MOV index generator (still not bugfree!)
(03.06.98)
0.32b Totally new screenopen code (BestModeID() stuff soon!)
Fixed problems with bigger AVI/MOV on AGA screen with STORM/18BIT dither
Faster Gray/ECS conversion (10-40% speed up)
20% faster 18BIT dither
Added back the AutoScroll (removed some months ago because a wrong comment..;)
(07.06.98)
0.33b Fixed CRAM 16 bit STORM dither prob. (introduced in 0.32)
Fixed RLE8 video playback with p96 dither
Fixed GUI problems with soft SDBL
Added WINP for the most important codec;)
Better usable position slider (now you can hold the slider)
(10.06.98)
0.34b Added support for CyberGFX (but i still recommend picasso96)
When you see black/gray screen when using dither CGFX that is not
my fault, just there are some missing features in CGFX...
(whats are in picasso96 ofcourse..)
(21.06.98)
0.35b Skip changed back to old style (will be there a better skipping soon!)
Fixed CGFX screenopen code
(note: assembled with ASM-Pro 1.12! Yepp!;)
(07.07.98)
0.36b Back again to ASM-One.. (ASM-Pro's scroll is tooo slow for me)
Fixed CRAM8bit playback on gfxcard (what was a tricky bug;)
Fixed problem CGFX playback with CVID/INDEO... (i hope...;)
CRAMhicolor, RPZA playback is still DO NOT work under CGFX!
(at least on my PIV i got always back 15bit screenmodeid instead
of 15bitpC - and my direct CRAM/RPZA decoder support 15bitRGBpC only)
Arrghh! Now i know what is the difference between CGFX and p96
(after i tried CGFX on my PicassoIV.... hmmm...)
So i still STRONGLY recommend p96 as video system...
(30.07.98)
0.37b Fixed two major bugs (both introducted in 0.36b)
One CGFX related, and one p96/aga/ecs related..
(the 0.36b was the most worser version ever: gray screen only on cgfx,
and crash on aga, and gray screen only on p96...)
Hmmm.. all problem caused by only one wrong (bonus) source-line...;)
```

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Added 15bitnonpC format CRAM decoder (now hi CRAM work with CGFX) Added 15bitnonpC format RPZA decoder (again for CGFX) Added back GUI with WINP option (yepp! no more "winp nogui";) Fixed 2 memory eating (forgot to free...) bug Added intelligent window postion center stuff for windowplayback (when winx specified center just the y position for example;) Added filename and AVI/MOV width/height to the window title Removed a harmless enforcer hit (windowplayback) (02.08.98)0.38b Optimized CinePak decoder for Zorro2 graphicsboards (about 20-40% speed up on z2 machines) You can use this with ZORRO2 or ZORRO2GFXBOARD parameter (12.08.98)0.39b Added key 's' for skip, and 'l' for loop (during playback with gui) Fixed GUI color problem during 8bit AVI playback Optimized CinePak playback for Piccolo/Spectrum board (use with zorro2 parameter) (hicolor CRAM, and RPZA playback is still !SLOW! on Piccolo/Spectrum) The 'modeid [8 number hex modeid]' now work on GFX-Cards too (experts only;) Fixed a bug in the AVI structure parser, what caused crash with some (espec. INDEO) AVIs Fixed 16bit PCM stereo audio playback (AVI) Changed all requesters to requools requesters Speeded up INDEO playback on GFX-Board (still grayscale, but color will be same speed too!) (24.08.98)0.40b Fixed problem with INDEO playback on CGFX system (ehh... p96 rulz;) Added ECS dither for INDEO playback Added STORM/HAM8/18BIT dither for INDEO playback (all is gray at the moment, but color will be same speed) (25.08.98)0.41b Finally added color INDEO playback (on CGFX/p96/AGA (ham8, STORM, 18BIT) too!) (27.08.98) $0.42b 6x9=42 \dots ;$ Fixed a bug in the WINP routine (what caused crash on below 8 bit screens without AKIKO) Some changes with p96/CGFX bestmodeid() selection

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(now try first 16 bit mode with ZORRO2 option, and after 15bit)

Now do not need to use ZORRO2 option on Domino, Spectrum, Piccolo

boards, because the new routine check for all modes

(not just 24/32 bit truecolor BGR and ARGB for CinePak)

(30.08.98)

1.10 To do list/bug list

Fixed bugs and added features since the latest version:

Faster decoders on GFX-cards

FULL CGFX support

GUI

INDEO support

MOV Support (still in early phase)

etc..

A special PicassoIV version (with PIP support) called PIV-MooVId. (without the 400 Frame limit, but only works on PicassoIV)

Known bugs:

Some small audio bugs... (workaround will be added)

MOV Support is buggy (there can be various i/o and audio problems during MOV playback)

No CRAM16bit & RPZA playback on Piccolo & Spectrum boards (will be fixed)

Todo:

Fix MOV player bugs (at the moment there are many bugs... because I added MOV support without ANY docs...)

AHI support

Make i/o handling in a subtask (almost ready)

Multiple file selection (not so hard to do...;)

Workbench tooltype support

PowerPC version (when a PowerPC assembler will come out & i have a PPC board)

Floyd-Steinberg dithering for 16/24bit avis (maybe)

Better frame skipping (theory is ready)

Implent GUI's missing functions (the GUI will have the same functionality as MoviePlayer on the Mac)

Support for CV64/3D video layer (similar as PIV-MooVId)

Colour window playback (CGFX/p96 only)

Maybe to do: (when i get enough E-mails;)

An AVI -> CDXL converter

avi.datatype (avi playback with multiview;)

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1.11 Used hard & software

Hardware:

A1200-68030/50 (Blizzard1230-III) 2meg Chip + 16 meg Fast (to version 0.983)

now:

A1200-68040/40 (Blizzard1240T-ERC) 2meg Chip + 16 meg Fast

C=1942 multisync monitor.... (up till version 0.9993)

Again a new hardware:

A4000-68ec030/25 + PicassoIV 2 meg chip + 16 meg Fast

and Eizo 7040 12 col color monitor

Hmmm... again new HW: ;)

A4000-68040/25 + PicassoIV with Paloma, 2 Mb chip + 16 Mb Fast

Samsung 15GL monitor

And what I did not change:

2x80watt audio.... (its VERY important...:)

Software:

Asm-one 1.29 .. I think I've found almost all the bugs in it;)

HippoPlayer 2.41 need some zax for developing...

D68k 2.0.7 The best resourcer on Amiga (i think better than resource 6.0)

(FULL MMU,FPU,68000-68060 support!)

Tapavi 1.2, Xanim, CyberAvi/CyberQT for the speed comparisions...

Other:

About 2 years of developing time.... (i used almost all of my spare time...)

MooVId was tested on the folling machines: (just some of them)

First my machines:

Amiga CD32 (with Akiko parameter too)

A4000/040/PicassoIV

A1200

Beta testers machines:

A4000/040/25/AGA

A1200/030/50

A1200/040/40

A1200/060/50

A1200/060/66

A4000/060/50/PicassoIV

UAE020 (Unix Amiga Emulator) on i486dx4-120Mhz (was verrryyyy slow!)

A3000/040/40 (and PPC) with Domino

A4000/040/40/RetinaZ3

Draco (no sound)

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A2000/060/50/PicassoIV

A2000/030/25/PicassoII

A4000/040/25/Piccolo

A1200/060/50/CV64/3D

A1200/040/40/Merlin

A1200/040/25 (and PPC) AGA

etc;)

1.12 The author wishes to thanks:

The author wishes to thank:

K-P Koljonen for Hippoplayer

Pawel Hernik for the 16bit->ham8 routine

Peter McGavin for the fastest c2p routines on Amiga

Alan/United Force for the system friendly audio playback routine and for

GUI design (and GUI init code)

Stephen Fellner For the STORM dither and for criticism...

Lusta disznó;) Hol a direkt INDEO STORM?;)

EFT/Impulse and Zak/Forcers for the 32bit c2p... (which I've speeded up about 20%:)

Tobias Abt & Alexander Kneer for the great picasso96 system

Village Tronic for the great PicassoIV

To authors of Tapavi, CyberAVI/CyberQT, Xanim

Thanx to my beta testers:

Dærk/CDi Uhh...:)

Alessandro Gerelli Yeeaahh! Thanx for the MANY test AVIs!

Sauron Thanx for the AnimationFAQ too!

(now its called to Multimedia FAQ or what)

(i hope we can make the IV31/IV32 support)

Stefan Werner Thanx for the ECS/Retina beta testing &

thanx for the German guide!

Flemming Steffensen thanx for the free CD!

AND: ALL REGISTERED USERES & Betatesters!

Other greetinx:

Amiga: Shamen/CDi, Flex/Frame18, Anorganic/Promise, Pogi/Crimson Jihad

 $Hanzi/???, Chexum, Gizmo/Frame 18, ZAK/The\ Forcers\ TEAM, Louise/????,$

Goa/CDi/Faculty, EFT/Impulse, Soldier/Impulse, Chris/Power Team,

Magic/Amiga Only, Unreal/Faculty, RatMan/Crimson' Jihad, McPhoton/???,

EncOre/???, Invictus Team (OnEscapee rulez!)

All members of Amiga Only <- The best Hungarian amiga-user mag

pC: Grass/CDi, Psycho and Basq/Tsi Alive, Hamster/???, Dada (DirkGent), DAB

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

Fuck all pC-owners who think the Amiga is a game-machine...

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1.13 Demo limits and other stuff...

The demo version of the full program has the following limitations:

Plays only the first 400 frames (around half minute at 15 FPS)

No STORM and INDEO support.

* Note to hackers: it's really easy to crack it, but I've fully removed the *

* 24/16bit STORM conversion routines & INDEO code... *

Just a note:

I got a cracked version of AVId (AVId was the old version of the MooVId) that was cracked by aLN!/Royal..

Okay.. if I get any other cracked versions of MooVId I'll stop development!

I warned you...

The registration fee is 15DM or 10\$USD, (or an equal amount in other currency).

If you want to register both my Savage videodriver (030 or the 040/60 version) and MooVId,

then the registration fee is 20-25 DM or 15\$USD! (or equal in other curr.)

(instead of 30DM and 20 US\$)

For Central-European Amiga users the registration fee is just 5 DM!

Note: Savage is a fast external videodriver for Shapeshifter/AGA/MMU, check out the demos on

Aminet:misc/emu/Savage*

Note2: I accept your own programs/keyfiles as registration fee!

If you want to register please send the registration fee to my postal address in !CASH!

And after i got the money I'll send you the full version in E-mail as binary attachment. (if you need uuencoded version please ask!)

(registration is also possible in snail-mail too, but please add an answer envelope to your mail and an errorfree 3.5 DD disk too)

(maybe the postal money transfer is working too, so try it if you like it better;)

The updates are free, when you have E-Mail address!

If you have registered please DO NOT spread your version!

Please Support Quality Software and REGISTER!

1.14 Copyright

MooVId and the sources of this program are copyright © 1996-1998 by László Török. The demo version is freely distributable as long as all of its files are included in their original form without additions, deletions or modifications of any kind, and only a nominal fee is charged for their distribution.

The software is provided »AS IS« without a warranty of any kind, either expressed or implied. Unauthorized copying, reproduction, hiring, lending is prohibited. By using the 'MooVId' software in this archive you accept the entire risk as to the quality and performance of the program.

This program is SHAREWARE.

If you are doing an article or a review of MooVId then please send me a copy of the magazine! (not a must but i would be very happy:)